

B. Filing with MassDEP – As previously noted, **only** facilities in Massachusetts that were previously unpermitted and discharge to an Outstanding Resource Water (ORW) and High Quality Waters must submit an NOI to MassDEP. In such cases, a completed copy of the NOI must also be sent to:

Massachusetts Department of Environmental Protection
Division of Watershed Management
8 New Bond Street
Worcester, MA 01606

C. Filing with NH DES – All applicants in New Hampshire must also provide a completed copy of their NOI to NH DES at the following address:

New Hampshire Department of Environmental Services
Water Division, Wastewater Engineering Bureau
29 Hazen Drive, P.O. Box 95
Concord, New Hampshire 03302-0095

III. Suggested Notice of Intent (NOI) Format

A. Facility Information

1. *Indicate applicable General Permit for discharge*

MAG640000

NHG640000

2. *Facility Data*

Facility Name _____

Street/PO Box _____ City _____

State _____ Zip Code _____

Latitude _____ Longitude _____

SIC Code(s) _____

Type of Business _____

3. *Facility Mailing Address (if different from Location Address, above)*

Facility Name _____

Street/PO Box _____ City _____

State _____ Zip Code _____

4. *Facility Owner:*

Legal Name _____

Email _____

Street/PO Box _____ City _____

State _____ Zip Code _____

Contact Person _____ Tel # _____

Owner is (check one): Federal _____ State _____ Tribal _____ Private _____

Other (describe)

5. *Facility Operator (if different from above):*

Legal Name _____

Email _____

Street/PO Box _____ City _____

State _____ Zip Code _____

Contact Person _____ Tel # _____

6. *Currently (Administratively) Covered Under the Expired PWTF General Permit? (Please check yes or no):*

☒ Yes

☐ No

a) Has a prior NPDES permit (either individual or general permit coverage) been granted for the discharge that is listed on the NOI? ☒ Yes ☐ No If Yes, Permit Number _____

b) Is the discharge a “new discharger” as defined by 40 CFR Section 122.22? Yes ☐ No ☒

c) Is the facility covered by an individual NPDES permit for *other* discharges? Yes ☐ No ☒

If yes, Permit Number: _____

d) Is there a pending NPDES application (either individual or general permit) on file with EPA for this discharge? Yes ☐ No ☒

If yes, date of submittal: _____ and Permit Number, if available _____

7. *Attach a topographic map indicating the location of the facility and the outfall(s) to the receiving water.* Map attached? See Figure 1

B. Discharge Information (Attach additional sheets as needed):

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

Check Appropriate Box: ☒ **Freshwater** ☐ Marine Water

State Water Quality Classification Class _____

Type of Receiving Water Body (e.g., stream, river, lake, reservoir, estuary, etc.) _____

2. *Indicate the frequency of the discharge:*

Emergency Only Infrequent (Once/Twice a Year) Intermittent*** Continuous

☒ Other***

***If Intermittent (i.e., occurs sometimes but not regularly as in batch discharge), provide # of days per year the discharge occurs _____

***If Other, explain _____

3. Describe the discharge activities for which the owner/applicant is seeking coverage, including process discharges not specifically authorized in the PWTF GP which need to be authorized for 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 at the facility, please include the number and size of lagoons; the size and elevation of the entry pipe; the time of travel from the entry point of the discharge into the lagoon to the entry point to the receiving waters; and the length of backwash cycle for any combination of filters.)

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

Line drawing or flow diagram attached? ☒ See Figure 2

5. Identify the source of the water being discharged:

☒ Surface water ☐ Groundwater ☐ Other (describe)

6. Number of Outfalls _____ Latitude and Longitude to the nearest second for each Outfall. Attach additional pages if necessary.

Outfall # 1 Latitude _____ Longitude _____
Outfall # Latitude _____ Longitude _____
Outfall # Latitude _____ Longitude _____

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:

Outfall # 1

Outfall #

Outfall #

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.

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

3. Are aluminum compounds or polymers used as coagulants at this facility?*

Yes_

No

*If answer is "Yes" and the facility was *not* covered under the PWTF GP that expired on

10/2/14, additional monitoring data and information is required. **Please complete Item III.C.12.**

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

Yes_ **No**

*If answer is "Yes" and the facility was *not* covered under the PWTF GP that expired on 10/2/14, additional monitoring data and information is required. **Please complete Item III.C.12.**

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

Yes_ **No**

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

Yes **No**

[If Yes, EPA will calculate a Total Residual Chlorine effluent limit for your facility]

7. Does the facility provide treatment to remove arsenic from the raw water source? Yes **No**

8. a. Are phosphorus-containing chemicals added to the treated water at this facility? Yes **No**

b. If answer to 8.a. is Yes, does the facility discharge to Phosphorus-Impaired waters? Yes No

c. If answer to 8.b. is Yes, provide name of P-Impaired waterbody: _____

9. Does the facility remove radium or other radioactive substances from raw water sources to comply with drinking water standards? Yes **No**

10. Provide the reported or calculated seven day- ten year low flow (7Q10) of the receiving water 7Q10: _____ cfs **Please see Attachment 3**

NOTE: For facilities that discharge in New Hampshire, the state permitting authority **must** be contacted at the address listed in Appendix VI of the PWTF GP to determine and/or confirm the 7Q10 and/or dilution factor. For facilities that discharge in Massachusetts, it is highly recommended to contact the relevant state authority (MassDEP) to determine and/or confirm the 7Q10 and/or dilution factor.
Attach any calculation sheets used to support the stream flow and dilution factors. See Appendix VII for equations and additional information.

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

Outfall # _____

- 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.

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

Maximum Daily Flow _____ GPD Average Monthly Flow _____ GPD

- c) *TSS (mg/l):* Number of samples: _____ (Minimum of 10 samples)

Maximum Daily _____ mg/l Average Monthly _____ mg/l

d) *pH (s.u.)* : Number of samples: _____ (Minimum of 10 samples)
Minimum _____ s.u. Maximum _____ s.u.

e) *Total Residual Chlorine (ug/l)*: Number of samples: _____ (Minimum of 10 samples)
Maximum Daily _____ ug/l

NOTE: TRC is only required for discharges which have been previously chlorinated or contain residual chlorine

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).

