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 Town of Winchester e-mail _____
   Street/PO Box 71 Mt Vernon Street City Winchester
   State MA Zip Code 01890
   Contact Person Richard Howard Telephone Number (781)721-7133

2. Facility Operator (if different from above):
   Name David Serratore e-mail (optional) dserratore@winchester.us
   Street/PO Box 15 Lake Street City Winchester
   State MA Zip Code 01890
   Contact Person David Serratore Telephone Number 781-721-9015

3. Facility Data (attach topographic map or other map showing facility and discharge location(s)):
   Name Winchester Water Treatment Plant e-mail (optional) dserratore@winchester.us
   Street/PO Box 345 South Border Rd City Winchester
   State MA Zip Code 01890
   Contact Person David Serratore Telephone Number (781)721-9015
   Facility Latitude 42°26'25.1"N Facility Longitude 71°07'12.7"W

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

5. Current Permitting Status (please check yes or no):
   1. Has a prior NPDES permit been granted for the discharge? Yes ✓ (Permit Number: MAG640037) 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: 03/04/10) No ____

B. Discharge Information

1. Name of Receiving Waterbody South Reservoir

2. Type of Receiving Waterbody (e.g. stream, lake, reservoir, estuary etc) Reservoir

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):

Chemicals used in Treatment process are: Aluminum Sulfate or Polyaluminum chloride,Sodium Hypochlorite,Sodium Hydroxide,Hydrofluosilicic Acid. Backwash water is pumped from holding tank to settling lagoons where water is decanted from the top and reclaimed to the reservoir. A 4 inch pipe flows into a run-off which flows into the reservoir. There are 2 settling lagoons which hold approximately 210,000 gallons each and are run one at a time. There are times when there is no discharge from the lagoons to the reservoir. The plant has 2 filters that backwash every 24 hours at approximately 2100GPM for 7 minutes each and filter to waste for 15 minutes at 700GPM.

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

6. Number of outfalls: 1 Latitude and Longitude for each outfall (attach additional pages if necessary)
   OUTFALL # Latitude 42°26'27"N Longitude 71°07'14"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:
Proposed sampling location is lagoon run-off discharge stream into the reservoir. Samples are taken on Tuesday mornings.

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): Sodium Hydroxide

2. Please report here any known remediation activities or water-quality issues in the vicinity of the discharge.
None

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)	110,000	150,000
TSS (mg/l)	1	2
pH (s.u.)	(min) 6.7	(max) 7.1
Total Recoverable Aluminum (ug/l)	218.0	252.0
Total Residual Chlorine (ug/l)	20.0	30.0

(continued on next page)

8. Continued

Characteristic (report if measured)

Whole Effluent Toxicity (%) LC50 >100% and/or C-NOEC =100% July 1999

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 [signature] Date 5/23/17
Printed Name and Title David Serratore Treatment Plant Supervisor

