

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

Re: **NPDES Notice of Intent for Sargent 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 the Great Sandy Bottom Pond Water Treatment Plant located in Pembroke, Massachusetts.

If you have any questions regarding this submittal, please contact me at (978) 532-1900 x2265 or mcmanust@wseinc.com.

Sincerely,

WESTON & SAMPSON ENGINEERS, INC.



Tara E. McManus, PE
Team Leader

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

cc: Daniel F. Callahan, Superintendent - ARJWW

A. Facility Information

1. MAG640000

2. Facility Data**Facility Name:** Great Sandy Bottom Pond Water Treatment Plant – Pembroke**Street:** Phillips Road **City:** Pembroke **State:** Massachusetts**Zip Code:** 02359**Latitude:** 42° 03' 23.5" N **Longitude:** 70° 49' 57.5" W**SIC Code:** 4941**Type of Business:** Municipal Water Treatment Facility**3. Facility Mailing Address**

Abington & Rockland Joint Water Works

366 Centre Avenue

Rockland, MA 02370

4. Facility Owner**Legal Name:** Abington & Rockland Joint Water Works**Email:** dcallahan@abrockwater.com **Street/PO Box:** 366 Centre Avenue**City:** Rockland **State:** Massachusetts **Zip Code:** 02370**Contact Person:** Daniel F. Callahan, Superintendent **Tel #:** (781) 878-0901**Owner is:** Municipal Public Water Supplier**5. Facility Operator****Legal Name:** Abington & Rockland Joint Water Works**Email:** troyal@abrockwater.com **Street/PO Box:** 366 Centre Avenue**City:** Rockland **State:** Massachusetts **Zip Code:** 02370**Contact Person:** Daniel F. Callahan, Superintendent **Tel #:** (781) 878-0901**Owner is:** Municipal Public Water Supplier**6. Currently Covered Under the Expired PWTF General Permit?**

Yes

a) **Has a prior NPDES permit been granted for the discharge that is listed in the NOI?**Yes **Permit Number:** MAG640074

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.**

Map Attached – Figure 1

B. Discharge Information

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

Great Sandy Bottom Pond; Freshwater

State water quality Classification:

Class A

Type of Receiving Water Body:

Reservoir

2. Indicate the frequency of the discharge:

See attached “Discharge Activities Description – Great Sandy Bottom Pond WTP”.

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.):

See attached “Discharge Activities Description – Great Sandy Bottom Pond WTP”.

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 "Process Schematic".

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

Surface water

6. **Number of Outfalls:**

3

Latitude: 42°03' 23.5" N **Longitude:** 70° 49' 57.5" 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:**

From each outfall's discharge pipe, every week on Tuesdays.

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.**

- Chlorine
- Potassium Permanganate
- Calcium Hydroxide
- Lime
- Polymer (to lime slurry; pre & post)
- Aluminum Sulfate
- Powdered Activated Carbon

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

N/A

3. **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:

0.033 cfs

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

Outfall 001 (Residuals Drying Beds)

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.

4.0 MGD

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

Maximum Daily Flow:

140,000 GPD

Average Monthly Flow:

100,000 GPD

c) TSS (mg/l):

Number of samples:

N/A

Maximum Daily:

N/A

Average Monthly:

N/A

d) pH (s.u.) :

Number of samples:

N/A

Minimum:

6.7 s.u.

Maximum:

7.5 s.u.

e) Total Residual Chlorine (ug/l):

Number of samples:

N/A

Maximum Daily:

70.00 ug/l

Outfall 002 (Microscreen) and Outfall 003 (Decant Basin) – no discharge at either outfall since authorization letter dated January 14, 2013.

- 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:

A

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

N/A

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?**

N/A

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

Documentation attached?

Yes, see “Endangered Species Act Requirements Backup Documentation” writeup, “Federally Listed Endangered and Threatened Species in Massachusetts” document, “Area with Known and Expected Occurrences for the Northern Red-bellied Cooter in Massachusetts” map, USFWS Letter Dated January 4, 2010”, and “Figure 2 – Natural Heritage Mapping” map.

