

June 6, 2017

US EPA, Region 1  
Office of Ecosystems Protection  
PWTF GP Applications Coordinator (OEP06-4)  
5 Post Office Square, Suite 100  
Boston, MA 02109-3912

Email: [pwtf.generalpermit@epa.gov](mailto:pwtf.generalpermit@epa.gov)

Re: NPDES Notice of Intent for Coolidge Avenue Water Treatment Plant  
MAG640000

Dear Applications Coordinator:

Enclosed please find the National Pollutant Discharge Elimination System Notice of Intent (NOI) per the requirements of the *Code of Federal Regulations* 122.21 for Coolidge Avenue Water Treatment Plant located in Peabody Massachusetts.

If you have any questions regarding this submittal, please contact me at (978) 532-1900 ext 2386 or [stantonl@wseinc.com](mailto:stantonl@wseinc.com)

Sincerely,

WESTON & SAMPSON ENGINEERS, INC.



Leah E. Stanton, P.E.  
Vice President

Enclosures: NPDES Potable Water Treatment Facility General Permit Notice of Intent

Cc: Davis Scribner  
David Terenzoni

**A. Facility Information**

1. MAG640000

**2. Facility Data**

**Facility Name:** Coolidge Avenue Water Treatment Facility

**Street:** 50 Coolidge Avenue **City:** Peabody **State:** Massachusetts

**Zip Code:** 01960

**Latitude:** 42°30'34.3" N

**Longitude:** 70°56'39.5" W

**SIC Code:** 4941

**Type of Business:** Municipal Water Treatment Facility

**3. Facility Mailing Address**

**Facility Name:** Coolidge Avenue Water Treatment Facility

**Street:** 50 Farm Avenue

**City:** Peabody

**State:** Massachusetts

**Zip Code:** 01960

**4. Facility Owner**

**Legal Name:** City of Peabody

**Email:** david.terenzoni@peabody-ma.gov

**Street/PO Box:** 50 Farm Avenue

**City:** Peabody

**State:** Massachusetts

**Zip Code:** 01960

**Contact Person:** David Terenzoni **Tel #:** 978-536-5069

**Owner is:** City

**5. Facility Operator**

**Legal Name:** City of Peabody

**Email:** davis.scribner@peabody-ma.gov

**Street/PO Box:** 50 Farm Avenue

**City:** Peabody

**State:** Massachusetts

**Zip Code:** 01960

**Contact Person:** Davis Scribner **Tel #:** 978-536-7116

**Owner is:** City

**6. Currently Covered Under the Expired PWTF General Permit?**

a) **Has a prior NPDES permit been granted for the discharge that is listed in the NOI?**

Yes **Permit Number:** MAG640006

b) **Is the discharge a “new discharger” as defined by 40 CFR Section 122.22?**

No

c) **Is the facility covered by an individual NPDES permit for other discharges?**

No

d) **Is there a pending NPDES application on file with EPA for this discharge?**

No

e) **Attach a topographic map indicating the location of the facility and the outfall(s) to the receiving water.**

See Attached Figure 1 – Coolidge Avenue Treatment Facility

**B. Discharge Information**

**1. Name of receiving water into which discharge will occur:**

Spring Pond

**State water quality Classification:**

Freshwater

**Type of Receiving Water Body:**

Pond/Reservoir

**2. Indicate the frequency of the discharge:**

Daily

**3. Describe the activity/activities that generate the discharge(s) to be covered by the permit. Include process discharges not specifically authorized in the PWTF GP which need to be authorized for the discharge (and which attain the effluent limits and other conditions of the general permit.) This description should include all treatment methods used on the wastewater prior to discharge including lagoons, baffles, filter presses, etc. (If lagoons are used, include the number and size of lagoons; Size and elevation of entry pipe; time of travel from entry point of the discharge into the lagoon to the entry point to the receiving water; and the length of backwash cycle for any combination of number of filters.):**

Treatment methods include coagulation, clarifier sedimentation, filtration, and disinfection. The total depth of each lagoon measures 7.0 feet and includes one foot of freeboard and

one foot for ice zone. The combined filter backwash residuals and supernatant of the clarifier flush residuals are pumped to the lagoons via an 8-inch force main. Flow can be diverted to either lagoon (or directed to both lagoons at the same time) with the use of two 8-inch gate valves located on the 8-inch force main at or near the inlet structures of each lagoon.

