

## 2<sup>nd</sup> Edition LIHI Handbook Recertification Application Table and Checklist

- This is a fillable form. Click in each righthand column to enter data or check the applicable box(es).
- For YES responses, enter or attach a summary/description and supply links to, or copies of all related documentation.
- Identify attachments by the item number below and note if any attachments are confidential.

<b>Facility Name:</b>	Mechanicsville
<b>LIHI Certificate No:</b>	74
<b>Application Date:</b>	1/25/2021
<b>Application Fee Payment Date:</b>	1/1/2021
<b>1. Updates and Changes Needed to <a href="#">Facility Webpage</a></b>	<input checked="" type="checkbox"/> N/A – webpage is accurate. <input type="checkbox"/> Changes are needed. Describe or attach
<b>2. Updated Facility Information Table:</b>	<input checked="" type="checkbox"/> Updated form attached
<b>3. During the current LIHI term, have there been any:</b>	
FERC license or exemption proceedings, applications, amendments and/or FERC orders?	<input type="checkbox"/> N/A, facility is not under FERC jurisdiction. <input checked="" type="checkbox"/> No. <input type="checkbox"/> Yes. Describe or attach
Water Quality Certification (WQC) or amendment proceedings?	<input checked="" type="checkbox"/> N/A, no WQC for the facility. <input type="checkbox"/> No. <input type="checkbox"/> Yes. Describe or attach
FERC-required facility or operational changes?	<input checked="" type="checkbox"/> No. <input type="checkbox"/> Yes. Describe or attach
Changes to facility-related management plans, settlement agreements, MOUs or other agreements?	<input checked="" type="checkbox"/> No. <input type="checkbox"/> Yes. Describe or attach
Any formal or informal resource agency communications related to the LIHI criteria?	<input checked="" type="checkbox"/> No. <input type="checkbox"/> Yes. Describe or attach
<b>4. During the current LIHI term, have there been any activities or changes at the facility:</b>	
Environmental upsets (e.g., oil spills, erosion events, damaging flood events)?	<input checked="" type="checkbox"/> No. <input type="checkbox"/> Yes. Describe or attach

## 2<sup>nd</sup> Edition LIHI Handbook Recertification Application Table and Checklist

Changes in the environmental conditions at the facility (e.g., significant land clearing, dredging, flood damage repairs, construction activities)?	<input checked="" type="checkbox"/> No. <input type="checkbox"/> Yes. Describe or attach
Any other issues related to the LIHI criteria that have arisen (e.g., agency comments or new recommendations, stakeholder inquiries, etc.)?	<input checked="" type="checkbox"/> No issues have arisen. <input type="checkbox"/> Yes. Describe or attach
<b>5. During the current LIHI term have there been any:</b>	
Deviations or excursions from regulatory requirements?	<input checked="" type="checkbox"/> None have occurred. <input type="checkbox"/> Yes. Describe or attach  Describe the outcomes of any related actions or any ongoing activities.  Provide links here or attach copies of all related documents
FERC compliance orders, notices of non-compliance or violations from FERC, from regulatory agencies, or from stakeholders or the general public?	<input checked="" type="checkbox"/> None received. <input type="checkbox"/> Yes. Describe or attach  Describe the outcomes of any related actions or any ongoing activities.  Provide links here or attach copies of all related FERC, agency and stakeholder documents and communications including compliance reports to FERC
<b>6. Ecological Flows (if not captured above):</b>	
Are there any temporary or permanent changes in impoundment operations that have occurred or are planned, including significant drawdowns (planned for maintenance or dam repairs or extended flashboard removal); and/or changes in flow release quantity or schedules, including white water releases?	<input type="checkbox"/> No changes have occurred or are planned. <input checked="" type="checkbox"/> Yes. Forebay was coffer dammed in August 2019 to replace and repair trash racks, head gates and trash deck.  In 2021, CT has requested that we lower the pond 2 ft so they can repair an upstream tunnel.

