

**LOW-IMPACT RECERTIFICATION
APPLICATION**

West Springfield Hydroelectric Project
(FERC NO. 2608)

Revised June 2021

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1. FACILITY DESCRIPTION

The West Springfield Hydroelectric Project (“the project”) is located at river mile 3.7 on the Westfield River in West Springfield and Agawam, Hampden County, Massachusetts just above the river’s confluence with the Connecticut River. The project is owned and operated by A&D Hydro Inc. and was first granted LIHI certification in 2005 and recertified in 2010 and again in 2015.

The Westfield River is approximately 78.1 miles long, from its headwaters in the Berkshires in northwestern Massachusetts, to its confluence with the Connecticut River. The Westfield River flows from three branches in a northwest to southeast direction, with a total drainage area of 513 square miles at the dam. The project is located in the Eastern mainstem subwatershed and in the Mittineague area of the river (Indian for "the place of falling waters). West Springfield is the first dam on the Westfield River.

Figure 1. Project Location and Westfield River Basin

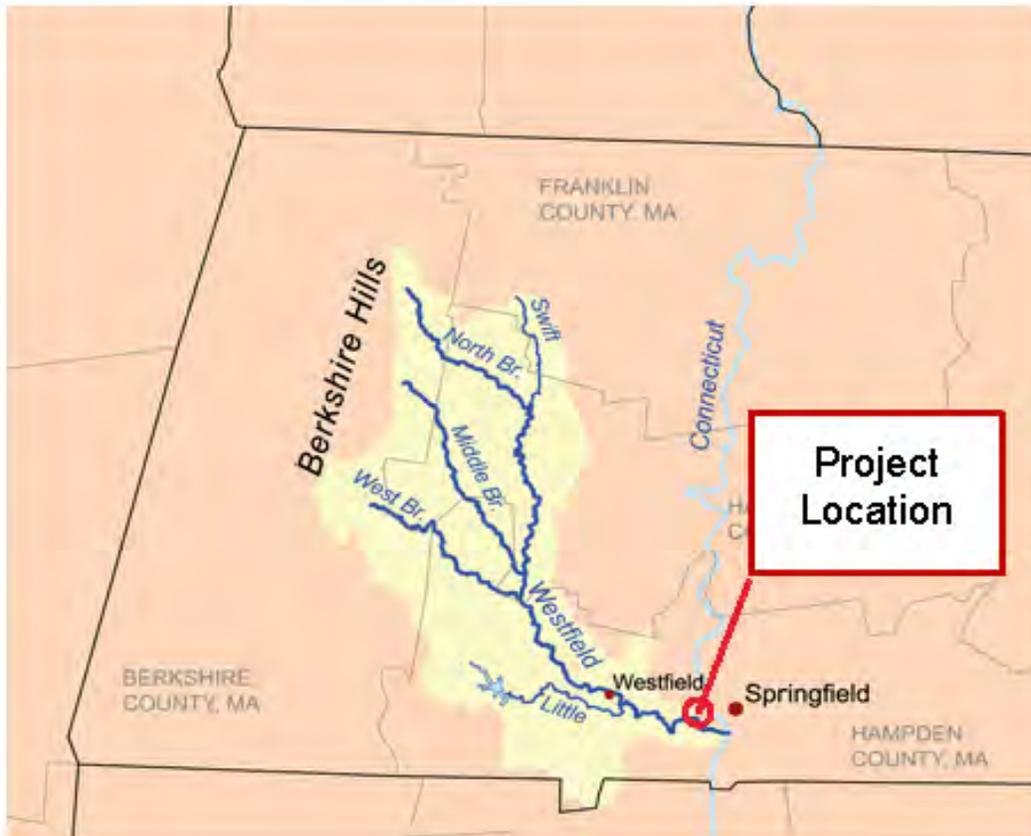
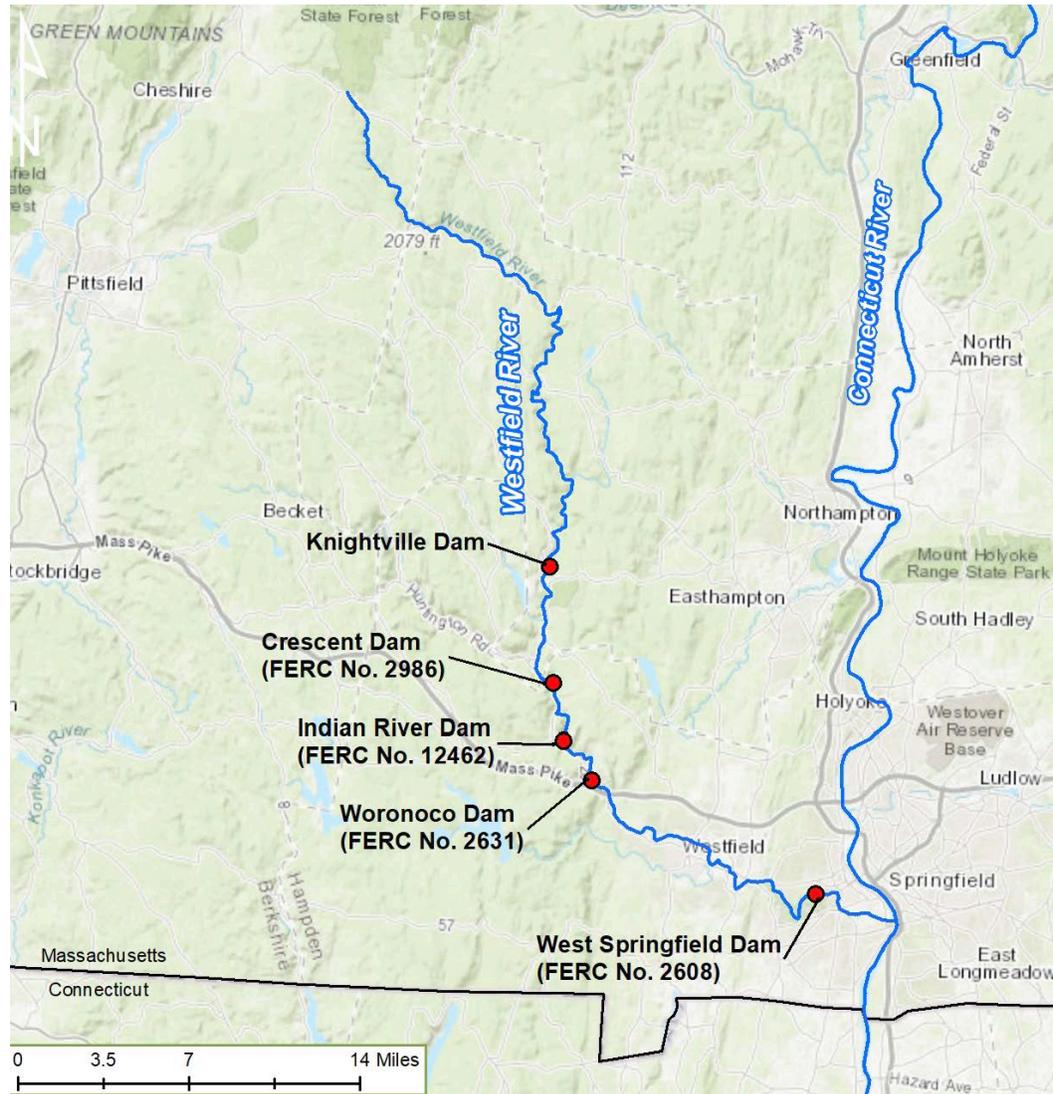


Figure 2. Dams on the Westfield River



The major project works include a concrete dam with stonework abutments on both ends. The dam was constructed in 1836 and is 18 feet high and 447.5 feet long with a crest elevation of 92.8 feet above mean sea level that creates a 20-acre impoundment about 0.6 miles long with storage capacity of 200 acre-feet. The power canal is 2,610 feet long and 50 feet wide with laid up stone and concrete headworks and six hydraulically operated steel and timber slide gates. The bypassed reach is bifurcated by an island into two channels with an overall length of about 0.5 miles.

