

June 14, 2023

SENT VIA EMAIL

Hydro.GeneralPermit@epa.gov

Re: **Hitchcock Hydro, LLC**
Glendale Hydroelectric Project
Stockbridge, Massachusetts
Hydroelectric Generating Facilities General Permit

Dear Sir or Madam:

Hitchcock Hydro, LLC is seeking coverage under the National Pollutant Discharge Elimination System (NPDES) General Permit for Hydroelectric Generating Facilities (HYDRO GP) for the Glendale Hydroelectric Project in Stockbridge, Massachusetts. This facility currently maintains coverage under the 2009 HYDRO GP. Additionally, the site is currently licensed by the Federal Energy Regulatory Commission (FERC) and is certified by the Low Impact Hydropower Institute.

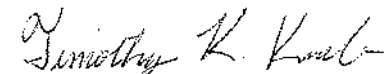
Please find attached the following documents supporting this submittal:

1. Notice of Intent
2. Supplemental Outfall Attachment
3. Site Figures and Flow Diagram
4. Cooling Water Information (Not Applicable)
5. Endangered Species Review
6. Historic Places Listing
7. Impaired Waters Listing

If you have any questions regarding this facility or the enclosed application package, please contact me at (413) 875-1607. Thank you for your attention to this matter.

Very truly yours,

TIGHE & BOND, INC.



Timothy Kucab, CHMM
Project Manager

Copy: Jonathan Dollard, Hitchcock Hydro, LLC (via email)



Tighe&Bond

SECTION 1

Section 1

Notice of Intent

II. Suggested Format for the HYDRO General Permit Notice of Intent (NOI):

Request for General Permit Authorization to Discharge Wastewater Notice of Intent (NOI) to be covered by Hydroelectric Generating Facilities General Permit (HYDROGP) No. MAG360000 or NHG360000

Indicate Applicable General Permit for Discharge(s): ☒ MAG360000 ☐ NHG360000

A. Facility Information

| | | |
|---|---|--|
| 1. Facility Location | Name: Glendale Hydroelectric Project | |
| | Street: 33 Glendale Road | |
| | City: Stockbridge | State: MA |
| | Zip: 01299 | SIC Code: 4911 |
| | Latitude: 42°16'51.85"N | Longitude: 73°21'7.37"W |
| | Type of Business: Hydroelectric Facility | |
| 2. Facility Mailing Address (if different from Location) | Street: 5 Dartmouth Drive, Suite 104 | |
| | City: Auburn | State: NH |
| | Zip: 03032 | |
| 3. Facility Owner | Name: Hitchcock Hydro LLC | Email: jdollard@gravityrenewables.com |
| | Street: 5 Dartmouth Drive, Suite 104 | Telephone: 720-370-7984 |

| | | |
|--|--|---|
| 4. Facility Operator (if different from above) | City: Auburn | State: NH |
| | Contact Person: Jonathan Dollard | Zip: 03032 |
| | Name: | Email: |
| | Street: | Telephone: |
| 5. Current Permit Status | City: | State: |
| | Zip: | |
| | Has prior HYDROGP coverage been granted for the discharge(s) listed in the NOI? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| | Permit number (if yes): MAG360028 | |
| | Is the facility covered under an Individual Permit? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| | Is there a pending NPDES application of file with EPA for the discharge(s)? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| | Date of Submittal (if yes): | Permit Number (if known): |
| | Attach a topographic map indicating the locations. of the facility and outfall(s) to the receiving water | <input checked="" type="checkbox"/> Map Attached |
| | Number of turbines: 5 | |
| | Combined turbine discharge (installed capacity) at: 720 | Maximum capacity? 720 cfs Minimum capacity? 90 cfs |
| | Is this facility operated as a pump storage project? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| | | |

B. Discharge Information

| | | |
|--|--|--|
| 1. Name of Receiving Water(s): Housatonic River | | <input checked="" type="checkbox"/> Freshwater <input type="checkbox"/> Marine |
| 2. Waterbody classification: <input type="checkbox"/> Class A <input checked="" type="checkbox"/> Class B <input type="checkbox"/> Class SA <input type="checkbox"/> Class SB | | |
| 3. Is the receiving water is listed in the State's Integrated List of Waters (i.e., CWA Section 303(d))? | | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| 4. If the applicant answered yes to B.3, has the applicant identified the designated uses that are impaired, any pollutants indicated, and whether a final TMDL is available for any of the indicated pollutants in a separate attachment to the NOI? | | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| 5. Attach a line drawing or flow schematic showing water flow through the facility including location of intake(s), operations contributing to effluent flow, treatment units, outfalls, and receiving water(s). | | <input checked="" type="checkbox"/> Line Drawing Attached |
| 6. List each outfall (numbered sequentially) discharging effluent from the following categories and provide an estimate of the average monthly flow (in gallons per day) for each discharge type. See Parts 1.1 through 1.5 (for MA) or Parts 2.1 through 2.5 (for NH) for descriptions and permit conditions for each discharge type. | | |
| Equipment-related cooling water | Outfalls: | gpd |
| Equipment and floor drain water | Outfalls: DSN 001, DSN 002, DSN 003, DSN 004, DSN 005 | 5,894 gpd |
| Maintenance-related water | Outfalls: | gpd |
| Facility maintenance-related water during flood/high water events | Outfalls: | gpd |
| Equipment-related backwash strainer water | Outfalls: | gpd |

See Attachment for Additional Outfall Information

7. For each outfall listed above, provide the following information (attach additional sheets if necessary). Outfalls may be eligible for alternative pH effluent limits. See Parts 1.7.1. and 2.7.1 of the permit for additional information. Contact MassDEP or NHDES to determine the required information and protocol to request alternative pH effluent limits.

| | | | |
|--|---|--------------------|------|
| Outfall No. | Latitude: | Longitude: | |
| | Discharge is: <input type="checkbox"/> Continuous <input type="checkbox"/> Intermittent <input type="checkbox"/> Seasonal | | |
| | Maximum Daily Flow | MGD | |
| | Average Monthly Flow | MGD | |
| | Maximum Daily Temperature | °F | |
| | Average Monthly Temperature | °F | |
| | Maximum Daily Oil & Grease | mg/L | |
| Average Monthly Oil & Grease | mg/L | | |
| Maximum Monthly pH | s.u. | Minimum Monthly pH | s.u. |
| Alternative pH limits requested? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | State approval attached? <input type="checkbox"/> Yes <input type="checkbox"/> No | | |

| | | | |
|---|---|--------------------|------|
| Outfall No. | Latitude: | Longitude: | |
| | Discharge is: <input type="checkbox"/> Continuous <input type="checkbox"/> Intermittent <input type="checkbox"/> Seasonal | | |
| | Maximum Daily Flow | MGD | |
| | Average Monthly Flow | MGD | |
| | Maximum Daily Temperature | °F | |
| | Average Monthly Temperature | °F | |
| | Maximum Daily Oil & Grease | mg/L | |
| Average Monthly Oil & Grease | mg/L | | |
| Maximum Monthly pH | s.u. | Minimum Monthly pH | s.u. |
| Alternative pH limits requested? <input type="checkbox"/> Yes <input type="checkbox"/> No | State approval attached? <input type="checkbox"/> Yes <input type="checkbox"/> No | | |

| | | | | |
|-------------|---|------------|---|------|
| Outfall No. | Latitude: | Longitude: | | |
| | Discharge is: <input type="checkbox"/> Continuous <input type="checkbox"/> Intermittent <input type="checkbox"/> Seasonal | | | |
| | Maximum Daily Flow | MGD | Average Monthly Flow | MGD |
| | Maximum Daily Temperature | °F | Average Monthly Temperature | °F |
| | Maximum Daily Oil & Grease | mg/L | Average Monthly Oil & Grease | mg/L |
| | Maximum Monthly pH | s.u. | Minimum Monthly pH | s.u. |
| | Alternative pH limits requested? <input type="checkbox"/> Yes <input type="checkbox"/> No | | State approval attached? <input type="checkbox"/> Yes <input type="checkbox"/> No | |

C. Best Technology Available for Cooling Water Intake Structures

Facilities that checked “equipment-related cooling” as one of the discharges in Part B. of this NOI are subject to the following requirements.

| | |
|--|---|
| 1. Does the facility intake water for cooling purposes subject to the BTA Requirements at Part 4 of the HYDROGP? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If no, skip to Part D of this NOI. |
| 2. If yes, indicate which technology employed to comply with the general BTA requirements at Part 4.2.b of the HYDROGP: | |
| <input type="checkbox"/> An existing technology (e.g., a physical or behavioral barrier, spillway, or guidance device) that directs fish towards a downstream passage that minimizes exposure to the CWIS. Has the applicant attached a narrative description of the barrier to demonstrate that the downstream fish passage effectively transports live fish in a manner that minimizes the likelihood of becoming impinged or entrained at the cooling water intake? <input type="checkbox"/> Yes <input type="checkbox"/> No | |
| <input type="checkbox"/> An effective intake velocity at the point of cooling water withdrawal, or alternatively, at the point where cooling water enters the penstock (for intakes located within the penstock), not to exceed 0.5 fps. Has the applicant attached a demonstration of compliance with this intake velocity through observation of live fish in the intake or calculation based on the maximum intake volume and minimum bypass flow? <input type="checkbox"/> Yes <input type="checkbox"/> No | |

| | | | |
|---|-----|-------------------------------------|----------|
| <input type="checkbox"/> For cooling water withdrawn directly from the source waterbody (<i>i.e.</i> , not from within the penstock), a physical screen or other barrier technology with a mesh size no greater than ½-inch that minimizes the potential for adult and juvenile fish to become entrapped in the CWIS. Has the applicant attached a description of the technology? <input type="checkbox"/> Yes <input type="checkbox"/> No If the mesh size of the screen is greater than ½-inch has the applicant demonstrated that the calculated intake velocity is less than 0.5 fps based on the screen dimensions, maximum intake volume, and source water 7Q10 low flow? <input type="checkbox"/> Yes <input type="checkbox"/> No | | | |
| 3. If the answer to question C.1 is yes, in addition to complying with one of the criteria above, the applicant must submit the following information: | | | |
| Maximum daily volume of cooling water withdrawn during previous five (5) years: | | gpd | |
| Maximum monthly average volume of cooling water withdrawn during the previous five (5) years: | | gpd | |
| Maximum daily and average monthly volume of water used exclusively for cooling: Max: | | gpd | Avg: gpd |
| Maximum daily and average monthly volume of water used for another process before or after being used for cooling: Max: | | gpd | Avg: gpd |
| Has the applicant attached a narrative description explaining how cooling water is reused? <input type="checkbox"/> Yes <input type="checkbox"/> No | | | |
| Volume of total intake water withdrawn and used in facility as a percentage of: | | | |
| Installed turbine capacity | % | Average daily flow through penstock | % |
| Minimum flow through penstock | % | | |
| Source water annual mean flow (<i>e.g.</i> , available from USGS, MassDEP, or NHDES): | | cfs | |
| Source water 7-day mean low flow with 10-year recurrence interval (7Q10): | | cfs | |
| Volume of total intake water withdrawn and used in facility as a percentage of: | | | |
| Source water mean annual flow | cfs | | |
| Source water 7Q10 flow | cfs | | |

D. Chemical Additives

| | |
|--|---|
| 1. Does the facility use or plan to use non-toxic chemicals for pH adjustment? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| 2. Does the facility use or plan to use chemicals for anti-freeze purposes? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| 3. If the answer to D.2 is yes, provide the following for EACH chemical additive used for anti-freeze: | |
| Chemical Name and Manufacturer: | |
| Maximum Dosage Concentration Used: | Average Dosage Concentration Used: |
| Maximum Concentration in Discharge: mg/L | Average Concentration in Discharge: mg/L |
| Material Safety Data Sheet (MSDS) or other toxicity documentation for each chemical attached? <input type="checkbox"/> Yes <input type="checkbox"/> No | |

E. Endangered Species Act Certification

| | |
|---|--|
| Appendix 2 to the HYDROGP explains the certification requirements related to threatened and endangered species and designated critical habitat. Indicate under which criteria the discharge is eligible for coverage under the HYDROGP: | |
| 1. ESA eligibility for species under jurisdiction of USFWS | <input type="checkbox"/> Criterion A: No endangered or threatened species or critical habitat are in proximity to the discharges or related activities or come in contact with the “action area.” See Appendix 2, Part B for documentation requirements. Documentation attached? <input type="checkbox"/> Yes <input type="checkbox"/> No |
| | <input checked="" type="checkbox"/> Criterion B: Formal or informal consultation with the USFWS under Section 7 of the ESA resulted in either a no jeopardy opinion (formal consultation) or a written concurrence by USFWS on a finding that the discharges and related activities are “not likely to adversely affect” listed species or critical habitat. Has the operator completed consultation with USFWS and attached documentation? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If no, is consultation underway? <input type="checkbox"/> Yes <input type="checkbox"/> No |
| | <input type="checkbox"/> Criterion C: Using the best scientific and commercial data available, the effect of the discharges and related activities on listed species and designated critical habitat have been evaluated. Based on those evaluations, a determination is made by EPA, or by the operator and affirmed by EPA, that the |

| | |
|---|--|
| | discharges and related activities will have “no effect” on any federally threatened or endangered species or designated critical habitat under the jurisdiction of the USFWS. Has the applicant attached documentation of the “no effect” finding? <input type="checkbox"/> Yes <input type="checkbox"/> No |
| 2. ESA eligibility for species under jurisdiction of NMFS | Is the facility located on: the Connecticut River between the Massachusetts/Connecticut state line and Turners Falls, MA; the Taunton River; the Merrimack River between Lawrence, MA and the Atlantic Ocean; the Piscataqua River including the Salmon Falls and Cocheco Rivers; or a marine water? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| | If yes, was the applicant authorized to discharge from the facility under the 2009 HYDROGP? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| | If the discharge is to one of the named rivers above or to a marine water <i>and</i> the facility was not previously covered under the 2009 HYDROGP, has there been any previous formal or informal consultation with NMFS? <input type="checkbox"/> Yes <input type="checkbox"/> No Documentation of consultation attached? <input type="checkbox"/> Yes <input type="checkbox"/> No |

F. National Historic Properties Act Eligibility

| | |
|--|--|
| 1. Indicate under which criterion the discharge(s) is eligible for covered under the HYDROGP: | |
| <input type="checkbox"/> | Criterion A: No historic properties are present. |
| <input checked="" type="checkbox"/> | Criterion B: Historic properties are present. The discharges and related activities do not have the potential to impact historic properties. |
| <input type="checkbox"/> | Criterion C: Historic properties are present. The discharges and related activities have the potential to impact or adversely impact historic properties. |
| 2. Has the applicant attached supporting documentation for NHPA eligibility described in Appendix 3, Part C of the HYDROGP? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | |

3. Does supporting documentation include a written agreement from the State Historic Preservation Officer, Tribal Historic Preservation Officer, or other tribal representative that outlines measures the operation will carry out to mitigate or prevent any adverse effects on historic properties? ☒ Yes ☐ No *See Section 6 of Package*

G. Supplemental Information

Please provide any supplemental information, including antidegradation review information applicable to new or increased discharges. Attach any certifications required by the HYDROGP. Supplemental information attached? ☐ Yes ☒ No

H. Signature Requirements

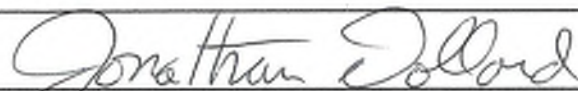
1. The NOI must be signed by the operator in accordance with the signatory requirements of 40 C.F.R. § 122.22, including the following certification:

I certify under penalty of law that no chemical additives are used in the discharges to be authorized under this General Permit except for those used for pH adjustment or anti-freeze purposes and that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those directly responsible for gathering the information, I certify that the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I certify that I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

2. Notification provided to the appropriate State, including a copy of this NOI, if required?

☐ Yes ☒ No

Signature:



Date:

6/14/23

Print Name and Title: Jonathan Dollard - Vice President of Engineering

Tighe&Bond

SECTION 2

Section 2

Supplemental Outfall Information

Hitchcock Hydro, LLC - Glendale Hydroelectric Project
Outfall Description Attachment

| | | | | |
|--|--|---------------|--|--------------|
| Outfall Number: | Latitude | 42°16'51.72"N | Longitude | 73°21'7.24"W |
| DSN 001 - Unit 1 Turbine Leakage | Discharge is: | Continuous | | |
| | Max Daily Flow (MGD) | 0.003 | Ave. Monthly Flow (MGD) | 0.001 |
| | Max Daily Temperature (F) | 72.9 | Ave Monthly Temperature (F) | 52.6 |
| Substantially Identical Outfalls: | Max Daily Oil & Grease (mg/L) | 12 | Ave Daily Oil & Grease (mg/L) | <4.0 |
| DSN 001, DSN 002, DSN 003, DSN 004 | Max Monthly pH (s.u.) | 10.19 | Min Monthly pH (s.u.) | 7.23 |
| | Alternative pH Limts Requested? | No | State Approval Attached? | No |
| Remarks: | | | | |

| | | | | |
|--|--|---------------|--|--------------|
| Outfall Number: | Latitude | 42°16'51.86"N | Longitude | 73°21'7.33"W |
| DSN 002 - Unit 2 Turbine Leakage | Discharge is: | Continuous | | |
| | Max Daily Flow (MGD) | 0.003 | Ave. Monthly Flow (MGD) | 0.001 |
| | Max Daily Temperature (F) | 72.900 | Ave Monthly Temperature (F) | 52.600 |
| Substantially Identical Outfalls: | Max Daily Oil & Grease (mg/L) | 12.000 | Ave Daily Oil & Grease (mg/L) | <4.0 |
| DSN 001, DSN 002, DSN 003, DSN 004 | Max Monthly pH (s.u.) | 10.190 | Min Monthly pH (s.u.) | 7.230 |
| | Alternative pH Limts Requested? | No | State Approval Attached? | No |
| Remarks: | | | | |

| | | | | |
|--|--|---------------|--|--------------|
| Outfall Number: | Latitude | 42°16'52.01"N | Longitude | 73°21'7.34"W |
| DSN 003 - Unit 3 Turbine Leakage | Discharge is: | Continuous | | |
| | Max Daily Flow (MGD) | 0.003 | Ave. Monthly Flow (MGD) | 0.001 |
| | Max Daily Temperature (F) | 72.900 | Ave Monthly Temperature (F) | 52.600 |
| Substantially Identical Outfalls: | Max Daily Oil & Grease (mg/L) | 12.000 | Ave Daily Oil & Grease (mg/L) | <4.0 |
| DSN 001, DSN 002, DSN 003, DSN 004 | Max Monthly pH (s.u.) | 10.190 | Min Monthly pH (s.u.) | 7.230 |
| | Alternative pH Limts Requested? | No | State Approval Attached? | No |
| Remarks: | | | | |

| | | | | |
|--|---|---------------|--|--------------|
| Outfall Number: | Latitude | 42°16'52.14"N | Longitude | 73°21'7.44"W |
| DSN 004 - Unit 4 Turbine Leakage | Discharge is: | Continuous | | |
| | Max Daily Flow (MGD) | 0.003 | Ave. Monthly Flow (MGD) | 0.001 |
| | Max Daily Temperature (F) | 72.900 | Ave Monthly Temperature (F) | 52.600 |
| Substantially Identical Outfalls: | Max Daily Oil & Grease (mg/L) | 12.000 | Ave Daily Oil & Grease (mg/L) | <4.0 |
| DSN 001, DSN 002, DSN 003, DSN 004 | Max Monthly pH (s.u.) | 10.190 | Min Monthly pH (s.u.) | 7.230 |
| | Alternative pH Limts Requested? | No | State Approval Attached? | No |
| Remarks: | Primary Substantially Identical Sampling Location | | | |