## 2<sup>nd</sup> Edition LIHI Handbook Recertification Application Table and Checklist

<b>7. Water Quality:</b>	
<p>If applicable, are there any amendments or applications for amendment to the facility's Water Quality Certification (WQC) during the current LIHI term?</p>	<p><input checked="" type="checkbox"/> N/A, no WQC for the facility.</p> <p><input type="checkbox"/> No WQC amendment proceedings.</p> <p><input type="checkbox"/> Yes, there have been amendment proceedings.</p>
<p>If there is a WQC and you selected Standard B-2, Agency Recommendation in the prior LIHI application, is the WQC is now &gt; 10 years old?</p> <p>Provide a letter from the state water quality agency confirming that the terms and conditions of the existing WQC are still valid and applicable to the facility.</p>	<p><input checked="" type="checkbox"/> N/A, no WQC for the facility.</p> <p><input type="checkbox"/> No, did not select Standard B-2.</p> <p><input type="checkbox"/> No, WQC is still &lt; 10 years old.</p> <p><input type="checkbox"/> Yes, WQC is &gt; 10 years old, and agency letter is attached.</p>
<p>Review the most recent published state impaired waters list (draft or final).</p> <p>Have there been any changes in the listing (new impairments, impairments removed, etc.) for the facility vicinity since the prior LIHI application?</p>	<p><input checked="" type="checkbox"/> No changes.</p> <p><input type="checkbox"/> Yes.</p> <p>Page 17 in <a href="https://portal.ct.gov/-/media/DEEP/water/water_quality_management/305b/2020/2020IWQRAAppendixA1.pdf">https://portal.ct.gov/-/media/DEEP/water/water_quality_management/305b/2020/2020IWQRAAppendixA1.pdf</a></p> <p>No impairments, the French River is listed as fully supporting designated uses for aquatic habitat and recreation</p>
<p>Identify any changes in stream designation such as state water quality classification changes for the river, Wild and Scenic Rivers designation, or other protected river status changes.</p>	<p><input checked="" type="checkbox"/> None identified.</p> <p><input type="checkbox"/> Yes. Describe or attach</p>
<p>If water quality monitoring has been conducted at or near the facility by you or others during the current LIHI term, provide links to, or copies of, the final monitoring report, and if applicable, all related FERC and agency consultation and communications.</p>	<p><input checked="" type="checkbox"/> N/A, no monitoring conducted.</p> <p><input type="checkbox"/> Yes.</p> <p>Provide links here or attach copies of all related documents</p>

## 2<sup>nd</sup> Edition LIHI Handbook Recertification Application Table and Checklist

<b>8. Upstream and Downstream Fish Passage:</b>	
<p>Have there been any completed or ongoing fish passage studies during the current LIHI term, including any data collected on fish passage (e.g., return numbers, changes made in seasonal operations, mortalities reported, effectiveness results)?</p>	<p> <input checked="" type="checkbox"/> N/A, no fish passage.  <input type="checkbox"/> No studies have occurred or are planned.  <input type="checkbox"/> Yes, studies have occurred or are planned. Describe or attach         </p> <p style="color: #808080;">Provide links here or attach copies of all related documents</p>
<p>Have there been any temporary or permanent changes in passage facilities or related operations that have occurred during the current LIHI term, or that are planned?</p>	<p> <input type="checkbox"/> N/A, no fish passage.  <input type="checkbox"/> No changes have occurred or are planned.  <input checked="" type="checkbox"/> Yes, changes have occurred or are planned. An upstream concrete eel ramp was added on the dam per the request of CT DEEP Inland Fisheries. We voluntarily reduced the trash rack spacing and increased the trash rack area during an upgrade.         </p> <p style="color: #808080;">Provide links here or attach copies of all related documents</p>
<b>9. Shoreline and Watershed Protection:</b>	
<p>Are there any new or revised agency watershed-related management plans that may affect the facility (e.g., watershed management plan, fishery restoration plan, recovery plan for threatened or endangered species, or other agency plans)?</p>	<p> <input checked="" type="checkbox"/> None identified.  <input type="checkbox"/> Yes. Describe or attach         </p> <p style="color: #808080;">Provide links here or attach copies of all related documents</p> <p style="color: #808080;">Describe whether, and if so how, any management plans affect the facility and any operational or facility changes that have been made or may be needed in the future to comply with such plans</p>