Figure 3. Dam showing minimum flow discharge and fish ladder



The powerhouse contains two vertical Francis turbine/generators. Unit One is rated at 900 kW and Unit Two is rated at 466 kW, or about 1,400 kW combined. With flow restrictions in the power canal the combined capacity is 1,200 kW (800 kW and 400 kW respectively). The tailrace is about 157 feet long and about 30 feet wide. The project operates in an instantaneous run-of-river mode.

Figure 4. Powerhouse and Unit 2



Since last certified by LIHI, the project has not made any material changes to facilities or operations. The project has one condition in the current certification to maintain fish exclusion racks/screens during downstream fish passage seasons; coordinate with MDFW on seasonal installation, removal, and maintenance; and to report to LIHI on any agency concerns related to fish passage. The project has remained in compliance with this condition.

Table 1. Facility Description

<i>Item</i>	<i>Information Requested</i>	<i>Response (include references to further details)</i>
Name of the Facility	Facility name (use FERC project name or other legal name)	West Springfield Hydroelectric Project
Reason for applying for LIHI Certification	<ol style="list-style-type: none"> 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) 	To satisfy the facility's own corporate sustainability goals.
	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	NA - This is proprietary business information
Location	River name (USGS proper name)	Westfield 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: https://water.usgs.gov/wsc/map_index.html	Westfield River HUC-8 01080206
	Nearest town(s), <u>county(ies)</u> , and state(s) to dam	West Springfield, Hampden County, MA
	River mile of dam above mouth	River mile 3.7
	Geographic latitude of dam	42.099472
	Geographic longitude of dam	-72.647617
Facility Owner	Application contact names (Complete the Contact Form in Section B-4 also):	Thomas Tarpey
	Facility owner company and authorized owner representative name. For recertifications: If ownership has changed since last certification, provide the effective date of the change.	Thomas Tarpey, A&D Hydro, Inc.
	FERC licensee company name (if different from owner)	n/a

<i>Item</i>	<i>Information Requested</i>	<i>Response (include references to further details)</i>
Regulatory Status	FERC Project Number (e.g., P-xxxxx), issuance and expiration dates, or date of exemption	P-2608 license issued 10/24/1994, expires 09/30/2034
	FERC license type (major, minor, exemption) or special classification (e.g., "qualified conduit", "non-jurisdictional")	Minor project
	Water Quality Certificate identifier, issuance date, and issuing agency name. Include information on amendments.	No state issued water quality certificate. FERC determined at licensing that the state waived issuance since it did not act on the application in a timely manner (see license).
	Hyperlinks to key electronic records on FERC e-library website or other publicly accessible data repositories	FERC license https://elibrary.ferc.gov/eLibrary/filedownload?fileid=3463016 License errata notice https://elibrary.ferc.gov/eLibrary/filedownload?fileid=3463055 2002 license amendment https://elibrary.ferc.gov/eLibrary/filedownload?fileid=3247731 Memo of Agreement, 1994 with agencies https://elibrary.ferc.gov/eLibrary/filedownload?fileid=10641518
Powerhouse	Date of initial operation (past or future for pre-operational applications) Total installed capacity (MW) For recertifications: Indicate if installed capacity has changed since last certification	Facility initially came on line in approximately 1930. 1.4 MW Installed capacity has not changed since last certification.
	Average annual generation (MWh) and period of record used For recertifications: Indicate if average annual generation has changed since last certification	5,500 MWh/year Average annual generation has not changed since last certification.
	<u>Mode of operation</u> (run-of-river, peaking, pulsing, seasonal storage, diversion, etc.) For recertifications: Indicate if mode of operation has changed since last certification	Instantaneous run of river Mode of operation has not changed since last certification.
	Number, type, and size of turbine/generators, including maximum and minimum hydraulic capacity and maximum and minimum output of each turbine and generator unit	Unit One is rated at 900 kilowatts (kW) and Unit Two is rated at 466 kW. However, due to flow restriction in the power canal, the combined capacity is 1,200 kW (Unit One at 800 kW and Unit Two at 400 kW). The hydraulic capacity of the project is 622 cubic feet per second (cfs) (400 cfs for Unit One and 222 cfs for Unit Two).

<i>Item</i>	<i>Information Requested</i>	<i>Response (include references to further details)</i>
	Trashrack clear spacing (inches) for each trashrack	Fish exclusion racks at head of canal have ¾” clear spacing. Powerhouse trash racks have 1-3/4” clear spacing.
	Approach water velocity (ft/s) at each intake if known	The maximum approach velocities are: Fish exclusion racks – 1.55 fps PH Unit 1 TR - 2 fps PH Unit 2 TR – 1.1 fps
	Dates and types of major equipment upgrades For recertifications: Indicate only those since last certification	The power house trash racks were replaced in September of 2017
	Dates, purpose, and type of any recent operational changes For recertifications: Indicate only those since last certification	No operational changes
	Plans, authorization, and regulatory activities for any facility upgrades or license or exemption amendments	NA
<i>Dam or Diversion</i>	Date of original dam or diversion construction and description and dates of subsequent dam or diversion structure modifications	The original, rock-filled, timber crib dam, constructed approximately 1836, was breached in a hurricane, in approximately 1955. A replacement was constructed, in the early to mid-nineteen sixties, in the same location, with the same cross-section as the original. The new structure is a concrete gravity dam, dowelled to bedrock. The dam concrete was poured around a timber frame, included to simulate the original structure.

<i>Item</i>	<i>Information Requested</i>	<i>Response (include references to further details)</i>
	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	447.5 feet long, 18 feet high with a crest elevation of 92.8 feet msl. It is operated without flashboards or any seasonal variations to the crest height or the three minimum flow slots located near the left (North) abutment. The Fish Passage Operations and Maintenance Plan (see section below) specifies a schedule and distribution of flows at the dam totaling 90 to 155 cfs seasonally: 90 cfs year-round, through slots in the northerly end of the spillway crest, and up to an additional 40 cfs through the fishway (15 cfs for the fishway and 25 cfs for attraction flow) and 25 cfs through the downstream migrant bypass pipe, during Spring and Fall passage seasons for fish passage operation and upstream fish movement through the bypassed reach.
	Spillway maximum hydraulic capacity	Approximately 33,500 cfs
	Length and type of each penstock and water conveyance structure between the impoundment and powerhouse	The power canal is 2,610 feet long and 50 feet wide with masonry headworks and five hydraulically operated steel slide gates. The Canal is natural ground, partially lined with concrete and an earthen dike. The trash racks for units 1 and 2 are located at the Eastern end of the power canal. The vertical axes of the two turbine generator sets are approximately 40 feet downstream of their respective trash racks.
	Designated facility purposes (e.g., power, navigation, flood control, water supply, etc.)	Power supply
<i>Conduit Facilities Only</i>	Date of conduit construction and primary purpose of conduit	n/a
	Source water	n/a
	Receiving water and location of discharge	n/a
<i>Impoundment and Watershed</i>	Authorized maximum and minimum impoundment water surface elevations For recertifications: Indicate if these values have changed since last certification	Normal elevation is 92.8 ft msl, minimal fluctuation

