June 14, 2023

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

Hydro.GeneralPermit@epa.gov

Re: **Holyoke Gas and Electric Department**
Chemical Station
Holyoke, Massachusetts
Hydroelectric Generating Facilities General Permit

Dear Sir or Madam:

Holyoke Gas and Electric Department (HG&E) is seeking coverage under the National Pollutant Discharge Elimination System (NPDES) General Permit for Hydroelectric Generating Facilities (HYDRO GP) for Chemical Station in Holyoke, Massachusetts. This facility currently maintains coverage under the 2009 HYDRO GP. Additionally, the site is currently licensed by the Federal Energy Regulatory Commission 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
5. Endangered Species Submittal (Response Pending)
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 K. Kucab

Timothy Kucab, CHMM
Project Manager

Copy: Chris Perry, HG&E (via email)

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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: Chemical Station - Holyoke Gas and Electric Department	
	Street: 228 South Water Street	
	City: Holyoke	State: MA
	Zip: 01040	SIC Code: 4911
	Latitude: 42°11'32.02"N	Longitude: 72°36'31.00"W
	Type of Business: Hydroelectric Facility	
2. Facility Mailing Address (if different from Location)	Street: 99 Suffolk Street	
	City: Holyoke	State: MA
	Zip: 01040	
3. Facility Owner	Name: Holyoke Gas and Electric	Email: JLavelle@hged.com
	Street: 99 Suffolk Street	Telephone: (413) 536-9311

	City: Holyoke	State: MA
	Contact Person: James Lavelle	Zip: 01040
4. Facility Operator (if different from above)	Name:	Email:
	Street:	Telephone:
	City:	State:
	Zip:	

5. Current Permit Status	Has prior HYDROGP coverage been granted for the discharge(s) listed in the NOI?	■ Yes	☐ No
	Permit number (if yes): MA0035866		
	Is the facility covered under an Individual Permit?	☐ Yes	■ No
	Is there a pending NPDES application of file with EPA for the discharge(s)?	☐ Yes	■ 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	■ Map Attached	
	Number of turbines: 2		
	Combined turbine discharge (installed capacity) at: 1020	Maximum capacity? 1020 cfs Minimum capacity? 510 cfs	
	Is this facility operated as a pump storage project?	☐ Yes	■ No

B. Discharge Information

1. Name of Receiving Water(s): Connecticut River		■ Freshwater ☐ Marine
2. Waterbody classification: ☐ Class A ■ Class B ☐ Class SA ☐ Class SB		
3. Is the receiving water is listed in the State's Integrated List of Waters (i.e., CWA Section 303(d))?		■ Yes ☐ 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?		■ Yes ☐ 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).		■ 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: 002, 003	5,645 gpd
Equipment and floor drain water	Outfalls: 001	3,528 gpd
Maintenance-related water	Outfalls:	gpd
Facility maintenance-related water during flood/high water events	Outfalls:	gpd
Equipment-related backwash strainer water	Outfalls:	gpd

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.l. and 2.7.l 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. 001 - Leakage / Sump	Latitude: 42°11'30.87"N	Longitude: 72°36'29.90"W
	Discharge is: ■ Continuous ☐ Intermittent ☐ Seasonal	
	Maximum Daily Flow 0.007 MGD	Average Monthly Flow 0.004 MGD
	Maximum Daily Temperature 82.4 °F	Average Monthly Temperature 60.45 °F
	Maximum Daily Oil & Grease 3.8 mg/L	Average Monthly Oil & Grease 1.03 mg/L
	Maximum Monthly pH 7.91 s.u.	Minimum Monthly pH 6.8 s.u.
	Alternative pH limits requested? ☐Yes ■ No	State approval attached? ☐ Yes ☐ No
Outfall No. 002 - Non-Contact Cooling Water	Latitude: 42°11'30.91"N	Longitude: 72°36'29.79"W
	Discharge is: ■ Continuous ☐ Intermittent ☐ Seasonal	
	Maximum Daily Flow 0.006 MGD	Average Monthly Flow 0.003 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? ☐Yes ☐ No	State approval attached? ☐ Yes ☐ No

Outfall No.	Latitude:	Longitude:
003 - Non-Contact Cooling Water	42°11'30.80"N	72°36'29.92"W
	Discharge is: ■ Continuous ☐ Intermittent ☐ Seasonal	
	Maximum Daily Flow 0.006 MGD	Average Monthly Flow 0.003 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? ☐Yes ■ No	State approval attached? ☐ Yes ☐ 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?	■ Yes ☐ 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:	
■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? ■ Yes ☐ No	
☐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? ☐ Yes ☐ No	

☐For cooling water withdrawn directly from the source waterbody (*i.e.*, 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? ☐ Yes ☐ 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? ☐ Yes ☐ 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: 105,120 gpd
Maximum monthly average volume of cooling water withdrawn during the previous five (5) years: 51,509 gpd
Maximum daily and average monthly volume of water used exclusively for cooling: Max: 105,120 gpd Avg: 51,509 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? ☐ Yes ■ No
Volume of total intake water withdrawn and used in facility as a percentage of: Installed turbine capacity 0.016 % Average daily flow through penstock 0.033 % Minimum flow through penstock 0.032 %
Source water annual mean flow (*e.g.*, available from USGS, MassDEP, or NHDES): 17,300 cfs
Source water 7-day mean low flow with 10-year recurrence interval (7Q10): 1,973 cfs
Volume of total intake water withdrawn and used in facility as a percentage of: Source water mean annual flow 0.001 % cfs Source water 7Q10 flow 0.008% cfs

Note: Both cooling water and lubricating water are drawn from the penstock through the same intake structure and are included in the cooling water values noted above.

D. Chemical Additives

1. Does the facility use or plan to use non-toxic chemicals for pH adjustment?	☐ Yes ■ No
2. Does the facility use or plan to use chemicals for anti-freeze purposes?	☐ Yes ■ 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? ☐ Yes ☐ 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	☐ **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? ☐ Yes ☐ No
	■ **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? ☐ Yes ■ No If no, is consultation underway? ■ Yes ☐ No
	☐ **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? ☐ Yes ☐ 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? ■ Yes ☐ No
		If yes, was the applicant authorized to discharge from the facility under the 2009 HYDROGP? ■ Yes ☐ No
		If the discharge is to one of the named rivers above or to a marine water *and* the facility was not previously covered under the 2009 HYDROGP, has there been any previous formal or informal consultation with NMFS? ☐ Yes ☐ No Documentation of consultation attached? ☐ Yes ☐ No

F. National Historic Properties Act Eligibility

1. Indicate under which criterion the discharge(s) is eligible for covered under the HYDROGP:
☐ **Criterion A**: No historic properties are present.
■ **Criterion B**: Historic properties are present. The discharges and related activities do not have the potential to impact historic properties.
☐ **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? ■ Yes ☐ 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 this 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: James M Lavelle	Date: 6/14/23
Print Name and Title: James Lavelle - General Manager	

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SECTION 2

Section 2
Supplemental Outfall Information

Additional Outfall Information

Outfall DSN-001

Outfall DSN-001 discharges from the station oil/water separator to the Connecticut River. The separator receives shaft leakage from Units #1 and Unit #2, as well as discharges of floodwater, infiltrating groundwater and condensation from the station sump.

This outfall will be sampled.

