APPENDIX IV

Notice of Intent Instructions and Suggested Notice of Intent Format

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
NEW ENGLAND - REGION I
5 POST OFFICE SQUARE, SUITE 100
BOSTON, MASSACHUSETTS 02109-3912

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

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

I. Notice of Intent (NOI) Instructions

In order to be covered by the Potable Water Treatment Facility General Permit (PWTF GP), applicants must submit a completed NOI to EPA and the appropriate state agency. Please note that **only** facilities in Massachusetts that were previously unpermitted and discharge to an Outstanding Resource Water (ORW) or High Quality Water must submit an NOI to MassDEP.[1] The NOI consists of either the suggested NOI format included in Part III of this Appendix or another format of official correspondence that contains all of the required information listed in the General Permit and the NOI instructions. All NOIs submitted after December 21, 2020 must be submitted electronically.

At a minimum, the NOI must include the following information for each individual facility. Additional sheets may be attached as needed.

A. General Facility Information

1) Indicate whether applying for MA or NH PWTF General Permit.

2) Provide the name and location address of the facility, including the latitude and longitude. Also provide the Standard Industrial Classification (SIC Code(s)) and type of business. One online source to determine the latitude/longitude can be located at http://itouchmap.com/latlong.html

3) Provide the mailing address, if different from the location address.

[1] These waters are included in the Tables and Figures section of the MA Surface Water Quality Standards, available at http://www.mass.gov/eea/docs/dep/water/laws/i-thru-z/tblfig.pdf. Specifically, all official ORWs are listed in 314 CMR 4.06.

4) Provide the legal name, address, telephone, fax number, and e-mail of the owner of the facility. Indicate whether the owner is a Federal, State, Tribal, private or other entity.

5) Provide the name, address, telephone, fax number, and e-mail of the facility operator (if different from the owner).

6) Provide the answer to the following questions regarding the applicant's current permit status.

   Is the applicant currently (administratively) covered under the expired PWTF GP?

   i. Has a prior NPDES permit (either individual or general permit) been granted for this discharge? If yes, provide the permit number:

   ii. Is the discharge a "new discharger" as defined by 40 CFR Section 122.22?

   iii. Is the facility covered by an individual NPDES permit for *other* discharges? If yes, provide the permit number.

   iv. Is there a pending NPDES application on file with EPA for this discharge? If yes, indicate the date of submittal and permit number (if available)

7) Provide a topographic map indicating the location(s) of the facility and receiving water, and discharge point(s). Check the box to indicate a map has been submitted with NOI.

B. Discharge information

1) Provide the name and type of the receiving water(s) into which each outfall will discharge and identify if it is freshwater or marine water and its state water quality classification.

2) Indicate the frequency of the discharge (i.e., emergency only, infrequent (i.e., once/twice a year), intermittent (occurs sometimes but not regularly, as in batch discharges), continuous, or other). If Intermittent or Other, provide number of days/year the discharge occurs.

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.)

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). Click box to indicate that line drawing/flow diagram has been attached to NOI.

5) Identify the source of the water (i.e., surface water, groundwater).

6) Provide the number of outfalls; and for each outfall, provide the latitude and 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.

C. ***Effluent Characteristics***

1) List any water additives/chemicals used at the facility. This includes chemicals for pH adjustment, dechlorination, control of biological growth, control of corrosion and scale in water pipes, etc. Attach additional information on separate sheets.

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

3) Indicate if any aluminum-containing coagulants are used at the facility. If a facility adds an aluminum-containing chemical to the water being treated and/or discharged AND the facility was *not* covered under the PWTF GP that expired on 10/2/14, additional monitoring data is required. Facility must also complete Item III.C.12.

4) Indicate if the facility uses any alum-based products for algae control. If a facility adds an aluminum-containing chemical to the water being treated and/or discharged AND the facility was *not* covered under the PWTF GP that expired on 10/2/14, additional monitoring data is required. Facility must also complete Item III.C.12.

5) Indicate if any iron-based coagulants are used at the facility.

6) Indicate if the facility's discharge contains residual chlorine.

7) Indicate if the facility provides treatment to remove arsenic from the raw water source.

8) a) Indicate whether any phosphorus-containing chemicals are added to the treated water at this facility?
b) If answer to 8.a. is Yes, indicate whether the facility discharges to a waterbody impaired (i.e., listed as Category 4b or Category 5 on Integrated List of Waters for the relevant state pursuant to CWA section 303(d) and 305(b)) for (total) phosphorus or nutrient/eutrophication biological indicators (in MA) or chlorophyll-a, cyanobacteria hepatotoxic microsystins, dissolved oxygen (saturation), excess algal growth, invasive aquatic algae, or (total) phosphorus (in NH). The 2014 EPA-approved MA Integrated List

of Waters is available at:
http://www.mass.gov/eea/docs/dep/water/resources/07v5/14list2.pdf . Additional information for MA may be found at:
http://www.mass.gov/eea/agencies/massdep/water/watersheds/total-maximum-daily-loads-tmdls.html.
For facilities in NH, comparable information can be found at:
http://des.nh.gov/organization/divisions/water/wmb/swqa/2012/ .
c) If answer to 8.b. is Yes, provide the name of impaired waterbody and the pollutant it is impaired for: _____

9) Indicate if the facility removes radium or other radioactive substances from raw water sources to comply with drinking water standards.

10) Provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving water (in cfs). ***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 before submitting the NOI. For facilities that discharge in Massachusetts, it is highly recommended to contact the relevant state agency (MassDEP) to determine and/or confirm the 7Q10 and/or dilution factor.*** Also, 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 requested data. If the data is not available for a facility (e.g., a Category I facility that only discharges on an emergency basis), please mark "N/A".

a) Provide the Design Flow of the facility (in MGD, million gallons per day). This value will determine the facility's daily maximum flow limit, up to a maximum of 1.0 MGD.

b) Estimate the flow in GPD – both the maximum daily and average flow rate of the discharge in gallons per day;

c) Provide the maximum daily and average monthly flow concentration of TSS (mg/l). Facilities must use a minimum of 10 data points for this parameter. However, the most recent existing data (for facilities already submitting DMRs) may be used.

d) Provide the maximum and minimum monthly pH of discharge (in s.u.). Facilities must use a minimum of 10 data points for this parameter. However, the most recent existing data (for facilities already submitting DMRs) may be used;

e) For discharges which have been previously chlorinated or contain residual chlorine, provide the maximum daily concentration of TRC in ug/l. Facilities must use a minimum of 10 data points for this parameter. However, the most recent existing data (for facilities already submitting DMRs) may be used.

12) For a facility that uses an aluminum-containing chemical during treatment AND was *not* covered under the PWTF GP that expired on 10/2/14, additional monitoring data and information is required. The results of 12 effluent samples and 10 ambient (upstream) surface water samples must be collected, analyzed, and submitted. Additional requirements regarding such sampling can be found in Section III.C.12 of this Appendix. For relevant facilities in both Massachusetts and New Hampshire, each sample should be analyzed for total recoverable Al in micrograms per liter. For New Hampshire facilities, the assumption will be made that the entire fraction of measured total recoverable aluminum is in the acid soluble form. All laboratory results shall be submitted on a separate sheet. Also, the facility must 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.

D. Determination of Endangered Species Act Eligibility (ESA)

Provide documentation of ESA eligibility and respond to all questions as required in Appendix III.

E. Documentation of National Historic Preservation Act (NHPA) Requirements

Provide documentation and respond to all questions as required in Appendix II.

F. Supplemental Information

Applicants should provide any supplemental information needed to meet the requirements of the permit, including any analytical data used to support the application and any certification(s) required by the 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.

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***

As stated in Section 5.1 of the General Permit, all permittees shall submit DMRs and reports required under the PWTF GP electronically to EPA using NetDMR by December 21, 2016 *unless* the facility has applied for an "opt-out request" and received written approval by EPA. A facility may apply for an "opt-out request" only if they are able to demonstrate a reasonable basis, which would include limiting factors like technical or administrative infeasibility (e.g., do not have a computer or internet access).

If a facility is applying for an "opt-out request," the box in Section H must be checked and a written description of the factors supporting the request must be provided. If a facility is *not* applying for an "opt-out request" (which will be the case for most facilities), simply leave this section blank.

II. Submission of NOI

A. Filing with EPA – All operators located in Massachusetts and New Hampshire that apply for coverage under this General Permit must submit an NOI to EPA-Region I. The completed, signed NOI formats and attachments must be submitted to EPA-Region I.

Electronically at: pwtf.generalpermit@epa.gov, or

Mailed to:

US EPA, Region 1
Office of Ecosystem Protection
PWTF GP Applications Coordinator (OEP06-4)
5 Post Office Square, Suite 100
Boston, MA 02109-3912

All NOIs must be submitted electronically after December 21, 2020.

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 Northampton Water Treatment Plant

Street/PO Box 137 Mountain St City Haydenville

State MA Zip Code 01039

Latitude 42 deg. 24min. 29 sec. Longitude 70 deg. 40 min. 23 sec.