Hitchcock Hydro, LLC - Glendale Hydroelectric Project
Outfall Description Attachment

| | | | | |
|--|--|---------------|--|---------------|
| Outfall Number: | Latitude | 42°16'51.21"N | Longitude | 73°20'46.21"W |
| DSN 005 - Min-Flow Turbine Leakage | Discharge is: | Continuous | | |
| | Max Daily Flow (MGD) | 0.001 | Ave. Monthly Flow (MGD) | 0.000 |
| | Max Daily Temperature (F) | 72 | Ave Monthly Temperature (F) | 51.7 |
| | Max Daily Oil & Grease (mg/L) | 17 | Ave Daily Oil & Grease (mg/L) | <4.0 |
| Substantially Identical Outfalls: | Max Daily Oil & Grease (mg/L) | 17 | Ave Daily Oil & Grease (mg/L) | <4.0 |
| None | Max Monthly pH (s.u.) | 8.91 | Min Monthly pH (s.u.) | 7.89 |
| | Alternative pH Limts Requested? | No | State Approval Attached? | No |
| Remarks: | | | | |

Additional Outfall Information

Outfalls DSN-001 – Outfalls DSN-004

Outfalls DSN-001 through DSN-004 discharges bearing leakage to the Housatonic River. Each of the units in the main powerhouse generate bearing leakage that pools on the headcover of the unit, then flows via piping into the facility tailrace directly adjacent to the unit.

For the purposes of sampling, Outfall DSN-004 will be established as the primary sampling point. However, should sampling not be possible at this location during a monitoring period, sampling will be performed at an alternate substantially identical location.

Outfall DSN-005

Outfalls DSN-005 discharges bearing leakage to the Housatonic River. The minimum flow unit located at the entrance to the power canal generates bearing leakage that pools on the headcover of the unit, then flows via gravity to a small sump and that ultimately discharges to the river.

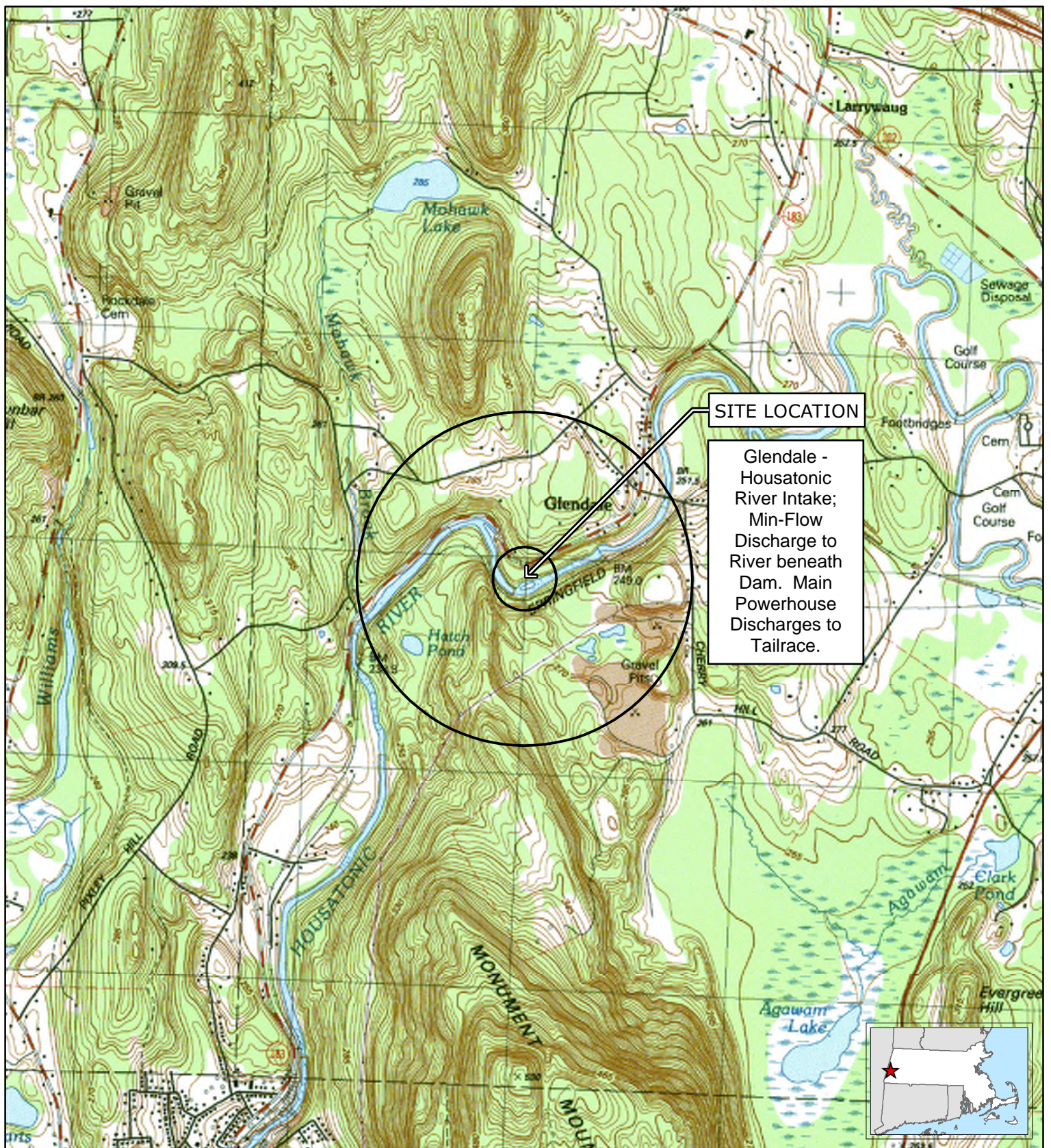
This outfall will be sampled.

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SECTION 3

Section 3

Site Figures and Flow Diagrams



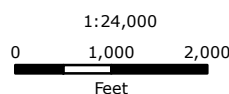
**FIGURE 1
SITE LOCATION**

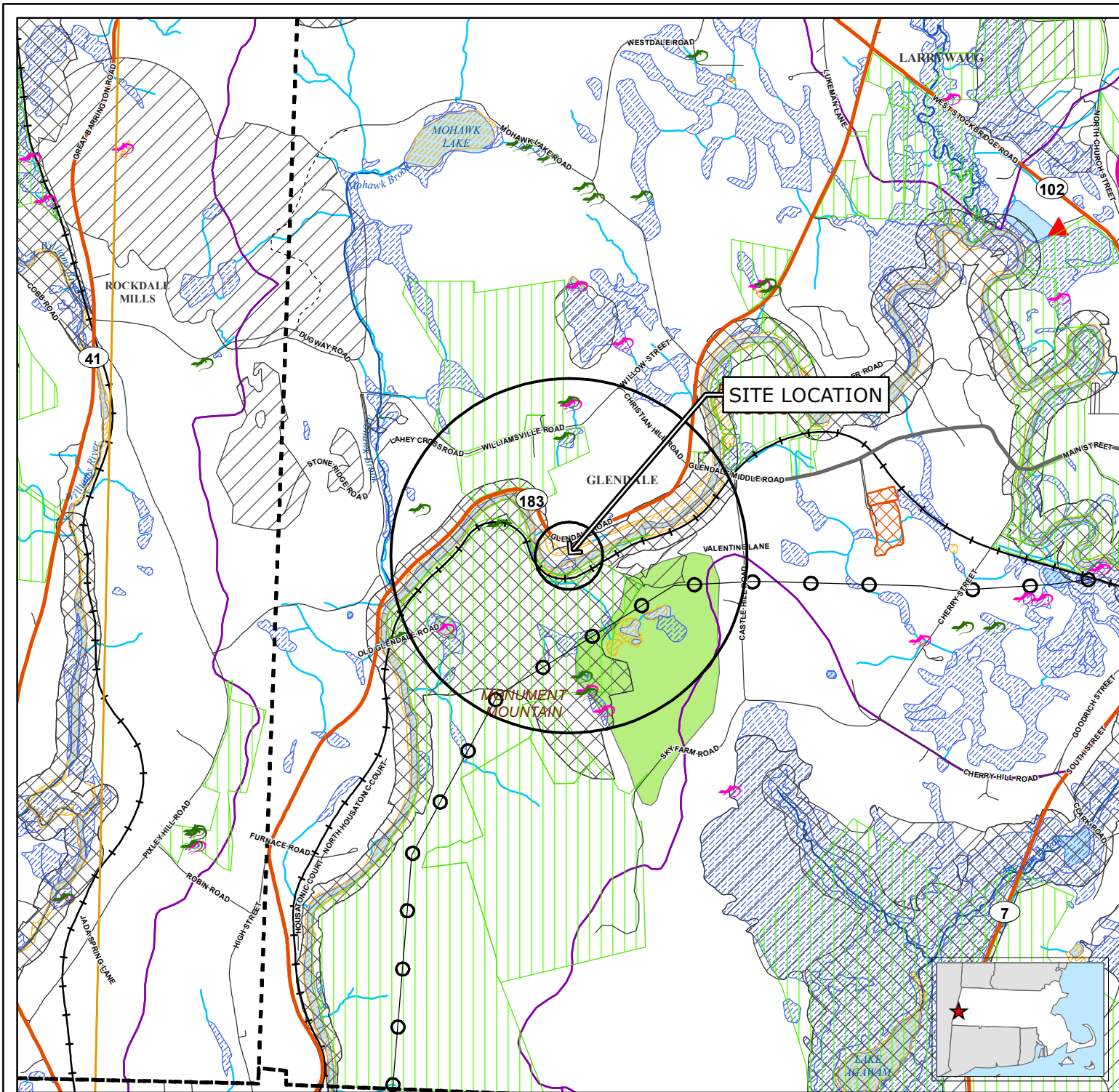
Glendale Hydroelectric Project
33 Glendale Road
Stockbridge, Massachusetts

May 2023

Tighe&Bond

Based on USGS Topographic Map for
Stockbridge, MA Revised 1987.
Contour Interval Equals 3-Meters.
Circles indicate 500-foot and half-mile radii





Legend

- | | | |
|---|--|---|
| NHESP Certified Vernal Pools | Aqueducts | MassDEP Open Water |
| NHESP Potential Vernal Pools | Hydrologic Connections | MassDEP Inland Wetlands |
| Non-Landfill Solid Waste Sites | Stream/Intermittent Stream | MassDEP Coastal Wetlands |
| Proposed Well | Powerline | MassDEP Not Interpreted Wetlands |
| Emergency Surface Water | Pipeline | Public Surface Water Supply (PSWS) |
| Community Public Water Supply - Surface Water | Track or Trail | Water Bodies |
| Community Public Water Supply - Groundwater | Trains | Non-Potential Drinking Water Source Area - High Yield |
| Non-Community Non-Transient Public Water Supply | Public Surface Water Supply Protection Area (Zone A) | Non-Potential Drinking Water Source Area - Medium Yield |
| Non-Community Transient Public Water Supply | DEP Approved Wellhead Protection Area (Zone I) | Potentially Productive Medium Yield Aquifer |
| Limited Access Highway | DEP Approved Wellhead Protection Area (Zone II) | Potentially Productive High Yield Aquifer |
| Multi-Lane Highway, NOT Limited Access | DEP Interim Wellhead Protection Area (IWPA) | County Boundary |
| Other Numbered Route | Protected and Recreational Open Space | Municipal Boundary |
| Major Road - Arterials and Collectors | Solid Waste Landfill | USGS Quadrangle Sheet Boundary |
| Minor Street or Road | Area of Critical Environmental Concern (ACEC) | |
| | NHESP Priority Habitats for Rare Species | |
| | NHESP Estimated Habitats for Rare Wildlife | |
| | EPA Designated Sole Source Aquifer | |
| | Major Drainage Basin | |
| | Sub Drainage Basin | |

FIGURE 2 PRIORITY RESOURCES

Glendale Hydroelectric Project
33 Glendale Road
Stockbridge, Massachusetts

Data source: Bureau of Geographic Information (MassGIS), Commonwealth of Massachusetts, Executive Office of Technology
Circles indicate 500-foot and half-mile radii.
Data valid as of May 2023.

May 2023

Tighe & Bond



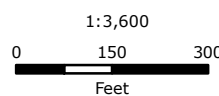
**FIGURE 3
ORTHOPHOTOGRAPH**

Glendale Hydroelectric Project
33 Glendale Road
Stockbridge, Massachusetts

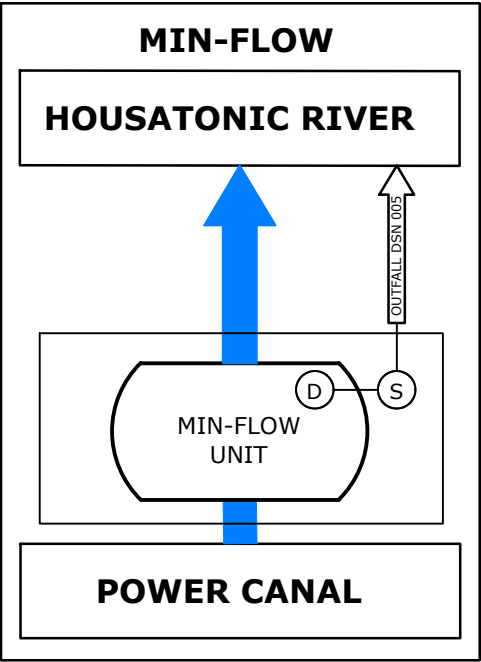
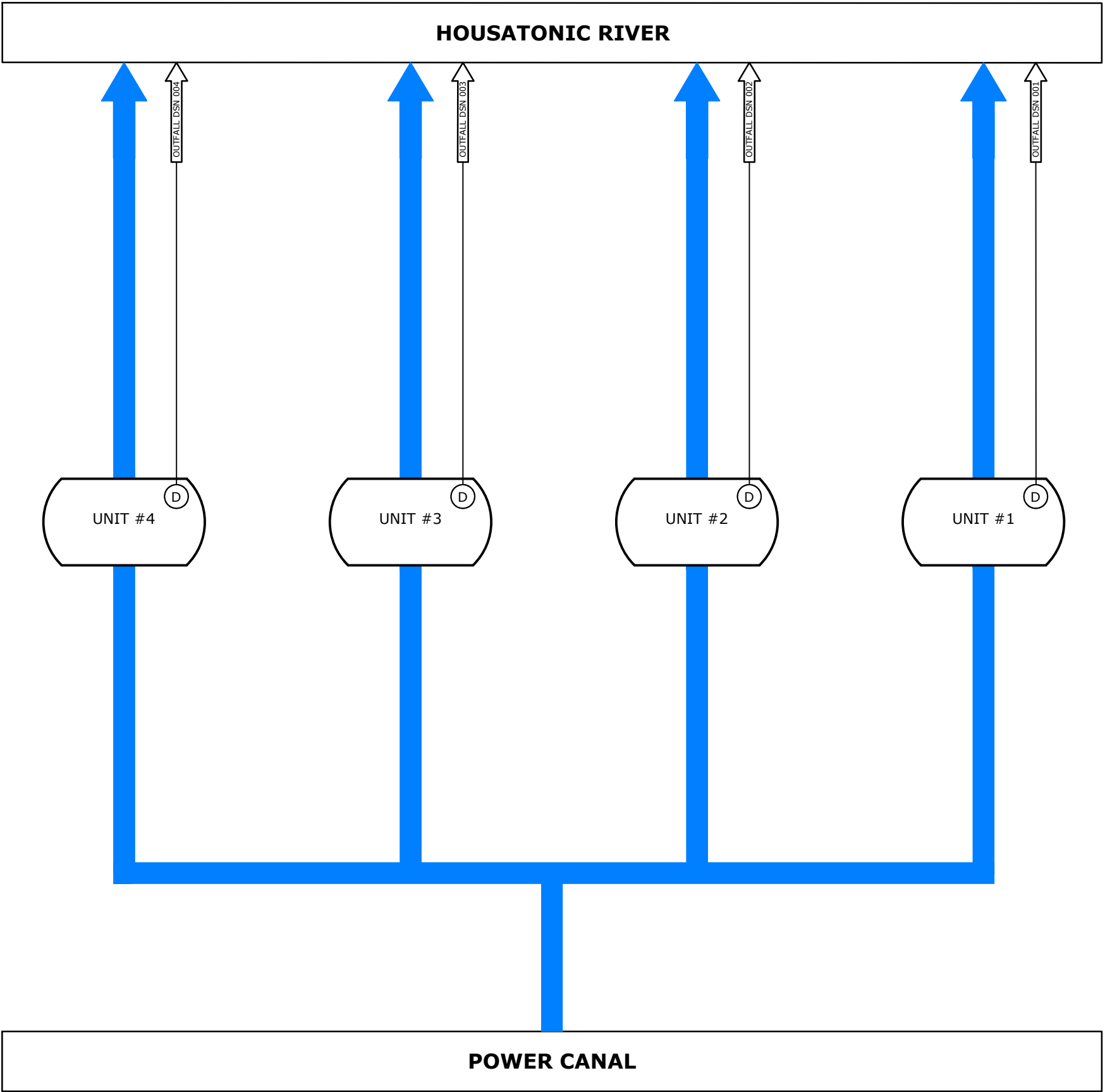
May 2023

Tighe&Bond

Based on MassGIS Color Orthophotography (2021)



Plotted On: Jun 12, 2023 3:14pm By: Theller
Tighe & Bond\H:\TKucab\Gravity G-5016-Glendale1.dwg



LEGEND

- (S) SUMP
- (D) DRAIN
- ← OUTFALL DISCHARGE
- GENERATING WATER FLOW

| | |
|--|-----------------------|
| HITCHCOCK HYDRO LLC STOCKBRIDGE, MASSACHUSETTS | |
| Glendale 33 Glendale Road Stockbridge, Massachusetts | |
| DATE: 6/12/2023 | Tighe&Bond |
| SCALE: NO SCALE | |
| FIGURE: | |

Section 4

Cooling Water Information (Not Applicable)

Section 5

Endangered Species Review

Timothy K. Kucab

From: Grader, Melissa <melissa_grader@fws.gov>
Sent: Tuesday, April 11, 2023 4:20 PM
To: Timothy K. Kucab
Subject: Re: [EXTERNAL] Hitchcock Hydro - Glendale Project - Species Review for HYDROGP

[Caution - External Sender]

Hello Tim,

I have consulted with our endangered species staff regarding Tighe and Bond's request that we provide written concurrence on your finding that the NPDES-regulated discharges associated with the Glendale Project's hydropower operations do not affect listed species or critical habitat.