Outfalls DSN-002 and DSN-003

Outfall DSN-002 and DSN-003 discharge non-contact cooling water (NCCW) from the oil coolers associated with Units #1 and #2. Based on the configuration of the facility, these flows have not been sampled in the past. These outfalls are considered substantially identical.

For the purposes of sampling, Outfall DSN-002 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.

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SECTION 3

Section 3
Site Figures and Flow Diagrams

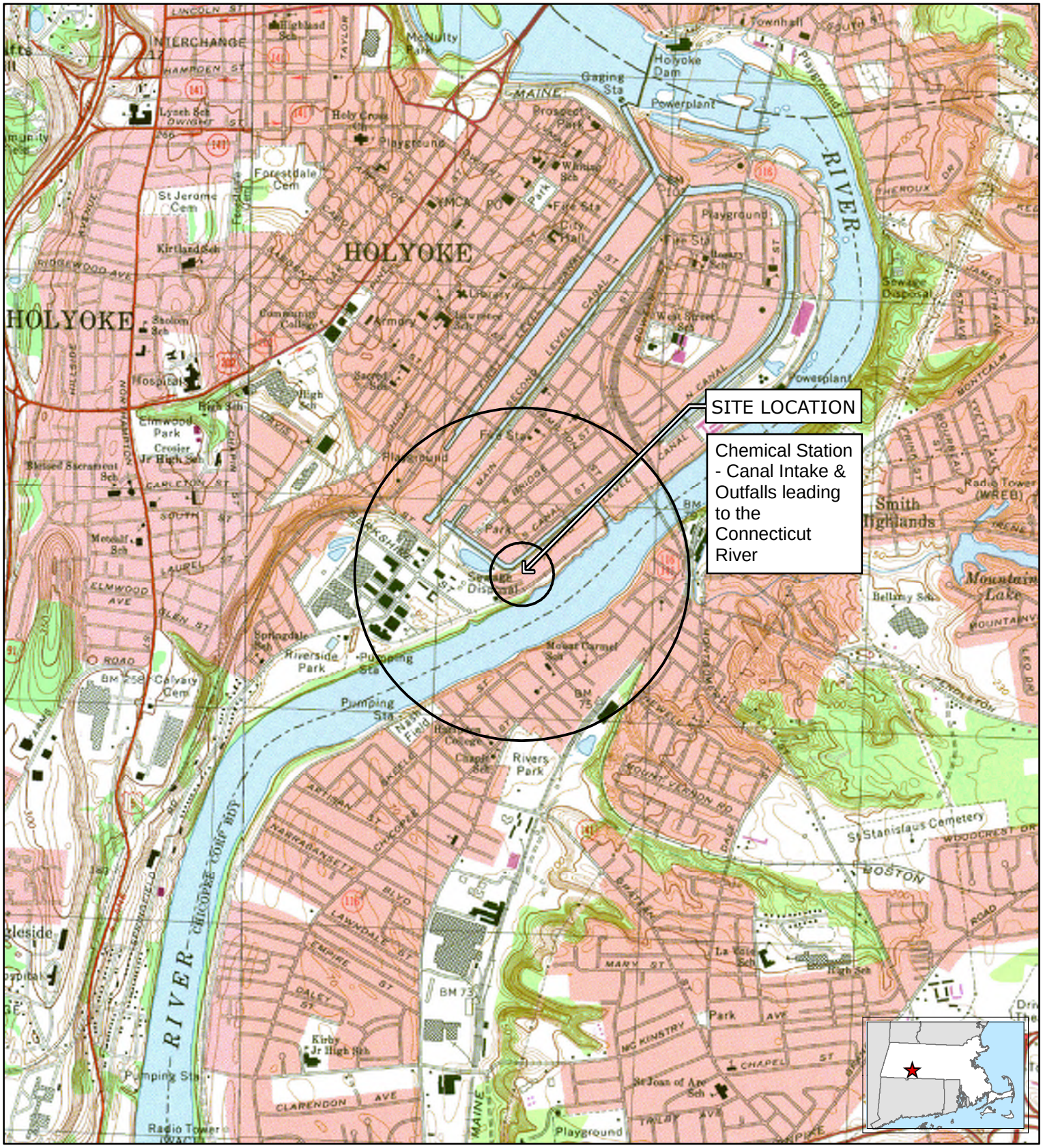

FIGURE 1
SITE LOCATION

Chemical Station
3228 South Water Street
Holyoke, Massachusetts

May 2023

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Based on USGS Topographic Map for
Springfield North, MA Revised 1979. Contour Equals 10-feet. [Site Quad]
Mount Tom, MA Revised 1979. Contour Equals 10-feet.
Circles indicate 500-foot and half-mile radii

1:24,000

0 1,000 2,000

Feet

N

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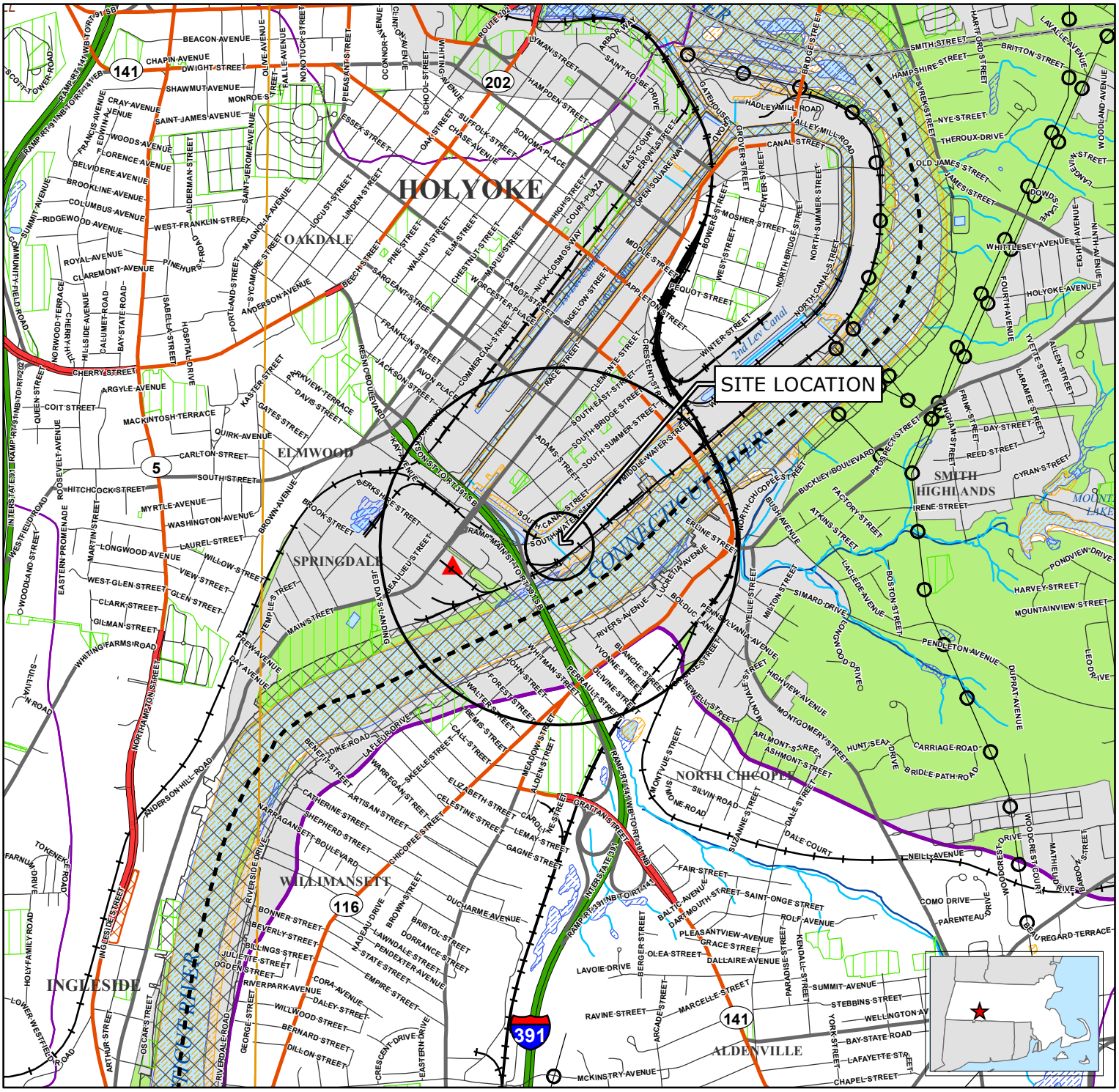