## 2<sup>nd</sup> Edition LIHI Handbook Recertification Application Table and Checklist

<b>10. Threatened and Endangered Species:</b>	
Conduct a U.S. Fish and Wildlife Service IPaC online data check ( <a href="https://ecos.fws.gov/ipac/">https://ecos.fws.gov/ipac/</a> ) for newly observed or newly listed federally threatened and endangered species.	<input checked="" type="checkbox"/> IPaC report attached.  Only Northern long-eared bat could be present. Project run-of-river operations and the lack of need to cut potential roosting or associated trees between June and July per the 4(d) rule results in no impact to this species. Migratory birds including bald eagle, bobolink, rusty blackbird, and wood thrush may also be present at some times of the year and lack of need to cut trees results in no impact to these species.
Conduct a state threatened and endangered species data check (may require payment of fees) for newly observed or newly listed state threatened and endangered species.	<input checked="" type="checkbox"/> State listed species report attached.  The CT DEEP map attached shows no critical habitats or listed species in the project boundary. There is a floodplain forest community located in the downstream zone of the project.
Describe and summarize any studies of protected species at the facility that were completed or are ongoing during the current LIHI term.	<input checked="" type="checkbox"/> No studies have occurred or are planned <input type="checkbox"/> Yes, studies have occurred or are planned. Describe or attach
<b>11. Cultural and Historic Resources:</b>	
Are there any structural or operational changes that have occurred or are planned that affect or could affect cultural or historic resources?	<input checked="" type="checkbox"/> No changes have occurred or are planned. <input type="checkbox"/> Yes, changes have occurred or are planned. Describe or attach  Provide links here or attach copies of any required consultation with the State or Tribal Historic Preservation Officer(s) and/or local governments

## 2<sup>nd</sup> Edition LIHI Handbook Recertification Application Table and Checklist

<p>Describe and summarize any cultural or historic resource studies at the facility, that were completed or are ongoing during the current LIHI term including mitigation measures taken or planned.</p>	<p><input checked="" type="checkbox"/> No studies have occurred or are planned  <input type="checkbox"/> Yes, studies have occurred or are planned. Describe or attach</p> <p>Provide links here or attach copies of all related documents</p> <p>Describe whether, and if so how, any management plans affect the facility and any operational or facility changes that have been made or may be needed in the future to comply with such plans</p>
<p><b>12. Recreational Resources:</b></p>	
<p>Provide a description of and current photos of formal and informal recreation areas/facilities along with a description of any temporary or permanent changes in recreational facilities or services, including consultation with recreational stakeholders during the current LIHI term or planned in the foreseeable future.</p>	<p><input type="checkbox"/> N/A, the facility has no formal or informal recreation access.  <input type="checkbox"/> Yes, recreation area photos attached.  <input checked="" type="checkbox"/> No changes have occurred or are planned.  <input type="checkbox"/> Yes, changes have occurred or are planned. Describe or attach</p> <p>There are no recreation facilities at the project.</p>
<p>Provide a summary of inquiries and comments received from stakeholders about recreation sites during the current LIHI term, including any changes made as a result.</p>	<p><input checked="" type="checkbox"/> No inquiries received.  <input type="checkbox"/> Yes, inquiries were received. Describe or attach</p> <p>Provide links here or attach copies of all related documents</p>
<p>If applicable, provide links to or copies of, any FERC Environmental and Recreation Inspection reports and reports of follow up activities during the current LIHI term.</p>	<p><input checked="" type="checkbox"/> N/A, no FERC inspection has occurred  <input type="checkbox"/> Yes, FERC inspection occurred on: Click and use arrow button to enter date</p> <p>Describe any follow up activities, and provide links here or attach copies of, all related documents</p>
<p>If there is a recreation management plan for the facility, provide any updates to the plan that have occurred during the current LIHI term.</p>	<p><input checked="" type="checkbox"/> N/A, no recreation management plan for the facility.  <input type="checkbox"/> No changes have occurred or are planned.  <input type="checkbox"/> Yes, updated recreation management plan attached.</p>

## 2<sup>nd</sup> Edition LIHI Handbook Recertification Application Table and Checklist

<b>13. Other:</b>	
Provide updated photos of key project features if changes have occurred	<input checked="" type="checkbox"/> No changes in key project features. <input type="checkbox"/> Yes, photos attached.
If the FERC boundary has changed during the current LIHI term, provide updated maps.	<input checked="" type="checkbox"/> No FERC boundary changes have occurred. <input type="checkbox"/> Yes, FERC boundary has changed, map attached.
Review and update the <a href="#">facility, agency and stakeholder contact lists</a> from the prior LIHI application, including all requested contact information therein.	<input type="checkbox"/> No changes in any contacts. <input checked="" type="checkbox"/> Yes, updated contact list(s) attached.
Provide a signed <a href="#">Sworn Statement and Waiver Form</a> .	<input checked="" type="checkbox"/> Signed statement attached.

