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

A. Facility Information

1. Facility Owner:
   Name Abington -Rockland Joint Water Works e-mail dcallahan@abrockwater.com
   Street/PO Box 96 East Water Street City Rockland
   State Massachusetts Zip Code 02370
   Contact Person Dan Callahan Telephone Number 781-878-0901

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/discharge location):
   Name Hannigan WTP e-mail (optional) _____
   Street/PO Box 835 Hingham Street City Rockland
   State Massachusetts Zip Code 02370
   Contact Person Dan Callahan Telephone Number 781-878-0901
   Latitude 42 degrees 09' 30" Longitude 70 degrees 54' 00"

4. Standard Industrial Classification (SIC Codes) and Descriptions of Processes:
   SIC Code(s)_____
   Description(s) Water Treatment Plant Backwash Residuals

5. Current Permitting Status (please check yes or no):
   1. Has a prior NPDES permit been granted for the discharge? Yes ✔ (Permit Number: MAG640010) 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: _____) No ✔

B. Discharge Information

1. Name of Receiving Waterbody Benn Mann Brook

2. Type of Receiving Waterbody (e.g. stream, lake, reservoir, estuary etc) Wetlands adjacent to brook

3. State Water Quality Classification: B Freshwater: X 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

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 description.

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

6. Number of outfalls: 1

For each outfall:

7. What is the proposed sampling location(s) and proposed consistent times of the month for collecting samples:
From the discharge pipe every week on Tuesdays

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):
Chlorine, Potassium Permanganate, Sodium Hydroxide, Aluminum

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

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)	34,000	95,000
TSS (mg/l)	2	3
pH (s.u.)	(min) 6.40	(max) 7.05
Total Recoverable Aluminum (ug/l)	100	178
Total Residual Chlorine (ug/l)	100	110

(continued on next page)

8. Continued

Characteristic (report if measured)

Whole Effluent Toxicity (%) LC50 N/A and/or C-NOEC _____

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 _____ cfs Dilution Factor 10:1 cfs

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?

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).