Legend

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

1:24,000

0 1,000 2,000

Feet

N

FIGURE 2
PRIORITY RESOURCES

Chemical Station
3228 South Water Street
Holyoke, 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

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H-1350

Legend

Municipal Boundary

1:2,400

0 100 200

Feet

N

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Based on MassGIS Color Orthophotography (2021)

FIGURE 3
ORTHOPHOTOGRAPH

Chemical Station
3228 South Water Street
Holyoke, Massachusetts

May 2023

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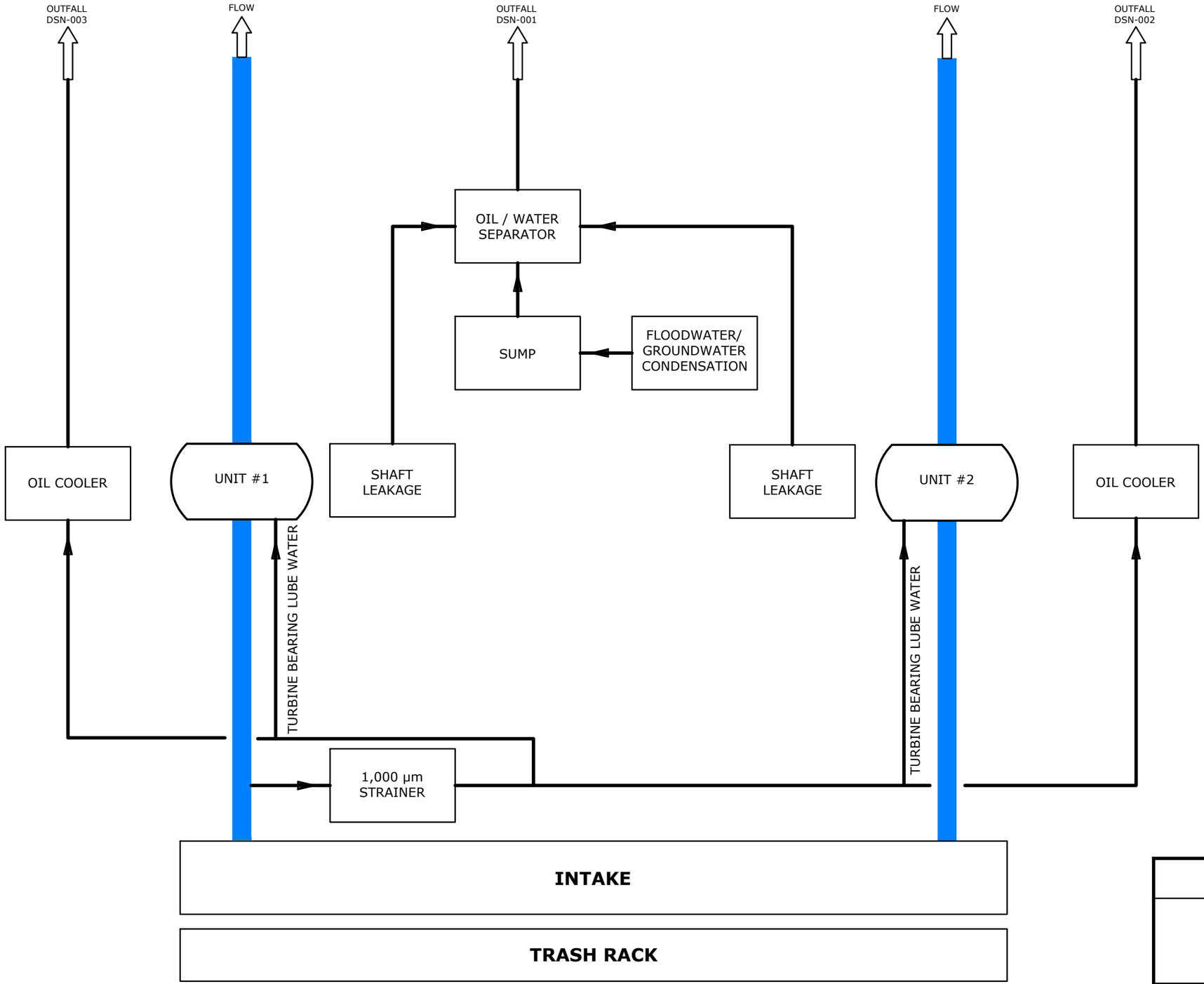

HOLYOKE GAS & ELECTRIC
HOLYOKE, MASSACHUSETTS

Chemical Station
3228 South Water Street
Holyoke, Massachusetts

DATE: 6/5/2023
SCALE: NO SCALE

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SECTION 4

Section 4
Cooling Water Information

Cooling Water Intake Structure
Best Technology Available

Chemical Station complies with the Cooling Water Intake Structure (CWIS) Best Technology Available (BTA) requirements of the HYDRO GP, via of Section 4.2(b)(i).

> *i. An existing exclusion, diversion, or guidance device (e.g., a physical or behavioral barrier or spillway) that provides fish downstream passage and minimizes exposure to a CWIS. The permittee must describe any technology or combination of technologies implemented for fish protection in the NOI and provide sufficient information to demonstrate that the downstream fish passage effectively transports live fish in a manner that minimizes the likelihood of becoming impinged at the cooling water intake; and*

The Holyoke Canal System is a three-tiered, 4.5 mile system that runs throughout downtown Holyoke, providing water to approximately 10 in-service generating stations which have a total combined capacity of approximately 17 megawatts. The three Canal System tiers are known as the First, Second and Third Level Canals, and the drop between canal tiers, as well as the drop from the Canal System back into the Connecticut River, allows Holyoke Gas and Electric (HG&E) to generate up to three separate times using the same water.

Water from the Connecticut River enters the canal system immediately north of Hadley Falls Station and the Holyoke Dam. Water enters the canal system through a full-depth louver fish exclusion system and bypass at the entrance of the Canal System in order to enhance the safe downstream passage of migrating fish. The louver system rack is provided with a spacing of 2" and positioned at an angle to return fish to the Connecticut River prior to entering the canal network. Additionally, the Holyoke Dam is provided with an advanced fish lift system with two elevator lifts allowing safe passage of fish over the dam.