<i>Item</i>	<i>Information Requested</i>	<i>Response (include references to further details)</i>
	Normal operating elevations and normal fluctuation range For recertifications: Indicate if these values have changed since last certification	None, instantaneous run-of-river
	Gross storage volume and surface area at full pool For recertifications: Indicate if these values have changed since last certification	20-acre impoundment, 0.6 miles long with storage capacity of less than 200 acre-feet.
	Usable storage volume and surface area For recertifications: Indicate if these values have changed since last certification	No storage, instantaneous run-of-river
	Describe requirements related to impoundment inflow and outflow, elevation restrictions (e.g., fluctuation limits, seasonality) up/down ramping and refill rate restrictions.	West Springfield Hydro is licensed as a run-of-river facility. No additional flow specifications are included in our license.
	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.	RM 18.5 - Woronoco, Eagle Creek, FERC #2631 licensed. RM 21.5 - Indian River (Russel Dam), Eagle Creek, FERC #12462 exempt. RM 24 – Crescent (Texon), Gravity Renewables, FERC #2986 exempt. RM 30 – Knightville Army Corps flood control dam All upstream dams except Knightville have downstream fish passage
	Downstream dams by name, ownership, river mile and FERC number if FERC licensed or exempt. Indicate which downstream dams have upstream fish passage	None on the Westfield River and, on the Connecticut River, only the Enfield Dam, now breached.
	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.	Approximately 10 acres of land (including canal bed), all of which is owned in fee. No area of water in project boundary.
Hydrologic Setting	Average annual flow at the dam, and period of record used	1,032 cfs (USGS, 1914-2019)

Item	Information Requested	Response (include references to further details)
	Average monthly flows and period of record used	Period for Jan-June is 1915-2019 Period for July-Dec is 1914-2019 Jan- 952 Feb- 943 Mar- 1,724 Apr- 2,343 May- 1,239 June- 807 July- 435 Aug- 415 Sep- 449 Oct- 612 Nov- 877 Dec- 1,007
	Location and name of closest stream gaging stations above and below the facility	Upstream: USGS #01183500 at Westfield. Downstream: none
	Watershed area at the dam (in square miles). Identify if this value is prorated from gage locations and provide the basis for proration calculation.	513 square miles per FERC license
	Other facility specific hydrologic information	n/a
Designated Zones of Effect	Number of zones of effect	3
	Type of waterbody (river, impoundment, bypassed reach, etc.)	Zone 1: impoundment Zone 2: bypass reach Zone 3: tailrace/downstream reach
	Upstream and downstream locations by river miles	Zone 1: dam upstream ~ 0.6 miles to set of riffles Zone 2: bifurcated bypass reach ~ 0.5 miles long Zone 3: powerhouse discharge ~.45 miles to braided river section
	Delimiting structures or features	Dam delimits zones 1 and 2 Powerhouse discharge location delimits zones 2 and 3

2.0 STANDARDS MATRICES

Table 2. Standard Selections

Zone:		1: Impoundment	2: Bypass	3. Downstream Reach
River Mile Extent:		RM 4.3 – 3.7	RM 3.7 – 3.2	RM 3.2 – 2.75
Criterion		Standard Selected		
A	Ecological Flows	2	2	2
B	Water Quality	1	1	1
C	Upstream Fish Passage	1	2	2
D	Downstream Fish Passage	2	2	1
E	Shoreline and Watershed Protection	1	1	1
F	Threatened and Endangered Species	3	3	3
G	Cultural and Historic Resources	1	1	1
H	Recreational Resources	2	2	3

Figure 5. Zones of Effect



3.0 SUPPORTING INFORMATION

A. Ecological Flow Regimes

All zones qualify for Standard A-2.

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
A	2	<p><u>Agency Recommendation:</u></p> <ul style="list-style-type: none"> • Identify the proceeding and source, date, and specifics of the agency recommendation applied (NOTE: there may be more than one; identify and explain which is most environmentally protective). • Explain the scientific or technical basis for the agency recommendation, including methods and data used. This is required regardless of whether the recommendation is or is not part of a Settlement Agreement. • Explain how the recommendation relates to formal agency management goals and objectives for fish and wildlife. • Explain how the recommendation provides fish and wildlife protection, mitigation and enhancement (including in-stream flows, ramping and peaking rate conditions, and seasonal and episodic instream flow variations). • Explain how flows are monitored for compliance.

The Project is operated in an instantaneous run-of-river mode. There is no impoundment storage and a continuous minimum flow of 75 cfs (125 cfs during spring and fall upstream passage seasons) or the inflow to the impoundment, whichever is less, is maintained for the protection and enhancement of aquatic resources in the Westfield River (license articles 402 and 403). Article 404 of the license required a plan for monitoring of project operations via electronic monitoring of water level at the dam. The project remains in compliance with that plan.

The Fish Passage Operations and Maintenance Plan specifies a schedule and distribution of flows at the dam totaling between 90 and 155 cfs seasonally: 90 cfs year-round, through slots in the northerly end of the spillway crest, and up to an additional 40 cfs through the fishway (15 cfs for the fishway and 25 cfs for attraction flow) and 25 cfs through the downstream migrant bypass pipe, during Spring and Fall passage seasons for fish passage operation and upstream fish movement through the bypassed reach.

Flows are released at the dam and into the half-mile bypassed reach for operation of the fishway and to accommodate upstream fish movement between the tailrace and the dam. Fish passage and bypass flows¹ were key issues in the relicensing.

The minimum flow was developed based on an Instream Flow Incremental Methodology (IFIM) conducted during the last FERC relicensing. US Fish and Wildlife Service policies have a default base flow of 0.5 cfs per square mile of watershed but allowed for an alternative base flow based on measured values for similar unregulated rivers. At the dam, the alternative base flow was calculated to be 0.21 cfsm or 108 cfs. The IFIM study included demonstration flows that showed habitat was available and suitable at flows from 65 to 108 cfs. Agencies agreed with 85 cfs as the most appropriate flow level to provide 100% available habitat for smallmouth bass, the target species, which also provides 89-98% of available habitat for other species.

¹ The fishway for anadromous species were completed in 1995 and for American eel in 2001. Downstream passage is also provided.

A Memorandum of Agreement (MOA) with US Fish and Wildlife Service (FWS) and Massachusetts Department of Fish and Wildlife (MDFW) was executed in 1994. It included the provisions incorporated into the license for minimum flows for upstream migrating anadromous fish (see Sections C and D).

B. Water Quality

All zones qualify for Standard B-1.

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
B	1	<u>Not Applicable / De Minimis Effect:</u> <ul style="list-style-type: none"> Explain the rationale for why the facility does not alter water quality characteristics below, around, and above the facility.

The Westfield River in the vicinity of the project (Segment MA32-07) attains its Class B designated uses of aesthetics, primary and secondary contact recreation and fish, aquatic and wildlife habitat. Information is on page 88 of the 2016 Massachusetts Integrated List of Waters <https://www.mass.gov/files/documents/2020/01/07/16ilwplist.pdf>

No state water quality certificate was issued for the project during the last relicensing. Because the state did not act on the application in one year's time (in fact the application was not acted on for two years) FERC deemed the requirement waived. Water quality monitoring was conducted at the time of licensing and showed dissolved oxygen and temperature consistently above the Class B standards.

The project operates in run-of-river mode with no impoundment storage, and the minimum bypass flow ensures sufficient water quality to support aquatic habitat per the IFIM study and agency agreement on flows.

C. Upstream Fish Passage

The impoundment zone qualifies for Standard C-1 since once above a dam there is no further facility-related barrier to upstream fish movement. The bypass and downstream zones qualify for Standard C-2.

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
C	2	<u>Agency Recommendation:</u> <ul style="list-style-type: none"> Identify the proceeding and source, date, and specifics of the agency recommendation applied (NOTE: there may be more than one; identify and explain which is most environmentally protective). Explain the scientific or technical basis for the agency recommendation, including methods and data used. This is required regardless of whether the recommendation is or is not part of a Settlement Agreement. Describe any provisions for fish passage monitoring or effectiveness determinations that are part of the agency recommendation, and how these are being implemented.

