

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: Indian Orchard Hydroelectric Project	
	Street: 34 – 40 Front St.	
	City: Indian Orchard	State: Ma
	Zip: 01151	SIC Code: 4911
	Latitude: 42° 09' 39"	Longitude: 72° 30' 28"
	Type of Business: ELECTRIC POWER GENERATION	
2. Facility Mailing Address (if different from Location)	Street: 670 N. COMMERCIAL ST SUITE 204	
	City: MANCHESTER	State: NH
	Zip: 03101	
3. Facility Owner	Name: PATRIOT HYDRO, LLC	Email: BCLAY@PATRIOTHYDRO.COM
	Street: 670 N. COMMERCIAL ST SUITE 204	Telephone: (603) 540 - 8238

	City: MANCHESTER	State: NH
	Contact Person: BRAD CLAY	Zip: 03101
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?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	Permit number (if yes): MAG360020	
	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): Click or tap to enter a date.	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:2	
	Combined turbine discharge (installed capacity) at:	Maximum capacity? 1525 cfs Minimum capacity? >0 < 1525 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):	<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.2, 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: 2 , 4 120 gpd
	Equipment and floor drain water	Outfalls: 1 , 3 2400 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 1.7.1. 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. 001	Latitude: 42° 09' 39"		Longitude: 72° 30' 28"	
	Discharge is: <input checked="" type="checkbox"/> Continuous <input type="checkbox"/> Intermittent <input type="checkbox"/> Seasonal			
	Maximum Daily Flow .0024MGD		Average Monthly Flow >0<.0024 MGD	
	Maximum Daily Temperature °F varies		Average Monthly Temperature °F varies	
	Maximum Daily Oil & Grease 15 mg/L		Average Monthly Oil & Grease>0<15 mg/L	
	Maximum Monthly pH s.u. 8.3		Minimum Monthly pH s.u. 6.5	
	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. 002	Latitude: 42° 09' 39"		Longitude: 72° 30' 28"	
	Discharge is: <input type="checkbox"/> Continuous <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Seasonal			
	Maximum Daily Flow .00012 MGD		Average Monthly Flow >0 <.00012 MGD	
	Maximum Daily Temperature °F varies		Average Monthly Temperature °F varies	
	Maximum Daily Oil & Grease 15 mg/L		Average Monthly Oil & Grease>0 mg/L <15	
	Maximum Monthly pH 8.3 s.u.		Minimum Monthly pH 6.5 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. 003	Latitude: 42° 09' 39"	Longitude: 72° 30' 28"
	Discharge is: <input checked="" type="checkbox"/> Continuous <input type="checkbox"/> Intermittent <input type="checkbox"/> Seasonal	
	Maximum Daily Flow .0024 MGD	Average Monthly Flow <.0024 MGD
	Maximum Daily Temperature °F varies	Average Monthly Temperature °F varies
	Maximum Daily Oil & Grease 15 mg/L	Average Monthly Oil & Grease >0 <15 mg/L
	Maximum Monthly pH s.u. 8.3	Minimum Monthly pH s.u. 6.5
	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. 004	Latitude: 42° 09' 39"	Longitude: 72° 30' 28"
	Discharge is: <input type="checkbox"/> Continuous <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Seasonal	
	Maximum Daily Flow .00012 MGD	Average Monthly Flow <.00012 MGD
	Maximum Daily Temperature °F varies	Average Monthly Temperature °F varies
	Maximum Daily Oil & Grease 15 mg/L	Average Monthly Oil & Grease >0 <15 mg/L
	Maximum Monthly pH s.u. 8.3	Minimum Monthly pH s.u. 6.5
	Alternative pH limits requested? <input type="checkbox"/> Yes <input checked="" 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?	
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	<p>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 Coheco Rivers; or a marine water?</p> <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 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 checked="" type="checkbox"/> Criterion A: No historic properties are present.
<input 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.