- a) Collect, analyze and submit **12 effluent samples and 10 ambient surface water samples** from a location upstream of and not affected by the discharge. For facilities in New Hampshire and Massachusetts, each sample should be analyzed for total recoverable Al in micrograms per liter. All laboratory results shall be submitted on a separate sheet.
 - a. The samples shall be composite samples consisting of four grab samples taken at approximately equal intervals on a flow weighted basis during the time at which the discharge is entering the receiving water after the start of the backwash cycle.
 - b. For each sampling event, the effluent and surface water samples shall be collected on the same day and during a representative discharge event. The samples shall be no more frequent than weekly and, if time allows in completing the NOI, at monthly intervals and at different flow conditions. If taking the ambient water quality sample from lakes/reservoirs, the 10 samples should be composited vertically.
 - c. Discharge flow at the time of effluent sampling should be recorded. Flow conditions at the time of ambient water sampling should be recorded (or estimated from nearest gaging station).
 - d. Do not include dilution when recording the results.
 - e. See Section 2.1.2.3 and Footnote 12 of Section 2.1.1 for MA facilities (or Section 3.1.2.3 and Footnote 10 of 3.1.1 for NH facilities) for key information on minimum level for analysis and sufficiently sensitive test procedures.
 - f. Sampling data that was collected within one year of the effective date of this general permit **AND** that adheres to all of the requirements above may be submitted in lieu of new samples. This must be denoted with the submitted data.
- b) Provide a description of control measures, chemical substitutions, waste handling methods, and operational changes evaluated and/or used by the facility to minimize the discharge of aluminum to surface waters. (Include additional sheet(s), if necessary)

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** B C

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

Yes No

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 No

3. Attach documentation of ESA eligibility for USFWS as required at Part 1.4 and Appendix III of the General Permit. **Documentation attached?** _____ **Please see Attachment 4**

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:

a) Indicate if the facility discharges into any of the stretches of the following rivers which can support or provide habitat to either Shortnose or Atlantic Sturgeon:

<i>Merrimack River</i> (from Essex Dam in Lawrence, Downstream (including Haverhill) to mouth of River)	Yes	No
---	-----	----

<i>Connecticut River</i> (from Turner’s Falls, downstream through Holyoke (including Holyoke Dam region)	Yes	No
--	-----	----

<i>Taunton River</i>	Yes	No
----------------------	-----	----

<i>Piscataqua River (in NH)</i>	Yes	No
---------------------------------	-----	----

b) Has the facility had any previous formal or informal consultation with NMFS?

Yes No

If yes, attach the results of the consultation(s). **Documentation attached?** _____

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? Yes No

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

Yes

No

If yes, attach the results of the consultation(s).

Documentation attached? _____

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

1

2

3

Please see Attachment 5

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.

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 June 2, 2017

Printed Name and Title Richard F. Stinson, Director of Public Works

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.

Note: Permits No. MAG640000 and NHG640000 may be found at <http://www3.epa.gov/region1/npdes/pwtfgp.html>

H. “Opt-Out Request” from NetDMR Requirement

1. Check the box if you **are** applying for an “opt-out request.” ☐
2. Provide a detailed explanation of the technical or administrative factors that support your request to “opt-out” from the requirement to submit DMRs and reports electronically. (Add additional lines, if necessary.)

Town of Wakefield, MA
Broadway Water Treatment Plant
NPDES MAG640000
Notice of Intent Attachments
June 2017

Attachment 1

The Broadway Water Treatment and Pumping Facility in Wakefield is a slow sand filtration facility with a peak capacity of 2.7-million gallons per day (mgd). The treatment process consists of slow sand filtration, fluoridation for control of dental caries, pH adjustment for corrosion control treatment, and disinfection using chloramines. Water is pumped into the plant from Crystal Lake by two low lift pumps, proceeds to the slow sand filters, and then enters the clearwells by gravity. Water from the clearwells is pumped into the distribution system by two high lift pumps. See **Figures 1 and 2**.

Each of the two, covered slow sand filters is 108 feet wide by 108 feet long, with approximately three feet of 0.35-mm (effective size) sand, and does not require backwashing. There is no coagulant required prior to the slow sand treatment process. The filters at the Broadway WTP are manually cleaned by dewatering and then scraping off the surface. Wakefield WTP personnel clean the filters twice a year (spring and fall). Historically, an 8-inch drain from the sand sump would discharge water at an outlet from Crystal Lake. This discharge was included under older NPDES permits (prior to 2009), and is **no longer** active. A 12-inch overflow from the sand filters to Crystal Lake is used to prevent surcharging the sand filters above desired operational water levels. The Broadway Water Treatment and Pumping Facility Operator monitors the filter height daily. On average, overflows to Crystal Lake from the filters occur less than annually.

**Town of Wakefield, MA
Broadway Water Treatment Plant
NPDES MAG640000
Notice of Intent Attachments
June 2017**

Attachment 2

The following is a list of water additives used at the facility:

Sodium Hypochlorite – Added at the inlet to each clearwell for primary disinfection

Ammonia – Added to the finished water for chloramination

Sodium Hydroxide – Added to the finished water for corrosion control

Fluoride – Added to the water for prevention of dental decay

With the exception of fluoride, all chemicals are added to the water downstream of the slow sand filters. Therefore, if a discharge from the slow sand filters occurs, the only chemical mixed with the raw water is fluoride.

Town of Wakefield, MA
Broadway Water Treatment Plant
NPDES MAG640000
Notice of Intent Attachments
June 2017

Attachment 3

The Broadway Treatment and Pumping Facility is a slow sand filtration facility, thus there is no coagulant added to the water. The 12-inch overflow discharges water in the event that the filters overflow, which rarely occurs. In the event that the water does overflow, it will have the same constituents as the raw lake water, with the addition of fluoride. Therefore, the flows do not contain residual chlorine or aluminum above any natural levels in the raw lake water. Because these overflow events are intermittent, and have not recently occurred, there is no recorded data of the discharge water.

Town of Wakefield, MA
Broadway Water Treatment Plant
NPDES MAG640000
Notice of Intent Attachments
June 2017

Attachment 4 – Endangered Species Act Eligibility

The US Fish and Wildlife Service Information, Planning and Conservation (IPaC) system was accessed for the Broadway Water Treatment Plant at 108 Broadway and identified that there are no critical habitat associated with the Northern long-eared bat. In addition, the Massachusetts Natural Heritage & Endangered Species Program “Town List and Species Viewer” was also consulted for Northern long-eared bat habitat within the Town of Wakefield, with none identified. Supporting documentation is presented on the following pages.