Migratory species that are present at the project include sea lamprey, American eel, smallmouth bass, river herring, white suckers, carp and several species of trout. The Atlantic salmon restoration program for the Connecticut River basin ended in 2013 but a very small number of salmon still return to the Connecticut river most years based on data from Holyoke, although none were counted there in 2020.

Upstream passage facilities have been in place since 1996 under license Articles 406 and 407 and the MOA. Facilities include a Denil style fish ladder near the north abutment (see Figure 3) and a former fish trap with sorting and holding facility at the upstream end of the ladder previously used for the Atlantic salmon restoration program which was abandoned by FWS in 2013. Tailrace fish screens consist of bar racks with 3/4 inch spacing prevent upstream migrants from entering the tailrace area. Channel modifications improve flow conditions in the north channel of the bypass reach at the immediate area of confluence with the tailrace to optimize conditions for zone of passage for upstream migrating fish. FWS requires zones of passage to be 2 feet deep and 2 to 3 feet wide, and spur dikes were added in the channel to achieve an adequate zone depth along with the minimum flow regime with sufficient velocity to assist fish in moving upstream or downstream through the bypass reach.

Fishway effectiveness testing was conducted after installation approved by agencies. MDFW monitors, counts and conducts the trap and truck operation under the MOA terms. Fishways are operated from April 1 through July 15 and from September 1 through October 31 each year.

In 2020, MDFA installed a video system to record fish traveling upriver. As fish exit the fish ladder, they pass an underwater window and are caught on camera. The American shad run on the Westfield averages about 4,000 but has been as high as 10,000. To date, the camera has recorded numerous fish species and even a beaver. See video clip at <https://newenglandboating.com/check-out-the-westfield-ma-fish-ladder-camera/>.

An upstream eelway was constructed in 2001 and was reconstructed in 2013 after being destroyed by high water. It includes an inclined ramps and holding tank with a water supply siphon feeding the tank. Several passage configurations have been attempted since then, but none have worked satisfactorily. Following repair of the spillway crest and sealing of seepage through the dam face in 2021 and 2022, the owner plans to study patterns of eel movement below the dam. After the analysis of this study, new eel passage will be designed and installed. The plan as approved by MDFW (see Appendix A) calls for the study to occur in 2023 with installation of permanent facilities to take place in the summer of 2024. These facilities will be operational by July 1, 2025. ex

The existing fish passage facilities are opened each spring for a one-day open house that provides the public with an opportunity to watch fish passing. The events are coordinated with the Westfield River Watershed Association which sponsors the events. Usually, between 100 and 300 people attend making it a locally popular event.

D. Downstream Fish Passage and Protection

The tailrace/downstream zone qualifies for Standard D-1 since once below a dam there is no further facility-related barrier to downstream fish movement. The impoundment and bypass zones qualify for Standard D-2.

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
D	2	<u>Agency Recommendation:</u> <ul style="list-style-type: none"> • Identify the proceeding and source, date, and specifics of the agency recommendation applied (NOTE: there may be more than one; identify and explain which is most environmentally protective). • Explain the scientific or technical basis for the agency recommendation, including methods and data used. This is required regardless of whether the recommendation is part of a Settlement Agreement or not. • Describe any provisions for fish passage monitoring or effectiveness determinations that are part of the agency recommendation, and how these are being implemented.

In addition to the migratory species, resident species in the Westfield River include common warmwater species such as white sucker, common shiner, and spottail shiner. Game species include smallmouth bass, chain pickerel, rock bass, brown bullhead and pumpkinseed. Native brook trout also are present, as are brown and rainbow trout which are stocked by MDFW upstream and downstream of the dam.

Downstream passage facilities were installed per license Articles 405, 407 and the MOA. For anadromous species, facilities consist of inclined fish exclusion racks and a downstream bypass flume located in the power canal, just upstream of the exclusion racks and immediately downstream of the Denil fishway exit. From April 1 to July 15, 10 cfs is discharged through this downstream bypass flume to allow passage. Fish-exclusion racks with ¾-inch spacing are installed at the head of the power canal from approximately April 1 to ice-in each year to keep fish from entering the canal and powerhouse. Effectiveness testing was conducted after construction and the downstream fishways and bypass flume are operated from April 1 through July 15 and from September 1 through October 31 each year. The downstream bypass flume continues operation until the fish exclusion racks are removed, prior to ice-in, approximately November 15 to December 1.

E. Shoreland and Watershed Protection

Both Zones qualify for Standard E-1.

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
E	1	<u>Not Applicable / De Minimis Effect:</u> <ul style="list-style-type: none"> • If there are no lands with significant ecological value associated with the facility, document and justify this (e.g., describe the land use and land cover within the FERC project or facility boundary). • Document that there have been no Shoreline Management Plans or similar protection requirements for the facility.

The project is located along a steeply banked portion of the Westfield River. A railroad runs along the northern side of the river at the top of the bank. Mittineague Park is a 342 acre park and conservation area located on the north side of the river extending from just upstream of the power canal to the large river bend. The 1,025-acre Robinson State Park extends about six miles along the steep south side of the river from Robinson Island in the bypass reach upstream beyond the upper extent of the impoundment. The land around the impoundment is heavily vegetated while the land along the power canal and powerhouse is developed with some residential housing and mill buildings. The island is vegetated with trees including white pine, oak and locust as well as scrub/shrub and wetland areas along the south

shoreline.

There are no critical habitats for plants or wildlife, and there are no lands of special ecological significance. Project lands occupy about 10 acres. There is no shoreline management plan required for the project although license Article 401 required an erosion, sediment control, and slope stability plan for construction of the project's fish passage and recreation facilities. Run-of-river operations do not impact the shorelines.

F. Threatened and Endangered Species Protection

All Zones qualify for Standard F-3, and/or Standard F-1 (not applicable/de minimis effect).

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
F	3	<p><u>Recovery Planning and Action:</u></p> <ul style="list-style-type: none">• If listed species are present, document that the facility is in compliance with relevant conditions in the species recovery plans, incidental take permits or statements, biological opinions, habitat conservation plans, or similar government documents.• Document that any incidental take permits and/or biological opinions currently in effect were designed as long-term solutions for protection of listed species in the area.

Based on an online USFWS IPaC² search conducted on October 12, 2020 (see Appendix B) only the federally threatened Northern long-eared bat may be present in the project vicinity. There are no critical habitats for the species.

Given the project's small footprint and lack of a need to conduct tree cutting, there is no impact from the project on the Northern long-eared bat. If a tree did need to be cut, the USFWS 4(d) rule would be observed and cutting limited to allowed time periods.

An online data check at the Massachusetts Oliver mapping tool³ and a review of the Massachusetts BioMap2 report for West Springfield was conducted on October 12, 2020 (Appendix C) http://maps.massgis.state.ma.us/dfg/biomap/pdf/town_core/West%20Springfield.pdf. The Westfield River is part of the Connecticut River Core Habitat. The Westfield River and adjacent uplands support 24 rare and uncommon species. Aquatic cores are defined as intact river corridors that support and delineate integrated, functional ecosystems for fish and other aquatic species. State-listed species that may occur in the Core Habitat area include the bald eagle (threatened), three species of dragonflies – the endangered rapids clubtail, and the threatened riffle snaketail, and skillet clubtail. Four species of plants including the endangered great blue lobelia, many-fruited false loosestrife, and narrow-leaved spring beauty, and the threatened fen cuckoo flower.

Given the project's small footprint and run-of-river operations it is unlikely that any of these species would be affected by the project's facilities or operations. For the plant species in particular, it is more likely that they are found on Robinson State park and/or Mittineague Park lands than they would be within the project boundary. No vegetation management occurs on project lands that could impact these plants if they were present.