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

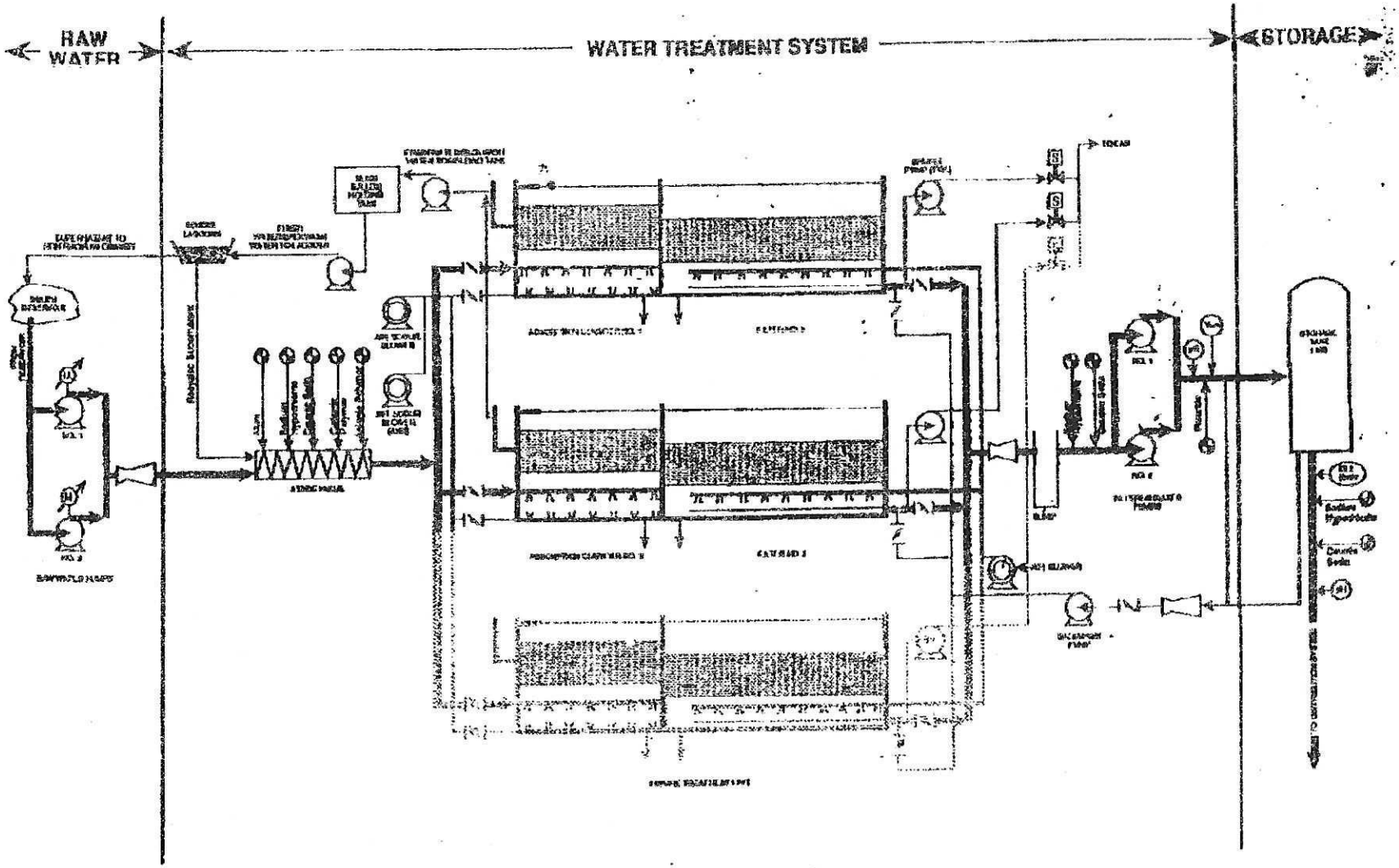
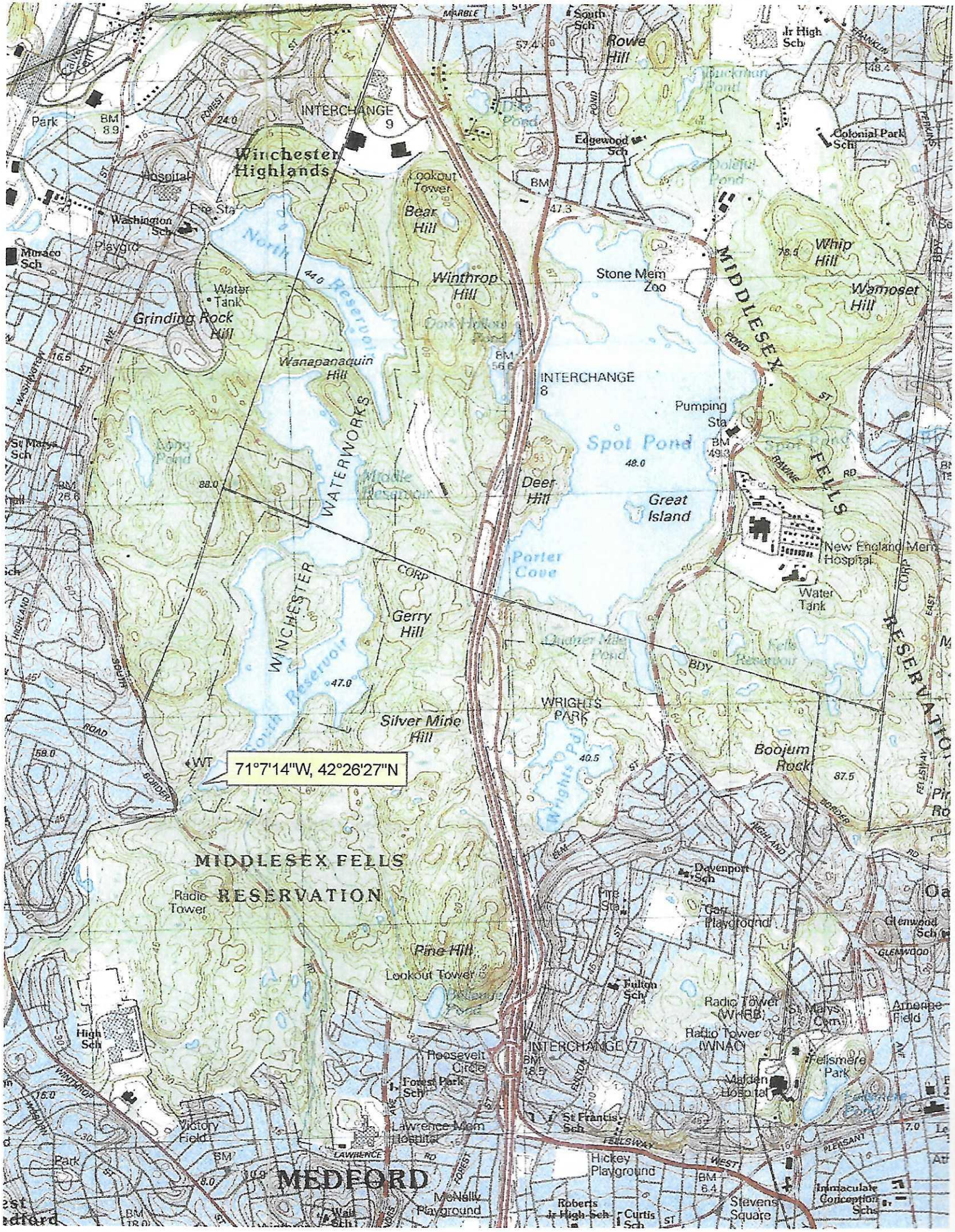