**Table B-1.1. Facility Information.**

<b>Item</b>	<b>Information Requested</b>	<b>Response (include references to further details)</b>
<b>Name of the Facility</b>	Facility name (use FERC project name or other legal name)	Mechanicsville, LIHI #74
<b>Reason for applying for LIHI Certification</b>	1. To participate in state RPS program 2. and specify the state and the total MW/MWh associated with that participation (value and % of facility total Mw/MWh). 3. To participate in voluntary REC market (e.g., Green-e) 4. To satisfy a direct energy buyer's purchasing requirement 5. To satisfy the facility's own corporate sustainability goals 6. For the facility's corporate marketing purposes 7. Other (describe)	Massachusetts CL II  0.225MW/0.5MWh  5) YES
	If applicable, amount of annual generation (MWh and % of total generation) for which RECs are currently received or are expected to be received upon LIHI Certification	0.5 MWh or 50%
<b>Location</b>	River name (USGS proper name)	French River
	Watershed name - Select region, click on the area of interest until the 8-digit HUC number appears. Then identify watershed name and HUC-8 number from the map at: <a href="https://water.usgs.gov/wsc/map_index.html">https://water.usgs.gov/wsc/map_index.html</a>	Quinebaug River, 01100001
	Nearest town(s), <u>county(ies)</u> , and state(s) to dam	Thompson, Windham County, CT
	River mile of dam above mouth	0.22
	Geographic latitude of dam	41.943125
	Geographic longitude of dam	-71.894828
<b>Facility Owner</b>	Application contact names (Complete the Contact Form in <a href="#">Section B-4</a> also):	Rolland Zeleny



<i>Item</i>	<i>Information Requested</i>	<i>Response (include references to further details)</i>
	Facility owner company and authorized owner representative name. <b>For recertifications: If ownership has changed since last certification, provide the effective date of the change.</b>	Saywatt Hydroelectric, LLC Rolland Zeleny, President
	FERC licensee company name (if different from owner)	Saywatt Hydroelectric, LLC
<b>Regulatory Status</b>	FERC Project Number (e.g., P-xxxxx), issuance and expiration dates, or date of exemption	P-9611, exemption issued 01/27/1988
	FERC license type (major, minor, exemption) or special classification (e.g., "qualified conduit", "non-jurisdictional")	exemption
	Water Quality Certificate identifier, issuance date, and issuing agency name. Include information on amendments.	n/a – no WQC issued
	Hyperlinks to key electronic records on FERC e-library website or other publicly accessible data repositories <sup>1</sup>	1988 Exemption <a href="https://lowimpacthydro.org/wp-content/uploads/2020/08/Appendix-1-1-FERC-Order-P-9611-1988_01_27-A.pdf">https://lowimpacthydro.org/wp-content/uploads/2020/08/Appendix-1-1-FERC-Order-P-9611-1988_01_27-A.pdf</a>  2012 Exemption Amendment <a href="https://lowimpacthydro.org/wp-content/uploads/2020/08/FERC-Authorization-of-Amendments.pdf">https://lowimpacthydro.org/wp-content/uploads/2020/08/FERC-Authorization-of-Amendments.pdf</a>
<b>Powerhouse</b>	Date of initial operation (past or future for pre-operational applications)	1989
	Total installed capacity (MW) <b>For recertifications: Indicate if installed capacity has changed since last certification</b>	0.337 MW
	Average annual generation (MWh) and period of record used <b>For recertifications: Indicate if average annual generation has changed since last certification</b>	950 MWh

<sup>1</sup> For example, the FERC license or exemption, recent FERC Orders, Water Quality Certificates, Endangered Species Act documents, Special Use Permits from the U.S. Forest Service, 3<sup>rd</sup>-party agreements about water or land management, grants of right-of-way, U.S. Army Corps of Engineers permits, and other regulatory documents. If extensive, the list of hyperlinks can be provided separately in the application.