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 *Daniel F. Callahan* Date *June 6, 2017*

Printed Name and Title Daniel F. Callahan, Superintendent

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



Discharge from decant basin

Discharge from microscreen drying beds

Discharge from residuals drying beds

Great Sandy Bottom Pond

FIGURE 1
ABINGTON ROCKLAND JOINT WATER WORKS
GREAT SANDY BOTTOM POND WTP
PEMBROKE, MA

Data Source: Office of Geographic and Environmental Information (MassGIS), Commonwealth of Massachusetts Executive Office of Environmental Affairs



Discharge Activities Description – Great Sandy Bottom Pond WTP

Background Information

The Great Sandy Bottom Pond (GSBP) WTP has a design capacity of 4 MGD for normal water flows and a peak day hydraulic flow limit of 6 MGD. The MassDEP CPE Evaluation rates the plant at 3.8 MGD based on 24 hour per day operation. The GSBP WTP has an average daily flow of 1.35 MGD and a peak day flow of 1.875 MGD.

The two sedimentation basins and the two ABW sand filters discharge residuals and waste backwash water to the residuals collection sump. A combined flow of between 80,000 and 116,000 gallons per day is produced. Two submersible pumps (P-9 and P-10) then pump the residuals/waste backwash water to the residuals decant basin. If the decant basin is inoperable, the flows can be diverted directly to the retrofitted residuals sand drying beds. Flow is measured out of the residual collection sump by a 6-inch magnetic flow meter. The sand drying beds have the capability of recycling water back to the head of the plant through the decant structure and underdrain system installed in each bed.

Decant Basin Discharge

The decant basin has a total storage volume of approximately 128,000 gallons. Residuals and waste backwash water settles in the decant basin for several hours. The thickened residuals are pumped as needed to the residuals drying beds by submersible pumps (P-851 and P-855) located in the decant basin. The supernatant water is decanted daily out of the basin to the effluent return basin by gravity through a 4-inch floating pipeline. Two effluent return pumps (P-7 and P-8) then pump the recycled water back to the head of the plant upstream of the raw water pumps. A 3-inch flow meter and modulating butterfly valve control the rate of residuals effluent return flow.

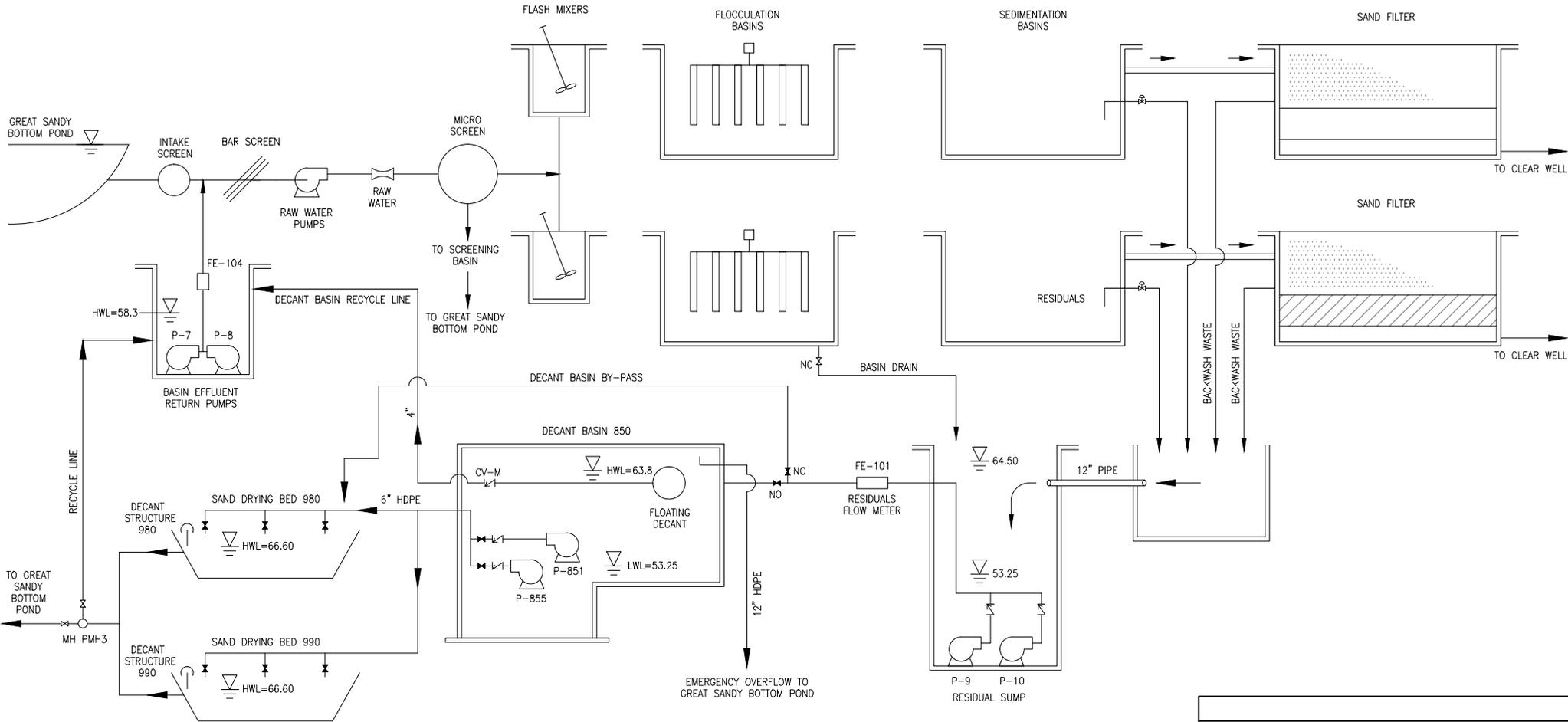
The decant basin is constructed with a 12-inch HDPE emergency overflow pipe and headwall that discharges to Great Sandy Bottom Pond. This 12-inch emergency overflow is alarmed. The water level sensors in the basin de-energize the pumps feeding residuals/waste backwash water into the basin prior to the water in the basin reaching the overflow level. The basin would only overflow if the interlocks failed and water was inadvertently pumped into the decant basin.