Chemical Station, beginning operation in 1935, is located between the Third Level of the canal and the Connecticut River. The Station includes two (2) generating units with a capacity of 750 kilowatts each. The plant intake is provided with a trash rack preventing debris from entering the plant. Cooling water is drawn off the penstock. A 1,000-micron strainer is provided at the inlet of the cooling water system to prevent organisms and debris from being entrained. Cooling water flows to an oil cooler for each of the two turbines and discharges to the river.

StreamStats Data-Collection Station Report

Gage Information

Name	Value
USGS Station Number	**01172010 (https://waterdata.usgs.gov/monitoring-location/01172010)**
Station Name	CONNECTICUT R AT INTERSTATE 391 BRIDGE AT HOLYOKE
Station Type	Gaging Station, continuous record
Latitude	42.19064778
Longitude	-72.60842278
NWIS Latitude	
NWIS Longitude	
Is regulated?	true
Agency	United States Geological Survey
NWIS Discharge Period of Record	09/30/2002 - 06/01/2023

Physical Characteristics

Filter By Statistic Group: Select Filter By Citation: Select

Basin Dimensional Characteristics

Characteristic Name	Value	Units	Citation
Drainage Area	8332	square miles	**193**

Streamflow Statistics

Filter By Statistic Group: 4 Checked Filter By Citation: Select

Show Only Preferred

Flow-Duration Statistics

Statistic Name	Value	Units	Preferred?	Years of Record	Standard Error, percent	Citation	Comments
1 Percent Duration	71100	cubic feet per second	✓	13		**52**	Statistic Date Range 10/1/2002 - 9/30/2015
2 Percent Duration	62500	cubic feet per second	✓	13		**52**	Statistic Date Range 10/1/2002 - 9/30/2015
3 Percent Duration	57300	cubic feet per second	✓	13		**52**	Statistic Date Range 10/1/2002 - 9/30/2015
5 Percent Duration	49000	cubic feet per second	✓	13		**52**	Statistic Date Range 10/1/2002 - 9/30/2015
10 Percent Duration	36700	cubic feet per second	✓	13		**52**	Statistic Date Range 10/1/2002 - 9/30/2015

Statistic Name	Value	Units	Preferred?	Years of Record	Standard Error, percent	Citation	Comments
15 Percent Duration	30000	cubic feet per second	✓	13		**52**	Statistic Date Range 10/1/2002 - 9/30/2015
20 Percent Duration	25300	cubic feet per second	✓	13		**52**	Statistic Date Range 10/1/2002 - 9/30/2015
25 Percent Duration	21800	cubic feet per second	✓	13		**52**	Statistic Date Range 10/1/2002 - 9/30/2015
30 Percent Duration	19000	cubic feet per second	✓	13		**52**	Statistic Date Range 10/1/2002 - 9/30/2015
35 Percent Duration	17000	cubic feet per second	✓	13		**52**	Statistic Date Range 10/1/2002 - 9/30/2015
40 Percent Duration	15500	cubic feet per second	✓	13		**52**	Statistic Date Range 10/1/2002 - 9/30/2015

Statistic Name	Value	Units	Preferred?	Years of Record	Standard Error, percent	Citation	Comments
45 Percent Duration	13900	cubic feet per second	✓	13		**52**	Statistic Date Range 10/1/2002 - 9/30/2015
50 Percent Duration	12500	cubic feet per second	✓	13		**52**	Statistic Date Range 10/1/2002 - 9/30/2015
55 Percent Duration	11400	cubic feet per second	✓	13		**52**	Statistic Date Range 10/1/2002 - 9/30/2015
60 Percent Duration	10300	cubic feet per second	✓	13		**52**	Statistic Date Range 10/1/2002 - 9/30/2015
65 Percent Duration	9460	cubic feet per second	✓	13		**52**	Statistic Date Range 10/1/2002 - 9/30/2015
70 Percent Duration	8600	cubic feet per second	✓	13		**52**	Statistic Date Range 10/1/2002 - 9/30/2015

Statistic Name	Value	Units	Preferred?	Years of Record	Standard Error, percent	Citation	Comments
75 Percent Duration	7670	cubic feet per second	✓	13		**52**	Statistic Date Range 10/1/2002 - 9/30/2015
80 Percent Duration	6630	cubic feet per second	✓	13		**52**	Statistic Date Range 10/1/2002 - 9/30/2015
85 Percent Duration	5670	cubic feet per second	✓	13		**52**	Statistic Date Range 10/1/2002 - 9/30/2015
90 Percent Duration	4530	cubic feet per second	✓	13		**52**	Statistic Date Range 10/1/2002 - 9/30/2015
95 Percent Duration	3340	cubic feet per second	✓	13		**52**	Statistic Date Range 10/1/2002 - 9/30/2015
97 Percent Duration	2760	cubic feet per second	✓	13		**52**	Statistic Date Range 10/1/2002 - 9/30/2015

Statistic Name	Value	Units	Preferred?	Years of Record	Standard Error, percent	Citation	Comments
98 Percent Duration	2430	cubic feet per second	✓	13		**52**	Statistic Date Range 10/1/2002 - 9/30/2015
99 Percent Duration	2000	cubic feet per second	✓	13		**52**	Statistic Date Range 10/1/2002 - 9/30/2015

Annual Flow Statistics

Statistic Name	Value	Units	Preferred?	Years of Record	Standard Error, percent	Citation	Comments
Mean Annual Flow	17300	cubic feet per second	✓	13		**52**	Statistic Date Range 10/1/2002 - 9/30/2015
Stand Dev of Mean Annual Flow	3290	cubic feet per second	✓	13		**52**	Statistic Date Range 10/1/2002 - 9/30/2015
Maximum Annual Mean Flow	23700	cubic feet per second	✓	13		**52**	Statistic Date Range 10/1/2002 - 9/30/2015

Statistic Name	Value	Units	Preferred?	Years of Record	Standard Error, percent	Citation	Comments
Minimum Annual Mean Flow	13200	cubic feet per second	✓	13		**52**	Statistic Date Range 10/1/2002 - 9/30/2015

General Flow Statistics

Statistic Name	Value	Units	Preferred?	Years of Record	Standard Error, percent	Citation	Comments
Minimum daily flow	830	cubic feet per second	✓	13		**52**	Statistic Date Range 10/1/2002 - 9/30/2015
Maximum daily flow	100000	cubic feet per second	✓	13		**52**	Statistic Date Range 10/1/2002 - 9/30/2015
Std Dev of daily flows	14600	cubic feet per second	✓	13		**52**	Statistic Date Range 10/1/2002 - 9/30/2015
Average daily streamflow	13165.315	cubic feet per second	✓	2		**86**	

Statistic Name	Value	Units	Preferred?	Years of Record	Standard Error, percent	Citation	Comments
Harmonic Mean Streamflow	9280	cubic feet per second	✓	13		**52**	Statistic Date Range 10/1/2002 - 9/30/2015
Mean_of_Logs_of_Daily_Values	4.105331	Log base 10	✓	13		**52**	Statistic Date Range 10/1/2002 - 9/30/2015
Std_Dev_of_Logs_of_Daily_Values	0.344389	Log base 10	✓	13		**52**	Statistic Date Range 10/1/2002 - 9/30/2015
Skew_of_Logs_of_Daily_Values	-0.069187	Log base 10	✓	13		**52**	Statistic Date Range 10/1/2002 - 9/30/2015
Non_Zero_Adjusted_Harmonic_Mean_Flow	9280	cubic feet per second	✓	13		**52**	Statistic Date Range 10/1/2002 - 9/30/2015