² <https://ecos.fws.gov/ipac/>

³ http://maps.massgis.state.ma.us/map_ol/oliver.php

G. Cultural and Historic Resources Protection

All Zones qualify for Standard G-1.

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
G	1	<p><u>Not Applicable / De Minimis Effect:</u></p> <ul style="list-style-type: none"> • Document that there are no cultural or historic resources located on facility lands that can be affected by construction or operations of the facility. • Document that the facility construction and operation have not in the past, nor currently adversely affect any cultural or historic resources that are present on facility lands.

The dam was constructed in 1836 and the powerhouse was built in 1931. At the time of the 1994 relicensing, the Massachusetts SHPO commented that the papermill complex of which the powerhouse and power canal is a part was eligible for listing on the National Register of Historic Places, however the complex has not been listed since that time. The mill complex is included in the state's Inventory of Historic and Archaeological Assets of the Commonwealth. The SHPO determined during relicensing that the project would have no adverse effect on the mill complex.

There is no cultural resources or historic properties management plan for the project. License Article 410 requires consultation with the SHPO if any previously unknown archaeological or historic resources are discovered and preparation at that time, if needed, of a cultural resources management plan to evaluate their significance and avoid or mitigate impacts. To date, no such discoveries have been made and no SHPO consultation has been needed.

H. Recreational Resources

Zones 1 and 2 qualify for Standard H-3, Zone 3 qualifies for Standard H-2.

<i>Criterion</i>	<i>Standard</i>	<i>Instructions</i>
H	2	<p><u>Agency Recommendation:</u></p> <ul style="list-style-type: none"> • Document any comprehensive resource agency recommendations and enforceable recreation plan that is in place for recreational access or accommodations. • Document that the facility is in compliance with all such recommendations and plans.
H	3	<p><u>Assured Accessibility:</u></p> <p>In lieu of existing agency recommendations and plans for recreational uses, document the facility's current and future commitment to accommodate reasonable requests from recreation interests for adequate public access for recreational use of lands and waters of the facility, including appropriate recreational water flows and levels, without fees or charges.</p>

Recreation near the project includes fishing, canoeing, picnicking, hiking and swimming at Robinson State Park and Mittineague Park. The project does not have a formal recreation plan but License Article 411 required enhancements to recreational amenities including a downstream parking area, an ADA-

compliant trail, a canoe launch and fishing access site, and signage. A canoe launch and recreation area, located approximately 1,000 feet downstream of the project's tailrace, is accessed through a ten-space, dedicated parking lot. The parking lot is on the east side of Bridge Street, near the CSX railroad crossing. Signage and the pathway leading from the parking lot to the river bank are to be upgraded, after consulting with the Town of West Springfield.

Article 412 (Appendix D) required the prior owner to "attempt to reach" an agreement to provide \$10,000 to the Town of West Springfield for design and construction of an impoundment canoe and fishing access trail in Mittineague Park that was to be constructed by the town. The agreement was signed in 1995. However, all discussions between the Town of West Springfield and the prior owner took place long before our involvement. Also, no one currently in town government has any recollection of how this was resolved. Mittineague Park has rudimentary fishing access and no formal canoe launch. The park is separated from the river by the CSX railroad lines, a significant barrier to any canoe transport/access.

4.0 FACILITY AND STAKEHOLDER CONTACTS FORMS

Project Owner:	
Name and Title	Thomas Tarpey, V.P. & Treasurer
Company	A&D Hydro, Inc
Phone	617-710-1114 mobile
Email Address	tarpey@massgravity.com
Mailing Address	169 Heath's Bridge Road, Concord, MA 01742 (till post Covid)
Project Operator (if different from Owner):	
Name and Title	Same
Company	
Phone	
Email Address	
Mailing Address	
Consulting Firm / Agent for LIHI Program (if applicable):	
Name and Title	
Company	
Phone	
Email Address	
Mailing Address	
Compliance Contact (responsible for LIHI Program requirements):	
Name and Title	Same
Company	
Phone	
Email Address	
Mailing Address	
Party responsible for accounts payable:	
Name and Title	Same
Company	
Phone	
Email Address	
Mailing Address	

<i>Agency Contact</i>		<i>Area of Responsibility</i>
Agency Name	USFWS/ New England Field Office	<input type="checkbox"/> Flows <input type="checkbox"/> Water Quality <input checked="" type="checkbox"/> Fish/Wildlife <input type="checkbox"/> Watershed <input type="checkbox"/> T&E Species <input type="checkbox"/> Cultural/Historic <input type="checkbox"/> Recreation
Name and Title	Melissa Grader, USFWS New England Field Office	
Phone	413-548-9138	
Email address	melissa_grader@fws.gov	
Mailing Address	103East Plumtree Rd. Sunderland, MA 01375	

<i>Agency Contact</i>		<i>Area of Responsibility</i>
Agency Name	MASS DEP, Division of Watershed Management	<input type="checkbox"/> Flows <input type="checkbox"/> Water Quality <input type="checkbox"/> Fish/Wildlife <input checked="" type="checkbox"/> Watershed <input type="checkbox"/> T&E Species <input type="checkbox"/> Cultural/Historic <input type="checkbox"/> Recreation
Name and Title	Derrick Standish	
Phone	617-654-6611	
Email address	derrick.standish@state.ma.us	
Mailing Address	?	

<i>Agency Contact</i>		<i>Area of Responsibility</i>
Agency Name	Massachusetts Division of Fisheries and Wildlife	<input type="checkbox"/> Flows <input type="checkbox"/> Water Quality <input type="checkbox"/> Fish/Wildlife <input type="checkbox"/> Watershed <input type="checkbox"/> T&E Species <input type="checkbox"/> Cultural/Historic <input type="checkbox"/> Recreation
Name and Title	Steven Mattocks, Anadromous Fish Project Leader	
Phone	508-389-	
Email address	steven.mattocks@state.ma.us	
Mailing Address	One Rabbit Hill Rd. Westborough, MA 01581	

<i>Stakeholder Contact</i>		<i>Area of Responsibility</i>
Organization Name	N/A	<input type="checkbox"/> Flows <input type="checkbox"/> Water Quality <input type="checkbox"/> Fish/Wildlife <input type="checkbox"/> Watershed <input type="checkbox"/> T&E Species <input type="checkbox"/> Cultural/Historic <input type="checkbox"/> Recreation
Name and Title		
Phone		
Email address		
Mailing Address		

5.0 SWORN STATEMENT

As an Authorized Representative of A&D Hydro, Inc., 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.

Company Name: A&D Hydro, Inc.

Authorized Representative:

Name: Thomas Tarpey

Title: Vice President

Signature:  _____

APPENDICES

From: [Thomas Tarpey](#)
To: [Maryalice Fischer](#)
Subject: Fwd: Schedule for Improving U/S Eel Passage at WSH
Date: Friday, January 22, 2021 4:42:44 PM

Tom,

I have cc'd Steve who will be your connection for all things fishy from this point on. Thanks for the update on the replacement of the eelway at the West Springfield Hydro Project. That schedule will work for us.

It's been good working with you- I'm sure I'll be at the project in the spring to help Steve set up the video gear.

Caleb

Caleb Slater, PhD

Hatchery Supervisor

Massachusetts Division of Fisheries and Wildlife

1 Rabbit Hill Road, Westborough, MA 01581

p: (508) 389-6331 | c: (508)245-8846

e: caleb.slater@mass.gov
mass.gov/masswildlife | facebook.com/masswildlife

From: Thomas Tarpey <tarpey@massgravity.com>
Sent: Friday, December 11, 2020 11:04 AM
To: Slater, Caleb (FWE)
Subject: Fwd: Schedule for Improving U/S Eel Passage at WSH

CAUTION: This email originated from a sender outside of the Commonwealth of Massachusetts mail system. Do not click on links or open attachments unless you recognize the sender and know the content is safe.