Figure 2
Process Flow and Instrumentation


71°7'14"W, 42°26'27"N
Winchester Highlands
INTERCHANGE 9
INTERCHANGE 8
INTERCHANGE 7
Rowe Hill
Bear Hill
Winthrop Hill
Grinding Rock Hill
Wanapanaquin Hill
Deer Hill
Gerry Hill
Silver Mine Hill
Pine Hill
Whip Hill
Wamoset Hill
Boojum Rock
Great Island
Spot Pond
Porter Cove
Stone Mem Zoo
Pumping Sta
New England Mem Hospital
Water Tank
Lookout Tower
Fire Sta
Washington Sch
Muraco Sch
Hospital
Park
Edgewood Sch
Colonial Park Sch
Jr High Sch
South Sch
WRIGHTS PARK
Davenport Sch
Carr Playground
Fulton Sch
Radio Tower (WHRB)
Radio Tower (WNAC)
St Marys Cem
Amerige Field
Fellsmere Park
Malden Hospital
St Francis Sch
Hickey Playground
Stevens Square
Immaculate Conception Schs
Roberts Jr High Sch
Curtis Sch
McNally Playground
Wait Sch
Lawrence Mem Hospital
Forest Park Sch
Roosevelt Circle
Victory Field
High Sch
Radio Tower
MIDDLESEX FELLS RESERVATION
MIDDLESEX FELLS RESERVATION
WINCHESTER WATERWORKS
North Reservoir
South Reservoir
Middle Reservoir
Quarter Mile Pond
Wrights Pond
MEDFORD
Glenwood Sch
St Marys Sch
Muraco Sch
Calvary Cem

Lab Results for total Recoverable Aluminum for last 6 months

October 2016	205 ug/L
November 2016	167 ug/L
December 2016	252 ug/L
January 2017	239 ug/L
February 2017	239 ug/L
March 2017	209 ug/L