Based on the material provided, the U.S. Fish and Wildlife Service does not have any information that would lead us to disagree with your determination that the proposed action would have no effect on listed species.

Please feel free to contact me with any questions you may have.

Regards,

Melissa Grader
Fish and Wildlife Biologist
Migratory Fish/Hydropower Program
U.S. Fish and Wildlife Service/New England Field Office
103 East Plumtree Road, Sunderland, MA 01375
p: (413) 548-8002 ext 8124 | e-mail: melissa_grader@fws.gov

From: Timothy K. Kucab <TKKucab@tigheBond.com>
Sent: Wednesday, April 5, 2023 2:30 PM
To: Grader, Melissa <melissa_grader@fws.gov>
Subject: [EXTERNAL] Hitchcock Hydro - Glendale Project - Species Review for HYDROGP

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Hi Melissa –

Please find attached a letter initiating an effort to seek written concurrence on our finding that the discharges and related activities are “not likely to adversely affect” listed species or critical habitat. This letter is specific to the minor leakage discharges associated with hydro operations.

Please do let us know if we can provide you with additional information.

Thanks,
Tim

Timothy Kucab, CHMM
Project Manager

Tighe&Bond

o. 413.875.1607 | m. 617.417.6096

53 Southampton Road, Westfield, MA 01085
w: tighebond.com | halvorsondesign.com



April 4, 2023

*****SENT VIA EMAIL*****

Melissa Grader
Fish and Wildlife Biologist
Migratory Fish/Hydropower Program
U.S. Fish and Wildlife Service/New England Field Office
103 East Plumtree Road, Sunderland, MA 01375
melissa_grader@fws.gov

Re: **Hitchcock Hydro LLC
Glendale Hydroelectric Project
Stockbridge, Massachusetts
Hydroelectric Generating Facilities General Permit**

Dear Ms. Grader:

Hitchcock Hydro LLC is seeking coverage under the NPDES General Permit for Hydroelectric Generating Facilities (HYDROGP) for the Glendale Hydroelectric Project in Stockbridge, Massachusetts. This facility is a 1.14 MW facility with four identical generating units in the main powerhouse and minimum flow (minflow) unit at the entrance to the canal. The canal system, the minimum flow unit and the main powerhouse penstock are provided with trash racks to prevent debris, as well as larger fish and wildlife from entering the plant. The trash racks are provided with 1-inch clear spacing and approach velocities are less than or equal to 2 feet per second at the intakes to the main and minflow units. With the exception of the electric generating river water passing through the turbine, the only regular discharges from the facility are packing leakage. During operation, water pools on top of each unit. In the main powerhouse a drain discharges pooling water into the facility tailrace, while the pooling water on the minflow eventually returns through the packing via gravity into the river. The minflow is provided with an emergency sump that, if needed, discharges flood waters into the river adjacent to the dam. This facility has been operating in a substantially identical manner for decades and has quarterly testing data for review upon request.

Additional and more detailed site information is provided in the attached 2009 FERC Order for the entirety of the project, including specific items related to threatened and endangered species.

As part of this process, the USFW IPaC System, as well as the NMFS EFH Mapper were reviewed. A summary of the species in the action area of the facility are presented in the list below:

USFWS

- Northern Long Eared Bat (Endangered)
- Monarch Butterfly (Candidate)

NMFS

- None

In addition to the mapping tools mentioned, attached is a NE Consistency Letter for the Northern Long Eared Bat identifying our No Effect Determination. Furthermore, we don't believe the minimal packing leakage discharge directly into the Housatonic River will pose a risk to the Monarch Butterfly, with a typical habitat of prairies, meadows, grasslands and along roadsides.

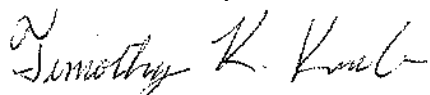
We are reaching out to you in an effort to seek written concurrence on our finding that the discharges and related activities are "not likely to adversely affect" listed species or critical habitat. We have arrived at this conclusion based upon the information provided in this letter.

Lastly, as noted in the HYDRO GP, there is the potential for discharges of oil and grease, slightly elevated temperatures, or pH levels different from ambient associated with the wastewaters authorized by this permit. However, relative to the overall flow of water through this facility, the HYDROGP wastewater flows make up less than 1% of the total flow discharged from the plant. Therefore, there are not expected to be any adverse effects associated with the HYDROGP wastewaters specifically.

If you have any questions regarding this facility or the enclosed report, please contact me at (413) 875-1607. Thank you for your attention in this matter.

Very truly yours,

TIGHE & BOND, INC.



Timothy Kucab, CHMM
Project Manager

Enclosures

- USFW IPaC System Endangered Species Package
- USFW IPaC System NE Consistency Letter
- NMFS EFH Mapper
- 2009 FERC Order



United States Department of the Interior



FISH AND WILDLIFE SERVICE
New England Ecological Services Field Office
70 Commercial Street, Suite 300
Concord, NH 03301-5094
Phone: (603) 223-2541 Fax: (603) 223-0104

In Reply Refer To:
Project Code: 2023-0057869
Project Name: Hitchcock Hydro LLC - Glendale

April 04, 2023

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

Updated 3/8/2023 - Please review this letter each time you request an Official Species List, we will continue to update it with additional information and links to websites may change.

About Official Species Lists

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Federal and non-Federal project proponents have responsibilities under the Act to consider effects on listed species.

The enclosed species list identifies threatened, endangered, proposed, and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 et seq.).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested by returning to an existing project's page in IPaC.

Endangered Species Act Project Review

Please visit the “**New England Field Office Endangered Species Project Review and Consultation**” website for step-by-step instructions on how to consider effects on listed

species and prepare and submit a project review package if necessary:

<https://www.fws.gov/office/new-england-ecological-services/endangered-species-project-review>

NOTE Please do not use the **Consultation Package Builder** tool in IPaC except in specific situations following coordination with our office. Please follow the project review guidance on our website instead and reference your **Project Code** in all correspondence.

Northern Long-eared Bat - (Updated 3/8/2023) The Service published a final rule to reclassify the northern long-eared bat (NLEB) as endangered on November 30, 2022. The final rule will go into effect on **March 31, 2023**. After that date, the current 4(d) rule for NLEB will be invalid, and the 4(d) determination key will no longer be available. New compliance tools will be available in March 2023, and information will be posted in this section on our website and on the northern long-eared bat species page, so please check this site often for updates.

Depending on the type of effects a project has on NLEB, the change in the species' status may trigger the need to re-initiate consultation for any actions that are not completed and for which the Federal action agency retains discretion once the new listing determination becomes effective. If your project may result in incidental take of NLEB after the new listing goes into effect, this will need to be addressed in an updated consultation that includes an Incidental Take Statement. Many of these situations will be addressed through the new compliance tools. If your project may require re-initiation of consultation, please wait for information on the new tools to appear on this site or contact our office for additional guidance.

Additional Info About Section 7 of the Act

Under section 7(a)(2) of the Act and its implementing regulations (50 CFR 402 et seq.), Federal agencies are required to determine whether projects may affect threatened and endangered species and/or designated critical habitat. If a Federal agency, or its non-Federal representative, determines that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Federal agency also may need to consider proposed species and proposed critical habitat in the consultation. 50 CFR 402.14(c)(1) specifies the information required for consultation under the Act regardless of the format of the evaluation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<https://www.fws.gov/service/section-7-consultations>

In addition to consultation requirements under Section 7(a)(2) of the ESA, please note that under sections 7(a)(1) of the Act and its implementing regulations (50 CFR 402 et seq.), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species. Please contact NEFO if you would like more information.

Candidate species that appear on the enclosed species list have no current protections under the ESA. The species' occurrence on an official species list does not convey a requirement to

consider impacts to this species as you would a proposed, threatened, or endangered species. The ESA does not provide for interagency consultations on candidate species under section 7, however, the Service recommends that all project proponents incorporate measures into projects to benefit candidate species and their habitats wherever possible.

Migratory Birds

In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see:

<https://www.fws.gov/program/migratory-bird-permit>

<https://www.fws.gov/library/collections/bald-and-golden-eagle-management>

Please feel free to contact us at **newengland@fws.gov** with your **Project Code** in the subject line if you need more information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat.

Attachment(s): Official Species List

Attachment(s):

- Official Species List

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

New England Ecological Services Field Office

70 Commercial Street, Suite 300

Concord, NH 03301-5094

(603) 223-2541

PROJECT SUMMARY

Project Code: 2023-0057869
Project Name: Hitchcock Hydro LLC - Glendale
Project Type: Wastewater Discharge
Project Description: NOI NPDES GP Hydroelectric Generating Facility
Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@42.2781185,-73.35845384538186,14z>



Counties: Berkshire County, Massachusetts

ENDANGERED SPECIES ACT SPECIES

There is a total of 2 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

| NAME | STATUS |
|--|------------|
| Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045 | Endangered |

INSECTS

| NAME | STATUS |
|--|-----------|
| Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743 | Candidate |

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

IPAC USER CONTACT INFORMATION

Agency: Tighe & Bond, Inc.
Name: Christopher Astephen
Address: 300 West Exchange Street
Address Line 2: Suite 300
City: Providence
State: RI
Zip: 02903
Email: castephen@tighebond.com
Phone: 7748081791

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Environmental Protection Agency



United States Department of the Interior

FISH AND WILDLIFE SERVICE
New England Ecological Services Field Office
70 Commercial Street, Suite 300
Concord, NH 03301-5094
Phone: (603) 223-2541 Fax: (603) 223-0104



In Reply Refer To:
Project code: 2023-0057869
Project Name: Hitchcock Hydro LLC - Glendale
IPaC Record Locator: 192-123878322

March 21, 2023

Federal Nexus: yes
Federal Action Agency (if applicable): Environmental Protection Agency

Subject: Record of project representative's no effect determination for 'Hitchcock Hydro LLC - Glendale'

Dear Christopher Astephen:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on March 21, 2023, for 'Hitchcock Hydro LLC - Glendale' (here forward, Project). This project has been assigned Project Code 2023-0057869 and all future correspondence should clearly reference this number. **Please carefully review this letter.**

Ensuring Accurate Determinations When Using IPaC

The Service developed the IPaC system and associated species' determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into the IPaC must accurately represent the full scope and details of the Project. Failure to accurately represent or implement the Project as detailed in IPaC or the Northern Long-eared Bat Rangewide Determination Key (Dkey), invalidates this letter.

Determination for the Northern Long-Eared Bat

Based upon your IPaC submission and a standing analysis, your project has reached the determination of "No Effect" on the northern long-eared bat. To make a no effect determination, the full scope of the proposed project implementation (action) should not have any effects (either positive or negative), to a federally listed species or designated critical habitat. Effects of the action are all consequences to listed species or critical habitat that are caused by the proposed action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action

and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action. (See § 402.17).

Under Section 7 of the ESA, if a federal action agency makes a no effect determination, no consultation with the Service is required (ESA §7). If a proposed Federal action may affect a listed species or designated critical habitat, formal consultation is required except when the Service concurs, in writing, that a proposed action "is not likely to adversely affect" listed species or designated critical habitat [50 CFR §402.02, 50 CFR§402.13].

Other Species and Critical Habitat that May be Present in the Action Area

The IPaC-assisted determination for the northern long-eared bat does not apply to the following ESA-protected species and/or critical habitat that also may occur in your Action area:

- Monarch Butterfly *Danaus plexippus* Candidate

You may coordinate with our Office to determine whether the Action may affect the animal species listed above and, if so, how they may be affected.

Next Steps

Based upon your IPaC submission, your project has reached the determination of "No Effect" on the northern long-eared bat. If there are no updates on listed species, no further consultation/coordination for this project is required with respect to the northern long-eared bat. However, the Service recommends that project proponents re-evaluate the Project in IPaC if: 1) the scope, timing, duration, or location of the Project changes (includes any project changes or amendments); 2) new information reveals the Project may impact (positively or negatively) federally listed species or designated critical habitat; or 3) a new species is listed, or critical habitat designated. If any of the above conditions occurs, additional coordination with the Service should take place to ensure compliance with the Act.

If you have any questions regarding this letter or need further assistance, please contact the New England Ecological Services Field Office and reference Project Code 2023-0057869 associated with this Project.

Action Description

You provided to IPaC the following name and description for the subject Action.

1. Name

Hitchcock Hydro LLC - Glendale

2. Description

The following description was provided for the project 'Hitchcock Hydro LLC - Glendale':

NOI NPDES GP Hydroelectric Generating Facility

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@42.2781185,-73.35845384538186,14z>



DETERMINATION KEY RESULT

Based on the information you provided, you have determined that the Proposed Action will have no effect on the Endangered northern long-eared bat (*Myotis septentrionalis*). Therefore, no consultation with the U.S. Fish and Wildlife Service pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (87 Stat. 884, as amended 16 U.S.C. 1531 *et seq.*) is required for those species.

QUALIFICATION INTERVIEW

1. Does the proposed project include, or is it reasonably certain to cause, intentional take of the northern long-eared bat or any other listed species?

Note: Intentional take is defined as take that is the intended result of a project. Intentional take could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered or proposed species?

No

2. Does any component of the action involve construction or operation of wind turbines?

Note: For federal actions, answer 'yes' if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

No

3. Is the proposed action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

Yes

4. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) funding or authorizing the proposed action, in whole or in part?

No

5. Are you an employee of the federal action agency or have you been officially designated in writing by the agency as its designated non-federal representative for the purposes of Endangered Species Act Section 7 informal consultation per 50 CFR § 402.08?

Note: This key may be used for federal actions and for non-federal actions to facilitate section 7 consultation and to help determine whether an incidental take permit may be needed, respectively. This question is for information purposes only.

Yes

6. Is the lead federal action agency the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC)? Is the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC) funding or authorizing the proposed action, in whole or in part?

Yes

7. Have you determined that your proposed action will have no effect on the northern long-eared bat? Remember to consider the [effects of any activities](#) that would not occur but for the proposed action.

If you think that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, answer “No” below and continue through the key. If you have determined that the northern long-eared bat does not occur in your project’s action area and/or that your project will have no effects whatsoever on the species despite the potential for it to occur in the action area, you may make a “no effect” determination for the northern long-eared bat.

Note: Federal agencies (or their designated non-federal representatives) must consult with USFWS on federal agency actions that may affect listed species [50 CFR 402.14(a)]. Consultation is not required for actions that will not affect listed species or critical habitat. Therefore, this determination key will not provide a consistency or verification letter for actions that will not affect listed species. If you believe that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, please answer “No” and continue through the key. Remember that this key addresses only effects to the northern long-eared bat. Consultation with USFWS would be required if your action may affect another listed species or critical habitat. The definition of [Effects of the Action](#) can be found here: <https://www.fws.gov/media/northern-long-eared-bat-assisted-determination-key-selected-definitions>

Yes

PROJECT QUESTIONNAIRE

Will all project activities be completed by April 1, 2024?