SIC Code(s) 4941

Type of Business Water Supply

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

Facility Name _____

Street/PO Box _____ City _____

State _____ Zip Code _____

4. *Facility Owner:*
Legal Name City of Northampton

Email Adunn@northamptonma.gov

Street/PO Box 125 Locust St City Northampton

State MA Zip Code 01060

Contact Person Andrew Dunn Tel # 413-587-1098

Owner is (check one): Federal_____ State X____ Tribal_____ Private _____

Other (describe)

5. *Facility Operator (if different from above):*
Legal Name Keith Snape

Email Ksnape@northamptonma.gov

Street/PO Box 137 Mountain St City Haydenville

State MA Zip Code 01039

Contact Person Keith Snape Tel # 413-268-9420 ex.1

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

Yes- X 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 X No If Yes, Permit Number MAG640034

b) Is the discharge a "new discharger" as defined by 40 CFR Section 122.22? Yes No X

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

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 X

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.*

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

1. *Name of receiving water into which discharge will occur*: Mountain Street Reservoir

Check Appropriate Box: Freshwater ✓ Marine Water

State Water Quality Classification Class _____

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

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.)

Two lagoons alternated yearly, each 3/4 acre in size. Each 155' x 225'
34,875 sq. ft loading rate 150 baffle wall to create settling.
Backwash cycle changes seasonly
Entry pipe elevation to lagoons 517', Entry pipe size 24" , Elevation pipe at reservoir 459.9'.
568 GPM flow to lagoons during backwash

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).

5. Identify the source of the water being discharged:

Surface water ✓ Groundwater Other (describe)

6. Number of Outfalls 1 Latitude and Longitude to the nearest second for each Outfall. Attach additional pages if necessary.

Outfall # Latitude 42 deg. 24 min. 20.419 sec Longitude 72 deg. 40 min. 17.896 sec.

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 #
Sample collected at lagoon outfall, Samples collected weekly on Wednesday

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.

Sodium Hypochlorite, Aluminum sulfate, Sodium Carbonate, Polymer

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 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: N/A cfs Dilution Factor: 10:1

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 # 1

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 640,000 GPD Average Monthly Flow 413,000 GPD

c) *TSS (mg/l)*: Number of samples: 12 (Minimum of 10 samples)

Maximum Daily 4.4 mg/l Average Monthly 1.3 mg/l

d) pH (s.u.) : Number of samples: 12 (Minimum of 10 samples)
Minimum 6.98 s.u. Maximum 7.85 s.u.

e) Total Residual Chlorine (ug/l): Number of samples: 12 (Minimum of 10 samples)
Maximum Daily 70 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

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:

Merrimack River (from Essex Dam in Lawrence, Downstream (including Haverhill) to mouth of River)	Yes	No ✓
Connecticut River (from Turner's Falls, downstream through Holyoke (including Holyoke Dam region)	Yes	No ✓
Taunton River	Yes	No ✓
Piscataqua River (in NH)	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).

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).

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

1 ✓ 2 3

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 6-5-17

Printed Name and Title Andrew Dunn Water 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.

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.)