Residuals Drying Beds Discharge

The residuals lagoons are lined residuals sand drying beds. Decanted water from the residuals drying beds flows by gravity to an existing effluent return basin where it is then pumped by two effluent return pumps (P-7 and P-8) back to the head of the plant upstream of the raw water pumps. The residuals supernatant effluent can also flow back to Great Sandy Bottom Pond where it discharges through a 12-inch RCP pipe and headwall but this is not standard practice.

Microscreen Drying Beds Discharge

Raw water from Great Sandy Bottom Pond flows through a microscreen before the water is treated. These screens remove twigs and other natural debris. The microscreen has a continuous wash down cycle that is fed by raw water from the pond. The wash down water and debris are diverted to the microscreen drying beds where the water infiltrates into the ground. Emergency overflow from the microscreen drying beds discharges through a 6-inch PVC pipe and headwall.



ABINGTON & ROCKLAND JOINT WATER WORKS GREAT SANDY BOTTOM WTP			
PROCESS SCHEMATIC			
DESIGNED BY: WJN	CHECKED BY: TEM	DATE:	JUNE 2017
Weston & Sampson			

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ENDANGERED SPECIES ACT REQUIREMENTS BACKUP DOCUMENTATION

Discharge at the Great Sandy Bottom Pond Water Treatment Plant (WTP), in Pembroke Massachusetts, is considered to meet USFWS Criterion A of the Endangered Species Act (ESA). No federally listed threatened or endangered species or federally-designated critical habitats are present. The following text documents procedures used to determine that the discharge sites at the Great Sandy Bottom Pond WTP do not occur in any areas of federally listed threatened or endangered species or federally-designated critical habitats.

The Fish and Wildlife Services – New England Field Office web site was accessed to verify the most up-to-date listing of federally listed endangered and threatened species in Massachusetts. This list (attached) was updated February 5, 2016, and on this list it is noted that the northern red-bellied cooter is in Pembroke, MA. The website containing this list is at the address below:

<https://www.fws.gov/newengland/pdfs/MA%20species%20by%20town.pdf>

A map showing the areas in Massachusetts with known and expected occurrences for the northern red-bellied cooter was also downloaded from the Fish and Wildlife Services – New England Field Office web site which indicated that Pembroke is a town where cooters are present. The map has been attached, however, no date is provided on the map as evidence when it was last updated. The website containing this list is at the address below:

http://www.fws.gov/newengland/pdfs/NRBC_MAP.pdf

Based on the Federally Listed Endangered and Threatened Species in Massachusetts List and the Area with Known and Expected Occurrences for the Northern Red-bellied Cooter in Massachusetts Map, it appears that the cooter is present in Pembroke. However, it is not clear where the cooter's specific habitats are nor if they are near the Great Sandy Bottom Pond WTP discharge locations. More specific species mapping was referenced from the 2010 application to show more exact locations of the endangered species habitat area. Electronic mapping of the Natural Heritage & Endangered Species Program (NHESP) Priority Habitats of Rare Species (updated October 2008) and NHESP Estimated Habitats of Rare Wildlife (updated October 2008) were obtained from MassGIS and viewed using ArcView v9.3 software. The NHESP mapping (see attached map) indicates that there are no priority habitats of rare species or estimated habitats of rare wildlife where the Great Sandy Bottom Pond Water Treatment Plant discharges are located.