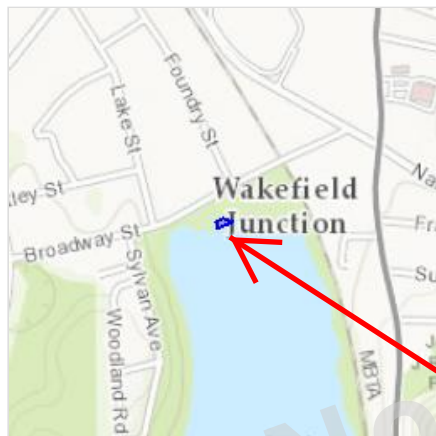
IPaC resource list

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

Middlesex County, Massachusetts



Local office

New England Ecological Services Field Office

☎ (603) 223-2541

📅 (603) 223-0104

70 Commercial Street, Suite 300

Broadway Water Treatment Plant
108 Broadway
Wakefield, MA 01880

Concord, NH 03301-5094

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

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 are managed by the [Endangered Species Program](#) of the U.S. Fish and Wildlife Service.

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.

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

Mammals

NAME

STATUS

Northern Long-eared Bat *Myotis septentrionalis*
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 activity that results in the take (to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct) of migratory birds or eagles is prohibited unless authorized by the U.S. Fish and Wildlife Service³. There are no provisions for allowing the take of migratory birds that are unintentionally killed or injured.

Any person or organization who plans or conducts activities that may result in the take of migratory birds is responsible for complying with the appropriate regulations and implementing appropriate conservation measures.

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

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>
- Conservation measures for birds <http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Year-round bird occurrence data <http://www.birdscanada.org/birdmon/default/datasummaries.jsp>

The migratory birds species listed below are species of particular conservation concern (e.g. [Birds of Conservation Concern](#)) that may be potentially affected by activities in this location. It is not a list of every bird species you may find in this location, nor a guarantee that all of the bird species on this list will be found on or near this location. Although it is important to try to avoid and minimize impacts to all birds, special attention should be made to avoid and minimize impacts to birds of priority concern. To view available data on other bird species that may occur in your project area, please visit the [AKN Histogram Tools](#) and [Other Bird Data Resources](#). To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

NAME	SEASON(S)
American Bittern <i>Botaurus lentiginosus</i> https://ecos.fws.gov/ecp/species/6582	On Land: Breeding

American Oystercatcher <i>Haematopus palliatus</i> https://ecos.fws.gov/ecp/species/8935	On Land: Breeding
Bald Eagle <i>Haliaeetus leucocephalus</i> https://ecos.fws.gov/ecp/species/1626	On Land: Year-round
Black-billed Cuckoo <i>Coccyzus erythrophthalmus</i> https://ecos.fws.gov/ecp/species/9399	On Land: Breeding
Blue-winged Warbler <i>Vermivora pinus</i>	On Land: Breeding
Canada Warbler <i>Wilsonia canadensis</i>	On Land: Breeding
Hudsonian Godwit <i>Limosa haemastica</i>	At Sea: Migrating
Least Bittern <i>Ixobrychus exilis</i> https://ecos.fws.gov/ecp/species/6175	On Land: Breeding
Olive-sided Flycatcher <i>Contopus cooperi</i> https://ecos.fws.gov/ecp/species/3914	On Land: Breeding
Peregrine Falcon <i>Falco peregrinus</i> https://ecos.fws.gov/ecp/species/8831	On Land: Breeding
Pied-billed Grebe <i>Podilymbus podiceps</i>	On Land: Breeding
Prairie Warbler <i>Dendroica discolor</i>	On Land: Breeding
Purple Sandpiper <i>Calidris maritima</i>	On Land: Wintering
Saltmarsh Sparrow <i>Ammodramus caudacutus</i>	On Land: Breeding
Seaside Sparrow <i>Ammodramus maritimus</i>	On Land: Breeding

Short-eared Owl *Asio flammeus*
<https://ecos.fws.gov/ecp/species/9295>

On Land: Wintering

Snowy Egret *Egretta thula*

On Land: Breeding

Upland Sandpiper *Bartramia longicauda*
<https://ecos.fws.gov/ecp/species/9294>

On Land: Breeding

Willow Flycatcher *Empidonax traillii*
<https://ecos.fws.gov/ecp/species/3482>

On Land: Breeding

Wood Thrush *Hylocichla mustelina*

On Land: Breeding

Worm Eating Warbler *Helmitheros vermivorum*

On Land: Breeding

What does IPaC use to generate the list of migratory bird species potentially occurring in my specified location?

Landbirds:

Migratory birds that are displayed on the IPaC species list are based on ranges in the latest edition of the National Geographic Guide, Birds of North America (6th Edition, 2011 by Jon L. Dunn, and Jonathan Alderfer). Although these ranges are coarse in nature, a number of U.S. Fish and Wildlife Service migratory bird biologists agree that these maps are some of the best range maps to date. These ranges were clipped to a specific Bird Conservation Region (BCR) or USFWS Region/Regions, if it was indicated in the 2008 list of Birds of Conservation Concern (BCC) that a species was a BCC species only in a particular Region/Regions. Additional modifications have been made to some ranges based on more local or refined range information and/or information provided by U.S. Fish and Wildlife Service biologists with species expertise. All migratory birds that show in areas on land in IPaC are those that appear in the 2008 Birds of Conservation Concern report.

Atlantic Seabirds:

Ranges in IPaC for birds off the Atlantic coast are derived from species distribution models developed by the National Oceanic and Atmospheric Association (NOAA) National Centers for Coastal Ocean Science (NCCOS) using the best available seabird survey data for the offshore Atlantic Coastal region to date. NOAA/NCCOS assisted USFWS in developing seasonal species ranges from their models for specific use in IPaC. Some of these birds are not BCC species but were of interest for inclusion because they may occur in high abundance off the coast at different times throughout the year, which potentially makes them more susceptible to certain types of development and activities taking place in that area. For more refined details about the abundance and richness of bird species within your project area off the Atlantic Coast, see the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other types of taxa that may be helpful in your project review.

About the NOAA/NCCOS models: the models were developed as part of the NOAA/NCCOS project: [Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#). The models resulting from this project are being used in a number of decision-support/mapping products in order to help guide decision-making on activities off the Atlantic Coast with the goal of reducing impacts to migratory birds. One such product is the [Northeast Ocean Data Portal](#), which can be used to explore details about the relative occurrence and abundance of bird species in a particular area off the Atlantic Coast.