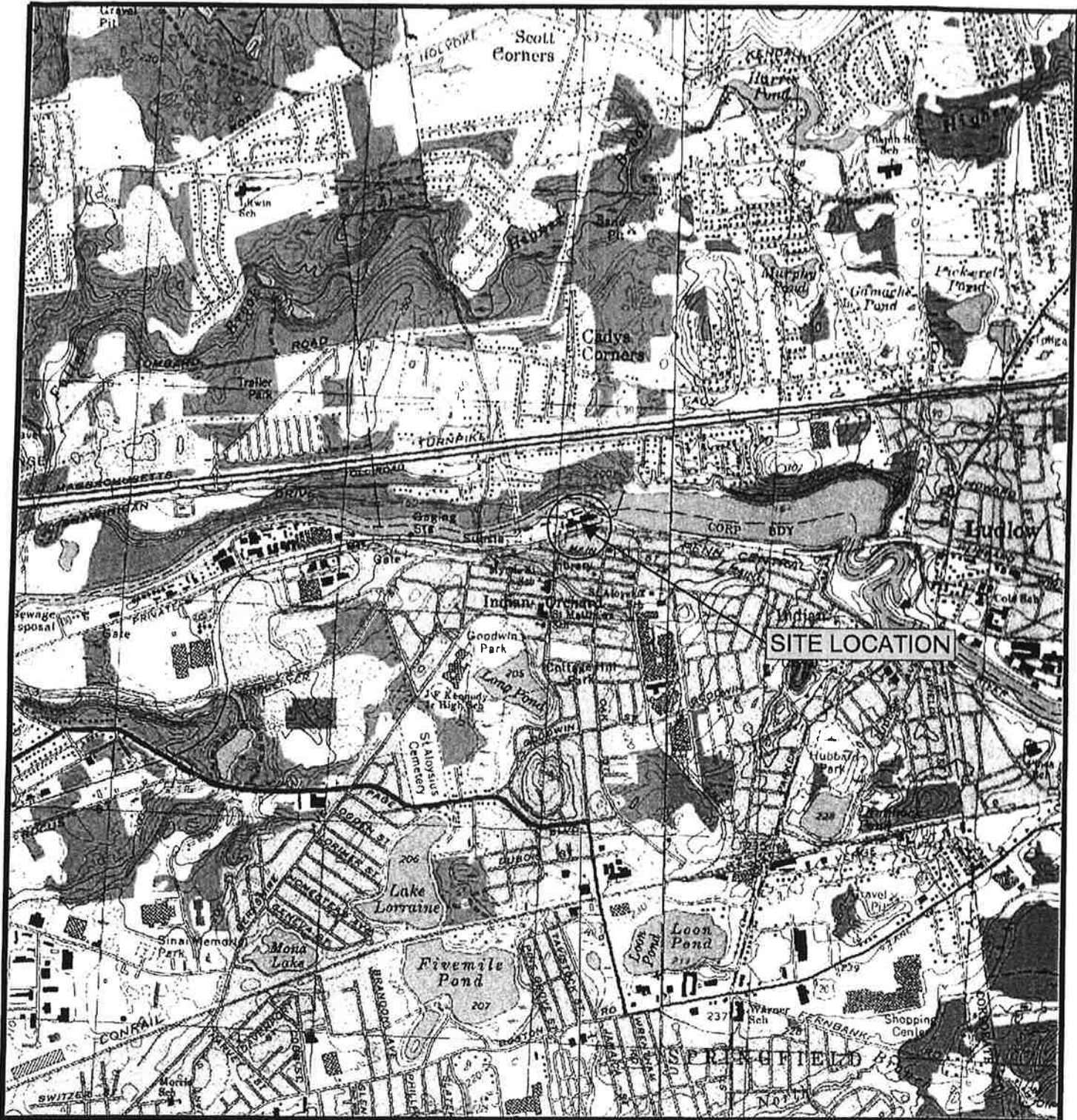
2.	Has the applicant attached supporting documentation for NHPA eligibility described in Appendix 3, Part C of the HYDROGP? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
3.	Does supporting documentation include a written agreement from the State Historic Preservation Officer, Tribal 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? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

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? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
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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:	
	<p><i>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.</i></p>	
2.	Notification provided to the appropriate State, including a copy of this NOI, if required?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	Signature: 	Date: 6/12/2023
	Print Name and Title: Bradley Clay Environmental Health and Safety Manager	