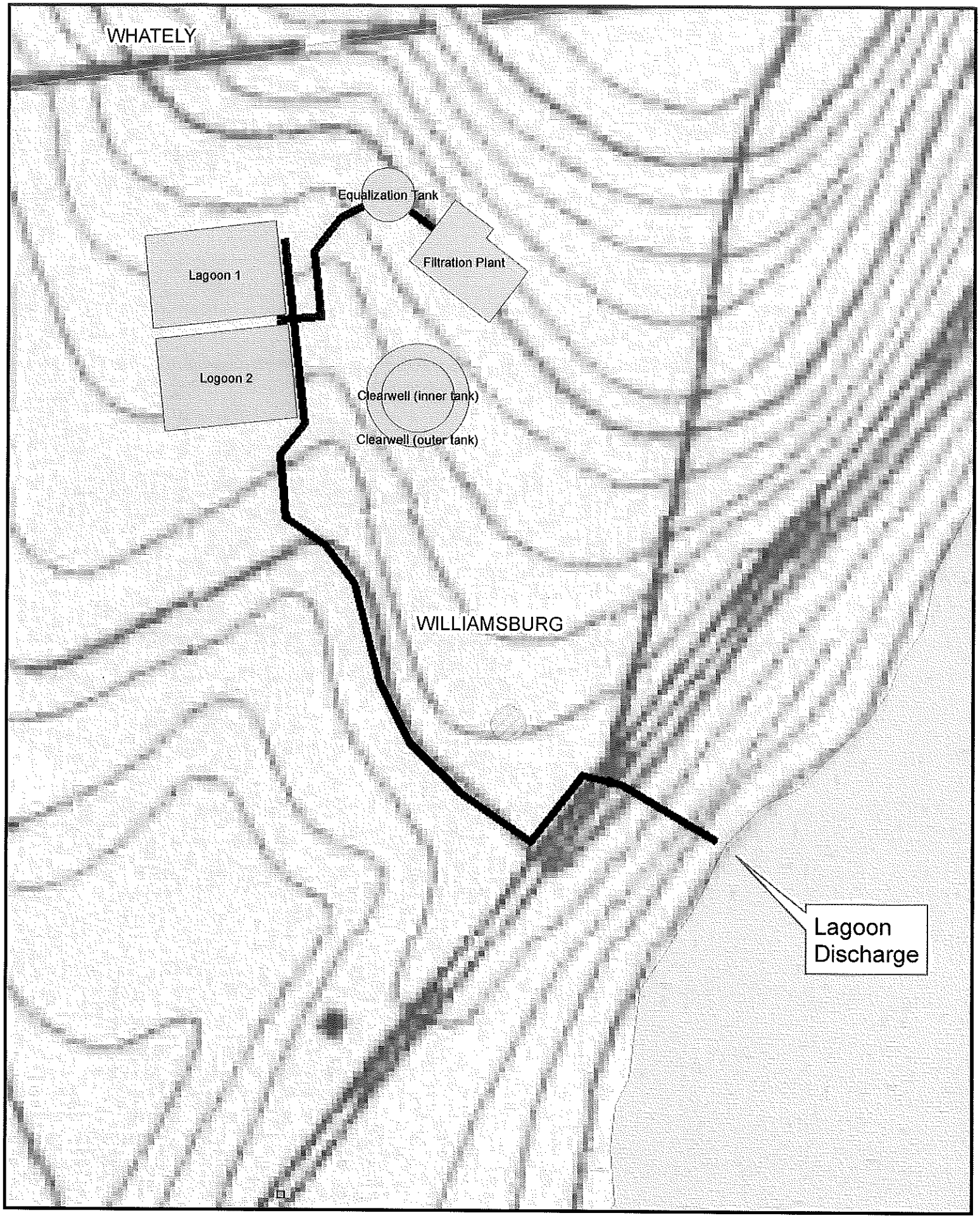
_____

_____

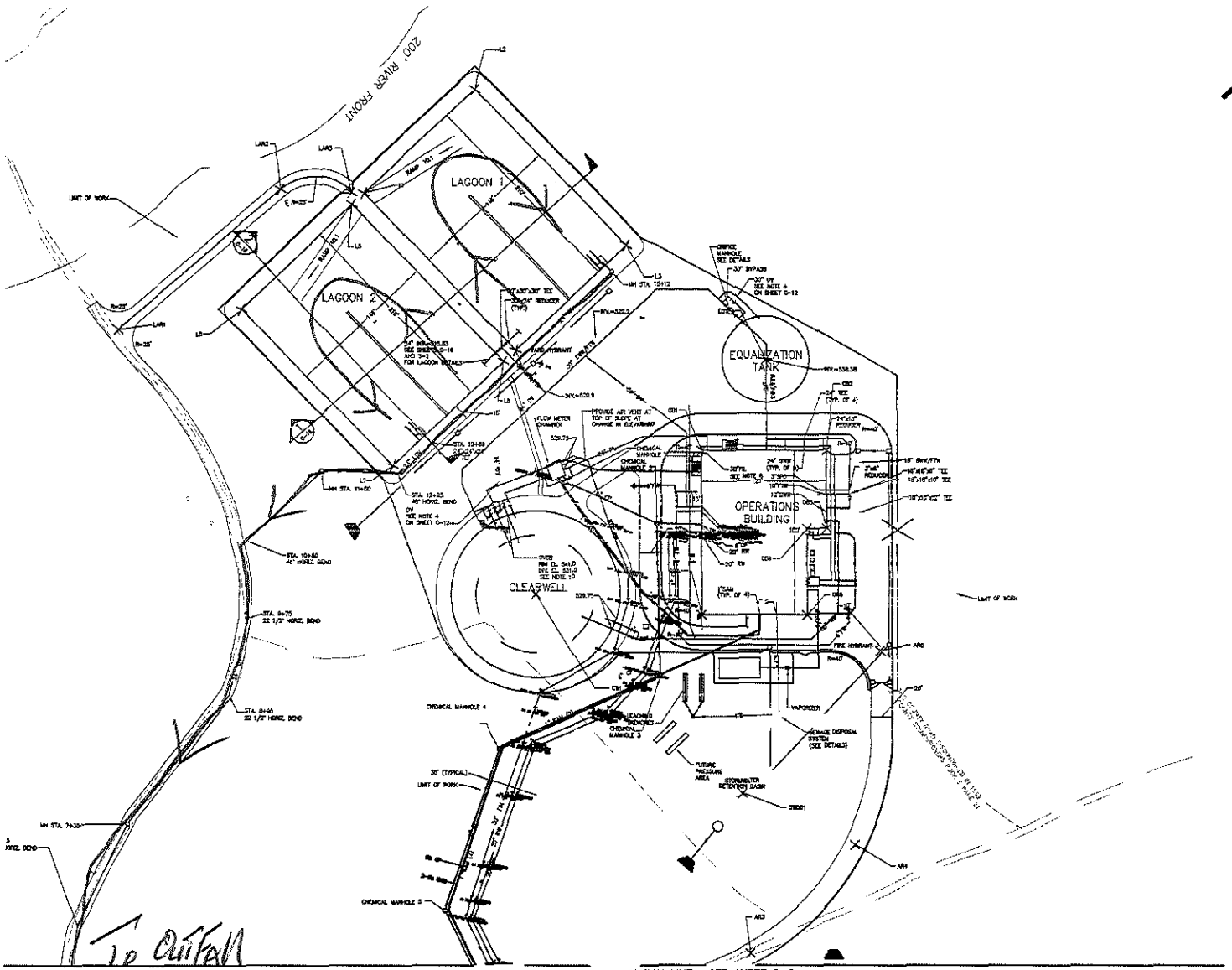
