

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

NOV 17 2009

A. Facility Information

1. Facility Owner:

Name Newburyport Water Works e-mail pcolby@cityofnewburyport.com
Street/PO Box City Hall, Pleasant St City Newburyport
State MA Zip Code 01950
Contact Person Paul Colby Telephone Number 978-465-4466

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 Newburyport Water Works e-mail (optional) pcolby@cityofnewburyport.com
Street/PO Box 7 Spring Lane City Newburyport
State MA Zip Code 01950
Contact Person Paul Colby Telephone Number 978-465-4466
Latitude 42 deg 49 Min 48 Sec Longitude 70 deg 59 Min 20 Sec

4. Standard Industrial Classification (SIC Codes) and Descriptions of Processes:

SIC Code(s) _____
Description(s) Convention Water Treatment Plant backwash water discharge

5. Current Permitting Status (please check yes or no):

1. Has a prior NPDES permit been granted for the discharge? Yes X (Permit Number: MA G 640018)
No _____
2. Is the discharge a "new discharge" as defined by 40 CFR Section 122.22? Yes _____ No X
3. Is the facility covered by an individual NPDES permit? Yes _____ (Permit Number _____) No X
4. Is there a pending application on file with EPA for this discharge? Yes _____ (Date of submittal: _____) No X

B. Discharge Information

1. Name of Receiving Waterbody Merrimack River
2. Type of Receiving Waterbody (e.g. stream, lake, reservoir, estuary etc) river
3. State Water Quality Classification: _____ Freshwater: _____ Marine Water: X
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):

Conventional water treatment plant backwash water is discharged into 2- 400,000 gallon lagoons, run in series. Clarified effluent from lagoons is discharged to Memumack River. WTP backwashes one filter per day, a 20 minute backwash cycle uses about 60,000 to 111,000 gallons of water. A 24" pipe flows to a manhole where pipe size changes to 16," where it continues to headwall of outfall.

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:

Samples are collected at discharge of outfall pipe at headwall. Samples are collected every Tuesday (weekly) or Mondays.

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 hypochlorite, Caustic soda 25%, aluminum sulfate, phosphoric acid 75%, sodium fluoride

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 X No

4. Does the discharge contain residual chlorine? Yes No X

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

6. Are phosphorus-containing chemicals added to the treated water at this facility? Yes X 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)	<u>0.111 mgd</u>	<u>0.226 mgd</u>
TSS (mg/l)	<u>0</u>	<u>0</u>
pH (s.u.)	(min) <u>6.0</u>	(max) <u>8.0</u>
Total Recoverable Aluminum (ug/l)	<u>100</u>	<u>200</u>
Total Residual Chlorine (ug/l)	<u>0</u>	<u>0</u>

(continued on next page)

8. Continued

Characteristic (report if measured)

Whole Effluent Toxicity (%) LC50 _____ 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 15.8 cfs Dilution Factor 930 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 X

2. If you selected criteria D or F, has consultation with the federal services been completed? Yes X 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 X 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 X 2 ____ 3 ____

2. Have any State or Tribal historic preservation officers been consulted in this determination? Yes ____ No X
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 Paul F. Colby Date 11-9-2009
Printed Name and Title Paul F. Colby, 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



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
NORTHEAST REGION
One Blackburn Drive
Gloucester, MA 01930

August 08, 1995

Paul F. Colby
Supt. of Water Operations
Newburyport Water Works
City Hall, Pleasant Street
Newburyport, MA 01950

Dear Mr. Colby:

This is in response to your request for information on the effects of the discharge water from your water treatment plant on the endangered shortnose sturgeon (Acipenser brevirostrum) in the Merrimack River.

Shortnose sturgeon are present in the Merrimack River, spawning in the Haverhill reach and using other portions of the river as summering and overwintering habitat. They do not spend a large portion of their time in the saline reaches of the lower river. Based on the information you provided, the discharge water is not expected to have an effect on shortnose sturgeon in the Merrimack River.

If you have any further questions regarding this information, I can be reached at (508)281-9291.