<b>Item</b>	<b>Information Requested</b>	<b>Response (include references to further details)</b>
	<u>Mode of operation</u> (run-of-river, peaking, pulsing, seasonal storage, diversion, etc.) <b>For recertifications: Indicate if mode of operation has changed since last certification</b>	Run of river
	Number, type, and size of turbine/generators, including maximum and minimum hydraulic capacity and maximum and minimum output of each turbine and generator unit	Two Units: <ul style="list-style-type: none"> <li>• One Hydrolec T-15 Vertical Semi-Kaplan, 225 kW, Min Flow: 64 CFS, Max Flow: 260 CFS</li> <li>• One S. Morgan Smith 36 Type "O" Vertical Francis, 112 kW, Min Flow: 38 CFS, Max Flow: 120</li> </ul>
	Trashrack clear spacing (inches) for each trashrack	New UHD Plastic Racks with 1.375" spacing. *Note: Reduced from 1.75"
	Approach water velocity (ft/s) at each intake if known	New trash racks increased intake area by 12% and reduced attraction flows by 11% Maximum attraction flows at intake is 1.38 ft/sec.
	Dates and types of major equipment upgrades <b>For recertifications: Indicate only those since last certification</b>	New Trash Racks with voluntary reduced clear spacing, increased area and reduced attraction flows.
	Dates, purpose, and type of any recent operational changes <b>For recertifications: Indicate only those since last certification</b>	New trash racks and rebuilt trash deck September 2019.
	Plans, authorization, and regulatory activities for any facility upgrades or license or exemption amendments	None
<b>Dam or Diversion</b>	Date of original dam or diversion construction and description and dates of subsequent dam or diversion structure modifications	Dam mid-1800s, powerhouse 1922
	Dam or diversion structure length, height including separately the height of any flashboards, inflatable dams, etc. and describe seasonal operation of flashboards and the like	Length =- 200 ft, Height = 15 ft with two-foot flashboards. Flashboards lowered to 1 ft. July 1 – October 1 to protect wetland.
	Spillway maximum hydraulic capacity	3,600 cfs estimated
	Length and type of each penstock and water conveyance structure between the impoundment and powerhouse	A 35-foot long forebay with an average width of 30 feet and depth of 8.5 feet. A 5-foot diameter, 2-foot long penstock.

<b>Item</b>	<b>Information Requested</b>	<b>Response (include references to further details)</b>
	Designated facility purposes (e.g., power, navigation, flood control, water supply, etc.)	Power supply
<b>Conduit Facilities Only</b>	Date of conduit construction and primary purpose of conduit	n/a
	Source water	n/a
	Receiving water and location of discharge	n/a
<b>Impoundment and Watershed</b>	Authorized maximum and minimum impoundment water surface elevations <b>For recertifications: Indicate if these values have changed since last certification</b>	Maximum: 306 ft. MSL Minimum: n/a, run of river
	Normal operating elevations and normal fluctuation range <b>For recertifications: Indicate if these values have changed since last certification</b>	303.5 ft MSL, run of river
	Gross storage volume and surface area at full pool <b>For recertifications: Indicate if these values have changed since last certification</b>	48-acre reservoir with a 256-acre-foot storage capacity
	Usable storage volume and surface area <b>For recertifications: Indicate if these values have changed since last certification</b>	none
	Describe requirements related to impoundment inflow and outflow, elevation restrictions (e.g., fluctuation limits, seasonality) up/down ramping and refill rate restrictions.	Impoundment refill after flashboard installation only if sufficient inflow and impoundment refill rate 10%. 50 cfs minimum flow required during refill operation.

<b>Item</b>	<b>Information Requested</b>	<b>Response (include references to further details)</b>
	Upstream dams by name, ownership and river mile. If FERC licensed or exempt, please provide FERC Project number of these dams. Indicate which upstream dams have downstream fish passage.	<p>Fish passage status unknown, only eels may be present.</p> <ul style="list-style-type: none"> <li>• Grosvenordale, Town of Thompson, 2.4 miles upstream</li> <li>• N. Grosvenordale, Rivermill, 4.3 miles</li> <li>• Wilsonville, Town of Thompson, 5.9 miles</li> <li>• Perryville Pond, Town of Dudley, 6.9 miles</li> <li>• South Village Pond, Webster, William Faye, 9.2 miles</li> <li>• North Village Pond, Webster, P-5824, Webster Hydroelectric Co., 10.4 miles</li> <li>• Hodges Village Dam, USACE (operates as run of river, no storage except in floods)</li> </ul>
	Downstream dams by name, ownership, river mile and FERC number if FERC licensed or exempt. Indicate which downstream dams have upstream fish passage	<p>None on French River.</p> <p>On Quinebaug River next downstream dams both have upstream eel passage:</p> <ul style="list-style-type: none"> <li>• MSC P-5679, Energy Stream LLC</li> <li>• Putnam P-5645, Putnam Hydropower Inc.</li> </ul>
	Operating agreements with upstream or downstream facilities that affect water availability and facility operation	None
	Area of land (acres) and area of water (acres) inside FERC project boundary or under facility control. Indicate locations and acres of flowage rights versus fee-owned property.	4 acres total
<b>Hydrologic Setting</b>	Average annual flow at the dam, and period of record used	234 CFS
	Average monthly flows and period of record used	JAN 250, FEB 248, MAR 360, APR 372, MAY 203, JUNE 171, JULY 91, AUG 73, SEP 90, OCT 156, NOV 217, DEC 277
	Location and name of closest stream gaging stations above and below the facility	Upstream gage: French River at N. Grosvenordale, CT USGS 01125000; Downstream gage: Quinebaug River at Putnam, CT USGS 01125500
	Watershed area at the dam (in square miles). Identify if this value is prorated from gage locations and provide the basis for proration calculation.	112 sq. miles
	Other facility specific hydrologic information	n/a