The two lagoons are set at varying elevations allowing for gravity flow from one lagoon into the other, if desired. The upper lagoon has a basin bottom elevation of 140.0 feet; the lower lagoon has a basin bottom elevation of 125.0 feet. A 12-inch DI gravity drainpipe connects the two lagoons and can be operated via a 12-inch gate valve located at the upper lagoon side of the pipe.

The outlet structures of each lagoon have telescoping valves that capture the flow from each lagoon and direct the flow via a 12-inch DI pipe towards a splash pad prior to discharge into Lower Spring Pond. The discharge from the lagoons are sampled per the surface water NPDES discharge permit.

The two lagoons run in parallel enabling the operator to take one lagoon offline for general maintenance purposes and to allow for freeze/thaw operations of the residuals during the winter months. Once the residuals are frozen, they become easier to handle. In cold months, one of the lagoons is isolated and the supernatant on top of the residuals are decanted so that the remaining residuals freeze. They are then easily handled in warm weather with a front-end loader. One of the lagoons are frozen each winter during low demand periods by directing all the flow to the other lagoon. By operating the lagoons in this manner, the maximum sludge depth that accumulated over one year in one lagoon would be approximately two feet.

- 4. Attach a line drawing or flow schematic showing the water flow through the facility including sources of intake water, operations contributing to flow, treatment units, outfalls, and receiving water(s).**

See Attached Figure 2 – Coolidge Avenue Water Treatment Plant Process Flow Diagram

- 5. Identify the source of water being discharged:**

Surface Water

- 6. Number of Outfalls:**

1

**Latitude:** 42°30'28.90" N      **Longitude:** 70°56'28.82" W

- 7. For each outfall, indicate the proposed sampling location(s) for both effluent and ambient water (when applicable) and proposed consistent times of the month for collecting samples:**

The proposed sampling location is the discharge point of the lagoon into the stream leading to Spring Pond at a weekly interval.

**C. Effluent Characteristics**

- 1. List here and attach additional information (on separate sheet) on any water additives used at the facility. This includes chemicals (including aluminum, iron, or phosphorus-containing chemicals) for pH adjustment, dechlorination, control of biological growth, and control of corrosion and scale in water pipes.**

- PCH-180
- Potassium hydroxide
- Sodium hypochlorite
- Cation polymer
- Sodium fluoride
- Copper sulfate

- 2. Report any known remediation activities or water quality issues in the vicinity of the discharge.**

In 2008, water treatment plant residuals were removed from the discharge area under MADEP guidelines.

- 2. Are aluminum compounds or polymers used as coagulants in this facility?**

Yes

- 4. Does this facility use any alum-based products for algae control?**

No

- 5. Are iron-containing coagulants used at this facility?**

No

- 6. Does the facility's discharge contain residual chlorine?**

Yes

- 7. Does the facility provide treatment to remove arsenic from the raw water source?**

No

**8.**

**a. Are phosphorus-containing chemicals added to the treated water at this facility?**

No

**b.**

N/A

**c.**

N/A

**9. Does this facility remove radium or other radioactive substances from raw water sources to comply with drinking water standards?**

No

**10. Provide the reported or calculated seven-day ten-year low flow (7Q10) of the receiving water 7Q10:**

0.0734 cfs

**11. For each outfall, provide the following discharge information:**

**Outfall # 1**

**a) Design Flow of Facility (in million gallons per day, MGD):**  
This value will determine the facility's daily maximum flow limit, up to a maximum of 1.0 MGD.