Probability Statistics

Statistic Name	Value	Units	Preferred?	Years of Record	Standard Error, percent	Citation	Comments
Probability zero flow durations	0	dimensionless	✓	13		**52**	Statistic Date Range 10/1/2002 - 9/30/2015

Citations

ID	Citation
193	**Imported from NWIS file (http://waterdata.usgs.gov/nwis/si)**
52	**Granato G.E., Ries, K.G., III, and Steeves, P.A., 2017, Compilation of streamflow statistics calculated from daily mean streamflow data collected during water years 1901–2015 for selected U.S. Geological Survey streamgages: U.S. Geological Survey Open-File Report 2017-1108, 17 p. (https://pubs.er.usgs.gov/publication/ofr20171108)**
86	**Wolock, D.M., 2003, Flow characteristics at U.S. Geological Survey streamgages in the conterminous United States: U.S. Geological Survey Open-File Report 03-146, digital data set (http://water.usgs.gov/GIS/metadata/usgswrd/XML/qsitesdd.xml)**

Selected Pages From Document

AUTHORIZATION TO DISCHARGE UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Federal Clean Water Act as amended, 33 U.S.C. §§ 1251 et seq. (the "CWA"),

City of Holyoke
Department of Public Works

is authorized to discharge from the facility located at

Holyoke Water Pollution Control Facility
1 Berkshire Street
Holyoke, Massachusetts 01040

And

Combined Sewer Overflow (CSO) discharges at 10 locations

to receiving water named

Connecticut River (Segment MA 34-05)
Connecticut River Watershed

in accordance with effluent limitations, monitoring requirements and other conditions set forth herein.

This permit shall become effective on the first day of the calendar month immediately following 60 days after signature. [1]

This permit expires at midnight, five years from the last day of the month preceding the effective date.

This permit supersedes the permit issued on October 25, 2016.

[1] Pursuant to 40 Code of Federal Regulations (CFR) § 124.15(b)(3), if no comments requesting a change to the Draft Permit are received, the permit will become effective upon the date of signature. Procedures for appealing EPA's Final Permit decision may be found at 40 CFR § 124.19.

TMDL.[5] The pollutants requiring a TMDL are *E. Coli* and PCBs in fish tissue. To date no TMDL has been developed for this segment for any of the listed impairments. The status of each designated use is presented in Table 1.

Table 1 – Summary of Designated Uses and Listing Status

Designated Use	Status
Aquatic Life	Good
Aesthetics	Good
Primary Contact Recreation	Impaired (*E. Coli*)
Secondary Contact Recreation	Impaired (*E. Coli*)
Fish Consumption	Impaired (PCBs in Fish Tissue)

4.2 Ambient Data

A summary of the ambient data collected in the receiving water in the vicinity of the outfall that is referenced in this Fact Sheet can be found in Appendix A of this Fact Sheet.

4.3 Available Dilution

To ensure that discharges do not cause or contribute to violations of WQS under all expected conditions, WQBELs are derived assuming critical conditions for the receiving water[6]. The critical flow in rivers and streams is some measure of the low flow of that river or stream. Massachusetts WQSs require that:

> (a) for rivers and streams, the lowest condition is the lowest mean flow for seven consecutive days, recorded once in 10 years, or 7-day 10-year low flow (7Q10). *See* 314 CMR 4.03(3)(a); and
>
> (b) in waters where flows are regulated by dams or similar structures, the lowest flow condition is the flow equaled or exceeded 99% of the time on a yearly basis, or another equivalent flow agreed upon by the State.

The lowest flow in this case is the 7Q10. *See* 314 CMR 4.03(3)(b). MassDEP calculated the 7Q10 for the Connecticut River based on data from the United States Geological Survey (USGS) low-flow frequency statistics for the nearest USGS gaging to the Facility along the Connecticut River (Station Number 01172010) based on the last 19 years of streamflow data (4/1/2003 to 3/31/2022). EPA notes that this is less than the typical 30 years of ambient flow data because the gauging station began collecting flow data in November 2002 and EPA determined that this gauge best characterizes the receiving water in the vicinity of the discharge.

The dilution factor (DF) was calculated using the design flow (Q_e) and the critical flow in the receiving water upstream of the discharge (Q_s) as follows:

[5] *Massachusetts 2018-2020 Integrated List of Waters for the Clean Water Act 2018/2020 Reporting Cycle,* MassDEP Division of Watershed Management Watershed Planning Program, Worcester, Massachusetts, December 2019.
[6] EPA Permit Writer's Manual, Section 6.2.4

$$DF = (Q_s + Q_e)/Q_e$$

Where:

Q_s = 7Q10 in million gallons per day (MGD) = 1,275 MGD [1,973 cfs]
Q_e = Design flow in MGD = 17.5 MGD

Therefore:

DF = (1,275 MGD + 17.5 MGD) / 17.5 MGD = 74

EPA used this dilution factor (DF) in its quantitative derivation of WQBELs for pollutants in the Draft Permit.

5.0 Proposed Effluent Limitations and Conditions

The proposed effluent limitations and conditions derived under the CWA and State WQSs are described below. These proposed effluent limitations and conditions, the basis of which are discussed throughout this Fact Sheet, may be found in Part I of the Draft Permit.

5.1 Effluent Limitations and Monitoring Requirements

In addition to the State and Federal regulations described in Section 2, data submitted by the permittee in its permit application, in monthly discharge monitoring reports (DMRs) and in WET test reports from October 2017 to September 2022 (the "review period") were used to identify the pollutants of concern and to evaluate the discharge during the effluent limitations development process (*See* **Appendix A)**.The reasonable potential analysis is included in Appendix B and results are discussed in the sections below.

5.1.1 Effluent Flow

The effluent flow limit in the 2016 Permit is 17.5 MGD, as a rolling annual average flow, based on the Facility's design flow. The DMR data during the review period shows a maximum rolling annual average flow of 8.7 MGD. There have been no exceedances of the flow limit during the review period.

The Draft Permit continues the 17.5 MGD flow limit from the 2016 Permit. The Draft Permit requires that flow be measured continuously and that the rolling annual average flow, as well as the average monthly and maximum daily flow for each month be reported. The rolling annual average flow is calculated as the average of the flow for the reporting month and 11 previous months.

5.1.2 Biochemical Oxygen Demand (BOD_5)

5.1.2.1 BOD_5 Concentration Limits

The BOD_5 limits in the 2016 Permit were based on the secondary treatment standards in 40 CFR § 133.102; the average monthly limit is 30 mg/L and the average weekly limit is 45 mg/L.

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SECTION 5

Section 5
Endangered Species Submittal (Response Pending)

April 26, 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: **Holyoke Gas and Electric Department (HG&E)**
Chemical Station
Holyoke, Massachusetts
Hydroelectric Generating Facilities General Permit

Dear Ms. Grader:

Holyoke Gas and Electric is seeking coverage under the NPDES General Permit for Hydroelectric Generating Facilities (HYDROGP) for the Chemical Station in Holyoke, Massachusetts.

The Canal System

The Holyoke Canal System is a three-tiered, 4.5 mile system that runs throughout downtown Holyoke, providing water to approximately 10 in-service generating stations which have a total combined capacity of approximately 17 megawatts. The three Canal System tiers are known as the First, Second and Third Level Canals, and the drop between canal tiers, as well as the drop from the Canal System back into the Connecticut River, allows HG&E to generate up to three separate times using the same water.