BASED ON USGS TOPOGRAPHIC MAP FOR
 LUDLOW (1975) AND SPRINGFIELD NORTH (1979)
 MASSACHUSETTS QUADRANGLES

 10-FOOT CONTOUR INTERVAL


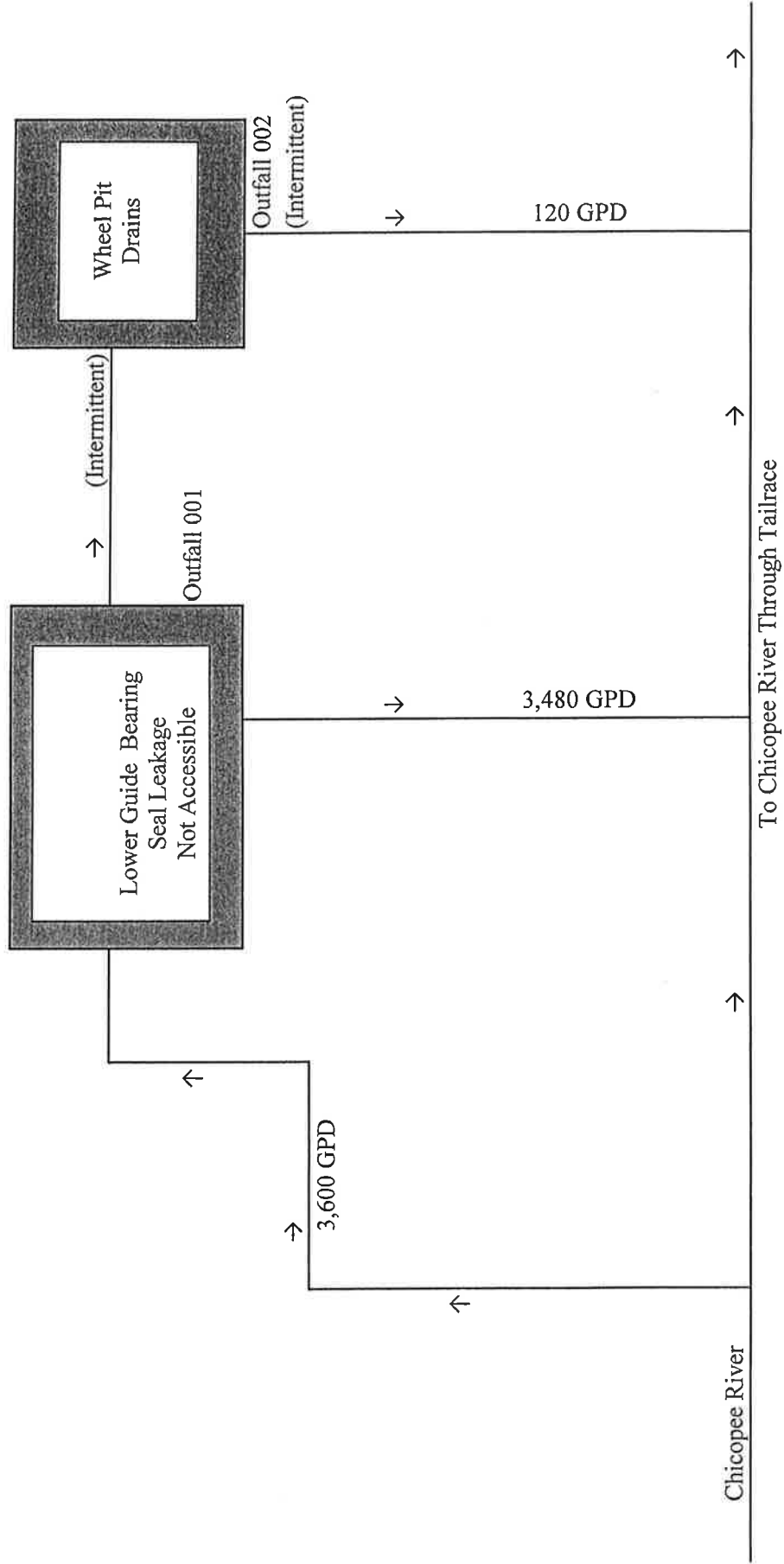


FIGURE 1
SITE LOCUS

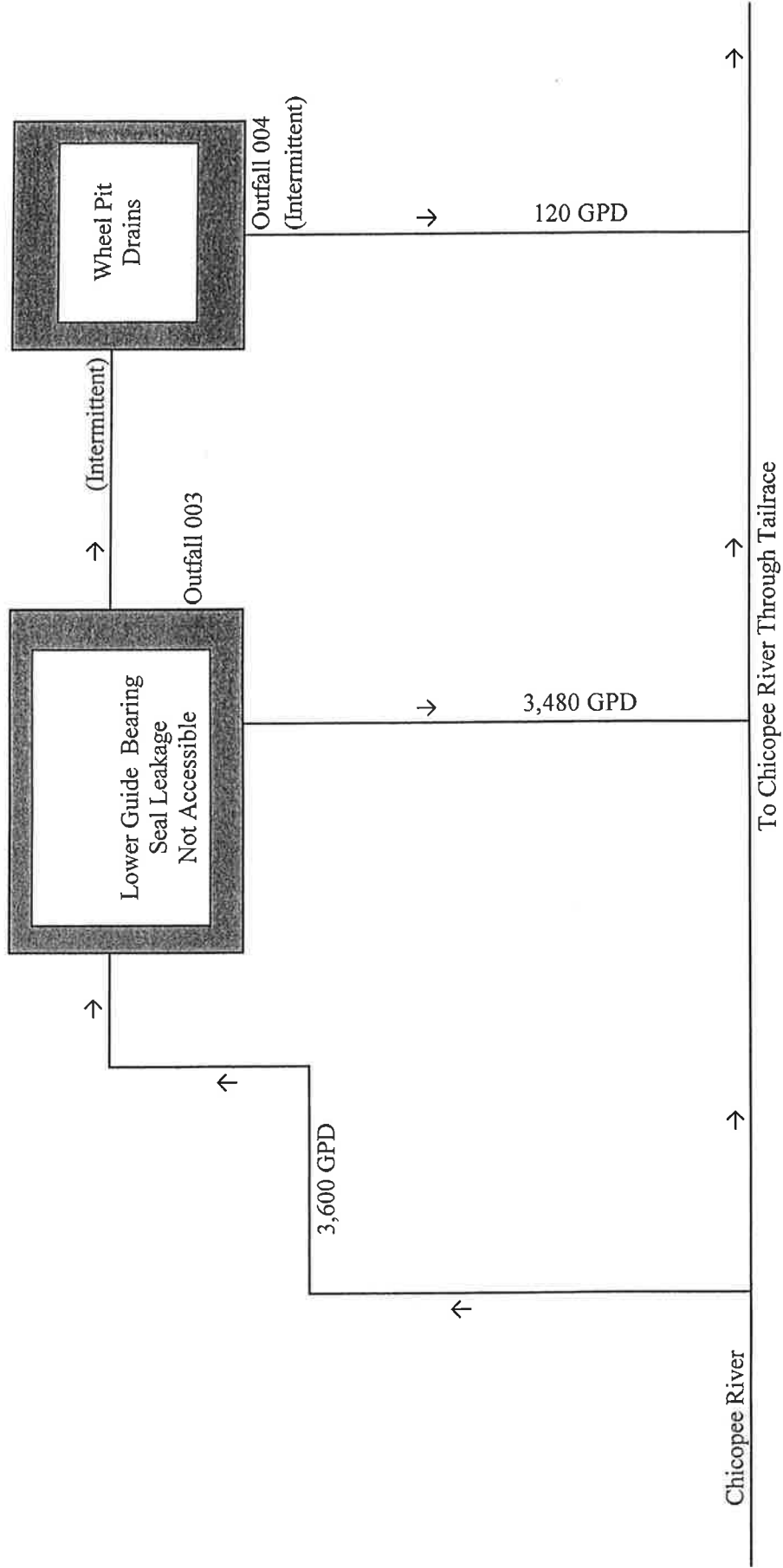
 INDIAN ORCHARD STATION
 34 FRONT STREET
 SPRINGFIELD, MASSACHUSETTS
 RTN: 1-12842

Tighe & Bond
 SCALE: 1:25000 APRIL 2002

**Essential Power Massachusetts, LLC
NPDES Permit Renewal
Water Flow Schematic
Indian Orchard Station-Unit 3
EPA ID # MAG360020**



Essential Power Massachusetts, LLC
NPDES Permit Renewal
Water Flow Schematic
Indian Orchard Station-Unit 4
EPA ID # MAG360020





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: 2023-0074436
Project Name: Indian Orchard Hydroelectric

April 26, 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 4/12/2023 - 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 4/12/2023) The Service published a final rule to reclassify the northern long-eared bat (NLEB) as endangered on November 30, 2022. The final rule went into effect on March 31, 2023. You may utilize the **Northern Long-eared Bat Rangewide Determination Key** available in IPaC. More information about this Determination Key and the Interim Consultation Framework are available on the northern long-eared bat species page:

<https://www.fws.gov/species/northern-long-eared-bat-myotis-septentrionalis>

For projects that previously utilized the 4(d) Determination Key, 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 was not completed by March 31, 2023, and may result in incidental take of NLEB, please reach out to our office at newengland@fws.gov to see if reinitiation is necessary.

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: 2023-0074436
Project Name: Indian Orchard Hydroelectric
Project Type: Power Gen - Hydropower - Non-FERC
Project Description: Npdes General Permit
Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@42.160616000000005,-72.50606515597255,14z>



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 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.

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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 <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: Patriot Hydro, LLC

Name: Brad Clay

Address: 670 N. Commercial Street Suite 204

City: Manchester

State: NH

Zip: 03101

Email: bclay@patriohydro.com

Phone: 6033437991