6 MGD

**b) Discharge Flow (in gallons per day, GPD):**

**Maximum Daily Flow:**

415,000 gpd

**Average Monthly Flow:**

315,000 gpd

**c) TSS (mg/l):**

**Number of samples:**

12

**Maximum Daily:**

16 mg/l

**Average Monthly:**

5.5 mg/l

**d) pH (s.u.) :**

**Number of samples:**

12

**Minimum:**

6.92

**Maximum:**

7.83

**e) Total Residual Chlorine (ug/l):**

**Number of samples:**

12

**Maximum Daily:**

0.10 ug/l

12. The following section must be completed for any facility that answered "Yes" to Question III.C.3 or III.C.4 (e.g. adds an aluminum-containing chemical to the water being treated and/or discharged) AND was not covered under the previous PWTF GP (which expired on 10/2/14).

N/A

**D. Endangered Species Act Eligibility Information**

Using the instructions in Appendix III of the PWTF GP, which of the following criteria apply to your facility?

**U.S. Fish and Wildlife Service (USFWS) Criteria:**

B

1. If you selected USFWS criteria B, has consultations with the U.S. Fish and Wildlife Service been completed?

Yes

2. If consultation with US Fish & Wildlife Service was completed, was a written concurrence finding that the discharge is “not likely to adversely affect” listed species or critical habitat received?

Yes

3. Attach documentation of ESA eligibility for USFWS as required at Part 1.4 and Appendix III of the General Permit.

Documentation attached?

Yes

4. For facilities seeking coverage under the Potable Water Treatment Facility General Permit for the first time, respond to the following questions to assist in ESA eligibility for NMFS:

N/A

**E. National Historic Properties Act Eligibility**

1. Are any historic properties listed or eligible for listing on the National Register of Historic Places located on the facility site or in proximity to the discharge?

No

2. Have any State or Tribal Historic Preservation Officers been consulted in this determination?

No

3. Which of the three National Historic Preservation Act scenarios listed in Appendix II, Section III have you met?

1

**F. Supplemental Information**

**Please provide any supplemental information, including antidegradation review information applicable to new or increased discharges. Attach any analytical data used to support the application. Attach any certification(s) required by the General Permit.**

N/A

**G. Signature Requirements**

**The NOI must be signed by the operator in accordance with the signatory requirements of 40 CFR §122.22 (see below) including the following certification:**

*I certify under penalty of law that (1) the discharge for which I am seeking coverage under the general permit consists solely of a surface water discharge from a potable water treatment facility; (2) any chemicals used to treat the discharge have been identified in this NOI; and (3) where applicable, the facility has complied with the requirements of this permit specific to the Endangered Species Act and National Historic Preservation Act.*

*I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I have no personal knowledge that the information submitted is other than true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.*

Signature  Date 6/5/17

Printed Name and Title David Scribner Water Quality Manager

**Federal regulations require this application to be signed as follows:**

1. For a corporation, by a responsible corporate party;
2. For a partnership or sole proprietorship, by a general partner or the proprietor, respectively, or,
3. For a municipality, State, Federal or other public facility, by either a principal executive officer or ranking elected official.