All migratory bird range maps within IPaC are continuously being updated as new and better information becomes available.

Can I get additional information about the levels of occurrence in my project area of specific birds or groups of birds listed in IPaC?

Landbirds:

The [Avian Knowledge Network \(AKN\)](#) provides a tool currently called the "Histogram Tool", which draws from the data within the AKN (latest, survey, point count, citizen science datasets) to create a view of relative abundance of species within a particular location over the course of the year. The results of the tool depict the frequency of detection of a species in survey events, averaged between multiple datasets within AKN in a particular week of the year. You may access the histogram tools through the [Migratory Bird Programs AKN Histogram Tools](#) webpage.

The tool is currently available for 4 regions (California, Northeast U.S., Southeast U.S. and Midwest), which encompasses the following 32 states: Alabama, Arkansas, California, Connecticut, Delaware, Florida, Georgia, Illinois, Indiana, Iowa, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, New Hampshire, New Jersey, New York, North Carolina, Ohio, Pennsylvania, Rhode Island, South Carolina, Tennessee, Vermont, Virginia, West Virginia, and Wisconsin.

In the near future, there are plans to expand this tool nationwide within the AKN, and allow the graphs produced to appear with the list of trust resources generated by IPaC, providing you with an additional level of detail about the level of occurrence of the species of particular concern potentially occurring in your project area throughout the course of the year.

Atlantic Seabirds:

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.

Facilities

Wildlife refuges

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

THERE ARE NO REFUGES 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](#).

This location overlaps the following wetlands:

LAKE

[L1UBHh](#)

A full description for each wetland code can be found at the National Wetlands Inventory website: <https://ecos.fws.gov/ipac/wetlands/decoder>

Data limitations

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

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

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

Data exclusions

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

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.



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Town Species Viewer

The Town List and Species Viewer will be updated at regular intervals as new data is accepted and entered into the NHESP database.

Town:

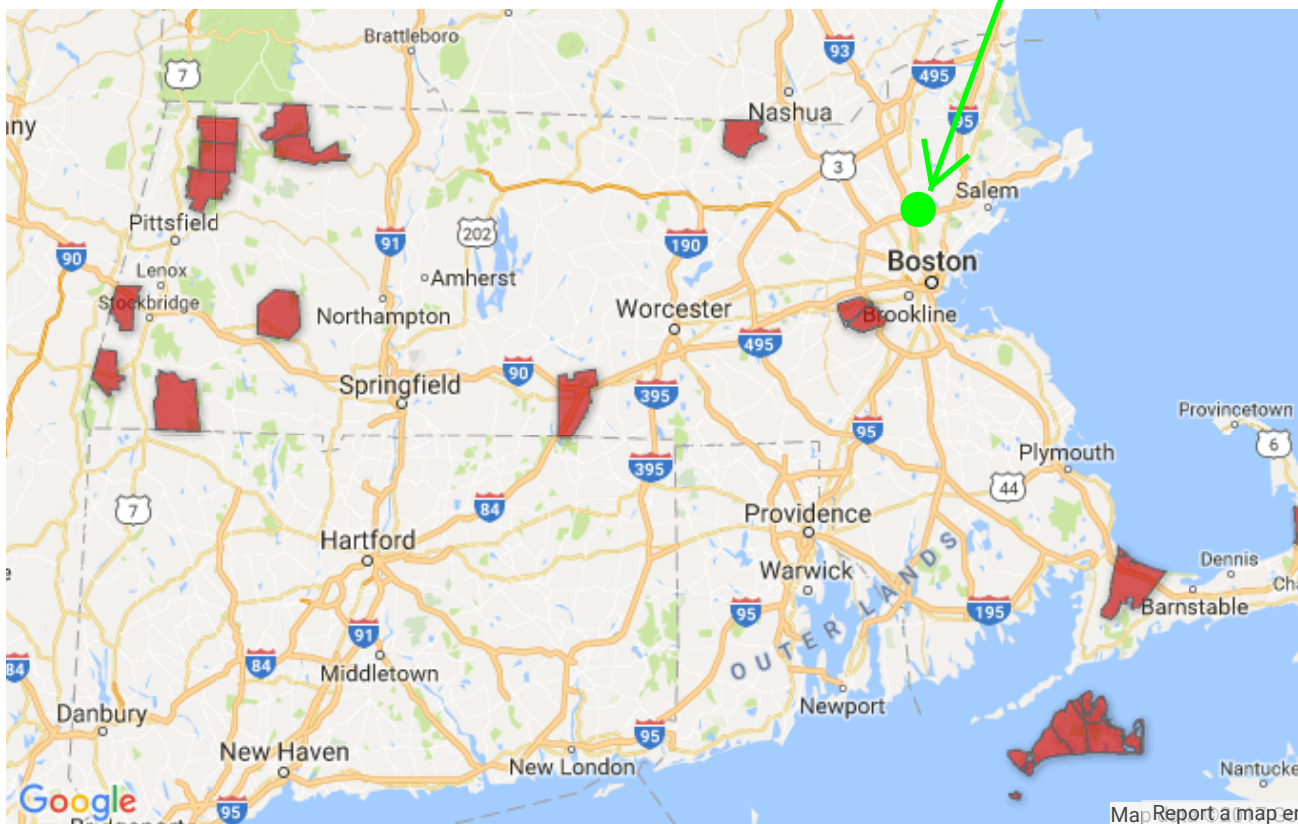
or

Species (Common Name):

or

Species (Scientific Name):

Wakefield, MA



Contact the Natural Heritage & Endangered Species Program
mass.gov/nhesp
natural.heritage@state.ma.us
(508) 389-6360

Species and Conservation Resources

[Species Information and Conservation](#)[NHESP Research and Inventory](#)[List of Rare Species in Massachusetts](#)[Report Rare Species](#)[Request Species Information](#)[Biodiversity in the Housatonic River Watershed](#)[Scientific Collection Permit \(Education/Research\)](#)

Show **10** entries

Search:

Town	Taxonomic Group	Scientific Name	Common Name	MESA Status	Most Recent Obs
NEW MARLBOROUGH	Mammal	Myotis septentrionalis	Northern Long-eared Bat	E	2000
NORTH ADAMS	Mammal	Myotis septentrionalis	Northern Long-eared Bat	E	1997
OAK BLUFFS	Mammal	Myotis septentrionalis	Northern Long-eared Bat	E	2015
PEPPERELL	Mammal	Myotis septentrionalis	Northern Long-eared Bat	E	1997
ROWE	Mammal	Myotis septentrionalis	Northern Long-eared Bat	E	2009
SANDWICH	Mammal	Myotis septentrionalis	Northern Long-eared Bat	E	2015
STURBRIDGE	Mammal	Myotis septentrionalis	Northern Long-eared Bat	E	2000
TISBURY	Mammal	Myotis septentrionalis	Northern Long-eared Bat	E	2015
WELLESLEY	Mammal	Myotis septentrionalis	Northern Long-eared Bat	E	2011
WEST STOCKBRIDGE	Mammal	Myotis septentrionalis	Northern Long-eared Bat	E	2000

Showing 11 to 20 of 21 entries

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**Town of Wakefield, MA
Broadway Water Treatment Plant
NPDES MAG640000
Notice of Intent Attachments
June 2017**

Attachment 5 – National Historic Properties Act Eligibility

A search for Wakefield listings in the “National Register of Historic Places” was conducted and confirmed that there are no historic properties at or in the vicinity of the Broadway Water Treatment plant discharge at Crystal Lake. Supporting documentation is presented on the following pages.

National Register of Historic Places: Listed Properties						
As of July 2015						
Note: Not all properties are digitized						
Reference	State	County	City	Resource	Address	Listed
Number				Name		Date
86003439	MASSACHUSETTS	Middlesex	Wakefield	US Post Office--Wakefield Main	321 Main St.	19871019
89000700	MASSACHUSETTS	Middlesex	Wakefield	House at 52 Oak Street	52 Oak St.	19890706
89000714	MASSACHUSETTS	Middlesex	Wakefield	Beacon Street Tomb	Beacon St.	19890706
89000667	MASSACHUSETTS	Middlesex	Wakefield	Beebe Homestead	142 Main St.	19890706
89000686	MASSACHUSETTS	Middlesex	Wakefield	Boardman, E., House	34 Salem St.	19890706
89000720	MASSACHUSETTS	Middlesex	Wakefield	Boit, Elizabeth, House	127 Chestnut St.	19890706
89000693	MASSACHUSETTS	Middlesex	Wakefield	Center Depot	57 Water St.	19890706
89000757	MASSACHUSETTS	Middlesex	Wakefield	Church--Lafayette Streets Historic District	Roughly Church St. from Lafayette St. to N	19890706
89000739	MASSACHUSETTS	Middlesex	Wakefield	Cowdry, Jonas, House	61 Prospect St.	19890706
89000738	MASSACHUSETTS	Middlesex	Wakefield	Cowdry, Nathaniel, House	71 Prospect St.	19890706
89000729	MASSACHUSETTS	Middlesex	Wakefield	Flanley's Block	349--353 Main St.	19890706
89000704	MASSACHUSETTS	Middlesex	Wakefield	Gould, Samuel, House	48 Meriam St.	19890706
89000706	MASSACHUSETTS	Middlesex	Wakefield	Green, Deacon Daniel, House	747 Main St.	19890706
89000697	MASSACHUSETTS	Middlesex	Wakefield	Greenwood Union Church	Main and Oak	19890706
89000673	MASSACHUSETTS	Middlesex	Wakefield	House at 1 Woodcrest Drive	1 Woodcrest Dr.	19890706
89000678	MASSACHUSETTS	Middlesex	Wakefield	House at 11 Wave Avenue	11 Wave Ave.	19890706
89000688	MASSACHUSETTS	Middlesex	Wakefield	House at 113 Salem Street	113 Salem St.	19890706
89000708	MASSACHUSETTS	Middlesex	Wakefield	House at 12 West Water Street	12 W. Water St.	19890706
89000734	MASSACHUSETTS	Middlesex	Wakefield	House at 13 Sheffield Road	13 Sheffield Rd.	19890706
89000682	MASSACHUSETTS	Middlesex	Wakefield	House at 15 Lawrence Avenue	15 Lawrence Ave.	19890706
89000679	MASSACHUSETTS	Middlesex	Wakefield	House at 15 Wave Avenue	15 Wave Ave.	19890706
89000690	MASSACHUSETTS	Middlesex	Wakefield	House at 18 Park Street	18 Park St.	19890706
89000676	MASSACHUSETTS	Middlesex	Wakefield	House at 18A and 20 Aborn Street	18A and 20 Aborn St.	19890706
89000666	MASSACHUSETTS	Middlesex	Wakefield	House at 190 Main Street	190 Main St.	19890706
89000674	MASSACHUSETTS	Middlesex	Wakefield	House at 193 Vernon Street	193 Vernon St.	19890706
89000668	MASSACHUSETTS	Middlesex	Wakefield	House at 196 Main Street	196 Main St.	19890706
89000740	MASSACHUSETTS	Middlesex	Wakefield	House at 2 Nichols Street	2 Nichols St.	19890706
89000671	MASSACHUSETTS	Middlesex	Wakefield	House at 20 Hancock Road	20 Hancock Rd.	19890706