<b>Item</b>	<b>Information Requested</b>	<b>Response (include references to further details)</b>
<b>Designated Zones of Effect</b>	Number of zones of effect	2
	Type of waterbody (river, impoundment, bypassed reach, etc.)	Zone 1: river, downstream reach Zone 2: impoundment
	Upstream and downstream locations by river miles	Zone 1: RM zero to RM 0.22 Zone 2: RM 0.22 to RM 0.72
	Delimiting structures or features	dam
<b>Pre-Operational Facilities Only</b>		
<b>Expected operational date</b>	Date generation is expected to begin	n/a
<b>Dam, diversion structure or conduit modification</b>	Description of modifications made to a pre-existing conduit, dam or diversion structure needed to accommodate facility generation. This includes installation of flashboards or raising the flashboard height. Date the modification is expected to be completed	
<b>Change in water flow regime</b>	Description of any change in impoundment levels, water flows or operations required for new generation	

**Facility Contacts**

<b>Project Owner:</b>	
Name and Title	Rolland Zeleny
Company	Saywatt Hydroelectric, LLC
Phone	603-498-8089
Email Address	<a href="mailto:indigoharbor@yahoo.com">indigoharbor@yahoo.com</a>
Mailing Address	18 Washington St., Suite 18, Canton, MA 02021
<b>Project Operator (if different from Owner):</b>	
Name and Title	
Company	
Phone	
Email Address	
Mailing Address	
<b>Consulting Firm / Agent for LIHI Program (if different from above):</b>	
Name and Title	
Company	
Phone	
Email Address	
Mailing Address	
<b>Compliance Contact (responsible for LIHI Program requirements):</b>	
Name and Title	Same as Above
Company	
Phone	
Email Address	
Mailing Address	
<b>Party responsible for accounts payable:</b>	
Name and Title	Same As Above
Company	
Phone	
Email Address	
Mailing Address	

**Current state, federal, provincial, and tribal resource agency contacts.**

<b>Agency Contact</b> (Check area of responsibility: Flows_X_, Water Quality_X_, Fish/Wildlife Resources_X_, Watersheds_X_, T/E Spp., Cultural/Historic Resources_X_, Recreation_X_):	
Agency Name	Connecticut Department of Energy and Environmental Protection (DEEP)
Name and Title	Robert Hannon, Esq.
Phone	860-424-3245
Email address	<a href="mailto:Robert.Hannon@ct.gov">Robert.Hannon@ct.gov</a>
Mailing Address	79 Elm Street, Hartford, CT 06106-5127

<b>Agency Contact</b> (Check area of responsibility: Flows_X_, Water Quality_X_, Fish/Wildlife Resources_X_, Watersheds_X_, T/E Spp., Cultural/Historic Resources_X_, Recreation_X_):	
Agency Name	Connecticut Department of Energy and Environmental Protection (DEEP)
Name and Title	Stephen Gephard
Phone	860-447-4316
Email address	<a href="mailto:steve.gephard@ct.gov">steve.gephard@ct.gov</a>
Mailing Address	79 Elm Street, Hartford, CT 06106-5127

<b>Agency Contact</b> (Check area of responsibility: Flows_X_, Water Quality_X_, Fish/Wildlife Resources_X_, Watersheds_X_, T/E Spp., Cultural/Historic Resources_X_, Recreation_X_):	
Agency Name	US Fish and Wildlife Service
Name and Title	Melissa Grader
Phone	413-548-9138
Email address	<a href="mailto:Melissa_Grader@fws.gov">Melissa_Grader@fws.gov</a>
Mailing Address	300 Westgate Center Drive, Hadley, MA 01035