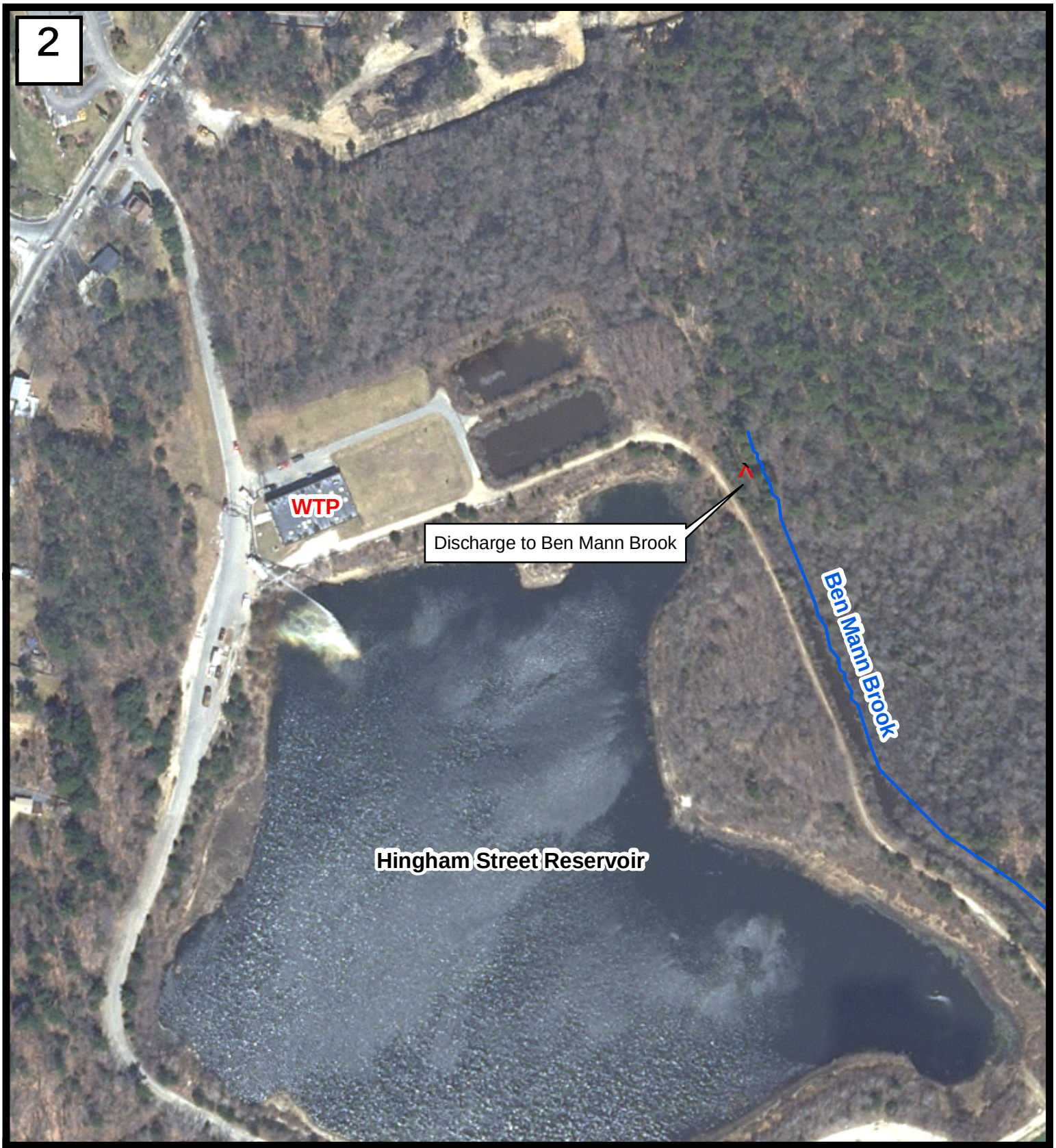
F. Certification

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 Daniel T. Callahan Date December 30, 2009
Printed Name and Title Dan Callahan, 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



Abington & Rockland Joint Water Works
NPDES General Permit, December 2009
Hannigan WTP
Rockland, MA

Weston & Sampson
ENGINEERS, INC.

0 200 Feet

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

HANNIGAN WATER TREATMENT PLANT

Existing Residuals and Filter Backwash Practice

Residuals from Sedimentation Basins

The existing sedimentation basins discharge 16,000 gallons per day of thickened residuals (1-2% solids) to one of the two existing onsite lagoons (Basin 810 and 820). The capacity of each lagoon is approximately 580,000 gallons. The residuals discharge flow thru a single lagoon to a decant pipe and then settle effluent flows to Ben Mann Brook via the existing outfall. As solids build up in the lagoons, the operators manually switch the discharge between the two lagoons to allow settling of thickened residuals. Thickened residuals are removed periodically by pumper truck, thickened off site and disposed of.

Existing Backwash Waste Flows

The sand filters at the water plant are backwashed several times a day. Depending on the water quality from the sedimentation basin effluent and system water demands, the volume of backwash water varies between 27,000 gallons per day and 79,000 gallons per day. The backwash waste flows are either recycled to the head of the water treatment facility or are discharged to one of the one site lagoons. This flow is co-mingled with the residuals from the sedimentation basin. The settled effluent from the in service lagoon then flows to Ben Mann Brook via the existing outfall.