_____

_____

_____



Northampton Water Filtration Plant

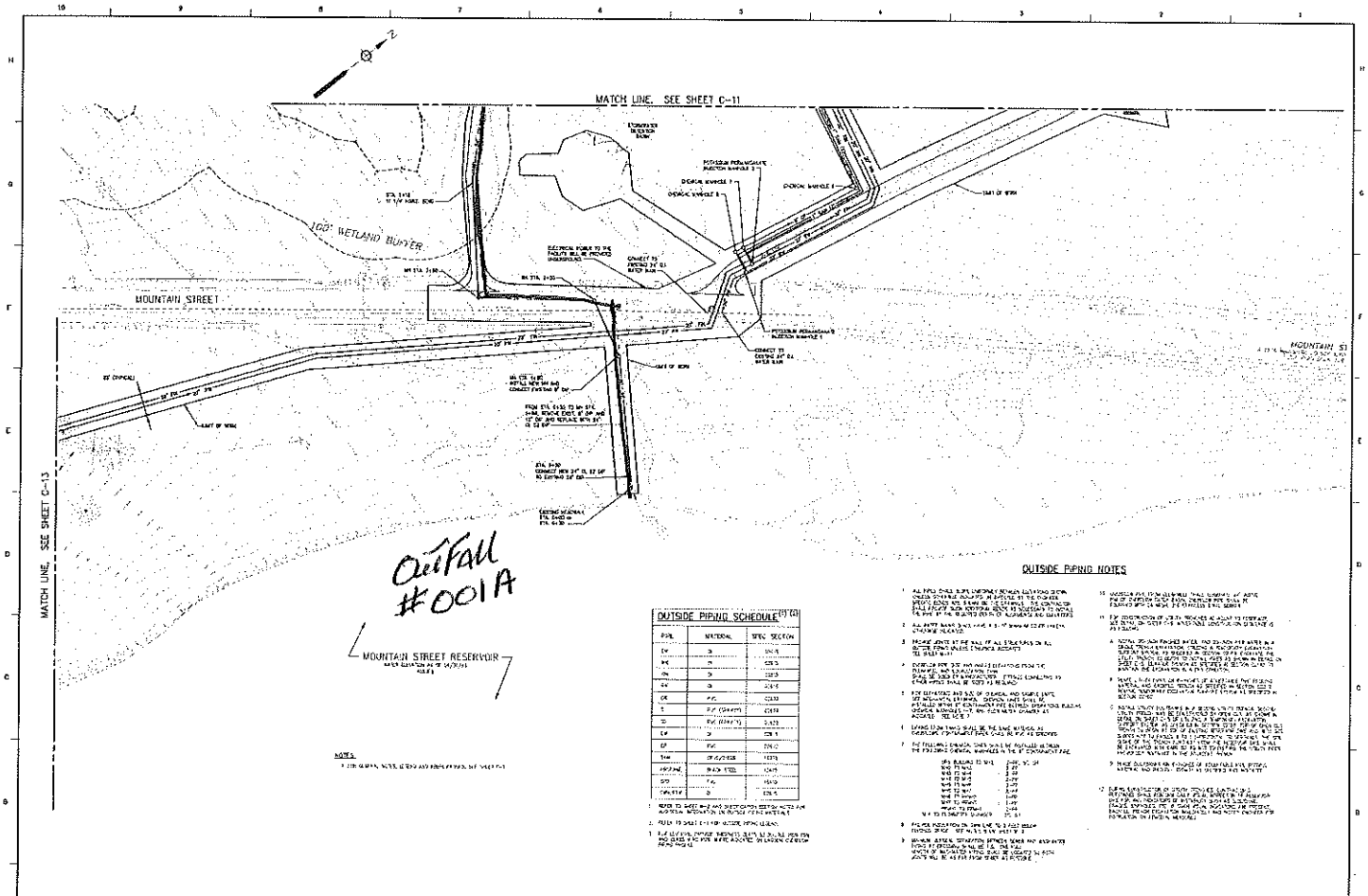


NOTES:

1. FOR GENERAL NOTES, LEGEND AND ABBREVIATIONS, SEE SHEET G-1.

LOCATION COORDINATES

IDENTIFICATION LETTER	STRUCTURE	EASTING	NORTHING
OB1	OPERATIONS BUILDING	E 339,249.48	N 2,975,955.26
OB2	OPERATIONS BUILDING	E 339,423.13	N 2,976,052.52
OB3	OPERATIONS BUILDING	E 339,384.25	N 2,976,008.24
OB4	OPERATIONS BUILDING	E 339,372.78	N 2,975,991.20
OB5	OPERATIONS BUILDING	E 339,440.28	N 2,975,939.50
OB6	OPERATIONS BUILDING	E 339,378.05	N 2,975,857.90
CW1	CLEARWELL	E 339,284.11	N 2,975,741.10
EQ1	EQUALIZATION TANK	E 339,215.55	N 2,976,059.53
L1	LAGOON 1	E 338,849.80	N 2,975,848.78
L2	LAGOON 1	E 338,833.05	N 2,975,894.85
L3	LAGOON 1	E 338,844.30	N 2,975,918.67
L4	LAGOON 1	E 339,081.37	N 2,975,870.80
L5	LAGOON 2	E 338,851.01	N 2,975,930.80
L6	LAGOON 2	E 339,063.20	N 2,975,854.73
L7	LAGOON 2	E 339,079.96	N 2,975,707.03
L8	LAGOON 2	E 338,868.39	N 2,975,683.02
LAR1	LAGOON ACCESS AT EXISTING LOGGING ROAD	E 338,611.16	N 2,975,573.50
LAR2	ACCESS ROAD POINT OF CURVATURE	E 338,797.74	N 2,975,784.23
LAR3	ACCESS ROAD POINT OF TANGENCY	E 339,042.00	N 2,976,027.00
AR1	ACCESS ROAD AT MOUNTAIN STREET (0+00)	E 339,003.10	N 2,976,252.51
AR2	ACCESS ROAD AT MOUNTAIN STREET (2+25)	E 339,626.15	N 2,975,472.01
AR3	ACCESS ROAD AT MOUNTAIN STREET (4+50)	E 339,671.45	N 2,975,694.47
AR4	ACCESS ROAD AT MOUNTAIN STREET (6+00)	E 339,648.16	N 2,975,840.01
AR5	ACCESS ROAD AT PARKING LOT	E 339,511.98	N 2,975,075.01
SWDB1	STORMWATER DETENTION BASIN 1	E 339,542.03	N 2,975,783.45
SWDB2	STORMWATER DETENTION BASIN 2	E 339,407.41	N 2,975,225.04
MSPS1	MOUNTAIN STREET LOW LIFT PUMP STATION	E 339,385.72	N 2,973,554.01
MSPS2	MOUNTAIN STREET LOW LIFT PUMP STATION	E 339,400.04	N 2,973,561.15
MSPS3	MOUNTAIN STREET LOW LIFT PUMP STATION	E 339,419.69	N 2,973,521.79
MSPS4	MOUNTAIN STREET LOW LIFT PUMP STATION	E 339,405.38	N 2,973,514.64
ARLLPS	ACCESS ROAD TO LOW LIFT PUMP STATION AT RESERVOIR ROAD	E 339,423.91	N 2,973,440.47



OUTSIDE PIPING SCHEDULE [1] [2]

PIPE	MATERIAL	SPEC. SECTION
DI	DI	33 11 13
RW	RW	33 11 13
PW	DI	33 11 13
SW	DI	33 11 13
DR	PVC	33 11 13
T	PVC (SCH 80)	33 11 13
TD	PVC (SCH 40)	33 11 13
SW	DI	33 11 13
EP	PVC	33 11 13
SW	CPVC/PEX	33 11 13
HW/SW	BLACK STEEL	33 11 13
SW	PVC	33 11 13
TW/SW	DI	33 11 13

1. REFER TO SHEET C-11 FOR OUTSIDE PIPING LEGEND.
2. FOR SCHEDULE OF PIPE SPECIFICATIONS, SEE SECTION 40 05 00, PIPE FOR WATER SERVICE, TO LOCATE CORRECT PIPING SPECIFICATION.