<b>Agency Contact</b> (Check area of responsibility: Flows_X_, Water Quality_X_, Fish/Wildlife Resources_X_, Watersheds_X_, T/E Spp., Cultural/Historic Resources_X_, Recreation_X_):	
Agency Name	Connecticut State Historic Preservation Office (SHPO)
Name and Title	Mary Dunne, State Historic Preservation Officer
Phone	860-256-2800
Email address	<a href="mailto:mary.dunne@ct.gov">mary.dunne@ct.gov</a>
Mailing Address	450 Columbus Boulevard, Suite 5, Hartford, CT 06103

## Sworn Statement and Waiver Form

All applications for LIHI Certification must include the following sworn statement before they can be reviewed by LIHI:

### SWORN STATEMENT

*As an Authorized Representative of Saywatt Hydroelectric, LLC, the Undersigned attests that the material presented in the application is true and complete.*

*The Undersigned acknowledges that the primary goal of the Low Impact Hydropower Institute's certification program is public benefit, and that the LIHI Governing Board and its agents are not responsible for financial or other private consequences of its certification decisions.*

*The Undersigned further acknowledges that if LIHI Certification of the applying facility is granted, the LIHI Certification Mark License Agreement must be executed prior to marketing the electricity product as LIHI Certified®.*

*The Undersigned further agrees to hold the Low Impact Hydropower Institute, the Governing Board and its agents harmless for any decision rendered on this or other applications, from any consequences of disclosing or publishing any submitted certification application materials to the public, or on any other action pursuant to the Low Impact Hydropower Institute's certification program.*

### FOR PRE-OPERATIONAL CERTIFICATIONS:

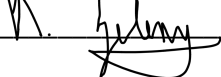
*The Undersigned acknowledges that LIHI may suspend or revoke the LIHI Certification should the impacts of the facility, once operational, fail to comply with the LIHI program requirements.*

Company Name: \_Saywatt Hydroelectric, LLC\_\_\_\_\_

Authorized Representative:

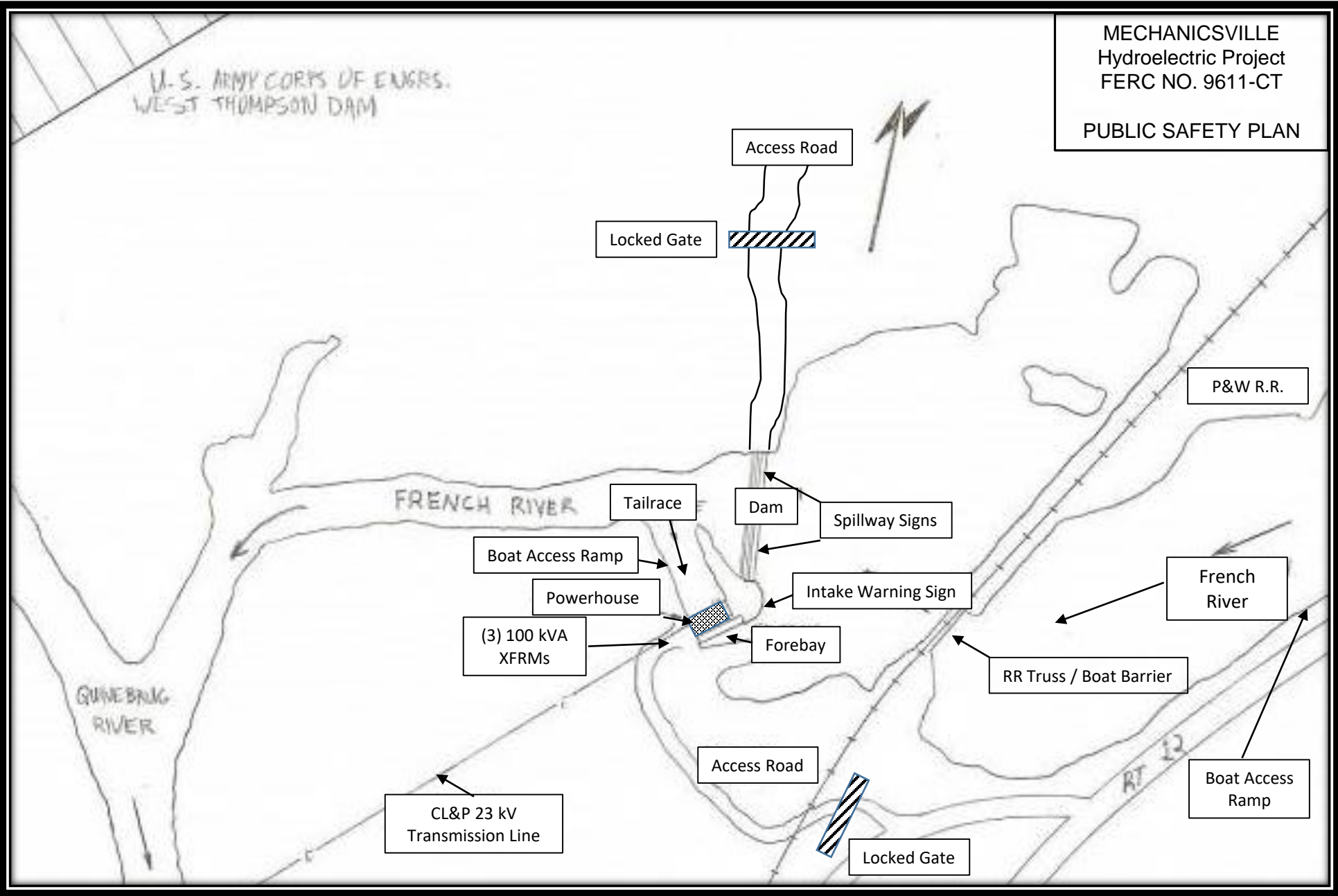
Name: \_\_\_Rolland Zeleny\_\_\_\_\_

Title: \_\_\_President\_\_\_\_\_

Authorized Signature: \_\_\_\_\_  


Date: \_\_\_January 25, 2021\_\_\_\_\_









**Critical Habitat,  
species unknown**

**Floodplain  
Forest**

**Mechanicsville**

CT Natural Diversity Database Check  
Downloaded 01/06/2021 from  
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[viewer=advanced](https://cteco.uconn.edu/viewer/index.html?viewer=advanced)



# IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

## Location

Windham County, Connecticut



## Local office

New England Ecological Services Field Office

☎ (603) 223-2541

📠 (603) 223-0104

70 Commercial Street, Suite 300  
Concord, NH 03301-5094

<http://www.fws.gov/newengland>

NOT FOR CONSULTATION

# Endangered species

**This resource list is for informational purposes only and does not constitute an analysis of project level impacts.**

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species<sup>1</sup> and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries<sup>2</sup>).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

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1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information. IPaC only shows species that are regulated by USFWS (see FAQ).
  2. [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.

The following species are potentially affected by activities in this location:

# Mammals

NAME	STATUS
Northern Long-eared Bat <i>Myotis septentrionalis</i> Wherever found No critical habitat has been designated for this species. <a href="https://ecos.fws.gov/ecp/species/9045">https://ecos.fws.gov/ecp/species/9045</a>	Threatened

## Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

## Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act<sup>1</sup> and the Bald and Golden Eagle Protection Act<sup>2</sup>.

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>
- Measures for avoiding and minimizing impacts to birds <http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Nationwide conservation measures for birds <http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf>

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ

[below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME

BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)

**Bald Eagle** *Haliaeetus leucocephalus*

Breeds Oct 15 to Aug 31

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

<https://ecos.fws.gov/ecp/species/1626>

**Bobolink** *Dolichonyx oryzivorus*

Breeds May 20 to Jul 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

**Rusty Blackbird** *Euphagus carolinus*

Breeds elsewhere

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.



Wood Thrush *Hylocichla mustelina*

Breeds May 10 to Aug 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

## Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

### Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is  $0.25/0.25 = 1$ ; at week 20 it is  $0.05/0.25 = 0.2$ .
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

### Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

### Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of



surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

### No Data (–)

A week is marked as having no data if there were no survey events for that week.

### Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

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### Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

### What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [AKN Phenology Tool](#).

### What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

## How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: [The Cornell Lab of Ornithology All About Birds Bird Guide](#), or (if you are unsuccessful in locating the bird of interest there), the [Cornell Lab of Ornithology Neotropical Birds guide](#). If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

## What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

## Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

## What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

## Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring

in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

## Facilities

### National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

### Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

## Wetlands in the National Wetlands Inventory

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual



extent of wetlands on site.

This location overlaps the following wetlands:

FRESHWATER FORESTED/SHRUB WETLAND

[PFO1Ch](#)

LAKE

[L1UBHh](#)

[L1ABHh](#)

RIVERINE

[R2UBHh](#)

[R5UBH](#)

[R4SBC](#)

A full description for each wetland code can be found at the [National Wetlands Inventory website](#)

#### Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

#### Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

#### Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in

activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

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