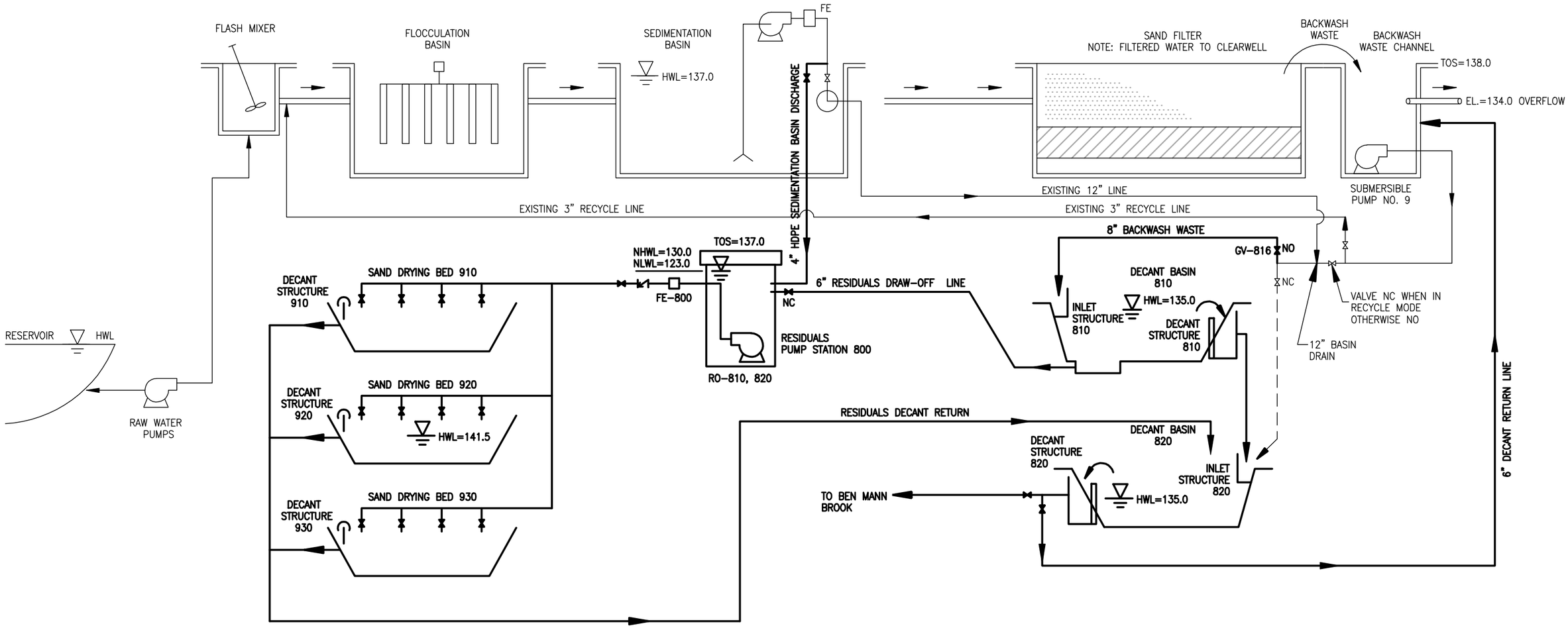
Proposed Residuals and Filter Backwash Practice (beginning Spring 2010)

Residuals from Sedimentation Basins

The existing sedimentation basins discharge 16,000 gallons per day of thickened residuals (1-2% solids) will be pumped to one of three new residual sand drying beds (capacity of 389,000 gallons each) constructed west of the existing lagoons. The drying beds will have the capability of infiltrating the filtered effluent into the ground or decanting liquid and returning it to a reconstructed decant lagoon 820. Decant water from decant lagoon 820 can either be returned to the backwash waste channel (recycled to the WTP influent) or flow to Ben Mann Brook via the existing outfall pipe.

Backwash Waste Flows

The 27,000 gallons per day to 79,000 gallons per day backwash waste water can either be recycled to the head of the existing water plant or discharge into a reconstructed Basin 810. Settled water from Basin 810 will then flow to Basin 820 (same capacity) where the backwash waste flows are allowed to settle for a second time. The settled effluent from Basin 820 can then either be recycled to the head of the water treatment plant or flow to Ben Mann Brook via the existing outfall.



ABINGTON & ROCKLAND JOINT WATER WORKS
HANNIGAN WTP

PROCESS SCHEMATIC

DESIGNED BY: WJN	CHECKED BY: BKC	DATE: DECEMBER 2009

Weston&Sampson®

O:\Abington Rockland JWW\2080402 Residuals Design\CAD\SCHEM FIGS.dwg

Hannigan WTP

Date	Alum residual ug/L
12/23/2009	165
12/14/2009	61
12/1/2009	7
11/24/2009	77
11/16/2009	28
11/9/2009	43
11/3/2009	35
10/20/2009	56
10/14/2009	65
10/9/2009	62
9/29/2009	81
9/9/2009	148
8/23/1900	114
8/7/2009	113
8/2/2009	112
7/22/2009	140
7/14/2009	133
7/7/2009	48

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	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, Wareham, Halifax, and Pembroke
	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.

Revised 06/22/2009