----- Forwarded message -----

From: **Thomas Tarpey** <tarpey@massgravity.com>
Date: Tue, Nov 24, 2020 at 3:22 PM
Subject: Schedule for Improving U/S Eel Passage at WSH
To: Caleb Slater <caleb.slater@state.ma.us>
Cc: Bob King <bking31415@gmail.com>

Mr. Slater:

Some months ago, I promised to send you an email detailing the substance of a conversation we had regarding the improvement of upstream eel passage at my company's West Springfield Hydro facility (WSH).

The existing upstream eel passage apparatus is not effective. A & D Hydro (A&D) has had conversations with Alden Labs about performing the work necessary to design and site effective upstream passage for eels at WSH.

The concrete crest of the WSH spillway is beginning to deteriorate. A&D has engaged a contractor to rehabilitate the entire 408 foot long spillway crest. This work will begin in 2021 and, if river flow conditions allow, be completed in late summer, 2022. A&D's intent is to have the contractor seal locations where water is seeping through the dam face, while working on the spillway crest.

An effective eel migration study cannot be conducted until the permanent water flow patterns at the dam have been established. Thus the eel migration study will not be conducted until the 2023 migration season, after the dam and spillway crest seepage have been repaired. Eel passage structures, designed using the results of the study, will be installed in 2024, to be operational in the eel migration season of 2025. If the 2023 migration study should find that interim trap and transport facilities would greatly enhance passage, A&D will install and

operate such temporary equipment, until the permanent structures are completed.

If this plan is satisfactory to you, I would be grateful if you would so indicate in an emailed reply.

Regards,
Tom Tarpey

--

Tom Tarpey
A & D Hydro, Inc.
55 Union Street, 4th Floor
Boston, MA 02108
M: 617-710-1114
e-mail: tarpey@massgravity.com



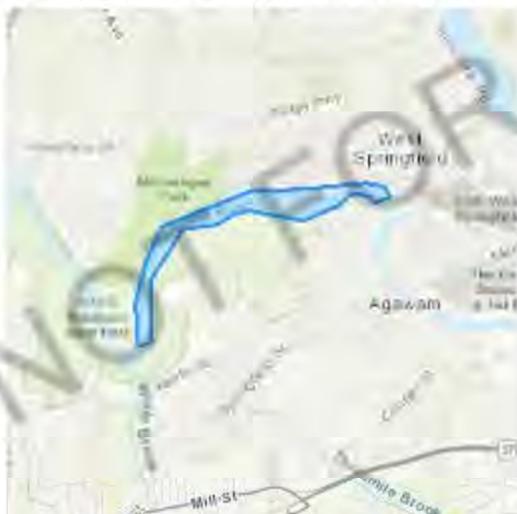
IPaC resource list

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

Hampden County, Massachusetts



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 species¹ 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 Fisheries²).

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](#).

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. https://ecos.fws.gov/ecp/species/9045	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 Act¹ and the Bald and Golden Eagle Protection Act².

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.)
<p>Bald Eagle <i>Haliaeetus leucocephalus</i> 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</p>	<p>Breeds Oct 15 to Aug 31</p>
<p>Black-billed Cuckoo <i>Coccyzus erythrophthalmus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9399</p>	<p>Breeds May 15 to Oct 10</p>
<p>Canada Warbler <i>Cardellina canadensis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	<p>Breeds May 20 to Aug 10</p>

Lesser Yellowlegs *Tringa flavipes*

Breeds elsewhere

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

<https://ecos.fws.gov/ecp/species/9679>

Prairie Warbler *Dendroica discolor*

Breeds May 1 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.

Semipalmated Sandpiper *Calidris pusilla*

Breeds elsewhere

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

Snowy Owl *Bubo scandiacus*

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.

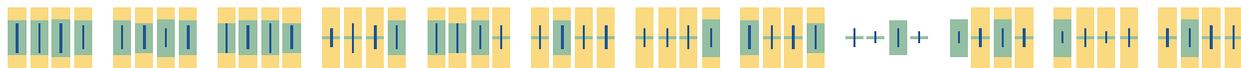
Survey Timeframe

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.

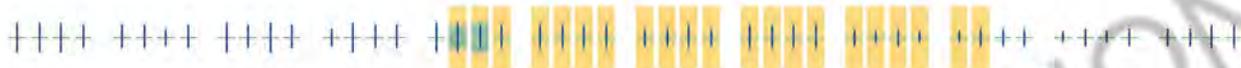
■ probability of presence ● breeding season | survey effort — no data

SPECIES JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC

Bald Eagle
 Non-BCC
 Vulnerable (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.)



Black-billed Cuckoo
 BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



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

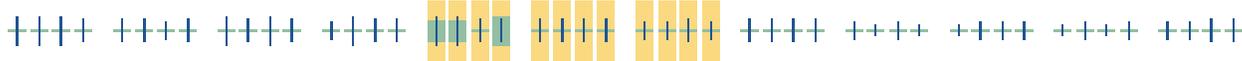


Lesser Yellowlegs
 BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



NOT FOR CONSULTATION

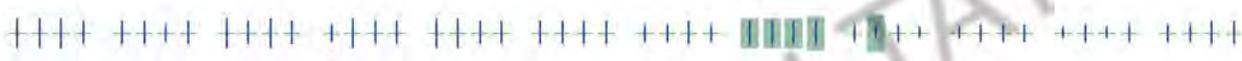
Prairie Warbler
BCC Rangewide
(CON) (This is a
Bird of
Conservation
Concern (BCC)
throughout its
range in the
continental USA
and Alaska.)



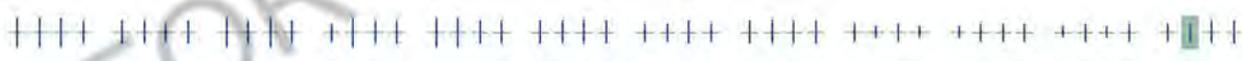
Rusty Blackbird
BCC Rangewide
(CON) (This is a
Bird of
Conservation
Concern (BCC)
throughout its
range in the
continental USA
and Alaska.)



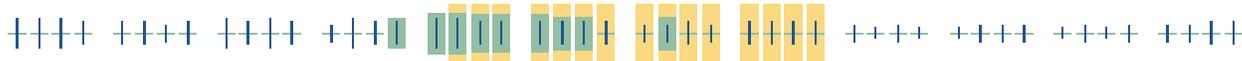
Semipalmated
Sandpiper
BCC Rangewide
(CON) (This is a
Bird of
Conservation
Concern (BCC)
throughout its
range in the
continental USA
and Alaska.)



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



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



NOT FOR CONSULTATION

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

[PFO1A](#)

[PFO1C](#)

FRESHWATER POND

[PUBHh](#)

RIVERINE

[R3UBH](#)

[R3UBHx](#)

[R5UBH](#)

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.