OUTSIDE PIPING NOTES

1. ALL PIPING SHALL BE INSTALLED WITHOUT INTERFERENCE WITH EXISTING UTILITIES AND STRUCTURES. THE CONTRACTOR SHALL EXPOSE ALL EXISTING UTILITIES AND STRUCTURES AS REQUIRED TO INSTALL ALL PIPE BY THE CONTRACTOR. REFER TO SECTION 01 14 00, WORK RESTRICTIONS.
2. ALL BURIED PIPING SHALL HAVE A MINIMUM COVER OF 4'-0" UNLESS NOTED OTHERWISE.
3. PROVIDE JOINTS AT THE FACE OF ALL STRUCTURES OR AS SHOWN ON THE DRAWINGS. REFER TO SECTION 40 05 00, PIPE FOR WATER SERVICE.
4. OVERLAP PIPE JOINTS AND PROVIDE DEFLECTIONS FROM THE ALIGNMENT AND ELEVATION SHOWN ON THE DRAWINGS AS REQUIRED FOR PROPER INSTALLATION. FITTINGS SHALL BE NOTED AS REQUIRED.
5. FOR DEFLECTIONS AND LOCATIONS OF VALVES AND VALVE UNITS, SEE MECHANICAL DRAWINGS. BURIED VALVES SHALL BE INSTALLED WITH AN EXTENSION AND BURIED OPERATING RODS AS SHOWN ON MECHANICAL DRAWINGS. FOR ADDITIONAL REQUIREMENTS, SEE SECTION 40 05 00, PIPE FOR WATER SERVICE.
6. LOCATE ITEMS SHOWN ON THE PLANS WITH ACCURATE DIMENSIONS FROM PERMANENT FEATURES AS SHOWN ON THE DRAWINGS.
7. FOR TRENCHING, BACKFILL AND COMPACTION REQUIREMENTS FOR BURIED PIPING, REFER TO SECTION 31 23 00, EXCAVATION AND FILL.

PIPE BURIED TO INV.	CONC. ENCASE.
6'-6" TO 7'-0"	1'-0"
7'-0" TO 7'-6"	1'-03"
7'-6" TO 8'-0"	1'-06"
8'-0" TO 8'-6"	1'-09"
8'-6" TO 9'-0"	2'-0"
9'-0" TO 9'-6"	2'-03"
9'-6" TO 10'-0"	2'-06"
10'-0" TO 10'-6"	2'-09"
10'-6" TO 11'-0"	3'-0"
11'-0" TO 11'-6"	3'-03"
11'-6" TO 12'-0"	3'-06"
12'-0" TO 12'-6"	3'-09"
12'-6" TO 13'-0"	4'-0"

8. PROVIDE INSULATION ON PIPING AS SHOWN ON THE DRAWINGS. REFER TO SECTION 40 05 00, PIPE FOR WATER SERVICE.
9. PROVIDE SEPARATION BETWEEN SEWER AND WATER PIPING AS SPECIFIED IN SECTION 40 05 00, PIPE FOR WATER SERVICE.
10. HANDLE ALL ITEMS DELIVERED TO SITE, INCLUDING THOSE FURNISHED BY OWNER, IN ACCORDANCE WITH SECTION 01 14 00, WORK RESTRICTIONS.
11. FOR DESCRIPTION OF ITEMS REQUIRED AS PART OF THE WORK, SEE SECTION 01 10 00, SUMMARY OF WORK.
12. DURING CONSTRUCTION OF THE PROJECT, THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL EXISTING FACILITIES AS SHOWN ON THE DRAWINGS AND AS REQUIRED BY THE OWNER. REFER TO SECTION 01 14 00, WORK RESTRICTIONS.

NOTES:

DRAWN BY: M. SHEERA
MGT. REVIEW: E. CASSAMASSA
FINAL REVIEW: M. LANDSTROM

SCALE: 1" = 40' (ARCH D)