**H. "Opt-Out Request" from NetDMR Requirement**

N/A

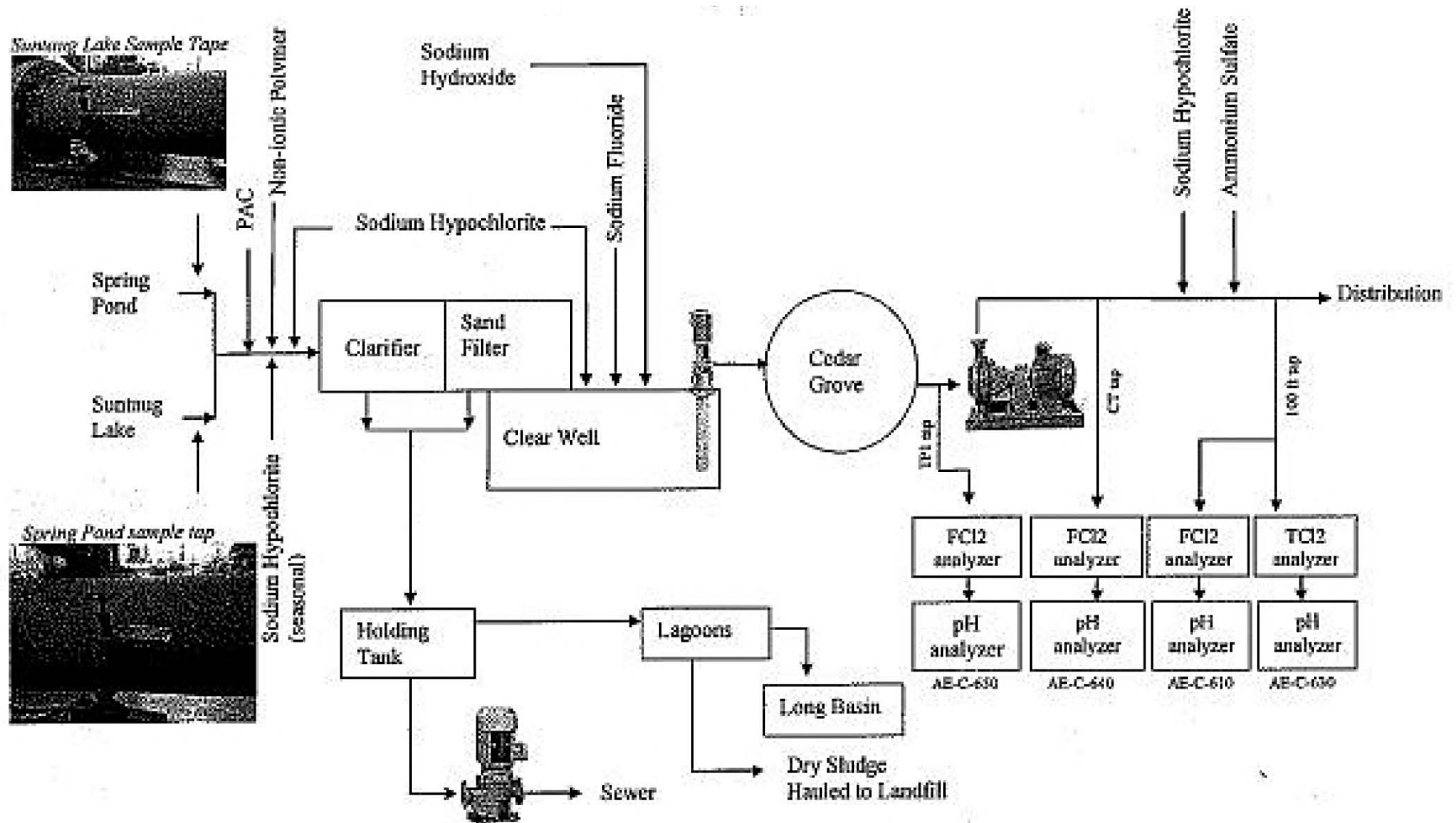


**FIGURE 2**  
**CITY OF PEABODY, MASSACHUSETTS**  
**COOLIDGE AVENUE TREATMENT PLANT**

- Hydrologic Connection
- Marsh/Bog
- Wooded marsh

0 150 300 Feet

Figure 2 - Coolidge Avenue Water Treatment Plant Process Flow Diagram





# United States Department of the Interior

## FISH AND WILDLIFE SERVICE



New England Field Office  
70 Commercial Street, Suite 300  
Concord, NH 03301-5087  
<http://www.fws.gov/newengland>

January 20, 2017

To Whom It May Concern:

This project was reviewed for the presence of federally listed or proposed, threatened or endangered species or critical habitat per instructions provided on the U.S. Fish and Wildlife Service's New England Field Office website:

<http://www.fws.gov/newengland/EndangeredSpec-Consultation.htm> (accessed January 2017)

Based on information currently available to us, no federally listed or proposed, threatened or endangered species or critical habitat under the jurisdiction of the U.S. Fish and Wildlife Service are known to occur in the project area(s). Preparation of a Biological Assessment or further consultation with us under section 7 of the Endangered Species Act is not required. No further Endangered Species Act coordination is necessary for a period of one year from the date of this letter, unless additional information on listed or proposed species becomes available.