Reference	State	County	City	Resource	Address	Listed
Number				Name		Date
89000680	MASSACHUSETTS	Middlesex	Wakefield	House at 20 Lawrence Street	20 Lawrence St.	19890706
89000724	MASSACHUSETTS	Middlesex	Wakefield	House at 20 Morrison Road	20 Morrison Rd.	19890706
89000727	MASSACHUSETTS	Middlesex	Wakefield	House at 21 Chestnut Street	21 Chestnut St.	19890706
89000735	MASSACHUSETTS	Middlesex	Wakefield	House at 22 Parker Road	22 Parker Rd.	19890706
89000730	MASSACHUSETTS	Middlesex	Wakefield	House at 23 Avon Street	23 Avon St.	19890706
89000681	MASSACHUSETTS	Middlesex	Wakefield	House at 23 Lawrence Street	23 Lawrence St.	19890706
89000701	MASSACHUSETTS	Middlesex	Wakefield	House at 26 Francis Avenue	26 Francis Ave.	19890706
89000675	MASSACHUSETTS	Middlesex	Wakefield	House at 28 Cordis Street	28 Cordis St.	19890706
89000733	MASSACHUSETTS	Middlesex	Wakefield	House at 30 Sheffield Road	30 Sheffield Rd.	19890706
89000723	MASSACHUSETTS	Middlesex	Wakefield	House at 32 Morrison Road	32 Morrison Rd.	19890706
89000687	MASSACHUSETTS	Middlesex	Wakefield	House at 38 Salem Street	38 Salem St.	19890706
89000711	MASSACHUSETTS	Middlesex	Wakefield	House at 380 Albion Street	380 Albion St.	19890706
89000718	MASSACHUSETTS	Middlesex	Wakefield	House at 39 Converse Street	39 Converse St.	19890706
89000691	MASSACHUSETTS	Middlesex	Wakefield	House at 40 Crescent Street	40 Crescent St.	19890706
89000732	MASSACHUSETTS	Middlesex	Wakefield	House at 42 Hopkins Street	42 Hopkins St.	19890706
89000698	MASSACHUSETTS	Middlesex	Wakefield	House at 5 Bennett Street	5 Bennett St.	19890706
89000746	MASSACHUSETTS	Middlesex	Wakefield	House at 509 North Avenue	509 North Ave.	19890706
89000703	MASSACHUSETTS	Middlesex	Wakefield	House at 54 Spring Street	54 Spring St.	19890706
89000670	MASSACHUSETTS	Middlesex	Wakefield	House at 556 Lowell Street	556 Lowell St.	19890706
89000721	MASSACHUSETTS	Middlesex	Wakefield	House at 6 Adams Street	6 Adams St.	19890706
89000683	MASSACHUSETTS	Middlesex	Wakefield	House at 7 Salem Street	7 Salem St.	19890706
89000689	MASSACHUSETTS	Middlesex	Wakefield	House at 8 Park Street	8 Park St.	19890706
89000737	MASSACHUSETTS	Middlesex	Wakefield	House at 88 Prospect Street	88 Prospect St.	19890706
89000677	MASSACHUSETTS	Middlesex	Wakefield	House at 9 White Avenue	9 White Ave.	19890706
89000736	MASSACHUSETTS	Middlesex	Wakefield	House at 90 Prospect Street	90 Prospect St.	19890706
89000725	MASSACHUSETTS	Middlesex	Wakefield	House at 95 Chestnut Street	95 Chestnut St.	19890706
89000712	MASSACHUSETTS	Middlesex	Wakefield	Item Building	26 Albion St.	19890706
89000716	MASSACHUSETTS	Middlesex	Wakefield	Jordan, Dr. Charles, House	9 Jordan Ave.	19890706
89000742	MASSACHUSETTS	Middlesex	Wakefield	Kendall, Deacon Thomas, House	One Prospect St.	19890706
89000745	MASSACHUSETTS	Middlesex	Wakefield	Lakeside Cemetery Chapel	North Ave.	19890706
89000705	MASSACHUSETTS	Middlesex	Wakefield	Lynnwood	5 Linden Ave.	19890706
89000707	MASSACHUSETTS	Middlesex	Wakefield	Massachusetts State Armory	Main St.	19890706
89000696	MASSACHUSETTS	Middlesex	Wakefield	Richardson, Dr. S. O., House	694 Main St.	19890706
89000665	MASSACHUSETTS	Middlesex	Wakefield	Simpson, Dr. Thomas, House	114 Main St.	19890706

Reference	State	County	City	Resource	Address	Listed
Number				Name		Date
89000749	MASSACHUSETTS	Middlesex	Wakefield	St. Joseph's School	Gould St.	19890706
89000741	MASSACHUSETTS	Middlesex	Wakefield	Stimpson, William, House	22 Prospect St.	19890706
89000669	MASSACHUSETTS	Middlesex	Wakefield	Sweetser, Daniel, House	458 Lowell St.	19890706
89000715	MASSACHUSETTS	Middlesex	Wakefield	Tilton, D. Horace, House	379 Albion St.	19890706
89000728	MASSACHUSETTS	Middlesex	Wakefield	Wakefield Trust Company	371 Main St.	19890706
89000719	MASSACHUSETTS	Middlesex	Wakefield	Wakefield Upper Depot	27--29 Tuttle St.	19890706
89000750	MASSACHUSETTS	Middlesex	Wakefield	Warren, H. M., School	30 Converse St.	19890706
89000748	MASSACHUSETTS	Middlesex	Wakefield	West Ward School	39 Prospect St.	19890706
89000743	MASSACHUSETTS	Middlesex	Wakefield	Winn, Suell, House	72--74 Elm St.	19890706
89000747	MASSACHUSETTS	Middlesex	Wakefield	Woodward Homestead	17 Main St.	19890706
89000756	MASSACHUSETTS	Middlesex	Wakefield	Yale Avenue Historic District	16--25 Yale Ave.	19890706
89000692	MASSACHUSETTS	Middlesex	Wakefield	Wakefield Rattan Co.	134 Water St.	19890706
89000717	MASSACHUSETTS	Middlesex	Wakefield	Winship, Charles, House	13 Mansion Rd.	19890706
89000722	MASSACHUSETTS	Middlesex	Wakefield	House at 1 Morrison Avenue	1 Morrison Ave.	19890706
89000731	MASSACHUSETTS	Middlesex	Wakefield	House at 25 Avon Street	25 Avon St.	19890706
89000702	MASSACHUSETTS	Middlesex	Wakefield	House at 118 Greenwood Street	118 Greenwood St.	19890706
89000753	MASSACHUSETTS	Middlesex	Wakefield	Temple Israel Cemetery	North Ave.	19890706
89000713	MASSACHUSETTS	Middlesex	Wakefield	South Reading Academy	7 Foster St.	19890706
89000695	MASSACHUSETTS	Middlesex	Wakefield	House at 28 Wiley Street	28 Wiley St.	19890706
89000684	MASSACHUSETTS	Middlesex	Wakefield	House at 19--21 Salem Street	19--21 Salem St.	19890706
89000672	MASSACHUSETTS	Middlesex	Wakefield	Green, Capt. William, House	391 Vernon St.	19890706
89000685	MASSACHUSETTS	Middlesex	Wakefield	Emerson--Franklin Poole House	23 Salem St.	19890706
89000710	MASSACHUSETTS	Middlesex	Wakefield	Buildings at 35--37 Richardson Avenue	35--37 Richardson Ave.	19890706
89000709	MASSACHUSETTS	Middlesex	Wakefield	Building at 38--48 Richardson Avenue	38--48 Richardson Ave.	19890706
89000726	MASSACHUSETTS	Middlesex	Wakefield	House at 15 Chestnut Street	15 Chestnut St.	19890706
89000699	MASSACHUSETTS	Middlesex	Wakefield	Sweetser, Michael, House	15 Nahant St.	19890706
89000755	MASSACHUSETTS	Middlesex	Wakefield	Wakefield Park	Roughly Park Ave. between Summit Ave. and	19900302
89000744	MASSACHUSETTS	Middlesex	Wakefield	Goodwin, Captain--James Custis House	1 Elm St.	19900302
89000754	MASSACHUSETTS	Middlesex	Wakefield	Common District	Roughly bounded by Lake Quannapowitt, N	19900302
89000694	MASSACHUSETTS	Middlesex	Wakefield	Woodville School	Farm Rd.	19890706
14000157	MASSACHUSETTS	Middlesex	Wakefield	Oliver House	58 Oak St.	20140415

