UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
NEW ENGLAND - REGION I
ONE CONGRESS STREET, SUITE 1100
BOSTON, MASSACHUSETTS 02114-2023

Request for General Permit Authorization to Discharge Wastewater
(Notice of Intent to be covered by the General Permit (NOI))

Potable Water Treatment Facility (PWTF)
NPDES General Permit No. MAG640000 and NHG640000

JAN - 2010

A. Facility Information

1. Facility Owner:
   Name So Deerfield Water Supply District
   Street/PO Box 51 City So Deerfield
   State Ma Zip Code 01373
   Contact Person Roger Sadoski Telephone Number 413-665-3540

2. Facility Operator (if different from above):
   Name _____ e-mail (optional) _____
   Street/PO Box _____ City _____
   State _____ Zip Code _____
   Contact Person _____ Telephone Number _____

3. Facility Data (attach topographic map or other map showing facility and discharge location(s)):
   Name Roaring Brook Water Treatment Facility
   Street/PO Box 59 City Whately
   State Ma Zip Code 01093
   Contact Person Roger Sadoski Telephone Number 413-665-3540
   Facility Latitude 42° 27' 47" N Facility Longitude 72° 38' 56" W

4. Standard Industrial Classification (SIC Codes) and Descriptions of Processes:
   SIC Code(s) 4941
   Description(s) Water treatment Facility

5. Current Permitting Status (please check yes or no):
   1. Has a prior NPDES permit been granted for the discharge? Yes ✓ (Permit Number: MAG640005)
   No ____
   2. Is the discharge a "new discharge" as defined by 40 CFR Section 122.22? Yes ____ No ✓
   3. Is the facility covered by an individual NPDES permit? Yes ____ (Permit Number _____) No ✓
   4. Is there a pending application on file with EPA for this discharge? Yes ✓ (Date of submittal: 9-7-05) No ____

B. Discharge Information

1. Name of Receiving Waterbody flows into a intermittent stream and then to Roaring Brook
2. Type of Receiving Waterbody (e.g. stream, lake, reservoir, estuary etc) Stream
3. State Water Quality Classification: ✓ Freshwater: _____ Marine Water: _____
4. 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

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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 water; and the length of backwash cycle for any combination of number of filters. (attach extra sheets if necessary):

See attached

5. Please provide a diagram depicting the treatment methods, outfalls, and receiving water.

6. Number of outfalls: _____ Latitude and Longitude for each outfall (attach additional pages if necessary)
   OUTFALL # 1 Latitude 42° 27' 47" N Longitude 72° 38' 55" W
   OUTFALL # Latitude _____ Longitude _____

For each outfall:

7. What is the proposed sampling location(s) and proposed consistent times of the month for collecting samples:
In the lagoon near the discharge pipe. One a week on 3 parameters, and once a month on 1 other and

C. Effluent Characteristics

1. List here and attach information on any water additives used at the facility (Including chemicals for pH adjustment, dechlorination, control of biological growth, and control of corrosion and scale in water pipes): Cationic polymer, Potassium permanganate and Sodium hypochlorite

2. Please report here any known remediation activities or water-quality issues in the vicinity of the discharge.

3. Are aluminum-containing coagulants used at this facility? Yes ✓ No ____

4. Does the discharge contain residual chlorine? Yes ✓ No ____

5. Does the facility provide treatment to remove arsenic from the raw water source? Yes ____ No ✓

6. Are phosphorus-containing chemicals added to the treated water at this facility? Yes ____ No ✓

7. All applicants must attach a separate sheet listing all laboratory results (minimum of five) for total recoverable aluminum (in micrograms per liter) taken within the last six months. Do not include dilution when recording your results. See Section 4.4.5 of General Permit for more information.

8. Please include the following effluent data for each outfall:

Characteristic (report if measured)	Average Monthly	Maximum Daily
Discharge Flow (gpd)	38317	49126
TSS (mg/l)	0.460	1.7
pH (s.u.)	(min) 6.925	(max) 7.130
Total Recoverable Aluminum (ug/l)	0.03	0.14
Total Residual Chlorine (ug/l)	0.0115	0.03

(continued on next page)

8. Continued

Characteristic (report if measured)

Whole Effluent Toxicity (%) LC50 100 % and/or C-NOEC 100 %

9. If the discharge contains aluminum and/or residual chlorine, please provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving water, the dilution factor, and attach any calculations used to support stream flow and dilution calculations (See Appendix VII for dilution calculations and additional information):

7Q10 0.24 cfs Dilution Factor 5.0 cfs ave. flow

D. Endangered Species Act Eligibility

1. Using the instructions in Appendix I of the PWTF GP, under which criterion listed in Part II are you eligible for coverage under this general permit?
See attached A ✓ B ___ C ___ D ___ E ___ F ___

2. If you selected criteria D or F, has consultation with the federal services been completed? Yes___ No___

3. If consultation with U.S. Fish and Wildlife Service and/or NOAA Fisheries 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___

4. Attach documentation of ESA eligibility as described below and required at Part 3.4.1 and Appendix I, Part III, Step 4, of the General Permit.