CITY OF NORTHAMPTON, MASSACHUSETTS
DEPARTMENT OF PUBLIC WORKS
WATER TREATMENT PLANT

OUTSIDE PIPING PLAN II

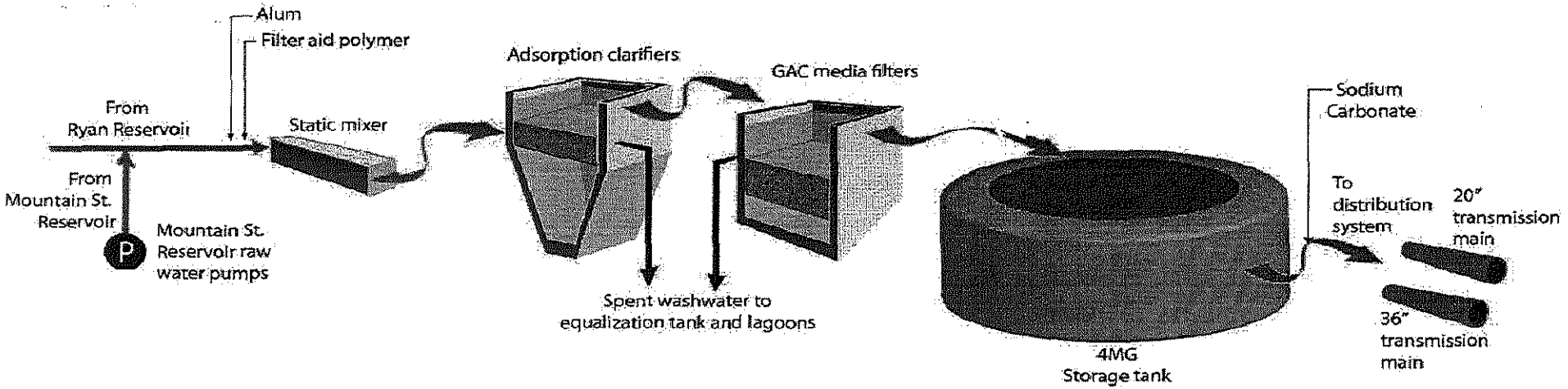
JOB NO. 60720016
FILE NO.
CADD FILE C10-C13
SHEET C-12

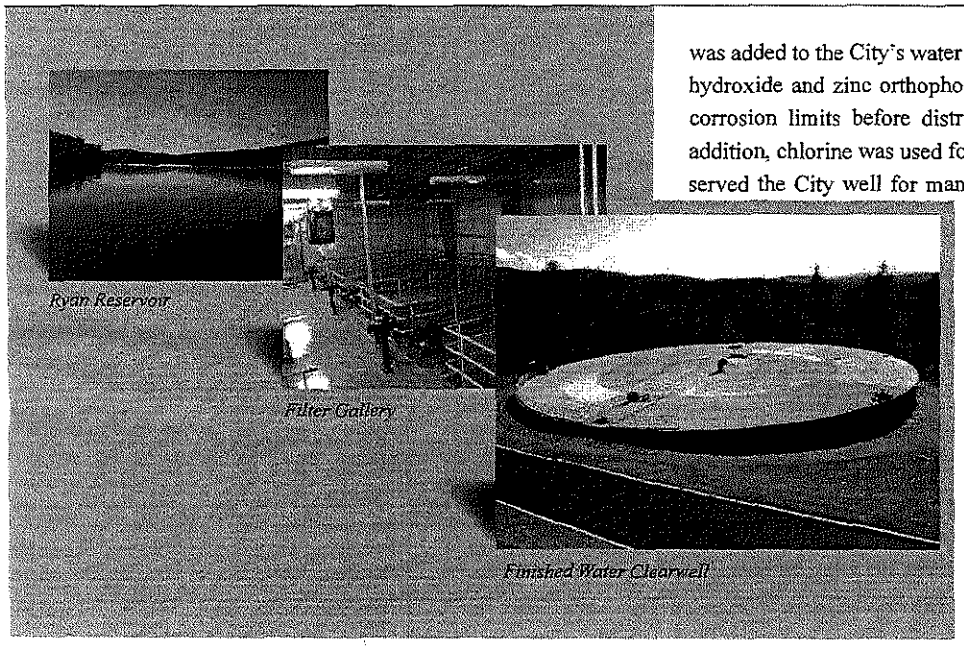
The Mountain Street Water Treatment Plant uses advanced technology to treat water from the Ryan and Mountain Street Reservoirs. New processes provide consistent and reliable treatment to meet the stringent requirements of the Safe Drinking Water Act.

Northampton's Mountain Street Water Treatment Plant

...Treatment for the 21st Century

The City's water system was born in the early 1900's with the construction of the West Whately and Mountain Street Reservoirs. In 1970, the Ryan Reservoir, the largest of the City's reservoirs, was added to the City's water supply system. Historically, sodium hydroxide and zinc orthophosphate, were added to the water for corrosion limits before distribution to the City's customers. In addition, chlorine was used for disinfection. While this system has served the City well for many years, a higher level of treatment of the City's raw water sources was required to consistently meet new drinking water regulations.




Ryan Reservoir

Filter Gallery

Finished Water Clearwell

To meet these regulations, the City of Northampton undertook the construction of the new water treatment plant in 2005. Water from the City's reservoirs enters the plant where it flows through a static mixer to disperse flocculating aids. In the adsorption clarifiers chemically treated water flows upward through buoyant media to remove flocculated particles in the raw water. The clarified water now flows through granular activated carbon (GAC) filters, where the GAC removes suspended matter and organic compounds. The water is disinfected with liquid sodium hypochlorite and stored in the 4 million gallon concrete clearwell, prior to distribution to the City's customers. The new treatment processes are contained within a new operations building, which also houses a state of the art laboratory and a computerized control system that is used to monitor the treatment process from start to finish.