**Town of Wakefield, MA
Broadway Water Treatment Plant
NPDES MAG640000
Notice of Intent Attachments
June 2017**

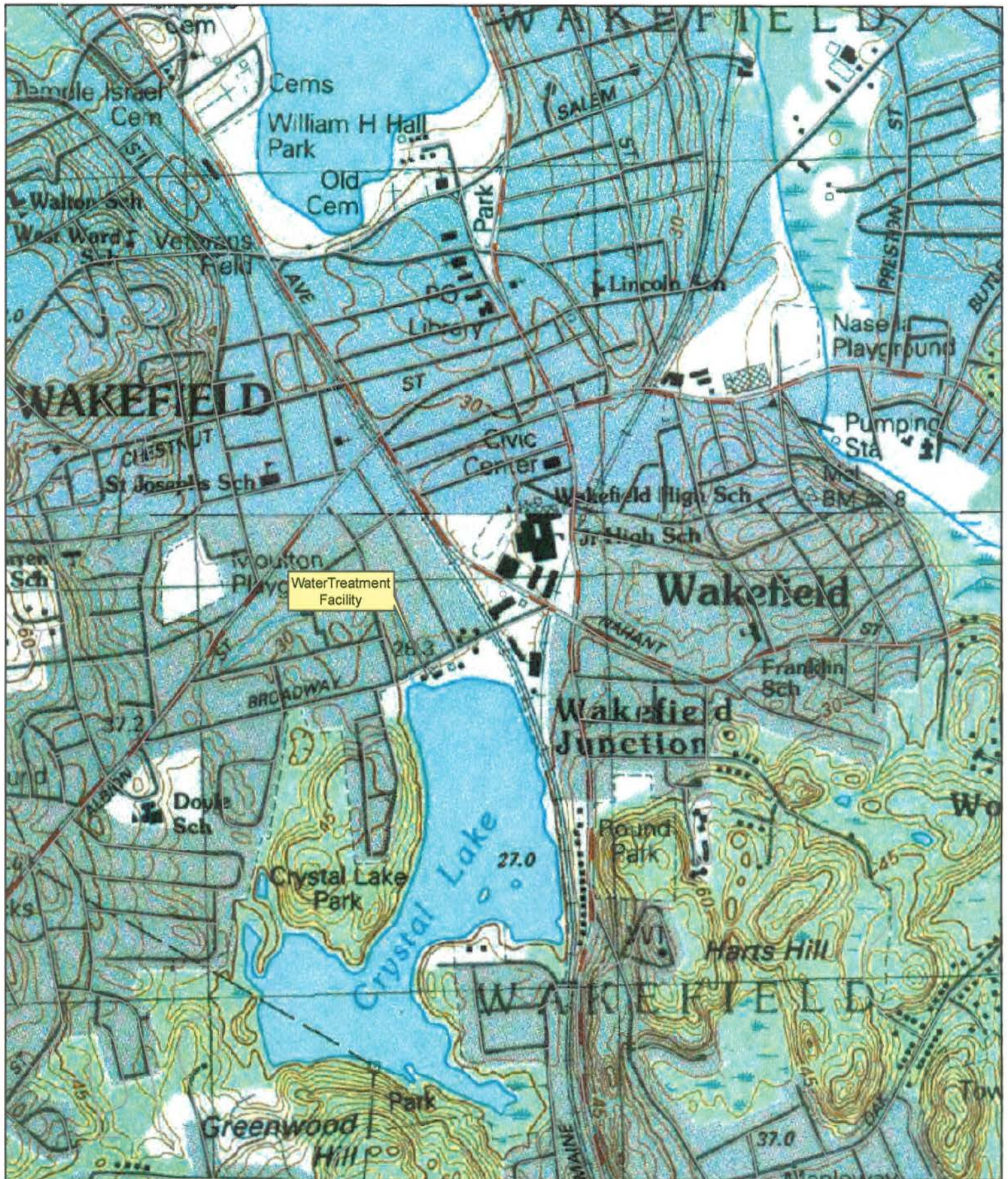
List of Figures

Figure 1 – Site Location Map

Figure 2 – Broadway Water Treatment Plant Schematic

Figure 3 – Site Plan

Figure 4 – MassDEP Chapter 21E Sites



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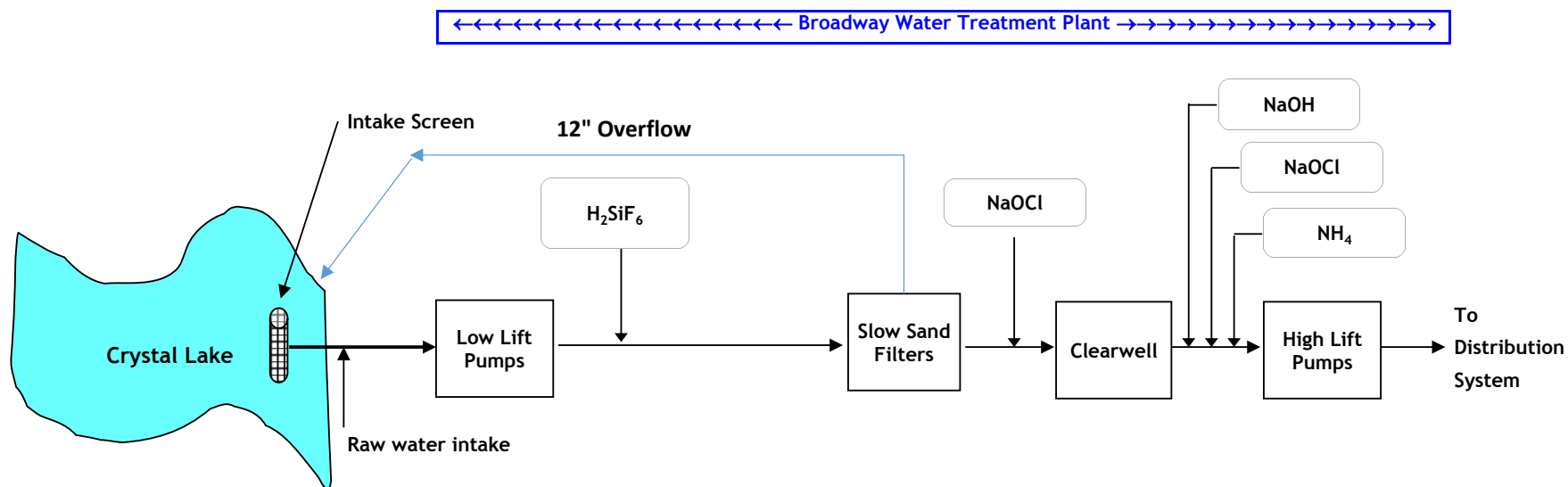
Figure 1
Site Location
Wakefield, MA