Criterion A - *No federally-listed threatened or endangered species or federally-designated critical habitat are present*: A copy of the most current county species list pages for the county(ies) where your site or facility and discharges are located. You must also include a statement on how you determined that no listed species or critical habitat are in proximity to your site or facility or discharge locations.

Criterion B – *Section 7 consultation completed with the Service(s) on a prior project*: A copy of the USFWS's and/or NMFS's, as appropriate, biological opinion or concurrence on a finding of "unlikely to adversely effect" regarding the ESA Section 7 consultation.

Criterion C – *Activities are covered by a Section 10 Permit*: A copy of the USFWS's and/or the NMFS's, as appropriate, letter transmitting the ESA Section 10 authorization.

Criterion D - *Concurrence from the Service(s) that the discharge is "not likely to adversely affect" federally-listed species or federally-designated critical habitat (not including the four species of concern identified in Section I of Appendix I)*: A copy of the USFWS's and/or the NMFS's, as appropriate, letter or memorandum concluding that the discharge is consistent with the general permit's "not likely to adversely affect" determination.

Criterion E – *Activities are covered by certification of eligibility*: A copy of the documents originally used by the other operator of your site or facility (or area including your site) to satisfy the documentation requirement of Criteria A, B, C or D.

Criterion F - *Concurrence from the Service(s) that the discharge is "not likely to adversely affect" species of concern, as identified in Section I of Appendix I:* A copy of the USFWS and/or the NMFS, as appropriate, concurrence with the applicant's determination that the discharge is "not likely to adversely affect" listed species.

E. National Historic Properties Act Eligibility

1. Using the instructions in Appendix III of the PWTF GP, under which criterion listed in Part III are you eligible for coverage under this general permit?

   1 ✓ 2 ___ 3 ___

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).

F. Certification

I certify that 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. 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 gather and evaluate the information submitted. Based on 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 am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature Roger Sadoski Date 12-31-09

Printed Name and Title Roger Sadoski Superintendent

Federal regulations require this application to be signed as follows:
1. For a corporation, by a principal executive officer of at least the level of vice president;
2. For 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 www.epa.gov/region1/npdes/pwtfgp.html

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)
Berkshire	Bog Turtle	Threatened	Wetlands	Egremont and Sheffield
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	Raynham and Taunton
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
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
Franklin	Northeastern bulrush	Endangered	Wetlands	Montague
	Dwarf wedgemussel	Endangered	Mill River	Whately
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.	Hadley, Hatfield, Amherst and Northampton
Hampden	Small whorled Pogonia	Threatened	Forests with somewhat poorly drained soils and/or a seasonally high water table	Southwick
Middlesex	Small whorled Pogonia	Threatened	Forests with somewhat poorly drained soils and/or a seasonally high water table	Groton
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
Plymouth	Piping Plover	Threatened	Coastal Beaches	Scituate, Marshfield, Duxbury, Plymouth, Wareham and Mattapoisett
	Northern Red-bellied cooter	Endangered	Inland Ponds and Rivers	Kingston, Middleborough, Carver, Plymouth, Bourne, and Wareham
	Roseate Tern	Endangered	Coastal beaches and the Atlantic Ocean	Plymouth, Marion, Wareham, and Mattapoisett.
Suffolk	Piping Plover	Threatened	Coastal Beaches	Winthrop
Worcester	Small whorled Pogonia	Threatened	Forests with somewhat poorly drained soils and/or a seasonally high water table	Leominster

-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.

7/31/2008

B. Discharge Information Question 4

Raw water is pumped into the filter building and a cationic polymer is added to the water. Potassium Permangante is added when necessary. The water then flows through an up flow clarifier. Then the water flows through the filter and into the clear well. At this point, sodium hypochlorite is added. The water takes approximately two hours to reach the discharge pipe. It then flows to the Roaring Brook storage tank and then out to the distribution system. Finished water from the clearwell is used to back wash the filters, usually around 11,000 gallons is used. Raw water is used to flush the clarifiers and around 3000 gallons are used.

A filter is backwashed after 32 hours of use or it will back wash when head loss is too high. The clarifiers are flushed every 8 hours of use or when head pressure is to high. Usually the filters or clarifiers are cleaned after length of time has expired. No two things can happen at the same time. All back washers or flushes are staggered.

The back wash and flush water then goes out through a 12' pipe to the lagoons. The lagoons hold 277,310 gallons of water. The effluent first flows into one lagoon. It takes 45 minutes for a back wash to start to enter the second lagoon. At this point, the back wash is over and the discharge is over. The effluent water does not leave the second lagoon until another back wash or flush takes place.

It is very difficult to estimate the length of time it takes for the effluent to make it through the lagoon system and reach the discharged water. I believe that 24 hours is a conservative estimate.

It leaves the lagoon and flows in a pipe 400 yards to an intermittent stream, then 800 yards then to Roaring Brook.

The back wash cycle for a filter can run from 28 minutes to 41 minutes. The clarifier flush cycle is 12 minutes.

C. Endangered Species Act Eligibility
Criterion A was chosen.

We believe that there are no endangered or threatened species in the Roaring Brook from using the endangered species list that was provided with the permit application.