For filing the 2010 application, a phone call to Michael Amaral (US Fish and Wildlife – New England Office Endangered Species Division) was placed to discuss the same findings as noted above. Mr. Amaral noted that the most current electronic version of NHESP mapping from MassGIS is a sufficient source to locate a more detailed representation of habitat for the northern red-bellied cooter than the List and Map provided on the Fish and Wildlife website. He noted that the US Fish and Wildlife – New England Office relies on the NHESP mapping for the northern red-bellied cooter as the NHESP data is more accurate than what the Fish and Wildlife Office would have. Mr. Amaral also agreed that it would be appropriate to download the “No Species Present” letter from the Fish and Wildlife website stating that “no species are known to occur in the project area”. A copy of this letter has been attached for reference.

In conclusion, the northern red-bellied cooter and its habitat are not likely to occur in the vicinity of the Great Sandy Bottom Pond WTP discharge locations.

**FEDERALLY LISTED ENDANGERED AND THREATENED SPECIES IN
MASSACHUSETTS**

COUNTY	SPECIES	FEDERAL STATUS	GENERAL LOCATION/HABITAT	TOWNS
Barnstable	Piping Plover	Threatened	Coastal Beaches	All Towns
	Roseate Tern	Endangered	Coastal beaches and the Atlantic Ocean	All Towns
	Northeastern beach tiger beetle	Threatened	Coastal Beaches	Chatham
	Sandplain gerardia	Endangered	Open areas with sandy soils.	Sandwich and Falmouth.
	Northern Red-bellied Cooter	Endangered	Inland Ponds and Rivers	Bourne (north of the Cape Cod Canal)
	Red Knot ¹	Threatened	Coastal Beaches and Rocky Shores, sand and mud flats	Coastal Towns
	Northern Long-eared Bat	Threatened Final 4(d) Rule	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide
Berkshire	Bog Turtle	Threatened	Wetlands	Egremont and Sheffield
	Northern Long-eared Bat	Threatened Final 4(d) Rule	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide
Bristol	Piping Plover	Threatened	Coastal Beaches	Fairhaven, Dartmouth, Westport
	Roseate Tern	Endangered	Coastal beaches and the Atlantic Ocean	Fairhaven, New Bedford, Dartmouth, Westport
	Northern Red-bellied Cooter	Endangered	Inland Ponds and Rivers	Taunton
	Red Knot ¹	Threatened	Coastal Beaches and Rocky Shores, sand and mud flats	Coastal Towns
	Northern Long-eared Bat	Threatened Final 4(d) Rule	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide
Dukes	Roseate Tern	Endangered	Coastal beaches and the Atlantic Ocean	All Towns
	Piping Plover	Threatened	Coastal Beaches	All Towns
	Northeastern beach tiger beetle	Threatened	Coastal Beaches	Aquinnah and Chilmark
	Sandplain gerardia	Endangered	Open areas with sandy soils.	West Tisbury
	Red Knot ¹	Threatened	Coastal Beaches and Rocky Shores, sand and mud flats	Coastal Towns
	Northern Long-eared Bat	Threatened Final 4(d) Rule	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide

**FEDERALLY LISTED ENDANGERED AND THREATENED SPECIES
IN MASSACHUSETTS**

COUNTY	SPECIES	FEDERAL STATUS	GENERAL LOCATION/HABITAT	TOWNS
Essex	Small whorled Pogonia	Threatened	Forests with somewhat poorly drained soils and/or a seasonally high water table	Gloucester, Essex and Manchester
	Piping Plover	Threatened	Coastal Beaches	Gloucester, Essex, Ipswich, Rowley, Revere, Newbury, Newburyport and Salisbury
	Red Knot ¹	Threatened	Coastal Beaches and Rocky Shores, sand and mud flats	Coastal Towns
	Northern Long-eared Bat	Threatened Final 4(d) Rule	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide
Franklin	Northeastern bulrush	Endangered	Wetlands	Montague, Warwick
	Dwarf wedgemussel	Endangered	Mill River	Whately
	Northern Long-eared Bat	Threatened Final 4(d) Rule	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide
Hampshire	Small whorled Pogonia	Threatened	Forests with somewhat poorly drained soils and/or a seasonally high water table	Hadley
	Puritan tiger beetle	Threatened	Sandy beaches along the Connecticut River	Northampton and Hadley
	Dwarf wedgemussel	Endangered	Rivers and Streams.	Hatfield, Amherst and Northampton
	Northern Long-eared Bat	Threatened Final 4(d) Rule	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide
Hampden	Small whorled Pogonia	Threatened	Forests with somewhat poorly drained soils and/or a seasonally high water table	Southwick
	Northern Long-eared Bat	Threatened Final 4(d) Rule	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide
Middlesex	Small whorled Pogonia	Threatened	Forests with somewhat poorly drained soils and/or a seasonally high water table	Groton
	Northern Long-eared Bat	Threatened Final 4(d) Rule	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide
Nantucket	Piping Plover	Threatened	Coastal Beaches	Nantucket
	Roseate Tern	Endangered	Coastal beaches and the Atlantic Ocean	Nantucket
	American burying beetle	Endangered	Upland grassy meadows	Nantucket
	Red Knot ¹	Threatened	Coastal Beaches and Rocky Shores, sand and mud flats	Coastal Towns
	Northern Long-eared Bat	Threatened Final 4(d) Rule	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide

**FEDERALLY LISTED ENDANGERED AND THREATENED SPECIES
IN MASSACHUSETTS**

COUNTY	SPECIES	FEDERAL STATUS	GENERAL LOCATION/HABITAT	TOWNS
Plymouth	Piping Plover	Threatened	Coastal Beaches	Scituate, Marshfield, Duxbury, Plymouth, Wareham and Mattapoiet
	Northern Red-bellied Cooter	Endangered	Inland Ponds and Rivers	Kingston, Middleborough, Carver, Plymouth, Bourne, Wareham, Halifax, and Pembroke
	Roseate Tern	Endangered	Coastal beaches and the Atlantic Ocean	Plymouth, Marion, Wareham, and Mattapoiet.
	Red Knot ¹	Threatened	Coastal Beaches and Rocky Shores, sand and mud flats	Coastal Towns
	Northern Long-eared Bat	Threatened Final 4(d) Rule	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide
Suffolk	Piping Plover	Threatened	Coastal Beaches	Revere, Winthrop
	Red Knot ¹	Threatened	Coastal Beaches and Rocky Shores, sand and mud flats	Coastal Towns
	Northern Long-eared Bat	Threatened Final 4(d) Rule	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide
Worcester	Small whorled Pogonia	Threatened	Forests with somewhat poorly drained soils and/or a seasonally high water table	Leominster
	Northern Long-eared Bat	Threatened Final 4(d) Rule	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide

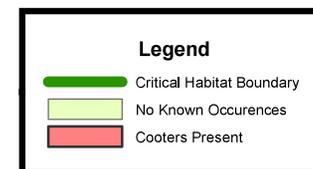
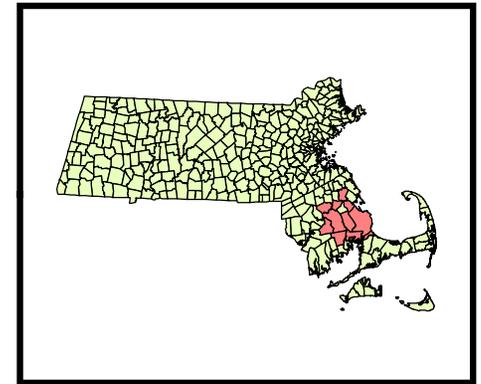
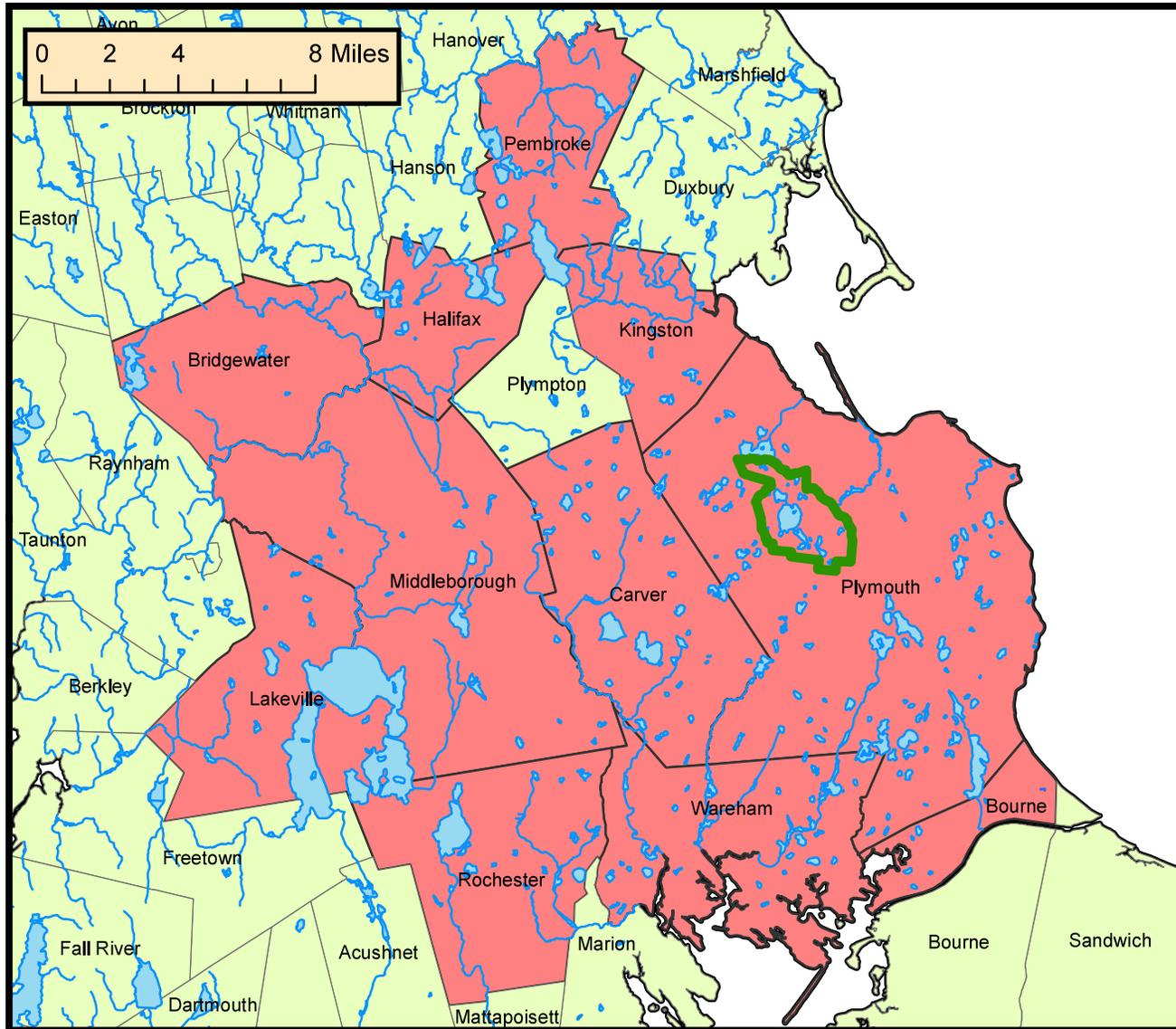
¹Migratory only, scattered along the coast in small numbers

-Eastern cougar and gray wolf are considered extirpated in Massachusetts.

-Endangered gray wolves are not known to be present in Massachusetts, but dispersing individuals from source populations in Canada may occur statewide.

-Critical habitat for the Northern Red-bellied Cooter is present in Plymouth County.

Area with Known and Expected Occurrences for the Northern Red-bellied Cooter in Massachusetts



For a complete description of the Critical Habitat boundary, please visit : http://ecos.fws.gov/docs/federal_register/fr398.pdf



U.S. Fish & Wildlife Service
New England Field Office
Conserving New England's Natural Resources





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 4, 2010

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>)

Based on the information currently available, no federally-listed or proposed, threatened or endangered species or critical habitat under the jurisdiction of the U.S. Fish and Wildlife Service (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.

This concludes the review of listed species and critical habitat in the project location(s) and environs referenced above. No further Endangered Species Act coordination of this type 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 Mr. Anthony Tur at 603-223-2541 if we can be of further assistance.

Sincerely yours,

Thomas R. Chapman
Supervisor
New England Field Office



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FIGURE 2
ABINGTON ROCKLAND JOINT WATER WORKS
GREAT SANDY BOTTOM POND WTP

Data Source: Office of Geographic and Environmental Information (MassGIS), Commonwealth of Massachusetts Executive Office of Environmental Affairs

NATURAL HERITAGE MAPPING

-  Potential Vernal Pools
-  NHESP Certified Vernal Pools
-  Town Border
-  NHESP Priority Habitats of Rare Species
-  NHESP Estimated Habitats of Rare Wildlife