Basemap: 7.5-Minute USGS Topographic Quadrangle
Source: Mass GIS
Coordinate System: NAD83 Mass. State Plane Mainland
Units: meters

CDM
Smith

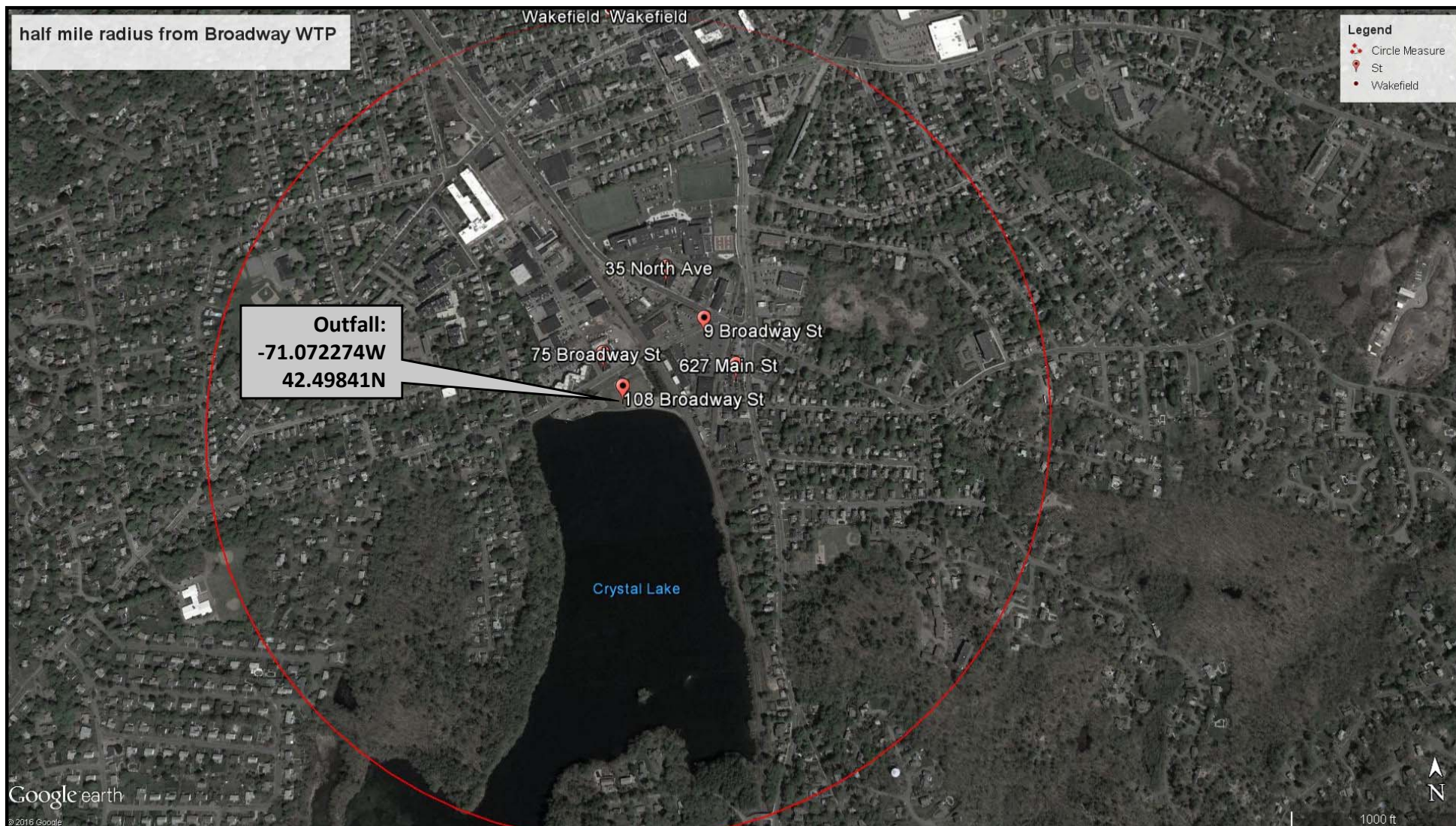
ICMD3NH04D1Project_bup\NPDES_permit\Wakefield\XDLocus_Map.mxd MB 12/2009

Town of Wakefield Water Department
PWS ID: MA 3305000
Broadway Water Treatment Plant
Facility ID: 00009



Legend:

H_2SiF_6 = hydrofluosilicic acid (fluoride)
 $NaOCl$ = sodium hypochlorite (chlorine)
 $NaOH$ = sodium hydroxide (caustic soda)
 NH_4 = aqua ammonia (to combine with chlorine to form chloramine)



RTN	Address	Site Name
3-0002741	627 Main Street	Regal Auto
3-0004299	9 Broadway	Kytron Circuits
3-0010561	35 North Street	Wakefield DPW
3-0021532	75 Broadway	Corner of Broadway and Foundry St

Figure 4
MassDEP Chapter 21E Sites
Wakefield, MA

*Location of RAO Class A, Phase IV and Phase V Sites
within 0.5 miles of Broadway Water Treatment Plant
(as of 5/30/ 2017)*