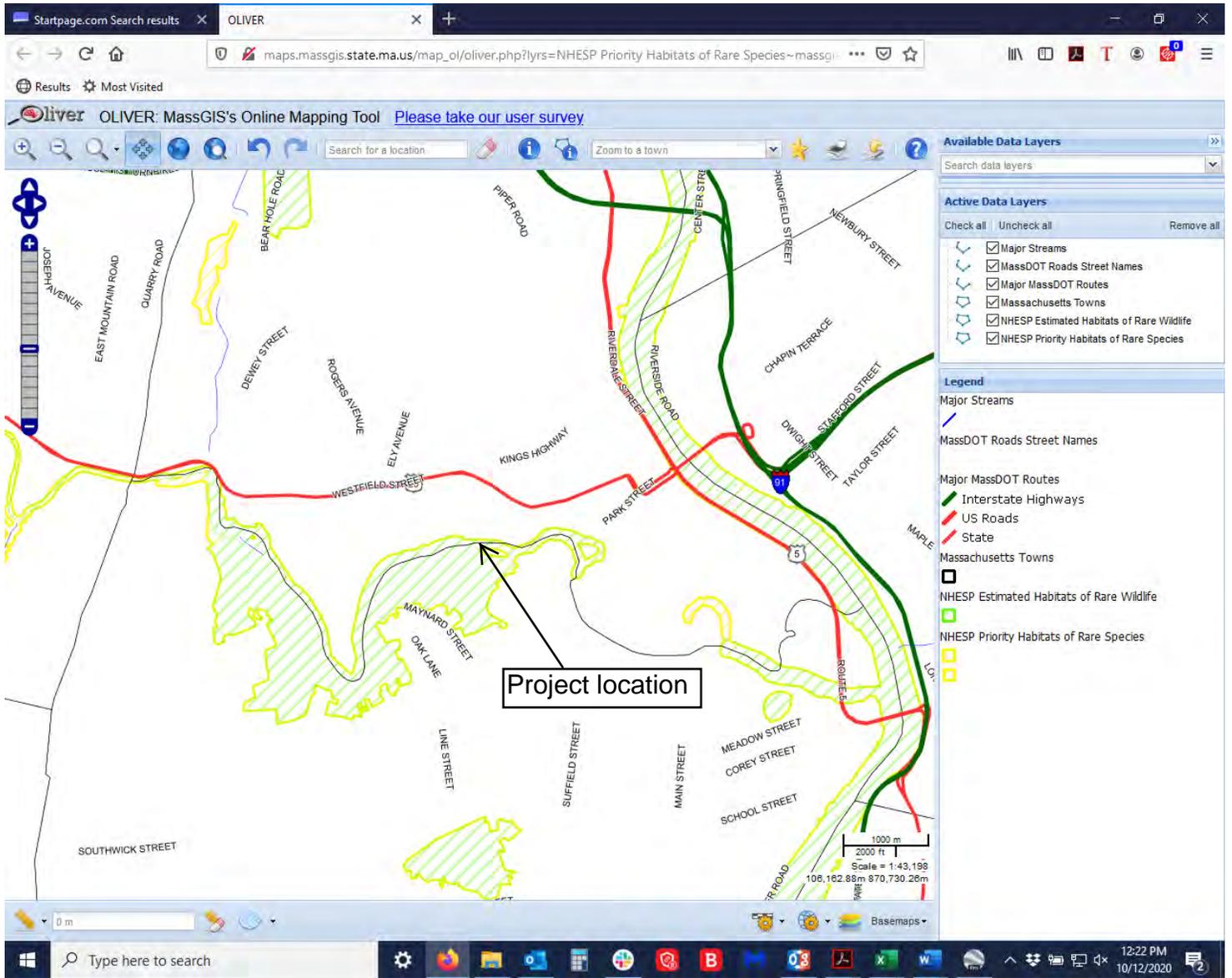
Data exclusions

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

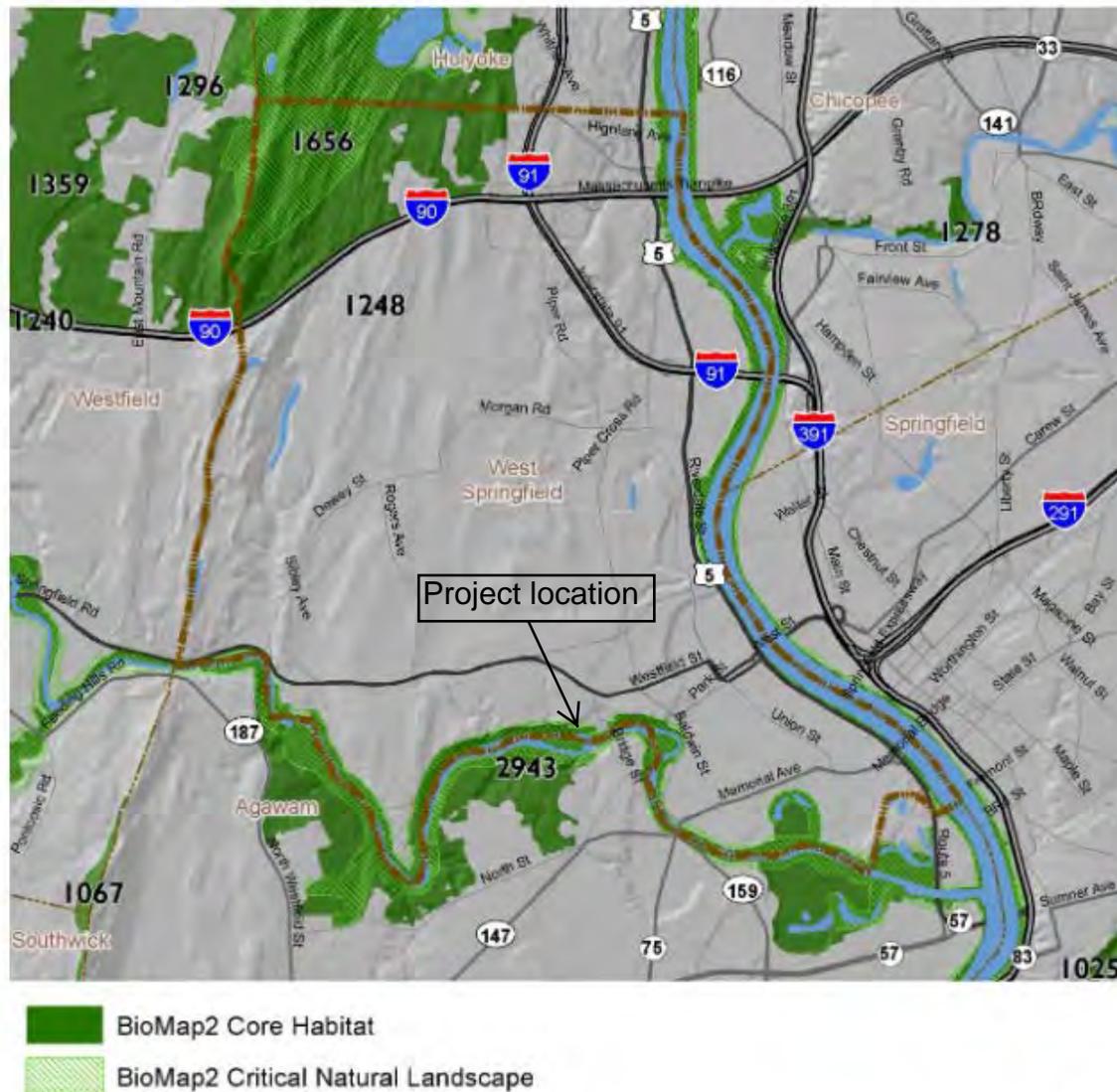
Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal,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

West Springfield MESA priority habitat (http://maps.massgis.state.ma.us/map_ol/oliver.php)



BioMap2 Core Habitat in West Springfield

Core IDs correspond with the following element lists and summaries.



Core 2943B

A 2,594-acre section of a larger 93,990-acre Core Habitat featuring Aquatic Core, Priority Natural Communities, and Species of Conservation Concern.

The mainstem of the Westfield River is part of the extensive Connecticut River Core Habitat. The river and adjacent uplands support 24 rare and uncommon species, including eight species of dragonflies.

Aquatic Cores are intact river corridors within which important physical and ecological processes of the river or stream occur. They delineate integrated and functional ecosystems for fish species and other aquatic Species of Conservation Concern.