No

IPAC USER CONTACT INFORMATION

Agency: Tighe & Bond, Inc.
Name: Christopher Astephen
Address: 300 West Exchange Street
Address Line 2: Suite 300
City: Providence
State: RI
Zip: 02903
Email: castephen@tighebond.com
Phone: 7748081791

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Environmental Protection Agency

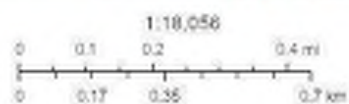
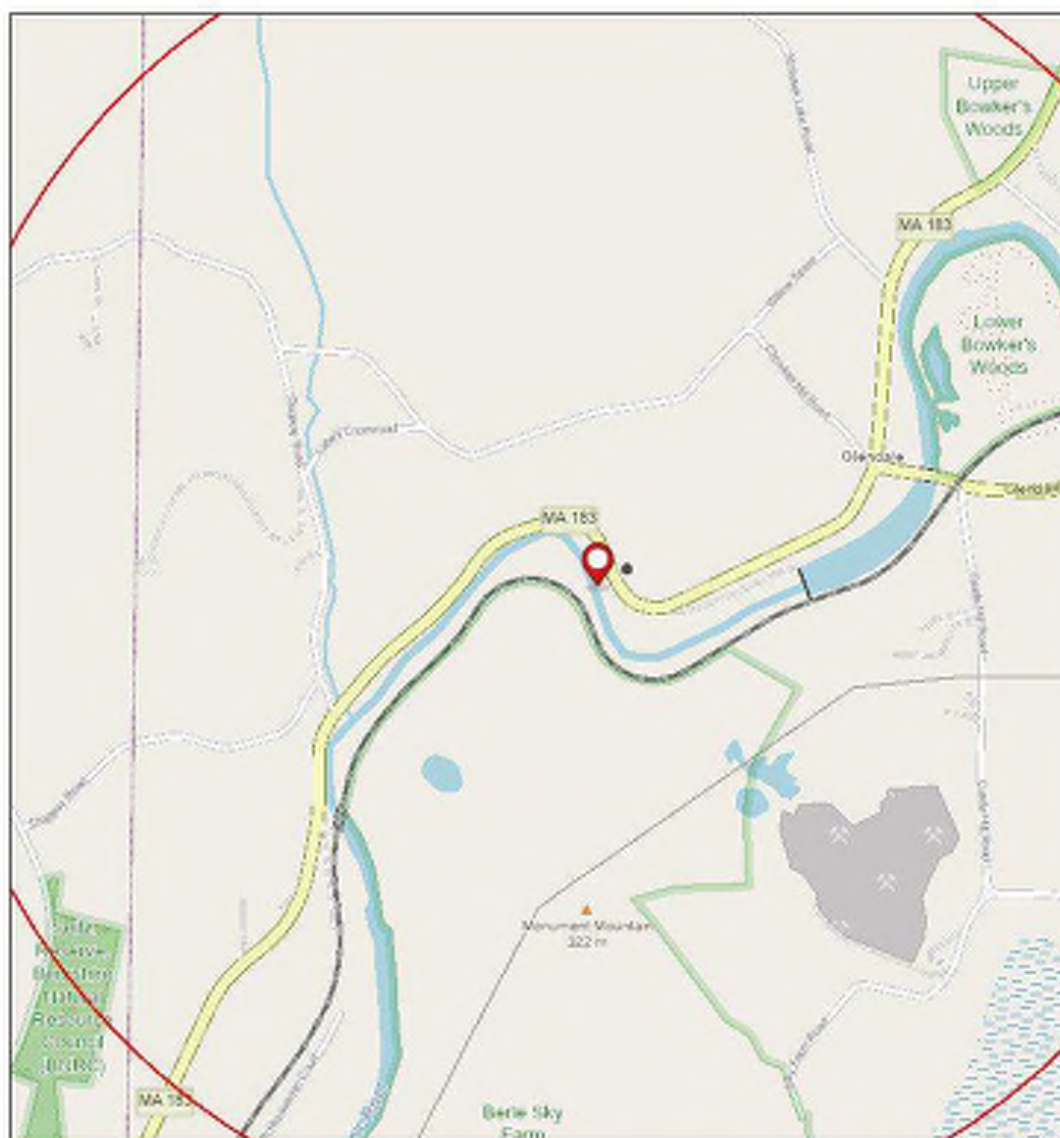


Glendale

Area of Interest (AOI) Information

Area : 2,009.02 acres

Mar 20 2023 16:13:38 Eastern Daylight Time



Map data © OpenStreetMap contributors, Microsoft, Facebook, Inc. and its affiliates, Esri, Community Map, contributors, Map user by Esri, NOAA, National Marine Fisheries Service

Summary

| Name | Count | Area(acres) | Length(mi) |
|-------------------------------|-------|-------------|------------|
| All Critical Habitat Polyline | 0 | N/A | 0 |
| All Critical Habitat Polygon | 0 | 0 | N/A |

128 FERC ¶ 62,123
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Littleville Power Company, Inc.

Project No. 2801-027

ORDER ISSUING SUBSEQUENT LICENSE

(August 19, 2009)

INTRODUCTION

1. Pursuant to Part I of the Federal Power Act (FPA),¹ Littleville Power Company, Inc. (Littleville Power) filed an application on October 31, 2007, for a subsequent license to continue to operate the existing 1,140-kilowatt (kW) Glendale Hydroelectric Project No. 2801. Littleville Power's application includes a proposal to install a new 165-kW minimum flow turbine-generator unit, increasing the project's installed capacity to 1.305 kW. The Glendale Project is located on the Housatonic River in Berkshire County, Massachusetts. The project does not occupy any federal land.² As discussed below, I am issuing a subsequent license for the project.

BACKGROUND

2. The Commission issued a 30-year minor license for the project on November 23, 1979, and the license will expire on October 31, 2009.³

¹ 16 U.S.C. §§ 791(a) – 825(r) (2006).

² Because the Housatonic River is a navigable waterway of the United States, the project is required to be licensed by section 23(b)(1) of the FPA, 16 U.S.C. 816(1) (2006). *See The Connecticut Light & Power Co.*, 55 F.P.C. 2397 (1975), *reh'g denied*, 55 F.P.C. 473 (1976), *aff'd*, *Connecticut Light & Power Co. v. FPC*, 557 F.2d 349 (2d Cir. 1977).

³ *Mary C. Heather*, 9 FERC ¶ 62,110 (1979). The Commission approved the transfer of the license from Mary C. Heather to Joseph A. Guerrieri in 1989, 49 FERC ¶ 62,156 (1989), and, subsequently, from Joseph A. Guerrieri to Littleville Power Co. in 1995, 73 FERC ¶ 62,126 (1995).

3. On October 30, 2008, the Commission issued a public notice accepting the license application, setting December 30, 2008, as the deadline for filing motions to intervene and protests. No motions to intervene or protests were filed.

4. The Commission's October 30, 2008 notice also indicated the project was ready for environmental analysis and solicited comments, recommendations, terms and conditions, and prescriptions. In response, timely recommendations and a prescription were filed by the Massachusetts Division of Fisheries and Wildlife (Massachusetts DFW) and the U.S. Department of the Interior (Interior) on December 22 and 30, 2008, respectively. Littleville Power filed reply comments on February 12, 2009.

5. On March 23, 2009, Commission staff issued an Environmental Assessment (EA). Littleville Power filed comments on the EA on April 22, 2009. The comments, recommendations, and prescription have been fully considered in determining whether, and under what conditions, to issue this license.

PROJECT DESCRIPTION

A. Project Facilities

6. The existing Glendale Project consists of a 250-foot-long, 30-foot-high concrete gravity dam with a 182-foot-long spillway impounding a 23-acre reservoir (with a normal water surface elevation of 810.9 feet National Geodetic Vertical Datum (NGVD)). A gatehouse with intake gates connects to a 1,500-foot-long, 40-foot-wide intake canal, and a 250-foot-long, 12-foot-diameter steel penstock, leading to a powerhouse containing four turbine generating units with a combined installed capacity of 1,140 kW. Water discharges from the powerhouse into a 300-foot-long tailrace. Project power is transmitted through an 83-foot-long, 13.8-kilovolt (kV) transmission line connected to the regional grid. An approximately 1,000-foot-long access road connects Glendale Road (Route 183) to the project dam. Littleville Power proposes to install a new, 165-kW minimum flow turbine generating unit, including new trash racks with 1-inch clear spacing, in the waste gate slot located at the gatehouse adjacent to the project dam. A more detailed project description is contained in ordering paragraph (B)(2). The intake canal, penstock, powerhouse, and tailrace create a 2,500-foot-long bypassed reach of the Housatonic River. All land within the project boundary is owned by Littleville Power.

B. Project Boundary

7. The project boundary encloses all the facilities described above, including the dam, reservoir, intake canal, penstock, powerhouse, primary transmission line, tailrace, and access road. There are currently no designated recreational facilities at the project.

C. Project Operation

8. Under Article 25 of the existing license, as amended,⁴ Littleville Power is required to operate the project in a run-of-river mode and to discharge a continuous minimum flow of 10 cubic feet per second (cfs) or inflow, whichever is less, over the spillway crest, or alternatively, through a notch in the spillway crest. Littleville Power maintains run-of-river operation through use of an automatic pond level control (PLC). When about 2.5 inches (about 70 cfs) of spill occurs over the dam, the PLC unit is programmed to start one of the four existing generating units - beginning at a 55 percent gate opening and then gradually increasing to an 80 percent gate opening. If the level of spill exceeds 2.5 inches with one unit operating, the PLC is programmed to start additional units sequentially as flows become available while maintaining the required 10-cfs minimum flow. All inflow in excess of the total maximum hydraulic capacity of the four turbine generating units, approximately 400 cfs, is passed over the dam.

9. Littleville Power voluntarily refrains from taking each turbine unit off line until after it is operating at its minimum hydraulic capacity (55 cfs). The purpose of this down-ramping is to minimize or eliminate excess downstream flow fluctuations. The project's current estimated total annual generation is 5,000 megawatt-hours (MWh).

D. Proposed Measures

10. Littleville Power proposes to: (1) continue run-of-river operation; (2) release a 90-cfs minimum flow (or inflow, whichever is less) into the bypassed reach; (3) provide a canoe portage around the dam; and (4) provide public parking at the bypassed reach.

WATER QUALITY CERTIFICATION

11. Under section 401(a) of the Clean Water Act (CWA),⁵ the Commission may not issue a license authorizing the construction or operation of a hydroelectric project unless the state water quality certifying agency either has issued water quality certification (certification) for the project or has waived certification by failing to act on a request for certification within a reasonable period of time, not to exceed one year. Section 401(d)

⁴ See Order Amending License, 28 FERC ¶ 62,439 (1984); and Order Amending License and Setting Minimum Flows, 24 FERC ¶ 62,230 (1983).

⁵ 33 U.S.C. § 1341(a)(1) (2006).

of the CWA provides that the certification shall become a condition of any federal license that authorizes construction or operation of the project.⁶

12. On November 14, 2007, Littleville Power applied to the Massachusetts Department of Environmental Protection (DEP) for certification for the Glendale Project. Massachusetts DEP received this request on November 20, 2007. On November 3, 2008, Littleville Power received a letter from Massachusetts DEP requesting that Littleville Power withdraw and resubmit its application in order to extend the processing deadline one additional year. By letter dated November 11, 2008, Littleville Power withdrew and resubmitted its application. On July 8, 2009, Massachusetts DEP issued its certification for the Glendale Project with conditions as set forth in Appendix A of this order and incorporated into the license (see ordering paragraph D).

13. The certification includes 27 conditions that require: a plan to monitor and control erosion during construction activities; run-of-river operation; a minimum flow of 90 cfs or inflow, whichever is less, into the bypassed reach; release of 90 percent of inflow to the project during refilling of the project impoundment after dam maintenance or emergency drawdown; an operation monitoring plan; an invasive species control plan; installation of trash racks at the intakes to the main and minimum flow units⁷ with 1-inch-clear spacing and velocities less than or equal to 2 feet per second; design, construction, operation, and maintenance of upstream eel passage facilities within 1 year of the installation of the same at the Risingdale dam⁸ downstream from the project; a plan to provide for safe downstream eel passage within 1 year of the installation of upstream eel passage facilities at the project; design, construction, operation, and maintenance of upstream and downstream anadromous fish passage facilities within 1 year of the same at Risingdale dam; and effectiveness monitoring plans for the eel and anadromous fish upstream and downstream passage facilities. Article 401 requires the licensee to file, for Commission approval, the plans required by the certification conditions, and to notify the Commission of planned and unplanned deviations from license requirements.

⁶ 33 U.S.C. § 1341(d) (2006).

⁷ The existing trash racks at the project's main units already meet the 1-inch clear spacing, 2-foot per second velocity standard required by certification condition 21; therefore, Article 404 requires design drawings and a schedule for the new (minimum flow unit) trash racks only.

⁸ The Risingdale dam has no generation facilities.

14. The certification includes conditions requiring the installation of upstream eel passage and upstream and downstream anadromous fish passage facilities at the project within one year of the installation of fish passage facilities at the Risingdale dam located about four miles downstream. In addition to the passage barrier at the Risingdale dam, migrations of anadromous fish and American eel are blocked by several other downstream dams. Currently, there are no plans to restore anadromous fish to the Massachusetts portion of the Housatonic River and the base of the Bulls Bridge dam (part of the Housatonic River Project No. 2576)⁹ is the uppermost extent of the planned restoration of anadromous fish to the Connecticut portion of the river basin. The restoration of American eel is currently planned to the base of the Falls Village dam. The Housatonic River Project license¹⁰ requires upstream and downstream eel passage facilities to be operational at the Bulls Bridge Development by April 1, 2024. That license also requires upstream and downstream anadromous fish passage facilities to be operational at the Stevenson Development by April 1, 2014, and at the Shepaug Development by April 1, 2024, contingent on the installation of fish passage facilities at the Derby dam.¹¹ Given that there are no plans for restoring American eel and anadromous fish to the part of the river basin occupied by the Glendale Project for the foreseeable future, it seems premature to condition the Glendale Project to include measures for American eel and anadromous fish passage. Nevertheless, the certification conditions are mandatory and therefore these measures are included in the license by ordering paragraph D and license Articles 404 and 405, respectively.

COASTAL ZONE MANAGEMENT ACT

15. Under section 307(c)(3)(A) of the Coastal Zone Management Act (CZMA),¹² the Commission cannot issue a license for a project within or affecting a state's coastal zone unless the state CZMA agency concurs with the license applicant's certification of

⁹ The Housatonic River Project consists of five developments. From upstream to downstream the developments are as follows: Falls Village (river mile 78), Bulls Bridge (river mile 53), Rocky River pumped storage (river mile 47), Shepaug (river mile 30), and Stevenson (river mile 19).

¹⁰ *Northeast Generation Services Co.*, 107 FERC ¶ 61,305 (2004).

¹¹ Derby dam is the only structure in the river downstream of the Stevenson Development before the tidally-controlled Housatonic estuary.

¹² 16 U.S.C. § 1456(c)(3)(A) (2006).

consistency with the state's CZMA program, or the agency's concurrence is conclusively presumed by its failure to act within 180 days of its receipt of the applicant's certification.

16. By letter filed July 8, 2008, the Connecticut Department of Environmental Protection (Connecticut DEP) confirmed that the project is located beyond the limit of tidal influence on the Housatonic River and would otherwise have no reasonably foreseeable effect on coastal resources or uses in Connecticut, thus the project is not subject to Connecticut coastal zone program review. Therefore, no consistency certification is required.

SECTION 18 FISHWAY PRESCRIPTIONS

17. Section 18 of the FPA¹³ provides that the Commission shall require the construction, maintenance, and operation by a licensee of such fishways as may be prescribed by the Secretary of Commerce or the Secretary of the Interior, as appropriate. In a letter filed December 30, 2008, Interior requested that the Commission reserve its authority to require fishways that it may prescribe in the future. Consistent with the Commission's policy, Article 402 of this license reserves the Commission's authority to require fishways that may be prescribed by Interior for the project.

THREATENED AND ENDANGERED SPECIES

18. Section 7(a)(2) of the Endangered Species Act of 1973,¹⁴ requires federal agencies to ensure their actions are not likely to jeopardize the continued existence of federally listed threatened and endangered species, or result in the destruction or adverse modification of their designated critical habitat.

19. The EA noted that U.S. Fish and Wildlife Service (FWS) staff informed Littleville Power in an April 27, 2007 letter that there are no known federally listed endangered or threatened species and there is no critical habitat for these species within the project area. In addition, no listed species were identified during a 2006 mussel survey. Because the presence of listed species has not been documented at the project, the EA concluded that issuing a license would not affect federally listed threatened and endangered species.

¹³ 16 U.S.C. § 811 (2006).

¹⁴ 16 U.S.C. § 1536(a) (2006).

NATIONAL HISTORIC PRESERVATION ACT

20. Under section 106 of the National Historic Preservation Act (NHPA),¹⁵ and its implementing regulations,¹⁶ federal agencies must take into account the effect of any proposed undertaking on properties listed or eligible for listing in the National Register of Historic Places (defined as historic properties) and afford the Advisory Council on Historic Preservation a reasonable opportunity to comment on the undertaking. This generally requires the Commission to consult with the State Historic Preservation Officer (SHPO) to determine whether and how a proposed action may affect historic properties, and to seek ways to avoid or minimize any adverse effects.

21. The project's powerhouse is listed on the National Register of Historic Places for its engineering and industrial uses from 1900 to 1924. However, Littleville Power is not proposing any alterations to the Glendale powerhouse. By letter filed October 30, 2008, the SHPO determined that the relicensing proposal will not adversely affect the significant historic characteristics of the property. The SHPO commented that operation of the powerhouse for its historical purposes assists in maintaining the historic property.

22. By letter filed February 12, 2009, the SHPO recommended that an historic properties management plan (HPMP) for the project be developed, using an Historical Overview Report filed January 14, 2009, and other existing materials. The SHPO recommended consultation with the Commission, SHPO, and the Stockbridge Historical Commission prior to Littleville Power undertaking any future new construction, demolition, or rehabilitation. The EA recommended that Littleville Power prepare an HPMP. Article 407 requires Littleville Power to develop and implement an HPMP.

RECOMMENDATIONS OF FEDERAL AND STATE FISH AND WILDLIFE AGENCIES PURSUANT TO SECTION 10(j) OF THE FPA

23. Section 10(j) (1) of the FPA¹⁷ requires the Commission, when issuing a license, to include conditions based on recommendations by federal and state fish and wildlife agencies submitted pursuant to the Fish and Wildlife Coordination Act,¹⁸ to "adequately

¹⁵ 16 U.S.C § 470f (2006).

¹⁶ 36 C.F.R. Part 800 (2009).

¹⁷ 16 U.S.C. § 803(j)(1) (2006).

¹⁸ 16 U.S.C. §§ 661-667e. (2006).

and equitably protect, mitigate damages to, and enhance fish and wildlife (including related spawning grounds and habitat)” affected by the project.

24. In letters filed December 22 and 30, 2008, Massachusetts DFW and Interior, respectively, submitted identical 10(j) recommendations, which included six fish and wildlife related measures. In the EA, Commission staff found all six recommendations to be within the scope of 10(j) and recommended their adoption. This license includes conditions consistent with the six recommendations. These measures are: (1) operate the project in a run-of-river mode (certification condition 14); (2) provide a 90-cfs minimum flow in the bypassed reach year-round (certification condition 15); (3) release 90 percent of inflow downstream of the project during impoundment refilling (certification condition 18); (4) install trash racks with 1-inch clear spacing and approach velocities of less than or equal to 2 feet per second at the intakes to the main and minimum flow turbine units (Article 403; certification condition 21); (5) develop an operation compliance monitoring plan (certification condition 19); and (6) develop and implement an invasive species control plan (certification condition 20).

SECTION 10(a)(1) OF THE FPA

25. Section 10(a)(1) of the FPA¹⁹ requires that any project for which the Commission issues a license shall be best adapted to a comprehensive plan for improving or developing a waterway or waterways for the use or benefit of interstate or foreign commerce; for the improvement and utilization of waterpower development; for the adequate protection, mitigation, and enhancement of fish and wildlife; and for other beneficial public uses, including irrigation, flood control, water supply, recreation, and other purposes.