Thank you for your cooperation. Please contact Maria Tur of this office at 603-223-2541 if we can be of further assistance.

Sincerely yours,

Thomas R. Chapman  
Supervisor  
New England Field Office



## United States Department of the Interior

FISH AND WILDLIFE SERVICE  
New England Ecological Services Field Office  
70 Commercial Street, Suite 300  
Concord, NH 03301-5094  
Phone: (603) 223-2541 Fax: (603) 223-0104  
<http://www.fws.gov/newengland>



In Reply Refer To:

June 04, 2017

Consultation Code: 05E1NE00-2017-SLI-1752

Event Code: 05E1NE00-2017-E-03841

Project Name: Coolidge Avenue Potable Water Treatment Plant - NOI

Subject: Updated list of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

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

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 et seq.), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the

human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 et seq.), and projects affecting these species may require development of an eagle conservation plan ([http://www.fws.gov/windenergy/eagle\\_guidance.html](http://www.fws.gov/windenergy/eagle_guidance.html)). Additionally, wind energy projects should follow the wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; and <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

# Official Species List

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

This species list is provided by:

**New England Ecological Services Field Office**

70 Commercial Street, Suite 300

Concord, NH 03301-5094

(603) 223-2541

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## Project Summary

Consultation Code: 05E1NE00-2017-SLI-1752

Event Code: 05E1NE00-2017-E-03841

Project Name: Coolidge Avenue Potable Water Treatment Plant - NOI

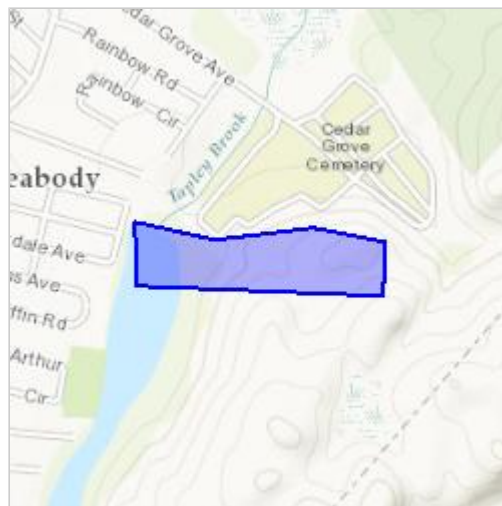
Project Type: WATER QUALITY MODIFICATION

Project Description: This is not a construction project and the request for this species list is for permitting purposes only. The PWTF provides drinking water to the Town of Peabody by treating water from the Ipswich River in which the effluent is released into Fountain Pond. The discharge from the PWTF is not likely to adversely affect the Northern Long-eared Bat or the Red Knot.

Project Location:

Approximate location of the project can be viewed in Google Maps:

<https://www.google.com/maps/place/42.50811345803484N70.94165752025262W>



Counties: Essex, MA

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## Endangered Species Act Species

There is a total of 2 threatened, endangered, or candidate species on your species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area. Please contact the designated FWS office if you have questions.

### Mammals

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

### Birds

| NAME                                                                                                       | STATUS     |
|------------------------------------------------------------------------------------------------------------|------------|
| Red Knot ( <i>Calidris canutus rufa</i> )                                                                  | Threatened |
| No critical habitat has been designated for this species.                                                  |            |
| Species profile: <a href="https://ecos.fws.gov/ecp/species/1864">https://ecos.fws.gov/ecp/species/1864</a> |            |

### Critical habitats

There are no critical habitats within your project area.

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