Water from the Connecticut River enters the canal system immediately north of Hadley Falls Station and the Holyoke Dam. Water enters the canal system through a full-depth louver fish exclusion system and bypass at the entrance of the Canal System in order to enhance the safe downstream passage of migrating fish. The louver system rack is provided with a spacing of 2" and positioned at an angle to return fish to the Connecticut River prior to entering the canal network. Additionally, the Holyoke Dam is provided with an advanced fish lift system with two elevator lifts allowing safe passage of fish over the dam.

Chemical Station

Chemical Station, beginning operation in 1935, is located between the Third Level of the canal and the Connecticut River. The Station includes two (2) generating units with a capacity of 750 kilowatts each. The plant intake is provided with a trash rack preventing debris from entering the plant. Cooling water is drawn off the penstock. A 1,000-micron strainer is provided at the inlet of the cooling water system to prevent organisms and debris from being entrained. Cooling water flows to an oil cooler for each of the two turbines and discharges to the river. From each turbine, there is shaft leakage that is collected and passes through an oil water separator before ultimately being discharged to the river. Additionally, any flood water or condensation collected in the facility is collected in a sump. The sump is pumped through the same oil water separator as the shaft leakage discharges prior to discharge.

Additional and more detailed site information is provided in the attached 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

- Sturgeon, Atlantic (Critical Habitat)

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 facility discharges directly into the Canal System (and ultimately the Connecticut River) will pose a risk to the Monarch Butterfly, with a typical habitat of prairies, meadows, grasslands and along roadsides.

From an aquatic species perspective, HG&E has worked with FERC, biologists and a variety of other environmental entities to optimize the effectiveness of the fish passage system for the canal system as a whole. During licensing, the entirety of the project is considered, including the impacts of both the electric generating process water flows and wastewater discharges. In addition to the louvered exclusion system, HG&E has constructed additional fish passage enhancements for the entirety of the canal system to benefit the federally endangered Shortnose Sturgeon and other migrating fish species. The Hadley Fall Station at the Holyoke Dam is provided with a vertical exclusion rack, which is located in front of the intake penstocks, providing improved downstream fish migration by providing an increased zone of separation from intake flow velocities, as well as reducing the number of fish and debris from entering the hydroelectric facility. In addition to the exclusion rack, a flow deflector and "training wall" is provided on the existing dam apron, as well as a fish plunge pool just beyond the dam apron.

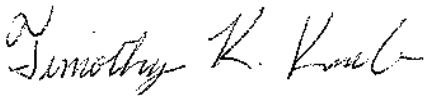
We are reaching out to you in an effort to seek written concurrence on our finding that the discharges and related activities are "not likely to adversely affect" listed species or critical habitat. We have arrived at this conclusion based upon the information provided in this letter.

Lastly, as noted in the HYDROGP, 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
- 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: March 16, 2023
Project Code: 2023-0056599
Project Name: Holyoke Gas & Electric Department - Chemical Station

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: 2023-0056599
Project Name: Holyoke Gas & Electric Department - Chemical Station
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/@42.1894189,-72.61116742498318,14z

Counties: Hampden 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 Fisheries[1], 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.

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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 *Myotis septentrionalis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Threatened

INSECTS

NAME	STATUS
Monarch Butterfly *Danaus plexippus* 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
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

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: March 16, 2023
Project code: 2023-0056599
Project Name: Holyoke Gas & Electric Department - Chemical Station
IPaC Record Locator: 806-123716277

Federal Action Agency (if applicable):

Subject: Record of project representative's no effect determination for 'Holyoke Gas & Electric Department - Chemical Station'

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 16, 2023, for 'Holyoke Gas & Electric Department - Chemical Station' (here forward, Project). This project has been assigned Project Code 2023-0056599 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 2023-0056599 associated with this Project.

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

1. Name

Holyoke Gas & Electric Department - Chemical Station

2. Description

The following description was provided for the project 'Holyoke Gas & Electric Department - Chemical Station':

> NOI NPDES GP Hydroelectric Generating Facility

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@42.1894189,-72.61116742498318,14z

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

PROJECT QUESTIONNAIRE

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

No

IPAC USER CONTACT INFORMATION

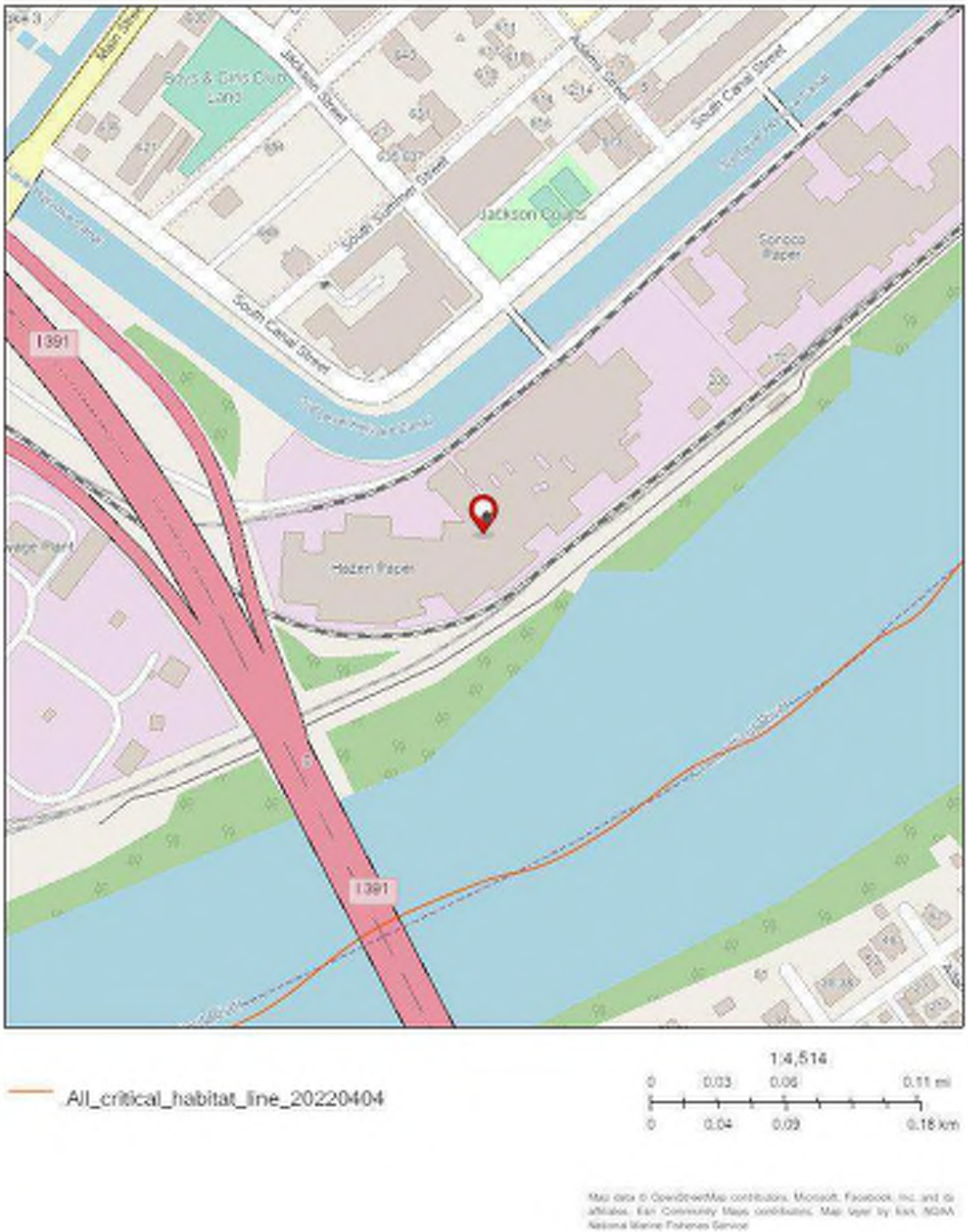
Agency:	Tighe & Bond
Name:	Christopher Astephen
Address:	300 West Exchange Street
Address Line 2:	Suite 300
City:	Providence
State:	RI
Zip:	02903
Email	castephen@tighebond.com
Phone:	7748081791