Species of Conservation Concern

Bristly Buttercup	<i>Ranunculus pennsylvanicus</i>	SC
Fen Cuckoo Flower	<i>Cardamine dentata</i>	T
Great Blue Lobelia	<i>Lobelia siphilitica</i>	E
Many-fruited False-loosestrife	<i>Ludwigia polycarpa</i>	E
Narrow-leaved Spring Beauty	<i>Claytonia virginica</i>	E
Smooth Rock-cress	<i>Boechera laevigata</i>	SC
Creeper	<i>Strophitus undulatus</i>	SC
Triangle Floater	<i>Alasmidonta undulata</i>	Non-listed SWAP
Orange Sallow Moth	<i>Pyrrhia aurantiago</i>	SC
Pine Barrens Speranza	<i>Speranza exonerata</i>	SC
Arrow Clubtail	<i>Stylurus spiniceps</i>	Non-listed SWAP
Ocellated Darner	<i>Boyeria grafiana</i>	SC
Rapids Clubtail	<i>Gomphus quadricolor</i>	E
Riffle Snaketail	<i>Ophiogomphus carolus</i>	T
Skillet Clubtail	<i>Gomphus ventricosus</i>	T
Spine-crowned Clubtail	<i>Gomphus abbreviatus</i>	SC
Stygian Shadowdragon	<i>Neurocordulia yamaskanensis</i>	SC
Zebra Clubtail	<i>Stylurus scudderi</i>	Non-listed SWAP
Four-toed Salamander	<i>Hemidactylium scutatum</i>	Non-listed SWAP
Northern Leopard Frog	<i>Rana pipiens</i>	Non-listed SWAP
Eastern Box Turtle	<i>Terrapene carolina</i>	SC
Northern Black Racer	<i>Coluber constrictor</i>	Non-listed SWAP
Wood Turtle	<i>Glyptemys insculpta</i>	SC
Bald Eagle	<i>Haliaeetus leucocephalus</i>	T

UNITED STATES OF AMERICA73 FERC ¶62,051
FEDERAL ENERGY REGULATORY COMMISSION

Decorative Specialists International

Project No. 2608-010
Massachusetts

ORDER APPROVING FINANCIAL ASSISTANCE AGREEMENT (ARTICLE 412)
AND DELETING ARTICLE 408 AND 409
Issued October 25, 1995

On August 21, 1995, Decorative Specialists International, licensee for the West Springfield Project, FERC No. 2608, filed a financial assistance agreement. The material was filed to comply with Article 412 of the project license and is also intended to delete the requirements of Articles 408 and 409.1

Background

Pursuant to Article 412, the licensee was required to attempt to reach a financial agreement with the Town of West Springfield (Town) and obligate themselves to provide up to \$10,000 for the design and construction of an impoundment canoe and fishing access trail in Mittineague Park. Article 412 required a proposed agreement to be filed with the Commission by April 24, 1995. On May 5, 1995, an order granting extension of time was issued, permitting the licensee until August 24, 1995 to file the required material.

In the event a financial agreement could not be reached with the Town, Article 412 required the licensee to develop a plan to construct, operate, and maintain impoundment canoe and fishing access at an alternative site. Because construction at an alternative site could not be reviewed with regard to the resource impacts that might occur, Articles 408 and 409 were incorporated into the license. Respectively, these articles require the licensee to conduct habitat and wetland delineation surveys at any alternative location proposed, and obtain agency consultation on the alternative plan.

The Filed Material

The August 21 filing includes a copy of a financial assistance agreement that was approved by the Town Board of Selectmen on August 7, 1995. This agreement states the Town will accept financial assistance from the licensee for the design, construction, and equipping of an impoundment canoe and fishing access trail to be located in Mittineague Park. The agreement further stipulates; (1) the Town will design and construct the facilities in accordance with all applicable state and Federal

1 69 FERC ¶ 62,068 (1994).

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laws; (2) the licensee will transfer \$10,000 to the Town to be held in a separate account strictly for application to this project; (3) the total amount to be contributed by the licensee is \$10,000; (4) the Town will maintain strict and accurate records reflecting dispersal of funds for the project and the licensee will have access to the records; (5) the licensee will not be responsible for satisfactory completion of the project, the adequacy of the funds to complete the project, or for any ongoing operation or maintenance of the project; (6) the licensee will not be responsible for damages, losses, additional expenses, etc. that may be incurred during execution of the project; and (7) the agreement shall either terminate when expenditures on the project total \$10,000, or when completion of the project is noticed by the Town, whichever occurs first. Because the filed material contains an agreement with the Town for impoundment access facilities, the filing further states the material eliminates the need for any subsequent filings pursuant to either Article 408 or 409.

Discussion

The financial assistance agreement signed by the Town Board of Selectmen on August 7, 1995, meets the requirements of Article 412. This agreement obligates the licensee to provide the Town with \$10,000 for the design and construction of impoundment access facilities at Mittineague Park. As intended, this contribution should ensure that improved access is provided to the West Springfield Project impoundment. Because the facilities will be on Town-owned land and are not part of the approved project-related recreational facilities approved under Article

411, the licensee is not obligated by the project license to provide any additional monetary, operation, or maintenance assistance for the facilities. Additional monetary contributions should be unnecessary, however, as the projected cost of the Mittineague Park facilities was \$10,000 when the license was issued in 1994.²

To ensure that the licensee meets their contribution obligation and that the specified funds are spent on facilities described in the agreement, the licensee should transfer \$10,000 to the Town and file, for Commission approval, documentation of the transfer. The licensee's filing should include a signed statement from appropriate Town officials acknowledging the receipt of the funds. Further, the filing should include copies of the Town's records reflecting how the \$10,000 contribution was dispersed. Given that construction of the facilities is minimal, we assume the Town will be able to complete construction within

2 Determination of cost for the facilities is made in the Analysis of Impoundment Access, included in the Environmental Assessment issued with the project license.

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three years. Therefore, the above material should be filed with the Commission by December 31, 1998. With this modification, the financial assistance agreement should be approved.

Because a financial assistance agreement has been reached between the Town and the licensee, the August 21 filing is correct in stating the filed material eliminates the need for filings pursuant to Articles 408 and 409. An alternate location is not proposed and subsequent habitat and wetland delineation studies, to be conducted by the licensee, are unnecessary. Pursuant to the above approval, Articles 408 and 409 should therefore be deleted from the license.

The Director orders:

(A) The financial assistance agreement filed on August 21, 1995, pursuant to Article 412 of the project license, as modified by ordering paragraph (B), is approved.

(B) By December 31, 1998, the licensee shall file with the Commission documentation of the transfer of funds to the Town for the construction of impoundment access facilities at Mittineague Park. The filing should include documentation from appropriate Town officials acknowledging receipt of the funds and copies of the Town's dispersal records specifying how the \$10,000 contribution was spent on the design and construction of impoundment access facilities in Mittineague Park.

(C) Pursuant to the approval under ordering paragraph (A), Articles 408 and 409 are deleted from the license.

(D) This order constitutes final agency action. Requests for rehearing by the Commission may be filed within 30 days of the date of issuance of this order, pursuant to 18 CFR § 385.713.

J. Mark Robinson
Director, Division of Project
Compliance and Administration

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WSH Canoe Launch & Recreation Area

Westfield River
West Springfield, MA
June 4, 2021

Legend

-  A & D Hydro Canoe Launch

A & D Hydro Canoe Launch



24 in

**Westfield River
Canoe & Small Boat
Access Path
& Parking Area**

**Hours of Operation
8am to 1 Hour Before Sunset**

Operated and Maintained by A&D Hydro, Inc,

**Federal Energy Regulatory Commission
License No. 2608-MA**

**Questions or Suggestions
888-445-3633**

18 in

.080 aluminum sign w/ printed vinyl graphics