A. Recreation

26. The current license does not require any project recreation facilities. Littleville Power proposes to construct a canoe portage around the dam, with the take-out site located upstream of the dam near the gatehouse. It would also establish a portage trail using the existing project access road, which is approximately 1,000 feet long and runs adjacent to the power canal, connecting Glendale Road (Route 183) to the project dam. The portage trail would cross over the power canal at a point where the canal travels underground, and lead to a new stairway/ramp to the bypassed reach. This access at the bypassed reach would serve as both a put-in site for canoeists and an access point for

¹⁹ 16 U.S.C. § 803(a)(1) (2006).

bank fishing. The final location for the proposed stairway/ramp would be determined through consultation with Massachusetts DFW and the Housatonic Valley Association.²⁰

27. Additionally, Littleville Power proposes to provide a parking area adjacent to the new stairway/ramp. The existing dam access road would connect Glendale Road (Route 183) to this parking area, and pedestrians would be able to continue on this access road to the Glendale Dam area and the impoundment. This parking area would serve those using the canoe portage as well as those using the new bypassed reach access for bank fishing.

28. The EA found that Littleville Power's proposed canoe portage with new access to the bypassed reach and proposed parking area would improve public access and recreation opportunities at the project and recommended that any subsequent license require a recreation plan for the project that includes these facilities. Article 406 requires Littleville Power to file a recreation plan for the project that includes these proposed facilities.

29. The EA recommended that any recreation plan for the project include a monitoring component because of the expected increase in recreation use. Under the current license, Littleville Power was exempted from filing the Licensed Hydropower Development Recreation Report (Form 80)²¹ due to the limited amount of recreation use at the project. That exemption does not carry over to this subsequent license. Thus, Littleville Power is required, pursuant to 18 C.F.R. § 8.11 (2009), to monitor use of its recreation facilities via FERC Form 80 filings every six years.

B. Agency Notification

30. Interior asks that the license require Littleville Power to serve any Interior representative "on the service list" with a copy of any request to amend the license or extend the deadlines for construction or implementation of license conditions, and any appeal of fish and wildlife-related license conditions.

31. The service list for this relicensing proceeding expires upon issuance of this order (and after the time for rehearing has passed), so Interior's status as an intervenor also terminates at that point. Consequently, the Commission's regulations on service of

²⁰ An organization whose stated purpose includes maintaining and improving public use of the Housatonic Watershed.

²¹ Form 80 documents the use of project recreation facilities and includes a facility capacity component.

documents, 18 C.F.R. § 385.2010 (2009), do not require that former parties be served with relevant pleadings filed after a permit, license, or exemption has been issued. However, Littleville Power is required to consult or notify Interior, through FWS, on a number of measures: Article 401(b) requires consultation with FWS for proposed changes to run-of-river operation or bypassed reach flows, condition 19 requires a monitoring plan for impoundment and flow management, and conditions 22, 23, and 24 require fish passage and an associated effectiveness study. Ordering paragraph (G) requires Littleville Power to serve copies of any Commission filing required by this order on any entity specified in this order to be consulted on matters related to the filing. Moreover, entities interested in a specific project may register for the Commission's "e-subscription" in order to be notified by e-mail about future correspondence regarding a specific docket.²²

ADMINISTRATIVE PROVISIONS

A. Annual Charges

32. The Commission collects annual charges from licensees for administration of the FPA. Article 201 provides for the collection of funds for administration of the FPA and use and occupancy of U.S. lands, where appropriate. However, under the regulations currently in effect, projects with authorized installed capacity of less than or equal to 1,500 kW, like this project, will not be assessed an annual charge.

B. Exhibit F and G Drawings

33. The Commission requires licensees to file sets of approved project drawings on microfilm and in electronic file format. Article 202 requires this filing for these drawings.

C. Start of Construction

34. Article 301 requires the licensee to start construction of the new 165-kW generating unit within two years and complete construction within four years.

D. Review of Final Plans and Specifications

35. This license authorizes the installation of a new 165-kW minimum flow turbine

²²See <http://www.ferc.gov/docs-filing/esubscription.asp>. E-Subscription subscribers receive docketed correspondence, issuances, and news releases electronically.

generating unit, including new trash racks, in the existing waste gate slot located at the gatehouse adjacent to the project dam. Article 302 requires the licensee to provide the Commission's Division of Dam Safety and Inspection New York Regional Office (D2SI-NYRO) with cofferdam construction drawings at least 30 days prior to starting construction of the cofferdams. Article 303 requires the licensee to provide D2SI-NYRO, for its approval, final contract drawings and specifications and supporting design documentation consistent with the Commission's regulations, including a Quality Control and Inspection Program, Temporary Construction Emergency Action Plan, and a Soil Erosion and Sediment Control Plan. Article 304 requires the licensee to file for Commission approval, within 90 days of completing construction, revised Exhibits A, F, and G, as applicable, describing and showing the facilities as built.

E. Use and Occupancy of Project Lands and Waters

36. Requiring a licensee to obtain prior Commission approval for every use or occupancy of project land or waters would be unduly burdensome. Therefore, Article 408 allows the licensee to grant permission, without prior Commission approval, for the use and occupancy of project lands and waters for such minor activities as landscape planting and boat docks that meet certain requirements. Such uses must be consistent with the purposes of protecting and enhancing the scenic, recreational, and environmental values of the project.

F. Consultation on Resource Plans

37. Appendix A includes certification conditions that require the licensee to file plans with the Massachusetts DEP. The conditions, however, do not require Commission review and approval of these plans. Therefore, Article 401(a) requires the licensee to file the plans with the Commission for approval, file notification of planned and unplanned deviations of project operation (401(b)), and file amendment applications in case of project modifications (401(c)).

STATE AND FEDERAL COMPREHENSIVE PLANS

38. Section 10(a)(2)(A) of the FPA,²³ requires the Commission to consider the extent to which a project is consistent with federal or state comprehensive plans for improving, developing, or conserving a waterway or waterways affected by the project.²⁴ Under

²³ 16 U.S.C. § 803(a)(2)(A) (2006).

²⁴ Comprehensive plans for this purpose are defined at 18 C.F.R. § 2.19 (2009).

section 10(a)(2)(A), staff identified and reviewed five comprehensive plans that are relevant to the project.²⁵ No conflicts were found.

APPLICANT'S PLANS AND CAPABILITIES

39. In accordance with section 10 of the FPA,²⁶ and the Commission's regulations, Commission staff has evaluated Littleville Power's record as a licensee with respect to the following: (A) need for power; (B) safe management, operation, and maintenance of the project;²⁷ and (C) conservation efforts. I accept the staff's finding in each of the following areas.

A. Need for Power

40. To assess the need for project power, staff looked at the needs in the operating region in which the project is located which is the Northeast Power Coordinating Council (NPCC) region of the North American Electric Reliability Council (NERC). The projected summer peak 10-year compound annual average growth rate is about 1.2 percent over the 2008-2017 period in the New England area. Staff concluded that the project's power, potential displacement of non-renewable fossil-fired generation, and contribution to the region's diversified generation mix help meet the need for power in this region.

B. Safe Management, Operation, and Maintenance of the Project

41. Staff reviewed Littleville Power's management, operation, and maintenance of the project pursuant to the requirements of 18 C.F.R. Part 12 and the Commission's Regulations and Engineering Guidelines. Staff concluded that the dam and other project works are safe, and find that there is no reason to believe that Littleville Power cannot continue to safely manage, operate, and maintain project facilities under a subsequent license.

²⁵ The list of comprehensive plans can be found in section 5.5 of the final EA.

²⁶ 16 U.S.C. § 803 (2006).

²⁷ In Order No. 513, the Commission exempted licenses of minor projects, such as the Glendale Project, whose licenses waive sections 14 and 15 of the FPA, from the information requirements of 18 C.F.R. § 16.10. *See Hydroelectric Relicensing Regulations Under the Federal Power Act*, 54 *Fed. Reg.* 23756 (June 2, 1989) and 55 *Fed. Reg.* 10768 (March 23, 1990), FERC Statutes and Regulations, Regs. Preambles 1986 1990 ¶ 30,854 at p. 31,445 (May 17, 1989).

C. Conservation Efforts

42. Littleville Power sells the project's energy to Groton Massachusetts Municipal Light Department, a member of the Massachusetts Municipal Wholesale Electric Company (Wholesale Electric). Wholesale Electric provides services to help municipal utilities develop and manage their power requirements including the Home Energy Loss Prevention Services (HELPS) Program. HELPS offers a house energy audit, appliance and lighting rebates and other incentives for installation and implementation of measures recommended in an audit. MMWEC also provides services to help municipal utilities purchase energy efficient lighting, publications, and other conservation products.²⁸ Staff concluded that, given the limits of its ability to influence users of the electricity generated by the project, Littleville Power complies with section 10(a)(2)(C) of the FPA.

PROJECT ECONOMICS

43. In determining whether to issue a subsequent license for an existing hydroelectric project, the Commission considers a number of public interest factors, including the economic benefits of project power. Under the Commission's approach to evaluating the economics of hydropower projects, as articulated in *Mead Corp.*,²⁹ the Commission uses current costs to compare the costs of the project and likely alternative power with no forecasts concerning potential future inflation, escalation, or deflation beyond the license issuance date. The basic purpose of the Commission's economic analysis is to provide a general estimate of the potential power benefits and the costs of a project, and of reasonable alternatives to project power. The estimate helps to support an informed decision concerning what is in the public interest with respect to a proposed license.

44. In applying this analysis to the Glendale Project, staff considered two licensing alternatives: Littleville Power's proposal and the project as licensed herein with staff-recommended measures and certification conditions. As proposed by Littleville Power, the levelized annual cost of operating the Glendale Project is \$451,410, or \$77.83/MWh. The proposed project would generate an estimated average of 5,800 MWh of energy annually. When we multiply our estimate of average annual generation by the alternative power cost of \$71.44/MWh,³⁰ we get a total value of the project's power of \$414,360 in

²⁸ See <http://www.mmwec.org/html/members.htm>.

²⁹ 72 FERC ¶ 61,027 (1995).

³⁰ The alternative power cost of \$71.44 per MWh is based on information in Energy Information Administration's Annual Energy Outlook.

2009 dollars. To determine whether the proposed project is currently economically beneficial, staff subtracts the project's cost from the value of the project's power.³¹ Therefore, in the first year of operation, the project would cost \$37,050, or \$6.39/MWh, more than the likely alternative cost of power.

45. As licensed herein with certification conditions and staff-recommended measures,³² the levelized annual cost of operating the project would be about \$455,170, or \$78.48/MWh. Based on the same alternative power cost and estimated average annual generation of 5,800 MWh, the project would cost \$40,810, or \$7.04/MWh, more than the likely alternative cost of power.

46. In considering public interest factors, the Commission takes into account that hydroelectric projects, like the Glendale Project, offer unique operational benefits to the electric utility system (ancillary service benefits). These benefits include their capability to provide an almost instantaneous load-following response to dampen voltage and frequency instability on the transmission system, system-power-factor-correction through condensing operations, and a source of power available to help in quickly putting fossil-fuel based generating stations back on line following a major utility system or regional blackout.

47. Although Commission staff's analysis shows that the project as licensed herein would cost more to operate than our estimated cost of alternative power, it is the applicant who must decide whether to accept this license and any financial risk that entails.

48. Although staff does not explicitly account for the effects inflation may have on the future cost of electricity, the fact that hydropower generation is relatively insensitive to inflation compared to fossil-fueled generators is an important economic consideration for power producers and the consumers they serve. This is one reason project economics is only one of the many public interest factors the Commission considers in determining whether or not, and under what conditions, to issue a license.

³¹ Details of staff's economic analysis for the project as licensed herein and for various alternatives are included in the EA issued March 23, 2009.

³² The additional staff-recommended measures include developing plans for recreation and historic properties management.

COMPREHENSIVE DEVELOPMENT

49. Sections 4(e) and 10(a)(1) of the FPA³³ require the Commission to give equal consideration to power development purposes and to the purposes of energy conservation, the protection, mitigation of damage to, and enhancement of fish and wildlife, the protection of recreational opportunities, and the preservation of other aspects of environmental quality. Any license issued shall be such as in the Commission's judgment will be best adapted to a comprehensive plan for improving or developing a waterway or waterways for all beneficial public uses. The decision to license this project, and the terms and conditions included herein, reflect such consideration.

50. The EA for the project contains background information, analysis of effects, and support for related license articles. I conclude, based on the record of this proceeding, including the EA and the comments thereon, that licensing the Glendale Project as described in this order would not constitute a major federal action significantly affecting the quality of the human environment. The project will be safe if operated and maintained in accordance with the requirements of this license.

51. Based on my independent review and evaluation of the Glendale Project, recommendations from resource agencies and other stakeholders, certification conditions, and the no-action alternative, as documented in the EA, I have selected the proposed Glendale Project, including the new turbine generating unit, the staff-recommended measures, and the certification conditions, and find that it is best adapted to a comprehensive plan for improving or developing the Housatonic River waterway.

52. I selected this alternative because: (1) issuance of the subsequent license would serve to maintain a beneficial and dependable source of electric energy; (2) the required environmental measures would protect and enhance fish and wildlife resources, water quality, recreational resources, and historic properties; and (3) the 1.305-MW of electric energy generated from a renewable resource may offset the use of fossil-fueled, steam-electric generating plants, thereby conserving nonrenewable resources and reducing atmospheric pollution.

LICENSE TERM

53. The Commission's general policy is to establish 30-year terms for projects with little or no redevelopment, new construction, new capacity, or environmental mitigation and enhancement measures; 40-year terms for projects with a moderate amount of such

³³ 16 U.S.C. §§ 797(e) and 803(a)(1) (2006).

activities; and 50-year terms for projects with extensive measures.³⁴ This license requires a moderate amount of new construction including constructing a new turbine generating unit in the waste gate slot located at the gatehouse adjacent to the project dam, and constructing new trash racks with 1-inch clear spacing. Consequently, a 40-year license for the Glendale Project is appropriate. Because the term of the current license does not expire until October 31, 2009, this license is not effective until November 1, 2009.³⁵

The Director orders:

(A) This license is issued to Littleville Power Company, Inc. (licensee), for a period of 40 years, effective November 1, 2009, to construct, operate, and maintain the Glendale Project. This license is subject to the terms and conditions of the FPA, which is incorporated by reference as part of this license, and subject to the regulations the Commission issues under the provisions of the FPA.

(B) The project consists of:

(1) All lands, to the extent of the licensee's interests in those lands, enclosed by the project boundary shown by Exhibit G drawings filed June 9, 2008:

| Exhibit G Drawings | FERC No. 2801- | Description |
|--------------------|----------------|-------------------------------|
| Sheet 1 of 2 | 1001 | General Project Location Map |
| Sheet 2 of 2 | 1002 | Detailed Project Location Map |

(2) The Glendale Project consists of: (a) a 250-foot-long, 30-foot-high concrete gravity dam with a 182-foot-long spillway and a gatehouse containing two manually-operated 10- by 10-foot-square canal intake gates and a waste gate slot equipped with two 8- by 8-foot-square waste gates; (b) a new 165-kW turbine generating unit in the waste gate slot equipped with new trash racks with 1-inch clear spacing; (c) a 23-acre reservoir with a normal water surface elevation of 810.9 feet National Geodetic Vertical Datum (NGVD); (d) a 1,500-foot-long, 40-foot-wide intake canal; (e) a forebay structure containing two manually-operated headgates (with trash racks with 1-inch clear bar

³⁴ See *Consumers Power Company*, 68 FERC ¶ 61,077 at 61,383-84 (1994).

³⁵ For this reason, the various deadlines in the license articles are measured from November 1, 2009, the effective date, rather than from the order issuance date.

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spacing) and one hydraulically-operated canal waste gate; (f) a 250-foot-long, 12-foot-diameter steel penstock; (g) a powerhouse with four turbine generating units with a combined installed capacity of 1,140 kW; (h) a 300-foot-long tailrace channel; (i) a step-up transformer and 83-foot-long, 13.8-kilovolt transmission line; and (j) appurtenant facilities.

The project works generally described above are more specifically shown and described by those portions of Exhibits A and F shown below:

Exhibit A: Pages -8 through 11 of the license application filed October 31, 2007.

Exhibit F: The following Exhibit F drawings filed on October 31, 2007:

| Exhibit F Drawings | FERC No. 2801- | Description |
|--------------------|----------------|---|
| Sheet 1 of 4 | 1003 | Plan View, Elevation View, and Cross-Sections of Glendale Dam |
| Sheet 2 of 4 | 1004 | Generating Equipment Plan and Section Views of Powerhouse |
| Sheet 3 of 4 | 1005 | Generating Equipment Plan and Section Views of Powerhouse |
| Sheet 4 of 4 | 1006 | Plan View and Cross Section of Proposed Minimum Flow Turbine |

(3) All of the structures, fixtures, equipment or facilities used to operate or maintain the project and located within the project boundary, all portable property that may be employed in connection with the project, and all riparian or other rights that are necessary or appropriate in the operation or maintenance of the project.

(C) The Exhibits A, F, and G described above are approved and made part of the license.

(D) This license is subject to the conditions of the water quality certification issued by the Massachusetts Department of Environmental Protection pursuant to Section 401(a) of the Clean Water Act, 33 U.S.C. §1341(a)(1), as those conditions are set forth in Appendix A to this order.

(E) The following sections of the FPA are waived and excluded from the license for this minor project:

4(b), except the second sentence; 4(e), insofar as it relates to approval of plans by the Chief of Engineers and the Secretary of the Army; 6, insofar as it relates to public notice and to the acceptance and expression in the license of terms and conditions of the Act that are waived here; 10(c), insofar as it relates to depreciation reserves; 10(d); 10(f); 14, except insofar as the power of condemnation is reserved; 15; 16; 19; 20; and 22.

(F) This license is also subject to articles set forth in Form L-9 (revised October 1975), entitled "Terms and Conditions of License for Constructed Minor Project Affecting Navigable Waters of the United States" (see 54 FPC 1799 *et seq.*), and the following additional articles:

Article 201. Administrative Annual Charges. The licensee shall pay the United States annual charges, effective the first day of the month in which the license becomes effective, and as determined in accordance with provisions of the Commission's regulations in effect from time to time, for the purposes of reimbursing the United States for the cost of administration of Part I of the Federal Power Act. The authorized installed capacity for that purpose is 1,140 kilowatts, until the date of commencement of construction of the new capacity authorized by this license, after which time the authorized installed capacity is 1,305 kilowatts. Under the regulations currently in effect, projects with authorized installed capacity of less than or equal to 1,500 kilowatts will not be assessed an annual charge.