Holyoke Gas & Electric Department - Chemical Station

Area of Interest (AOI) Information

Area : 2,009.02 acres

Mar 17 2023 15:57:31 Eastern Daylight Time



Summary

Name	Count	Area(acres)	Length(mi)
All Critical Habitat Polyline	1	N/A	2.02
All Critical Habitat Polygon	0	0	N/A

All Critical Habitat Polyline

#	Listed Entity	Common Name	Scientific Name	Length(mi)
1	Sturgeon, Atlantic (Atlantic subspecies)[New York Bight DPS]	Sturgeon, Atlantic	Acipenser oxyrinchus oxyrinchus	2.02

NATIONAL MARINE FISHERIES SERVICE
ENDANGERED SPECIES ACT SECTION 7 CONSULTATION
BIOLOGICAL OPINION

AGENCY:	Federal Energy Regulatory Commission
ACTIVITY CONSIDERED:	New License Order for the Holyoke Hydroelectric Project (FERC #2004) per the terms of a Multiparty Settlement Agreement
CONDUCTED BY:	National Marine Fisheries Service Northeast Regional Office
DATE ISSUED:	JAN 27, 2005
APPROVED BY:	

This is the National Marine Fisheries Service's (NOAA Fisheries) biological opinion (BO) on the effects of the Federal Energy Regulatory Commission's proposal to issue a new License Order for the Holyoke Hydroelectric Project (Holyoke Project) on the Connecticut River in Massachusetts on threatened and endangered species in accordance with section 7 of the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531 et seq.). The Federal Energy Regulatory Commission's (FERC) April 15, 2004 request initiated formal consultation with NOAA Fisheries.

This BO is based on information provided in the April 1999 Draft Environmental Impact Statement (DEIS), the July 1999 Final Environmental Impact Statement (FEIS), the August 20, 1999 FERC license to the Holyoke Water Power Company (HWP; now Holyoke Gas and Electric (HG&E)), numerous correspondence commencing on April 27, 1995, the August 2000 BO issued by NOAA Fisheries to FERC, a multiparty Settlement Agreement submitted to FERC in March 2004, a Biological Assessment submitted on April 27, 2004 and other sources of information. A complete administrative record of this consultation will be kept at NOAA Fisheries Northeast Regional Office [Consultation No. F/NER/2003/01660]. The issuance of this BO withdraws the BO submitted to FERC on August 18, 2000 on the effects of the Holyoke Project.

CONSULTATION HISTORY

In 1980, NOAA Fisheries concluded consultation with FERC under section 7 of the ESA on proposed changes to the Holyoke Dam/Hadley Falls Project and potential effects on endangered shortnose sturgeon (*Acipenser brevirostrum*). Based on preliminary data from less than one year of radio-tracking work, NOAA Fisheries concluded that the project was not likely to adversely affect shortnose sturgeon. At that time, the best available information on the population structure of shortnose sturgeon population in the Connecticut River indicated that there were two

Tighe&Bond

SECTION 6

Section 6
Historic Places Listings

The Holyoke Canal System (and the South Hadley Canal Historic District) are 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.

Additionally, in accordance with Article 420 of the Project No. 2004 license, a cultural resources management plan (CRMP) was filed with FERC on September 8, 2000. Under the CRMP, HG&E files activity reports annually with FERC. As noted in the HYDROGP, construction projects may have the potential to impact historic places. In those instances (past and future), HG&E coordinates these efforts with the following agencies, as applicable:

- FERC
- Corps of Engineers
- State Historic Preservation Office
- Holyoke Selectboard and Historic Commission
- South Hadley Selectboard and Historic Commission

For the purposes of this filing, HG&E 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, HG&E will coordinate directly with the agencies referenced above.

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Reference numb	Property Name	Status	Request Ty	Restricted	Category of Prope	State	County	City	Street & Number	External Link	Federal Agencies
_79000346	Caledonia Building	Listed	Single	FALSE	BUILDING	MASSACHUSETTS	Hampden	Holyoke	185-193 High St.	https://catalog.archives.gov/id/63795227	
_02001473	Friedrich Block	Listed	Single	FALSE	BUILDING	MASSACHUSETTS	Hampden	Holyoke	449-461 Main St.	https://catalog.archives.gov/id/63795333	
_72000133	Hadley Falls Company Housing District	Listed	Single	FALSE	DISTRICT	MASSACHUSETTS	Hampden	Holyoke	Center, N. Canal, Grover, and Lyman Sts.	https://catalog.archives.gov/id/63795293	
_12000781	Hampden Park Historic District	Listed	Single	FALSE	DISTRICT	MASSACHUSETTS	Hampden	Holyoke	Roughly bounded by Hampden, Chestnut, Maple, & Dwight Sts.	https://catalog.archives.gov/id/63795191	
_80000473	Holyoke Canal System	Listed	Single	FALSE	STRUCTURE	MASSACHUSETTS	Hampden	Holyoke	Front and South St. and CT River	https://catalog.archives.gov/id/63795343	
_75000259	Holyoke City Hall	Listed	Single	FALSE	BUILDING	MASSACHUSETTS	Hampden	Holyoke	536 Dwight St.	https://catalog.archives.gov/id/63795195	
_83003980	Maplewood Hotel	Listed	Single	FALSE	BUILDING	MASSACHUSETTS	Hampden	Holyoke	328-330 Maple St.	https://catalog.archives.gov/id/63795323	
_86001376	North High Street Historic District	Listed	Single	FALSE	DISTRICT	MASSACHUSETTS	Hampden	Holyoke	High St. between Dwight and Lyman Sts.	https://catalog.archives.gov/id/63795205	
_08000897	North High Street Historic District (Boundary Increase II)	Listed	Single	FALSE	DISTRICT	MASSACHUSETTS	Hampden	Holyoke	580 Dwight St., 230, 234 and 236 Maple St.	https://catalog.archives.gov/id/63795197	
_92001725	North High Street Historic District (Boundary Increase)	Listed	Single	FALSE	DISTRICT	MASSACHUSETTS	Hampden	Holyoke	233--411 High St.	https://catalog.archives.gov/id/63795209	
_04000931	Prospect Park	Listed	Single	FALSE	SITE	MASSACHUSETTS	Hampden	Holyoke	Maple St., Arbor Way, Connecticut R	https://catalog.archives.gov/id/63795341	
_02001472	Robert, Clovis, Block	Listed	Single	FALSE	BUILDING	MASSACHUSETTS	Hampden	Holyoke	338-348 Main St.	https://catalog.archives.gov/id/63795331	
_86000122	US Post Office-Holyoke Main	Listed	Single	FALSE	BUILDING	MASSACHUSETTS	Hampden	Holyoke	650 Dwight St.	https://catalog.archives.gov/id/63795179	U.S. POSTAL SERVICE
_100007663	War Memorial Building	Listed	Single	FALSE	building	MASSACHUSETTS	Hampden	Holyoke	310 Appleton St.		
_73000296	Wistariahurst	Listed	Single	FALSE	BUILDING	MASSACHUSETTS	Hampden	Holyoke	238 Cabot St.	https://catalog.archives.gov/id/63795177	
_100003963	First Congregational Church	Listed	Resubmissi	FALSE	building	MASSACHUSETTS	Hampshire	South Hadley	1 Church St.		
_92000077	South Hadley Canal Historic District	Listed	Single	TRUE	DISTRICT	MASSACHUSETTS	Hampshire	South Hadley	Address Restricted		
_86001188	US Post Office-South Hadley Main	Listed	Single	FALSE	BUILDING	MASSACHUSETTS	Hampshire	South Hadley	1 Hadley St.	https://catalog.archives.gov/id/63795419	U.S. POSTAL SERVICE
_83003987	Woodbridge Street Historic District	Listed	Single	FALSE	DISTRICT	MASSACHUSETTS	Hampshire	South Hadley	3 and 7 Silver St., 25-82 Woodbridge St.	https://catalog.archives.gov/id/63795391	