Sincerely,

Laurie Allen Silva
Fishery Biologist



ALUMINUM ANALYSIS

ALUMINOM METHOD 8012 HACH DR/2500

Adapted from Standard Methods for Examination of Water and Waste Water

<u>Date</u>	<u>Micrograms per liter</u>
11/10/2009	12
11/2/2009	21
10/26/2009	4
10/20/2009	16
10/12/2009	33
10/5/2009	14
Highest measured level in month of September 2009	100
Highest measured level in month of August 2009	150
Highest measured level in month of July 2009	180
Highest measured level in month of June 2009	30
Highest measured level in month of May 2009	50

* *Note: Lagoons were drained and cleaned in September 2009.*

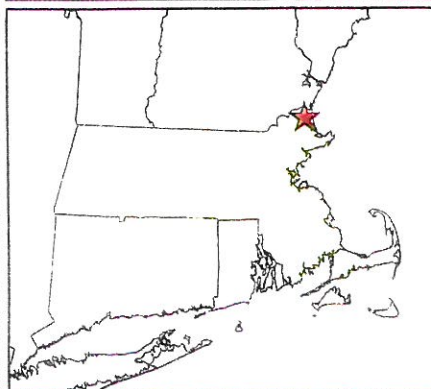
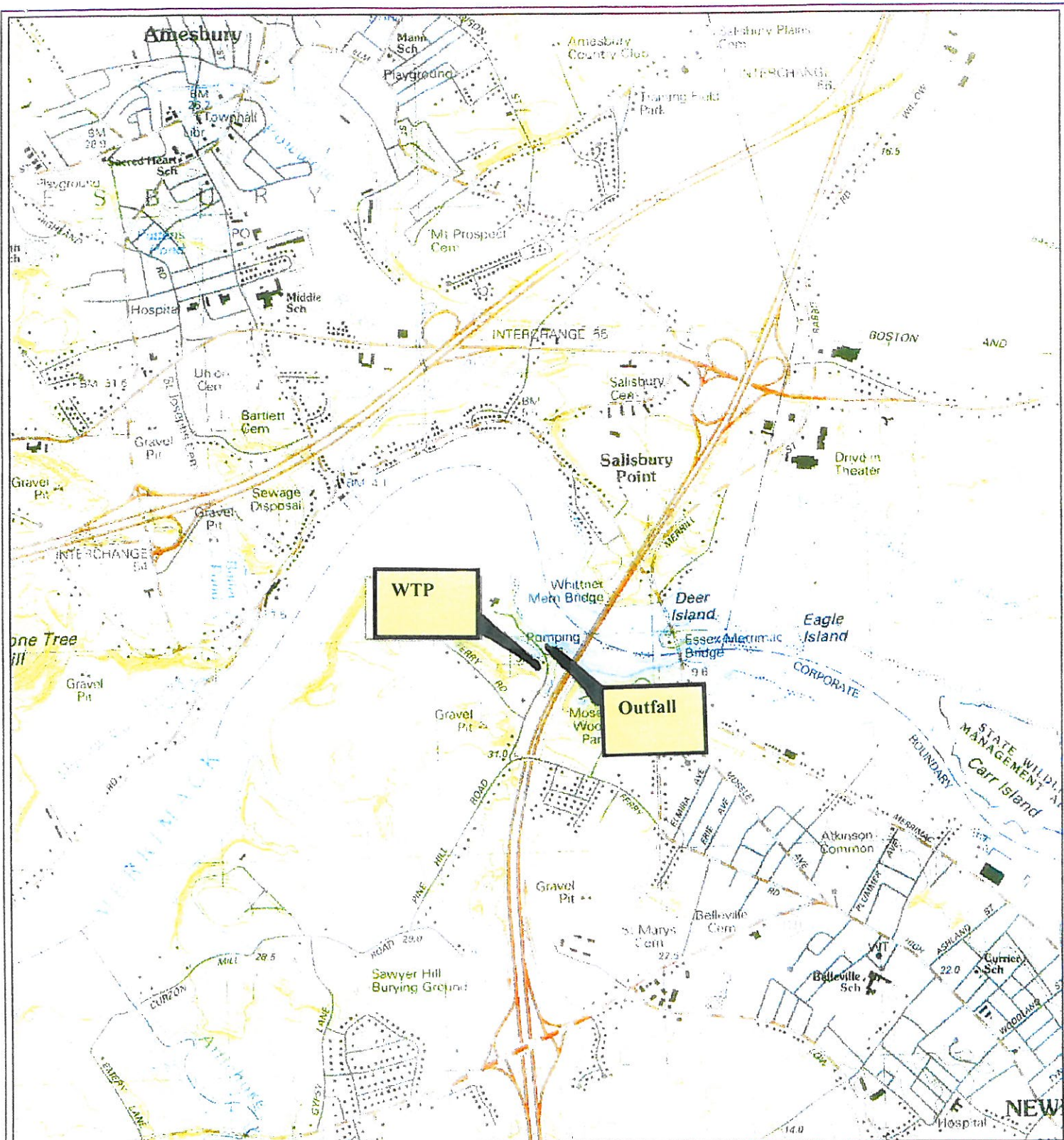