Article 202. Exhibit F and G Drawings. Within 45 days of the date of the effective date of the license, the licensee shall file the approved Exhibit drawings in aperture card and electronic file formats.

(a) Three sets of the approved Exhibit drawings shall be reproduced on silver or gelatin 35mm microfilm. All microfilm shall be mounted on type D (3-1/4" X 7-3/8") aperture cards. Prior to microfilming, the FERC Drawing Number (i.e., P-2801-1001 through P-2801-1006) shall be shown in the margin below the title block of the approved drawing. After mounting, the FERC Drawing Number shall be typed on the upper right corner of each aperture card. Additionally, the Project Number, FERC Exhibit (i.e., F-1, G-1, etc.), Drawing Title, and date of this license shall be typed on the upper left corner of each aperture card.

Two of the sets of aperture cards shall be filed with the Secretary of the Commission, ATTN: OEP/DHAC. The third set shall be filed with the Commission's Division of Dam Safety and Inspections, New York Regional Office.

(b) The licensee shall file two separate sets of Exhibit drawings in electronic raster format with the Secretary of the Commission, ATTN: OEP/DHAC. A third set shall be filed with the Commission's Division of Dam Safety and Inspections New York Regional Office. Exhibit F drawings must be identified as (CEII) material under 18 CFR §388.113(c). Each drawing must be a separate electronic file, and the file name shall include: FERC Project-Drawing Number, FERC Exhibit, Drawing Title, date of this license, and file extension in the following format [P-2801-1001, F-1, Description, MM-DD-YYYY.TIF]. Electronic drawings shall meet the following format specification:

IMAGERY – black and white raster file
 FILE TYPE – Tagged Image File Format, (TIFF) CCITT Group 4
 RESOLUTION – 300 dpi desired, (200 dpi min)
 DRAWING SIZE FORMAT – 24" X 36" (min), 28" X 40" (max)
 FILE SIZE – less than 1 MB desired

Each Exhibit G drawing that includes the project boundary must contain a minimum of three known reference points (i.e., latitude and longitude coordinates, or state plane coordinates). The points must be arranged in a triangular format for GIS geo-referencing the project boundary drawing to the polygon data, and must be based on a standard map coordinate system. The spatial reference for the drawing (i.e., map projection, map datum, and units of measurement) must be identified on the drawing and each reference point must be labeled. In addition, each project boundary drawing must be stamped by a registered land surveyor.

(c) The licensee shall file two separate sets of the project boundary data in a geo-referenced electronic file format (such as ArcView shape files, GeoMedia files, MapInfo files, or a similar GIS format) with the Secretary of the Commission, ATTN: OEP/DHAC. The filing shall include both polygon data and all reference points shown on the individual project boundary drawings. A single electronic boundary polygon data file is required for the project boundary. Depending on the electronic file format, the polygon and point data can be included in a single file with multiple layers. The geo-referenced electronic boundary data file must be positionally accurate to ± 40 feet in order to comply with National Map Accuracy Standards for maps at a 1:24,000 scale. The file name(s) shall include: FERC Project Number, data description, date of this license, and file extension in the following format [P-2801, boundary polygon/or point data, MM-DD-YYYY.SHP]. The data must be accompanied by a separate text file describing the spatial reference for the geo-referenced data: map projection used (i.e., UTM, State Plane, Decimal Degrees, etc.), the map datum (i.e., North American 27, North American 83, etc.), and the units of measurement

(i.e., feet, meters, miles, etc.). The text file name shall include: FERC Project Number, data description, date of this license, and file extension in the following format [P-2801, project boundary metadata, MM-DD-YYYY.TXT].

Article 301. *Start of Construction.* The licensee shall commence construction of the new turbine generating unit and trash racks within two years of the effective date of this license and shall complete construction within four years thereafter.

Article 302. *Cofferdam Construction Drawings.* Before starting any construction, the licensee shall review and approve the design of contractor-designed cofferdams and deep excavations. At least 30 days before starting construction of the cofferdams, the licensee shall submit one copy to the Commission's New York Regional Engineer and two copies to the Commission (one of these shall be a courtesy copy to the Director, Division of Dam Safety and Inspections), of the approved cofferdam construction drawings and specifications and the letters of approval.

Article 303. *Contract Plans and Specifications.* At least 60 days prior to the start of any construction, the licensee shall submit one copy of its plans and specifications and supporting design document to the Commission's New York Regional Engineer, and two copies to the Commission (one of these shall be a courtesy copy to the Director, Division of Dam Safety and Inspections). The submittal to the Regional Engineer must also include as part of preconstruction requirements: a Quality Control and Inspection Program, Temporary Construction Emergency Action Plan, and Soil Erosion and Sediment Control Plan. The licensee shall not begin construction until the Regional Engineer has reviewed and commented on the plans and specifications, determined that all preconstruction requirements have been satisfied, and authorized start of construction.

Article 304. *As-built Drawings.* Within 90 days of completion of construction, the licensee shall file for Commission approval, revised Exhibits A, F, and G as applicable, to describe and show those facilities as built. A courtesy copy shall be filed with the Commission's New York Regional Engineer, the Director, Division of Dam Safety and Inspections, and the Director, Division of Hydropower Administration and Compliance.

Article 401. *Commission Approval, Reporting, Notification, and Filing of Amendments Required by Mandatory Conditions.*

(a) Requirement to file plans for Commission approval.

Various conditions of this license found in the Massachusetts Department of Environmental Protection's (DEP) certification (Appendix A) require the licensee to

prepare and implement plans in consultation with other entities for approval by Massachusetts DEP without prior Commission approval. Each such plan shall also be submitted to the Commission for approval. These plans are listed below:

| Massachusetts DEP Condition No. | Plan Name | Date Due to Commission |
|---------------------------------|--|--|
| 19 | Plan to monitor run-of-river and flow releases | Within 6 months of the effective date of the license |
| 20 | Invasive species control plan | Within 6 months of the effective date of the license |
| 22 | American eel passage effectiveness monitoring plan | 6 months prior to operating upstream eel passage facilities |
| 23 | Downstream passage plan for American eel | Within 1 year of the installation of upstream eel passage facilities |
| 24 | Upstream and downstream effectiveness plan for anadromous fish passage | 6 months prior to operating the upstream and downstream anadromous fish passage facilities |

The licensee shall submit to the Commission documentation of its consultation, copies of comments and recommendations by consulted entities made in connection with each plan and a description of how each plan accommodates the comments and recommendations. The licensee shall allow a minimum of 30 days for the agencies to comment and to make recommendations before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on project-specific information. The Commission reserves the right to make changes to any plan or recommendation submitted. Upon Commission approval, each plan or recommended measure becomes a requirement of the license, and the licensee shall implement the plan or measure, including any changes required by the Commission.

(b) Requirement to Notify Commission of Planned and Unplanned Deviations from License Requirements.

Two certification conditions in Appendix A would allow the licensee to temporarily modify project operation under certain conditions. The Commission shall be notified prior to implementing such modifications, if possible, or in the event of an

emergency, as soon as possible, but no later than 10 days after each such incident. The Massachusetts DEP, Massachusetts Department of Fisheries and Wildlife, and the U.S. Fish and Wildlife Service shall also be notified prior to implementing any modifications to run-of-river operation or minimum flows required by certification conditions 14 and 15, respectively.

| Massachusetts DEP Condition No. | License Requirement |
|------------------------------------|------------------------|
| 14 | Run-of-river operation |
| 15 | Minimum flows |

(c) Requirement to File Amendment Applications.

The Massachusetts DEP's certification conditions noted below contemplate unspecified long-term changes to project operations or facilities for the purpose of mitigating environmental impacts. These changes may not be implemented without prior Commission authorization granted after the filing of an application to amend the license. These conditions are listed below.

| Massachusetts DEP Condition No. | Project Modification |
|------------------------------------|---------------------------|
| 11 | Unspecified modifications |
| 12 | Unspecified modifications |

Article 402. Reservation of Authority to Prescribe Fishways. Authority is reserved to the Commission to require the licensee to construct, operate, and maintain, or provide for the construction, operation, and maintenance of such fishways as may be prescribed by the Secretary of the Interior pursuant to section 18 of the Federal Power Act.

Article 403. Trash racks. The licensee, at least 90 days before the start of any land-clearing or land-disturbing activities at the project site associated with installation of the minimum flow turbine-generator, shall file, for Commission approval, detailed design drawings of the trash racks to be installed at the intake for the minimum flow turbine unit as required by condition 21 of the water quality certification in Appendix A to reduce impingement and entrainment of fish together with a schedule to construct and install the trash racks.

The filing shall include, but not be limited to: (1) specifications of the size of the openings between the trash rack bars not to exceed 1 inch; (2) the maximum intake

approach velocity not to exceed 2 feet per second; and (3) a description of the methods and a schedule for installing the trash racks.

The licensee shall prepare the aforementioned drawings and schedule after consultation with the Massachusetts Department of Environmental Protection, Massachusetts Department of Fisheries and Wildlife, and the U.S. Fish and Wildlife Service. The licensee shall include with the drawings and schedule documentation of consultation, copies of comments and recommendations on the drawings and schedule after they have been prepared and provided to the agencies, and specific descriptions of how the agencies' comments are accommodated by the licensee's facilities. The licensee shall allow a minimum of 30 days for the agencies to comment and to make recommendations before filing the drawings and schedule with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on site-specific information.

The Commission reserves the right to require changes to the proposed facilities and schedule. Construction of the facilities shall not begin until the licensee is notified by the Commission that the filing is approved. Upon Commission approval, the licensee shall implement the proposal, including any changes required by the Commission

Article 404. Upstream eel passage. The licensee, at least 90 days before the start of any land-clearing or land-disturbing activities at the project site that involve eel passage, shall file, for Commission approval, detailed design drawings of the upstream eel passage facilities required by condition 22 of the water quality certification together with a construction and installation schedule.

The licensee shall prepare the aforementioned drawings and schedule after consultation with the Massachusetts Department of Environmental Protection, Massachusetts Department of Fisheries and Wildlife, and the U.S. Fish and Wildlife Service. The licensee shall include with the drawings and schedule documentation of consultation, copies of comments and recommendations on the drawings and schedule after they have been prepared and provided to the agencies, and specific descriptions of how the agencies' comments are accommodated by the licensee's facilities. The licensee shall allow a minimum of 30 days for the agencies to comment and to make recommendations before filing the drawings and schedule with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on site-specific information.

The Commission reserves the right to require changes to the proposed facilities and schedule. Construction of the facilities shall not begin until the licensee is notified

by the Commission that the filing is approved. Upon Commission approval, the licensee shall implement the proposal, including any changes required by the Commission.

Article 405. Upstream and downstream anadromous fish passage. The licensee, at least 90 days before the start of any land-clearing or land-disturbing activities at the project site that involve anadromous fish passage, shall file, for Commission approval, detailed design drawings of the upstream and downstream anadromous fish passage facilities required by condition 24 of the water quality certification together with a construction and installation schedule.

The licensee shall prepare the aforementioned drawings and schedule after consultation with the Massachusetts Department of Environmental Protection, Massachusetts Department of Fisheries and Wildlife, and the U.S. Fish and Wildlife Service. The licensee shall include with the drawings and schedule documentation of consultation, copies of comments and recommendations on the drawings and schedule after they have been prepared and provided to the agencies, and specific descriptions of how the agencies' comments are accommodated by the licensee's facilities. The licensee shall allow a minimum of 30 days for the agencies to comment and to make recommendations before filing the drawings and schedule with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on site-specific information.

The Commission reserves the right to require changes to the proposed facilities and schedule. Construction of the facilities shall not begin until the licensee is notified by the Commission that the filing is approved. Upon Commission approval, the licensee shall implement the proposal, including any changes required by the Commission.

The plan shall be consistent with, and if preferred, combined with the soil erosion and sediment control plan required by condition 9 of the water quality certification and Article 303.

Article 406. Recreation Plan. Within 6 months of the effective date of the license, the licensee shall file a recreation plan for the Glendale Project for Commission approval, which shall include:

(a) The recreation facilities proposed in the license application at pages 89 and 91 which include construction of: a canoe portage around the dam consisting of a new take-out located upstream of the dam on the right bank near the gatehouse; a portage trail that uses an existing access road and crosses the power canal at an existing bridge; a new stairway/ramp at the bypassed reach that will serve as a canoe put-in location; formal vehicular and pedestrian access to the Glendale Dam area and bypassed reach via a

parking area at an existing access road adjacent to the new portage trail and bypassed reach put-it; and signage and safety fencing as needed;

(b) Conceptual drawings of the facilities described in item (a) above; and

(c) An operation and maintenance component that specifies dates and times the recreation facilities will be available for public use.

The licensee shall prepare the recreation plan after consultation with the Massachusetts Department of Fisheries and Wildlife and the Housatonic Valley Association. The licensee shall include with the recreation plan an implementation schedule, documentation of consultation, copies of comments and recommendations on the completed recreation plan after it has been prepared and provided to the agencies, and specific descriptions of how the agencies comments are accommodated by the plan. The licensee shall allow a minimum of 30 days for the agencies to comment and make recommendations before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensees' reasons, based on project-specific information.

The Commission reserves the right to require changes to the recreation plan. Implementation of the recreation plan shall not begin until after the plan is approved by the Commission. Upon Commission approval, the licensee shall implement the measures specified in the plan, including any changes required by the Commission.

Article 407. Historic Properties Management Plan. Within six months of the effective date of the license, the licensee shall file, for Commission approval, an historic properties management plan. The plan shall include, at a minimum:

(a) The Historic Overview Report, Glendale Hydroelectric Plant, prepared by Hartgen Archeological Associates, Inc, January 2009;

(b) Photocopies of information showing the existing and proposed project facilities (Exhibits F and G drawings) already prepared for the license application;

(c) A procedure to submit to the Commission, Massachusetts State Historic Preservation Office, and Stockbridge Historical Commission any plans for future new project construction, demolition, or rehabilitation for review and comment pursuant to 36 C.F.R. Part 800 (2009) prior to beginning the undertaking;

(d) A statement that new construction or rehabilitation within the project should be completed in accordance with the Secretary of the Interior's Standards for Rehabilitation, 36 C.F.R. Part 67 (2009); and

(e) A stipulation that if the licensee discovers previously unidentified archeological or historic properties during the course of constructing or developing project works or other facilities at the project, the licensee shall stop all land-clearing and land-disturbing activities in the vicinity of the properties and consult with the SHPO.

The licensee shall prepare the plan after consultation with the Massachusetts State Historic Preservation Office and Stockbridge Historic Commission. The licensee shall include with the plan documentation of agency consultation, copies of comments and recommendations on the completed plan after it has prepared and provided to the agencies, and specific descriptions of how the agencies comments are accommodated by the plan. The licensee shall allow a minimum of 30 days for the resource agencies to comment and to make recommendations before filing the final plan with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on project-specific information.

The Commission reserves the right to require changes to the plan. No ground-disturbing or land-clearing activities shall begin until after the licensee is notified by the Commission that the plan is approved. Upon Commission approval, the licensee shall implement the measures specified in the plan, including any changes required by the Commission.

Article 408. Use and Occupancy. (a) In accordance with the provisions of this article, the licensee shall have the authority to grant permission for certain types of use and occupancy of project lands and waters and to convey certain interests in project lands and waters for certain types of use and occupancy, without prior Commission approval. The licensee may exercise the authority only if the proposed use and occupancy is consistent with the purposes of protecting and enhancing the scenic, recreational, and other environmental values of the project. For those purposes, the licensee shall also have continuing responsibility to supervise and control the use and occupancies for which it grants permission, and to monitor the use of, and ensure compliance with the covenants of the instrument of conveyance for, any interests that it has conveyed, under this article. If a permitted use and occupancy violates any condition of this article or any other condition imposed by the licensee for protection and enhancement of the project's scenic, recreational, or other environmental values, or if a covenant of a conveyance made under the authority of this article is violated, the licensee shall take any lawful action necessary to correct the violation. For a permitted use or occupancy, that action includes, if

necessary, canceling the permission to use and occupy the project lands and waters and requiring the removal of any non-complying structures and facilities.

(b) The type of use and occupancy of project lands and waters for which the licensee may grant permission without prior Commission approval are: (1) landscape plantings; (2) non-commercial piers, landings, boat docks, or similar structures and facilities that can accommodate no more than 10 water craft at a time and where said facility is intended to serve single-family type dwellings; (3) embankments, bulkheads, retaining walls, or similar structures for erosion control to protect the existing shoreline; and (4) food plots and other wildlife enhancement. To the extent feasible and desirable to protect and enhance the project's scenic, recreational, and other environmental values, the licensee shall require multiple use and occupancy of facilities for access to project lands or waters. The licensee shall also ensure, to the satisfaction of the Commission's authorized representative, that the use and occupancies for which it grants permission are maintained in good repair and comply with applicable state and local health and safety requirements. Before granting permission for construction of bulkheads or retaining walls, the licensee shall: (1) inspect the site of the proposed construction, (2) consider whether the planting of vegetation or the use of riprap would be adequate to control erosion at the site, and (3) determine that the proposed construction is needed and would not change the basic contour of the impoundment shoreline. To implement this paragraph (b), the licensee may, among other things, establish a program for issuing permits for the specified types of use and occupancy of project lands and waters, which may be subject to the payment of a reasonable fee to cover the licensee's costs of administering the permit program. The Commission reserves the right to require the licensee to file a description of its standards, guidelines, and procedures for implementing this paragraph (b) and to require modification of those standards, guidelines, or procedures.

(c) The licensee may convey easements or rights-of-way across, or leases of project lands for: (1) replacement, expansion, realignment, or maintenance of bridges or roads where all necessary state and federal approvals have been obtained; (2) storm drains and water mains; (3) sewers that do not discharge into project waters; (4) minor access roads; (5) telephone, gas, and electric utility distribution lines; (6) non-project overhead electric transmission lines that do not require erection of support structures within the project boundary; (7) submarine, overhead, or underground major telephone distribution cables or major electric distribution lines (69-kV or less); and (8) water intake or pumping facilities that do not extract more than one million gallons per day from a project impoundment. No later than January 31 of each year, the licensee shall file three copies of a report briefly describing for each conveyance made under this paragraph (c) during the prior calendar year, the type of interest conveyed, the location of

the lands subject to the conveyance, and the nature of the use for which the interest was conveyed.