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Level of Sig	Level of Sig	Level of Sig	Level of Sig	Level of Sig	Listed Date	Other Names	Status Date	Area of Significance
False	True	False	False	False	7/3/1979	Crafts Building	7/3/1979	COMMERCE; ARCHITECTURE; SOCIAL HISTORY
False	True	False	False	False	12/5/2002		12/5/2002	COMMERCE; ARCHITECTURE; SOCIAL HISTORY
False	False	False	False	True	11/9/1972		11/9/1972	INDUSTRY; ARCHITECTURE
False	True	False	False	False	9/10/2012	Veterans' Park	9/10/2012	ARCHITECTURE; ART; COMMUNITY PLANNING AND DEVELOPMENT; EDUCATION; RELIGION; SOCIAL HISTORY
False	False	True	False	True	12/3/1980		12/3/1980	INDUSTRY; COMMUNITY PLANNING AND DEVELOPMENT; ENGINEERING
False	True	False	False	False	12/6/1975		12/6/1975	ART; ARCHITECTURE
False	True	False	False	False	11/10/1983	Home Information Center	11/10/1983	ARCHITECTURE; SOCIAL HISTORY
False	True	False	False	False	6/26/1986	See Also:Caledonian Building;North High Street Historic Dist	6/26/1986	COMMUNITY PLANNING AND DEVELOPMENT; COMMERCE; ARCHITECTURE
False	True	False	False	False	9/12/2008	McAuslan and Wakelin Buillding; Wakelin Building	9/12/2008	ARCHITECTURE; COMMERCE
False	True	False	False	False	12/24/1992	See Also:North High Street Historic District;Holyoke City Ha	12/24/1992	COMMUNITY PLANNING AND DEVELOPMENT; COMMERCE; ARCHITECTURE
False	True	False	False	False	9/10/2004	Pulaski Park; Kerry Park	9/10/2004	COMMUNITY PLANNING AND DEVELOPMENT; LANDSCAPE ARCHITECTURE; ENTERTAINMENT/RECREATION
False	True	False	False	False	12/5/2002		12/5/2002	COMMERCE; ARCHITECTURE
False	True	False	False	False	1/21/1986	Holyoke Main Post Office	1/21/1986	ARCHITECTURE
False	True	False	False	False	5/2/2022	Soldiers' Memorial Building	5/6/2022	ARCHITECTURE; SOCIAL HISTORY
False	True	False	False	False	4/23/1973	Holyoke Museum of Natural History and Art	4/23/1973	INDUSTRY; ARCHITECTURE; SOCIAL HISTORY
False	True	False	False	False	3/3/2020	Center Church	3/6/2020	ARCHITECTURE; COMMUNITY PLANNING AND DEVELOPMENT; SOCIAL HISTORY; RELIGION
False	True	False	False	True	3/11/1992		3/11/1992	COMMERCE; HISTORIC - NON-ABORIGINAL; ENGINEERING; TRANSPORTATION
False	True	False	False	False	5/28/1986	South Hadley Main Post Office	5/28/1986	ARCHITECTURE
False	True	False	False	False	11/14/1983		11/14/1983	EDUCATION; EXPLORATION/SETTLEMENT; ARCHITECTURE

Tighe&Bond

SECTION 7

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
Connecticut River	MA34-04	Confluence with Deerfield River, Greenfield/Deerfield to Holyoke Dam (NATID: MA00973), Holyoke/South Hadley.	34.50	Miles	(Water Chestnut*)	
					Escherichia Coli (E. Coli)	
					PCBs in Fish Tissue	
Connecticut River	MA34-05	Holyoke Dam (NATID: MA00973), Holyoke/South Hadley to Massachusetts/Connecticut border, Longmeadow.	15.90	Miles	Escherichia Coli (E. Coli)	
					PCBs in Fish Tissue	
Forge Pond	MA34024	Granby.	72.00	Acres	(Water Chestnut*)	
					Nutrient/Eutrophication Biological Indicators	
Fort River	MA34-27	Headwaters (confluence of Adams and Amethyst brooks, Amherst), to mouth at confluence Connecticut River, Hadley.	12.80	Miles	Escherichia Coli (E. Coli)	
Lake Lookout	MA34044	Springfield.	7.00	Acres	Nutrient/Eutrophication Biological Indicators	
Lampson Brook	MA34-06	Belchertown WWTP discharge, Belchertown to mouth at confluence with Weston Brook, Belchertown.	1.00	Miles	Benthic Macroinvertebrates	
					Phosphorus, Total	
Leaping Well Reservoir	MA34040	South Hadley.	9.00	Acres	Algae	
Log Pond Cove	MA34124	Holyoke (cove of Connecticut River upstream of Holyoke Dam (NATID: MA00973)).	19.00	Acres	(Water Chestnut*)	
					PCBs in Fish Tissue	
Longmeadow Brook	MA34-21	Headwaters, outlet Turner Park Pond, Longmeadow to mouth at confluence with Connecticut River, Longmeadow.	4.50	Miles	(Debris*)	
					Escherichia Coli (E. Coli)	
					Phosphorus, Total	
					Trash	
					Turbidity	
Manhan River	MA34-11	Outlet Tighe Carmody Reservoir, Southampton to mouth at confluence with Connecticut River, Easthampton.	19.00	Miles	(Water Chestnut*)	
					Escherichia Coli (E. Coli)	
Metacomet Lake	MA34051	Belchertown.	51.00	Acres	(Fanwort*)	
					(Non-Native Aquatic Plants*)	
					Dissolved Oxygen	
Mill Pond	MA34052	Springfield.	13.00	Acres	Nutrient/Eutrophication Biological Indicators	
					Odor	
Mill River	MA34-24	Headwaters east of Fisher Hill, Conway to mouth at confluence with the Connecticut River, Hatfield.	24.60	Miles	Temperature	
Mill River	MA34-25	Headwaters, outlet Factory Hollow Pond, Amherst to mouth at inlet Lake Warner, Hadley.	5.20	Miles	Escherichia Coli (E. Coli)	