FIGURE 1 SITE LOCUS

7 Spring Lane
Newburyport, Massachusetts

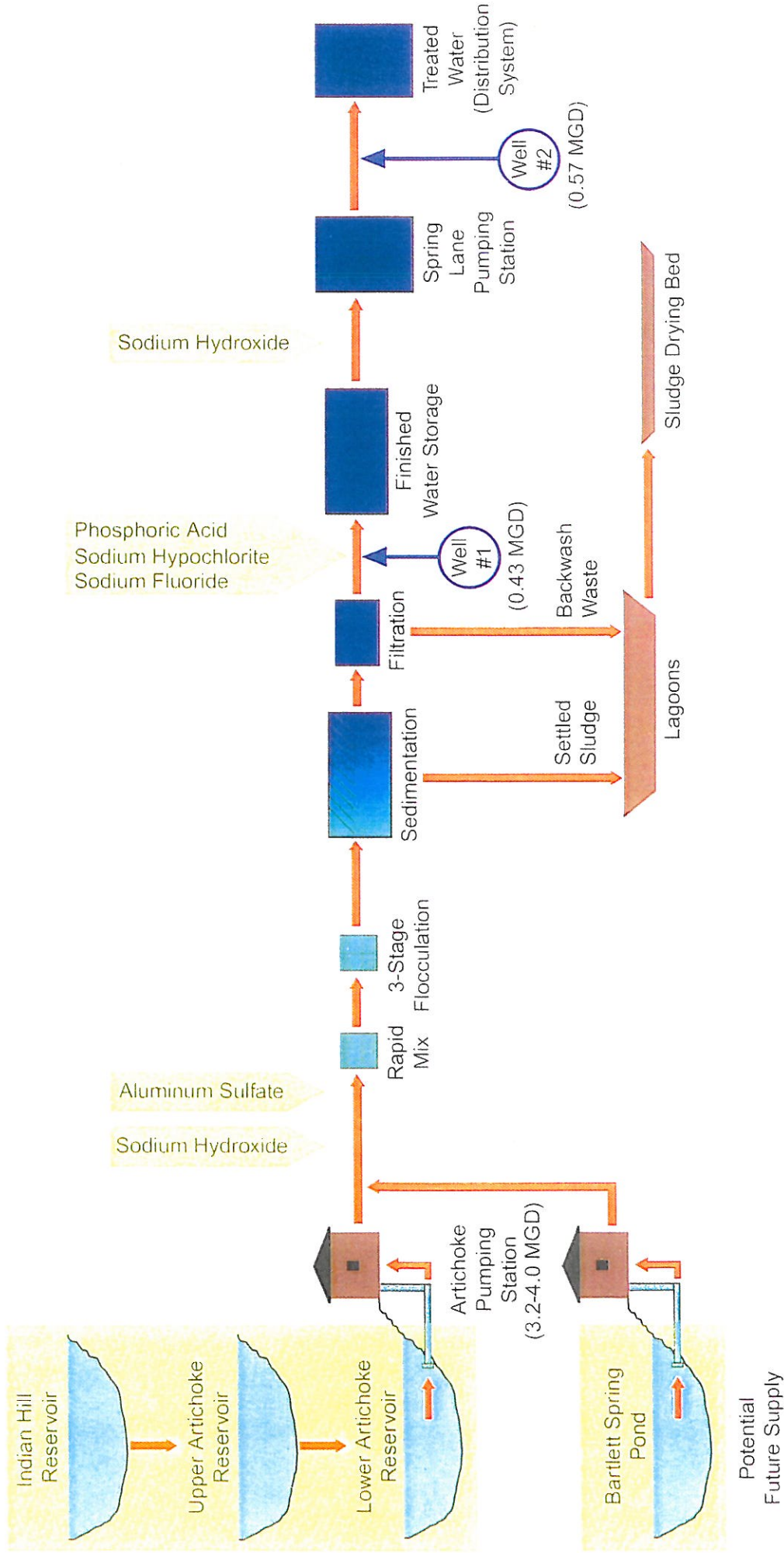
Source: MassGIS



1:25,000

0 625 1,250 2,500
Feet

METCALF & EDDY



Newburyport Water Supply and Treatment Plant Schematic

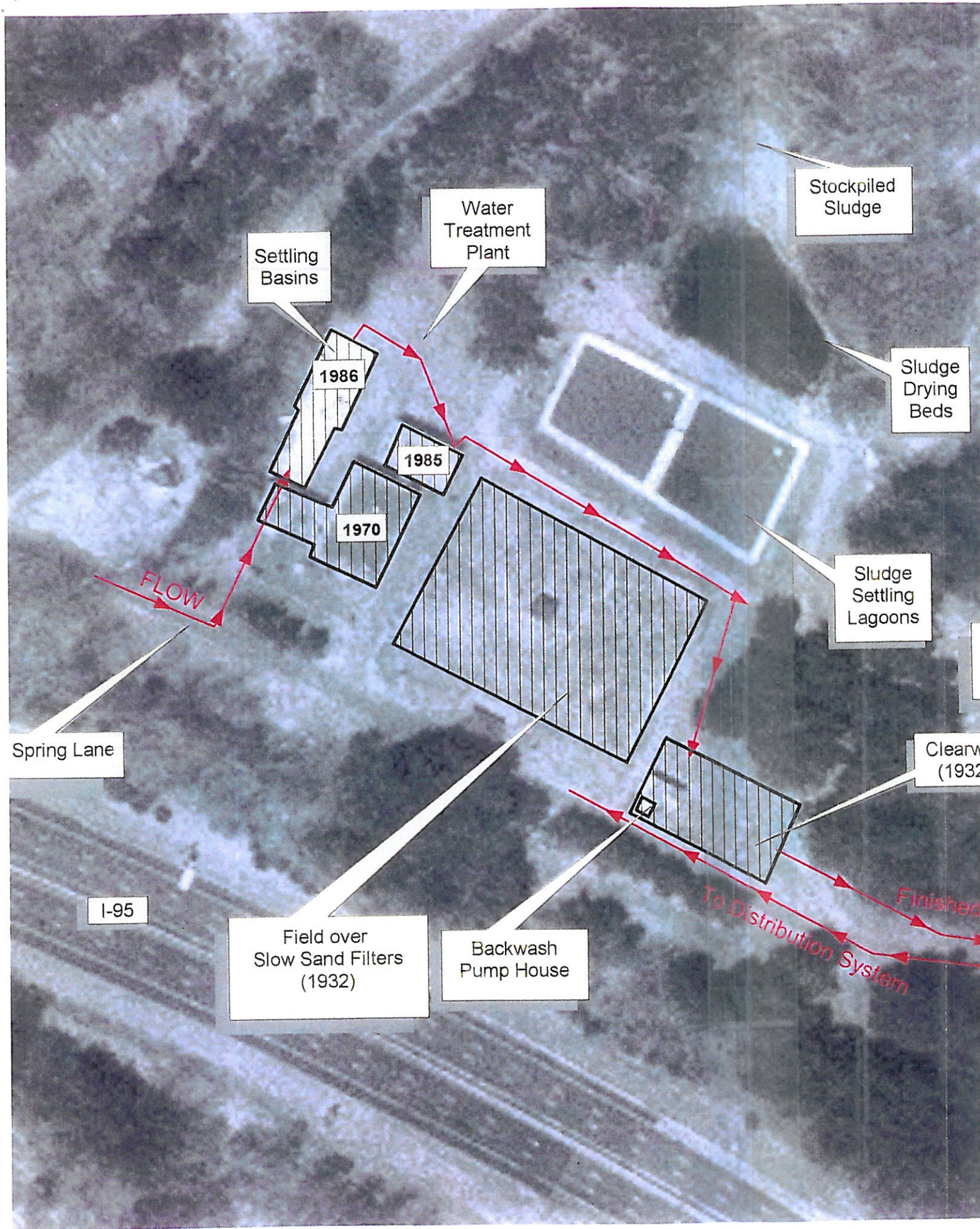


Figure 3 - 2
Water Treatment Facilities
Aerial Photograph



Scale
1"=100'

Stockpiled
Sludge

Sludge
Drying
Beds

Sludge
Settling
Lagoons

Spring Lane
Pumping Station

Clearwell
(1932)

Bartlett
Pond

Outfall

Merrimack
River

Finished Water

Distribution System