(d) The licensee may convey fee title to, easements or rights-of-way across, or leases of project lands for: (1) construction of new bridges or roads for which all necessary state and federal approvals have been obtained; (2) sewer or effluent lines that discharge into project waters, for which all necessary federal and state water quality certification or permits have been obtained; (3) other pipelines that cross project lands or waters but do not discharge into project waters; (4) non-project overhead electric transmission lines that require erection of support structures within the project boundary, for which all necessary federal and state approvals have been obtained; (5) private or public marinas that can accommodate no more than 10 water craft at a time and are located at least one-half mile (measured over project waters) from any other private or public marina; (6) recreational development consistent with an approved report on recreational resources of an Exhibit E; and (7) other uses, if: (i) the amount of land conveyed for a particular use is five acres or less; (ii) all of the land conveyed is located at least 75 feet, measured horizontally, from project waters at normal surface elevation; and (iii) no more than 50 total acres of project lands for each project development are conveyed under this clause (d)(7) in any calendar year. At least 60 days before conveying any interest in project lands under this paragraph (d), the licensee must submit a letter to the Director, Office of Energy Projects, stating its intent to convey the interest and briefly describing the type of interest and location of the lands to be conveyed (a marked Exhibit G map may be used), the nature of the proposed use, the identity of any federal or state agency official consulted, and any federal or state approvals required for the proposed use. Unless the Director, within 45 days from the filing date, requires the licensee to file an application for prior approval, the licensee may convey the intended interest at the end of that period.

(e) The following additional conditions apply to any intended conveyance under paragraph (c) or (d) of this article:

(1) Before conveying the interest, the licensee shall consult with federal and state fish and wildlife or recreation agencies, as appropriate, and the State Historic Preservation Officer.

(2) Before conveying the interest, the licensee shall determine that the proposed use of the lands to be conveyed is not inconsistent with any approved report on recreational resources of an Exhibit E; or, if the project does not have an approved report on recreational resources, that the lands to be conveyed do not have recreational value.

(3) The instrument of conveyance must include the following covenants running with the land: (i) the use of the lands conveyed shall not endanger health, create a nuisance, or otherwise be incompatible with overall project recreational use; and (ii) the grantee shall take all reasonable precautions to ensure that the construction, operation, and maintenance of structures or facilities on the conveyed lands will occur in a manner that will protect the scenic, recreational, and environmental values of the project.

(4) The Commission reserves the right to require the licensee to take reasonable remedial action to correct any violation of the terms and conditions of this article, for the protection and enhancement of the project's scenic, recreational, and other environmental values.

(f) The conveyance of an interest in project lands under this article does not in itself change the project boundaries. The project boundaries may be changed to exclude land conveyed under this article only upon approval of revised Exhibit G drawings (project boundary maps) reflecting exclusion of that land. Lands conveyed under this article will be excluded from the project only upon a determination that the lands are not necessary for project purposes, such as operation and maintenance, flowage, recreation, public access, protection of environmental resources, and shoreline control, including shoreline aesthetic values. Absent extraordinary circumstances, proposals to exclude lands conveyed under this article from the project shall be consolidated for consideration when revised Exhibit G drawings would be filed for approval for other purposes.

(g) The authority granted to the licensee under this article shall not apply to any part of the public lands and reservations of the United States included within the project boundary.

(G) The licensee shall serve copies of any Commission filing required by this order on any entity specified in this order to be consulted on matters related to the filing. Proof of service on these entities must accompany the filing with the Commission.

Project No. 2801-027

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(H) This order constitutes final agency action. Any party may file a request for rehearing of this order within 30 days from the date of its issuance, as provided in section 313(a) of the FPA, 16 U.S.C. § 8251 (2006), and section 385.713 of the Commission's regulations, 18 C.F.R. § 385.713 (2009). The filing of a request for rehearing does not operate as a stay of the effective date of this license or of any other date specified in this order. The licensee's failure to file a request for rehearing shall constitute acceptance of this order.

Jeff C. Wright
Director
Office of Energy Projects

Project No. 2801-027

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**Form L-9
(October, 1975)**

**FEDERAL ENERGY REGULATORY COMMISSION
TERMS AND CONDITIONS OF LICENSE FOR CONSTRUCTED
MINOR PROJECT AFFECTING NAVIGABLE
WATERS OF THE UNITED STATES**

Article 1. The entire project, as described in this order of the Commission, shall be subject to all of the provisions, terms, and conditions of the license.

Article 2. No substantial change shall be made in the maps, plans, specifications, and statements described and designated as exhibits and approved by the Commission in its order as a part of the license until such change shall have been approved by the Commission: Provided, however, That if the Licensee or the Commission deems it necessary or desirable that said approved exhibits, or any of them, be changed, there shall be submitted to the Commission for approval a revised, or additional exhibit or exhibits covering the proposed changes which, upon approval by the Commission, shall become a part of the license and shall supersede, in whole or in part, such exhibit or exhibits theretofore made a part of the license as may be specified by the Commission.

Article 3. The project area and project works shall be in substantial conformity with the approved exhibits referred to in Article 2 herein or as changed in accordance with the provisions of said article. Except when emergency shall require for the protection of navigation, life, health, or property, there shall not be made without prior approval of the Commission any substantial alteration or addition not in conformity with the approved plans to any dam or other project works under the license or any substantial use of project lands and waters not authorized herein; and any emergency alteration, addition, or use so made shall thereafter be subject to such modification and change as the Commission may direct. Minor changes in project works, or in uses of project lands and waters, or divergence from such approved exhibits may be made if such changes will not result in a decrease in efficiency, in a material increase in cost, in an adverse environmental impact, or in impairment of the general scheme of development; but any of such minor changes made without the prior approval of the Commission, which in its judgment have produced or will produce any of such results, shall be subject to such alteration as the Commission may direct.

Article 4. The project, including its operation and maintenance and any work incidental to additions or alterations authorized by the Commission, whether or not conducted upon lands of the United States, shall be subject to the inspection and supervision of the Regional Engineer, Federal Energy Regulatory Commission, in the

region wherein the project is located, or of such other officer or agent as the Commission may designate, who shall be the authorized representative of the Commission for such purposes. The Licensee shall cooperate fully with said representative and shall furnish him such information as he may require concerning the operation and maintenance of the project, and any such alterations thereto, and shall notify him of the date upon which work with respect to any alteration will begin, as far in advance thereof as said representative may reasonably specify, and shall notify him promptly in writing of any suspension of work for a period of more than one week, and of its resumption and completion. The Licensee shall submit to said representative a detailed program of inspection by the Licensee that will provide for an adequate and qualified inspection force for construction of any such alterations to the project. Construction of said alterations or any feature thereof shall not be initiated until the program of inspection for the alterations or any feature thereof has been approved by said representative. The Licensee shall allow said representative and other officers or employees of the United States, showing proper credentials, free and unrestricted access to, through, and across the project lands and project works in the performance of their official duties. The Licensee shall comply with such rules and regulations of general or special applicability as the Commission may prescribe from time to time for the protection of life, health, or property.

Article 5. The Licensee, within five years from the date of issuance of the license, shall acquire title in fee or the right to use in perpetuity all lands, other than lands of the United States, necessary or appropriate for the construction maintenance, and operation of the project. The Licensee or its successors and assigns shall, during the period of the license, retain the possession of all project property covered by the license as issued or as later amended, including the project area, the project works, and all franchises, easements, water rights, and rights or occupancy and use; and none of such properties shall be voluntarily sold, leased, transferred, abandoned, or otherwise disposed of without the prior written approval of the Commission, except that the Licensee may lease or otherwise dispose of interests in project lands or property without specific written approval of the Commission pursuant to the then current regulations of the Commission. The provisions of this article are not intended to prevent the abandonment or the retirement from service of structures, equipment, or other project works in connection with replacements thereof when they become obsolete, inadequate, or inefficient for further service due to wear and tear; and mortgage or trust deeds or judicial sales made thereunder, or tax sales, shall not be deemed voluntary transfers within the meaning of this article.

Article 6. The Licensee shall install and thereafter maintain gages and stream-gaging stations for the purpose of determining the stage and flow of the stream or streams on which the project is located, the amount of water held in and withdrawn from storage,

and the effective head on the turbines; shall provide for the required reading of such gages and for the adequate rating of such stations; and shall install and maintain standard meters adequate for the determination of the amount of electric energy generated by the project works. The number, character, and location of gages, meters, or other measuring devices, and the method of operation thereof, shall at all times be satisfactory to the Commission or its authorized representative. The Commission reserves the right, after notice and opportunity for hearing, to require such alterations in the number, character, and location of gages, meters, or other measuring devices, and the method of operation thereof, as are necessary to secure adequate determinations. The installation of gages, the rating of said stream or streams, and the determination of the flow thereof, shall be under the supervision of, or in cooperation with, the District Engineer of the United States Geological Survey having charge of stream-gaging operations in the region of the project, and the Licensee shall advance to the United States Geological Survey the amount of funds estimated to be necessary for such supervision, or cooperation for such periods as may be mutually agreed upon. The Licensee shall keep accurate and sufficient records of the foregoing determinations to the satisfaction of the Commission, and shall make return of such records annually at such time and in such form as the Commission may prescribe.

Article 7. The Licensee shall, after notice and opportunity for hearing, install additional capacity or make other changes in the project as directed by the Commission, to the extent that it is economically sound and in the public interest to do so.

Article 8. The Licensee shall, after notice and opportunity for hearing, coordinate the operation of the project, electrically and hydraulically, with such other projects or power systems and in such manner as the Commission may direct in the interest of power and other beneficial public uses of water resources, and on such conditions concerning the equitable sharing of benefits by the Licensee as the Commission may order.

Article 9. The United States specifically retains and safeguards the right to use water in such amount, to be determined by the Secretary of the Army, as may be necessary for the purposes of navigation on the navigable waterway affected; and the operations of the Licensee, so far as they affect the use, storage and discharge from storage of waters affected by the license, shall at all times be controlled by such reasonable rules and regulations as the Secretary of the Army may prescribe in the interest of navigation, and as the Commission may prescribe for the protection of life, health, and property, and in the interest of the fullest practicable conservation and utilization of such waters for power purposes and for other beneficial public uses, including recreational purposes, and the Licensee shall release water from the project reservoir at such rate in cubic feet per second, or such volume in acre-feet per

specified period of time, as the Secretary of the Army may prescribe in the interest of navigation, or as the Commission may prescribe for the other purposes hereinbefore mentioned.

Article 10. On the application of any person, association, corporation, Federal agency, State or municipality, the Licensee shall permit such reasonable use of its reservoir or other project properties, including works, lands and water rights, or parts thereof, as may be ordered by the Commission, after notice and opportunity for hearing, in the interests of comprehensive development of the waterway or waterways involved and the conservation and utilization of the water resources of the region for water supply or for the purposes of steam-electric, irrigation, industrial, municipal or similar uses. The Licensee shall receive reasonable compensation for use of its reservoir or other project properties or parts thereof for such purposes, to include at least full reimbursement for any damages or expenses which the joint use causes the Licensee to incur. Any such compensation shall be fixed by the Commission either by approval of an agreement between the Licensee and the party or parties benefiting or after notice and opportunity for hearing. Applications shall contain information in sufficient detail to afford a full understanding of the proposed use, including satisfactory evidence that the applicant possesses necessary water rights pursuant to applicable State law, or a showing of cause why such evidence cannot concurrently be submitted, and a statement as to the relationship of the proposed use to any State or municipal plans or orders which may have been adopted with respect to the use of such waters.

Article 11. The Licensee shall, for the conservation and development of fish and wildlife resources, construct, maintain, and operate, or arrange for the construction, maintenance, and operation of such reasonable facilities, and comply with such reasonable modifications of the project structures and operation, as may be ordered by the Commission upon its own motion or upon the recommendation of the Secretary of the Interior or the fish and wildlife agency or agencies of any State in which the project or a part thereof is located, after notice and opportunity for hearing.

Article 12. Whenever the United States shall desire, in connection with the project, to construct fish and wildlife facilities or to improve the existing fish and wildlife facilities at its own expense, the Licensee shall permit the United States or its designated agency to use, free of cost, such of the Licensee's lands and interests in lands, reservoirs, waterways and project works as may be reasonably required to complete such facilities or such improvements thereof. In addition, after notice and opportunity for hearing, the Licensee shall modify the project operation as may be reasonably prescribed by the Commission in order to permit the maintenance and operation of the fish and wildlife facilities constructed or improved by the United States under the provisions of this article. This article shall not be interpreted to place any obligation on the United States to

construct or improve fish and wildlife facilities or to relieve the Licensee of any obligation under this license.

Article 13. So far as is consistent with proper operation of the project, the Licensee shall allow the public free access, to a reasonable extent, to project waters and adjacent project lands owned by the Licensee for the purpose of full public utilization of such lands and waters for navigation and for outdoor recreational purposes, including fishing and hunting: Provided, That the Licensee may reserve from public access such portions of the project waters, adjacent lands, and project facilities as may be necessary for the protection of life, health, and property.

Article 14. In the construction, maintenance, or operation of the project, the Licensee shall be responsible for, and shall take reasonable measures to prevent, soil erosion on lands adjacent to streams or other waters, stream sedimentation, and any form of water or air pollution. The Commission, upon the request or upon its own motion, may order the Licensee to take such measures as the Commission finds to be necessary for these purposes, after notice and opportunity for hearing.

Article 15. The Licensee shall clear and keep clear to an adequate width lands along open conduits and shall dispose of all temporary structures, unused timber, brush, refuse, or other material unnecessary for the purposes of the project which results from the clearing of lands or from the maintenance or alteration of the project works. In addition, all trees along the periphery of project reservoirs which may die during operations of the project shall be removed. All clearing of the lands and disposal of the unnecessary material shall be done with due diligence and to the satisfaction of the authorized representative of the Commission and in accordance with appropriate Federal, State, and local statutes and regulations.

Article 16. Material may be dredged or excavated from, or placed as fill in, project lands and/or waters only in the prosecution of work specifically authorized under the license; in the maintenance of the project; or after obtaining Commission approval, as appropriate. Any such material shall be removed and/or deposited in such manner as to reasonably preserve the environmental values of the project and so as not to interfere with traffic on land or water. Dredging and filling in a navigable water of the United States shall also be done to the satisfaction of the District Engineer, Department of the Army, in charge of the locality.

Article 17. If the Licensee shall cause or suffer essential project property to be removed or destroyed or to become unfit for use, without adequate replacement, or shall abandon or discontinue good faith operation of the project or refuse or neglect to comply

with the terms of the license and the lawful orders of the Commission mailed to the record address of the Licensee or its agent, the Commission will deem it to be the intent of the Licensee to surrender the license. The Commission, after notice and opportunity for hearing, may require the Licensee to remove any or all structures, equipment and power lines within the project boundary and to take any such other action necessary to restore the project waters, lands, and facilities remaining within the project boundary to a condition satisfactory to the United States agency having jurisdiction over its lands or the Commission's authorized representative, as appropriate, or to provide for the continued operation and maintenance of nonpower facilities and fulfill such other obligations under the license as the Commission may prescribe. In addition, the Commission in its discretion, after notice and opportunity for hearing, may also agree to the surrender of the license when the Commission, for the reasons recited herein, deems it to be the intent of the Licensee to surrender the license.

Article 18. The right of the Licensee and of its successors and assigns to use or occupy waters over which the United States has jurisdiction, or lands of the United States under the license, for the purpose of maintaining the project works or otherwise, shall absolutely cease at the end of the license period, unless the Licensee has obtained a new license pursuant to the then existing laws and regulations, or an annual license under the terms and conditions of this license.

Article 19. The terms and conditions expressly set forth in the license shall not be construed as impairing any terms and conditions of the Federal Power Act which are not expressly set forth herein.

APPENDIX A**COMMONWEALTH OF MASSACHUSETTS DEPARTMENT OF
ENVIRONMENTAL PROTECTION
WATER QUALITY CERTIFICATION CONDITIONS
ISSUED JULY 8, 2009**

1. Massachusetts DEP (MassDEP) APPROVES the application of Littleville Power Company, Inc. and CERTIFIES that there is reasonable assurance that Glendale Hydroelectric Project, as described above and subject to the conditions below, can be operated in compliance with the applicable provisions of § 303 of the Federal Act, 33 U.S.C. § 1313.
2. This Water Quality Certification shall become a condition on the FERC License issued to the Project Owner.
3. This Certification shall become effective on the date that the license issued for the Project by FERC becomes effective.
4. The state and federal resource agencies referred to in this Certification include the MassDEP, the Massachusetts Department of Fisheries and Wildlife (MADFW), and the U.S. Department of the Interior, Fish and Wildlife Service (USFWS).
5. The Project shall be operated by the Project Owner in accordance with the conditions contained in this Certification and the information included in the FERC application dated October 2007. Any modifications made to the FERC application during the initial licensing process that would have a significant or material effect on the conclusions or conditions contained in this Certification, as determined by MassDEP, must be submitted to MassDEP for prior review and approval.
6. The Project shall be operated to maintain the existing and designated uses of the Housatonic River as outlined in the Standards at 314 CMR 4.00, and to maintain an integrated and diverse biological community within the Housatonic River.
7. The Project Owner shall obtain and comply with all applicable federal, state and local licenses, permits, authorizations, conditions, agreements and orders required for the operation of the project in accordance with the terms of this Certification.
8. All activities shall be conducted in compliance with the Massachusetts Wetlands Protection Act, including the Rivers Protection Act, G.L. Chapter 131, Section 40, and

the implementing regulations at 310 CMR 10.00. A Water Quality Certification shall be obtained from MassDEP prior to initiating any activity that will cause a discharge subject to § 404 of the federal Act, 33 U.S.C., § 1344. The Project Owner shall comply with all applicable provisions of the Public Waterfront Act, G.L. c. 91, and the implementing regulations at 310 CMR 9.00.

9. Prior to beginning any construction on the Project, the Project Owner shall submit a plan to monitor and control erosion during construction activities to keep impacted waters free from turbidity in concentrations that are aesthetically objectionable or would impair any designated use(s) of such waters. The Project Owner shall implement the plan as approved by MassDEP.

10. All construction, maintenance and repair activities, including disposal of debris and removal of sediments in impounded areas, shall be conducted in a manner so as not to impair water quality, and pursuant to and in compliance with any required approvals.

11. Any proposed change to the Project that MassDEP determines would have a significant or material effect on the findings, conclusions, or conditions of this Certification, including Project operation, shall be submitted to MassDEP for prior review and approval.

12. MassDEP may request, at any time during which this Certification is in effect, that FERC reopen the license to make modifications MassDEP deems necessary to maintain compliance with the Standards at 314 CMR 4.00, or other appropriate requirements of state law.

13. MassDEP reserves the right to add and alter the terms and conditions of this Certification when authorized by law, and as it deems appropriate to carry out its responsibilities during the life of the Project with respect to water quality and the protection of the existing and designated uses of the waters of the Commonwealth.

14. The Project Owner shall operate the project in a run-of-river mode such that inflow to the project equals outflow from the project on an instantaneous basis and fluctuations of the head pond water level are minimized. This operating regime may be temporarily modified by approved maintenance activities, agreement between the Project Owner and appropriate state and/or federal resource agencies, or by extreme hydrologic conditions or emergency electrical system conditions, as these terms are defined below.

15. The Project Owner shall release to the project bypass reach a continuous minimum flow of 90 cfs, or inflow, if less, for the protection and enhancement of fish and aquatic life habitat. Minimum flows may be temporarily modified by approved maintenance

activities, by agreement between the Project Owner and appropriate state and federal resource agencies, or by extreme hydrologic conditions or emergency electrical system conditions, as these terms are defined below.

16. "Extreme Hydrologic Conditions" signifies the occurrence of events beyond the Project Owner's control including without limitation, abnormal precipitation, extreme runoff, flood conditions, ice conditions or other hydrologic conditions which render the operational restrictions and requirements contained within this Certification impossible to achieve, or are inconsistent with the safe operation of the Project.

17. "Emergency Electrical System Conditions" signifies operating emergencies beyond the Project Owner's control which require changes in flow regimes to eliminate such emergencies including without limitation, equipment failure or other abnormal temporary operating condition, generating unit operation or third-party mandated interruptions under power supply emergencies, and orders from local, state or federal law enforcement or public safety authorities.

18. During refilling of the project reservoir after dam maintenance or emergency drawdown, the Project Owner shall operate the project such that 90% of inflow to the project is released below the project and the impoundment is refilled on the remaining 10% of inflow.

19. Within three months of completion of turbine installation at the dam, or upon such other schedule established by FERC, the Project Owner shall, submit a plan for monitoring run-of-river operation and flow releases from the Project to MassDEP for approval. The plan shall include: a description and design of the mechanisms and structures that will be used; a description of periodic maintenance and/or calibration that will be conducted to ensure these mechanisms and structures work properly; a description of the method used to record project operation data for verification of proper operations and minimum flow releases; and a description of the manner in which data will be maintained for inspection by MassDEP and the state and federal resource agencies. The Project Owner shall consult with the state and federal resource agencies in developing these plans, shall respond to all agency comments, and shall include agency comment letters when submitting the plans to MassDEP for approval. The Project Owner shall provide the state and federal resource agencies with at least thirty days to respond to a draft plan before it is submitted to MassDEP for approval. The Project Owner shall implement the plan as approved by MassDEP.

20. Within six months of the effective date of this Certification, or upon such other schedule established by FERC, the Project Owner shall submit to MassDEP for approval, an Invasive Species Control Plan (ISCP). The plan shall include a schedule for regularly

monitoring invasive species within the project area, including without limitation zebra mussel and water chestnut. The plan shall also identify methods used to control selected species. The Project Owner shall consult with the state and federal resource agencies and in developing the ISCP, shall respond to all agency comments, and shall include agency comment letters when submitting the plan to MassDEP for approval. The Project Owner shall provide the resource agencies with at least thirty days to respond to a draft plan before submission to MassDEP for approval. The Project Owner shall implement the plan as approved by MassDEP.

21. Within one year of the effective date of this Certification, or upon such other schedule established by FERC, the Project Owner shall install flu-depth, one inch clear trash racks with velocities less than or equal to two feet per second (<2 fps) at the intakes to the main and minimum flow units to reduce impingement and entrainment of fish at the Project.

22. The Project Owner shall, in a manner approved by MassDEP after consultation with the state and federal resource agencies, design, construct, operate, and maintain upstream eel passage facilities within one year of the installation of upstream eel passage facilities at the Risingdale Dam downstream of the Project. Six months prior to initiating operation of these facilities, the Project Owner shall, after consultation with the state and federal resource agencies, submit to MassDEP for approval an American eel passage effectiveness monitoring plan. The Project Owner shall implement the plan as approved by MassDEP. The schedule and other requirements of this condition may be amended with the mutual written agreement of the Project Owner and MassDEP.

23. Within one year of the installation of upstream eel passage facilities, the Project Owner shall submit to MassDEP for approval, a plan for providing safe downstream passage for American eels. The Project Owner shall implement the plan as approved by MassDEP.

24. The Project Owner shall, in a manner approved by MassDEP after consultation with the state and federal resource agencies, design, construct, operate, and maintain upstream and downstream anadromous fish passage facilities within one year of the installation of upstream and downstream anadromous fish passage facilities at the Risingdale Dam. Six months prior to initiating operation of these facilities, the Project Owner shall, after consultation with the state and federal resource agencies, submit to MassDEP for approval an upstream and downstream anadromous fish passage effectiveness monitoring plan. The Project Owner shall implement the plan as approved by MassDEP. The schedule and other requirements of this condition may be amended with the mutual written agreement of the Project Owner and MassDEP.

25. The Project Owner shall allow any employee, agent, consultant, contractor or authorized representative of MassDEP or MADFW to enter the facilities in order to assess compliance with the terms and conditions of this Certification including, but not limited to, entry for the purposes of: (i) investigating, sampling, inspecting, or photocopying documents or other writings, conditions, equipment, practices or property; (ii) interviewing facility personnel and contractors; (iii) making records of field activities; and (iv) observing any activities undertaken at the facilities under any of the provisions of this Certification.

26. If any event occurs which delays or will delay the Project Owner's performance of work beyond a deadline established by or pursuant to this Certification, which event was beyond the reasonable control and without the fault of the Project Owner or any person or entity subject to the Project Owner's control, and which event could not have been prevented or avoided by the exercise of due care, foresight, or due diligence on the part of the Project Owner (a "force majeure event"), then the time for performance shall be extended for an appropriate period of time, as determined by MassDEP in its sole discretion. The Project Owner shall bear the burden of demonstrating that a force majeure event has occurred or will occur, and that the delay was beyond the reasonable control and without the fault of the Project Owner. Such an extension of time must be in writing to have effect.

27. Submissions under this Certification shall be sent to:

MassDEP: Massachusetts Department of Environmental Protection
 Division of Watershed Management
 Central Regional Office
 627 Main Street
 Worcester, MA 01608
 (508) 767-2854; FAX (508) 791-4131

Massachusetts Department of Environmental Protection
 Bureau of Resource Protection
 Western Regional Office
 436 Dwight Street
 Springfield, MA 01103
 (413) 755-2138; FAX (413) 784-1149

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MADFW: Massachusetts Division of Fisheries and Wildlife
Field Headquarters
Assistant Director of Fisheries
1 Rabbit Hill Road
Westborough, MA 01581
(508) 389-6331; FAX (508) 389-7890

USFWS: United States Fish and Wildlife Service
New England Field Office
Attention: Supervisor
70 Commercial Street, Suite 300
Concord, NH 03301-5087
(603) 223-2541; FAX (603) 223-0104

Document Content(s)

P-2801-027Order.DOC.....1-42

Section 6

Historic Places Listings

The Glendale Powerhouse itself is listed on the National Register of Historic Places. This facility has been in operation for approximately 100 years and under typical operating conditions, the wastewater discharges are not expected to negatively affect listed historic places. It is critical that hydroelectric operations at the facility operate in a manner which maintains the integrity of the powerhouse.

The property is listed on the National Register of Historic Properties which includes 11 current or former structures. Hitchcock Hydro has no plans for changes and/or renovations of the powerhouse or other structures. Article 407 of the 2009 FERC license required that a Historic Properties Management Plan (HPMP) be developed and implemented for the Project, which was completed in 2010. At that time the Massachusetts State Historic Preservation Officer (SHPO) reported that there is no adverse effect and "operation of the powerhouse for its historic purposes assists in maintaining the historic property". Hitchcock Hydro is committed to completing the proper consultation with the SHPO prior to completing any significant ground disturbing activities. Consultation during future projects may include:

- FERC
- Corps of Engineers
- State Historic Preservation Office
- Stockbridge Selectboard and Historic Commission

For the purposes of this filing, Hitchcock Hydro has selected Criterion B: Historic properties are present. However, discharges and discharge-related activities do not have the potential to affect historic properties under typical operating and maintenance conditions. Should significant projects emerge during the next HYDROGP term, Hitchcock Hydro will coordinate directly with the agencies referenced above.

National Register of Historic Places
(01.19.2023)

| Reference n | Property Name | Status | Request Ty | Restricted | Category | o State | County | City | Street & Number |
|-------------|---|--------|------------|------------|----------|---------------|-----------|-------------|--|
| _66000652 | Chesterwood | Listed | Single | FALSE | DISTRICT | MASSACHUSETTS | Berkshire | Stockbridge | 2 mi. W of Stockbridge |
| _04000932 | Elm-Maple-South Streets Historic District | Listed | Single | FALSE | DISTRICT | MASSACHUSETTS | Berkshire | Stockbridge | 2 Depot St., 2-14 Elm St., 1-2 Laurel Ln., 1-4 Maple St., 1-11 South St. |
| _16000304 | Frelinghuysen Morris House and Studio | Listed | Single | FALSE | DISTRICT | MASSACHUSETTS | Berkshire | Stockbridge | 92 Hawthorne St., 159 West St. |
| _82004957 | Glendale Power House | Listed | Single | FALSE | DISTRICT | MASSACHUSETTS | Berkshire | Stockbridge | MA 183 |
| _01001466 | Main Street Historic District | Listed | Single | FALSE | DISTRICT | MASSACHUSETTS | Berkshire | Stockbridge | 1-57 Main St., 1-2 Pine St., 2 Sergeant St. |
| _68000038 | Mission House | Listed | Single | FALSE | BUILDING | MASSACHUSETTS | Berkshire | Stockbridge | Main St. |
| _75000264 | Naumkeag | Listed | Single | FALSE | DISTRICT | MASSACHUSETTS | Berkshire | Stockbridge | 5 Prospect Hill Rd. |
| _76000250 | Old Curtisville Historic District | Listed | Single | FALSE | DISTRICT | MASSACHUSETTS | Berkshire | Stockbridge | N of Stockbridge on MA 183 |
| _88000202 | Shadow Brook Farm Historic District | Listed | Single | FALSE | DISTRICT | MASSACHUSETTS | Berkshire | Stockbridge | Lenox West Rd., MA 183 near Bucks Ln. |
| _76000249 | Stockbridge Casino | Listed | Single | FALSE | BUILDING | MASSACHUSETTS | Berkshire | Stockbridge | E. Main St. at Yale Hill Rd. |
| _83003930 | Villa Virginia | Listed | Single | FALSE | BUILDING | MASSACHUSETTS | Berkshire | Stockbridge | Ice Glen Rd. |
| _82004956 | Wheatleigh | Listed | Single | FALSE | BUILDING | MASSACHUSETTS | Berkshire | Stockbridge | W. Hawthorne Rd. |

National Register of Historic Places
(01.19.2023)

| External Link | Level of Si | Level of Si | Level of Si | Level of Si | Level of Si | Listed Date | NHL Designate | Other Names | Status Date | Area of Significance |
|---|-------------|-------------|-------------|-------------|-------------|-------------|---------------|---|-------------|--|
| https://catalog.archives.gov/id/63793647 | False | False | True | False | False | 10/15/1966 | 12/21/1965 | Daniel Chester French House and Studio | 10/15/1966 | ART |
| https://catalog.archives.gov/id/63794342 | False | True | False | False | False | 9/8/2004 | | | 9/8/2004 | ART; ARCHITECTURE; COMMERCE; COMMUNITY PLANNING AND DEVELOPMENT; TRANSPORTATIO |
| | False | True | True | False | True | 5/31/2016 | | | 5/31/2016 | ARCHITECTURE; ART |
| https://catalog.archives.gov/id/63794364 | False | True | False | False | False | 6/24/1982 | | Monument Mills Power Station | 6/24/1982 | INDUSTRY; ENGINEERING |
| https://catalog.archives.gov/id/63794220 | False | True | False | False | False | 1/17/2002 | | Plain Street | 1/17/2002 | ARCHITECTURE; COMMUNITY PLANNING AND DEVELOPMENT |
| https://catalog.archives.gov/id/63793635 | False | False | True | False | False | 11/24/1968 | 11/24/1968 | | 11/24/1968 | ARCHITECTURE |
| https://catalog.archives.gov/id/63794304 | False | False | True | False | False | 11/3/1975 | 3/29/2007 | Joseph Hodges Choate House | 11/3/1975 | LANDSCAPE ARCHITECTURE; LAW; POLITICS/GOVERNMENT; ARCHITECTURE |
| https://catalog.archives.gov/id/63794286 | False | True | False | False | False | 10/29/1976 | | Interlacken;See Also:Citizens Hall | 10/29/1976 | INDUSTRY; ARCHITECTURE |
| https://catalog.archives.gov/id/63794114 | False | True | False | False | False | 3/10/1988 | | Brook Farm;Berkshire Country Day School | 3/10/1988 | COMMUNITY PLANNING AND DEVELOPMENT; AGRICULTURE; ENTERTAINMENT/RECREATION; ARC |
| https://catalog.archives.gov/id/63794186 | False | True | False | False | False | 8/27/1976 | | Berkshire Playhouse | 8/27/1976 | ART; ARCHITECTURE; PERFORMING ARTS |
| https://catalog.archives.gov/id/63794182 | False | True | False | False | False | 11/29/1983 | | Laurel-Mere | 11/29/1983 | LANDSCAPE ARCHITECTURE; ARCHITECTURE |
| https://catalog.archives.gov/id/63794122 | False | False | False | False | True | 4/6/1982 | | | 4/6/1982 | ARCHITECTURE |

Section 7

Impaired Waters Listing

Final Massachusetts Integrated List of Waters for the Clean Water Act 2018/2020 Reporting Cycle



CN 505.1

Commonwealth of Massachusetts
Executive Office of Energy and Environmental Affairs
Kathleen A. Theoharides, Secretary
Massachusetts Department of Environmental Protection
Martin Suuberg, Commissioner
Bureau of Water Resources
Kathleen Baskin, Assistant Commissioner

Category 5 waters listed alphabetically by major watershed
The 303(d) List – “Waters requiring a TMDL”

| Waterbody | AU_ID | Description | Size | Units | Impairment | ATTAINS Action ID |
|------------------------------|---------|--|--------|-------|--|-------------------|
| East Branch Housatonic River | MA21-02 | Outlet of Center Pond, Dalton to mouth at confluence with the Housatonic River, Pittsfield. | 8.00 | Miles | Escherichia Coli (E. Coli) | |
| | | | | | Fecal Coliform | |
| | | | | | PCBs in Fish Tissue | |
| Goodrich Pond | MA21042 | Pittsfield. | 15.00 | Acres | PCBs in Fish Tissue | |
| Goose Pond | MA21043 | Lee/Tyringham. | 238.00 | Acres | (Eurasian Water Milfoil, Myriophyllum Spicatum*) | |
| | | | | | Dissolved Oxygen | |
| Housatonic River | MA21-04 | Headwaters, confluence of Southwest Branch Housatonic River and West Branch Housatonic River, Pittsfield to Woods Pond dam (NATID: MA00731), Lee/Lenox (through former 2006 segment: Woods Pond MA21120) (approximately one mile at headwaters formerly part of 1998 segment: West Branch Housatonic River MA21-03). | 12.30 | Miles | (Water Chestnut*) | |
| | | | | | Escherichia Coli (E. Coli) | |
| | | | | | Fecal Coliform | |
| | | | | | PCBs in Fish Tissue | |
| | | | | | PCBs in Sediment | |
| Housatonic River | MA21-19 | Outlet of Woods Pond dam (NATID: MA00731), Lee/Lenox to the Risingdale Impoundment dam (NATID: MA00250), Great Barrington [through former 2006 segment: Risingdale Impoundment MA21121) (formerly part of 1998 segment: Housatonic River MA21-05). | 19.90 | Miles | Polychlorinated Biphenyls (PCBs) | |
| | | | | | (Zebra Mussel, Dreissena Polymorph*) | |
| | | | | | Algae | |
| | | | | | Ambient Bioassays - Chronic Aquatic Toxicity | |
| | | | | | Fish Bioassessments | |
| | | | | | PCBs in Fish Tissue | |
| | | | | | PCBs in Sediment | |
| Housatonic River | MA21-20 | Outlet of Risingdale Impoundment dam (NATID: MA00250), Great Barrington to the MA/CT border, Sheffield (formerly part of 1998 segment: Housatonic River MA21-05). | 23.10 | Miles | Phosphorus, Total | |
| | | | | | (Zebra Mussel, Dreissena Polymorph*) | |
| Hubbard Brook | MA21-15 | Headwaters, northwest of Townhouse Hill Road, Egremont to mouth at confluence with the Housatonic River, Sheffield (through former 2006 segment: Mill Pond MA21068). | 9.40 | Miles | PCBs in Fish Tissue | |
| | | | | | (Curly-leaf Pondweed*) | |
| | | | | | (Eurasian Water Milfoil, Myriophyllum Spicatum*) | |
| | | | | | (Water Chestnut*) | |
| | | | | | Lack of a coldwater assemblage | |
| Konkapot River | MA21-25 | Headwaters, outlet Brewer Lake, Monterey to the MA/CT border, New Marlborough (formerly part of 1998 segment: Konkapot River MA21-13). | 16.50 | Miles | Temperature | |
| | | | | | Mercury in Fish Tissue | |
| Konkapot River | MA21-26 | From the MA/CT border, Sheffield, to mouth at confluence with the Housatonic River, Sheffield (formerly part of 1998 segment: Konkapot River MA21-13). | 2.90 | Miles | Mercury in Fish Tissue | |

