Public Service of New Hampshire

PSNH Energy Park
780 North Commercial Street, Manchester, NH 03101

Public Service Company of New Hampshire
P.O. Box 330
Manchester, NH 03105-0330
(603) 634-2236
Fax (603) 634-2213
macdojm@psnh.com

The Northeast Utilities System

John M. MacDonald
Vice President - Generation

D29237

June 28, 2010
File No. 04.0024931.03

Mr. Brian Pitt, Acting Chief
NPDES Municipal Permits Branch
Office of Ecosystem Protection
EPA-New England, Region 1
5 Post Office Square, Suite 100
Boston, Massachusetts 02109-3912

Re: Notice of Intent
General Permit for Hydroelectric Generating Facilities – NHG360000
Amoskeag Hydro Station
Public Service Company of New Hampshire

Dear Mr. Pitt,

In accordance with the extension letter issued by the Environmental Protection Agency (EPA) dated March 5, 2010, Public Service Company of New Hampshire (PSNH) is submitting the Notice of Intent (NOI) to request coverage for the Amoskeag Hydro Station in Manchester under the General Permit for Hydroelectric Generating Facilities (Permit) in the State of New Hampshire (NHG360000):

PSNH requests that the individual permit application submitted for this facility in 1983 be withdrawn.

As discussed during our February 9, 2010 meeting with George Papadopoulos and Robin Johnson of your office, PSNH is submitting the required NOI documentation prior to July 8, 2010.

If you have any questions, please contact Sheila Burke, PSNH Generation at 603-634-2512.

Very truly yours,

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE

John M. MacDonald
Vice President – Generation

cc: George Papadopoulos/EPA
Robin Johnson/EPA
Daniel Dudley/NHDES

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)

Hydroelectric Generating Facilities (HYDROGP)
NPDES General Permits No. MAG360000 and NHG360000

A. Facility Information

1. Indicate applicable General Permit for discharge: MAG360000 ____
NHG360000 X

2. Facility Name, Location, and Data:
Name Amoskeag Hydroelectric Station
Street/POBox 4 Fletcher Street City Manchester
State New Hampshire Zip Code 03101
Latitude N43° 00' 9.3" Longitude W71° 28' 21.1"
Type of Business Electric Power Generation
SIC Code(s) 4911

3. Facility Mailing Address (if different from Location Address):
Name Public Service Company of NH
Street/PO Box P.O. Box 330 City Manchester
State New Hampshire Zip Code 03105-0330

4. Facility Owner:
Name Public Service Company of NH e-mail (optional) macdojm@nu.com
Street/PO Box P.O. Box 330 City Manchester
State New Hampshire Zip Code 03105-0330
Contact Person John M. MacDonald Telephone Number 603-634-2236
Owner is (check one): 1. Federal____ 2. State ____ 3. Tribal____ 4. Private X
Other (Describe)____

5. Facility Operator (if different from above):
Legal Name Public Service Company of NH e-mail (optional) gunder@nu.com
Street/PO Box P.O. Box 330 City Manchester
State New Hampshire Zip Code 03105-0330
Contact Person Robert Gundersen Telephone Number 603-634-2616

6. Current permit status (please check Yes or No):
a. Has a prior NPDES permit (individual or general permit coverage) been granted for the discharge that is listed on the NOI? Yes X No____ If Yes, Permit Number: NH0001392
b. Is the facility covered by an individual NPDES permit? Yes X No____
If Yes, Permit Number NH0001392
c. Is there a pending NPDES application on file with EPA for this discharge? Yes____ No X If Yes, date of submittal: March 14, 1983 and permit number if available: NH0001392

7. Attach a topographic map indicating the location of the facility and the outfall(s) to the receiving water. Map attached? X

8. Provide the number of turbines and the combined turbine discharge (installed capacity) at maximum and minimum output, in cubic feet per second (cfs). Number of turbines 3 Combined turbine discharge (installed capacity): maximum output, cfs 5,640 and
minimum output, cfs 1,128 (3 units) / 376 (one unit)

9. Is the hydroelectric generating facility operated as a pump storage project? no

B. Discharge Information (attach additional sheets as needed).

1. Name of receiving water into which discharge will occur: Merrimack River
   Freshwater: X Marine Water: _____

2. Attach a line drawing or flow schematic showing water flow through the facility including sources of intake water, operations contributing flow, treatment units, outfalls, and receiving waters(s). Line drawing or flow schematic attached? X

3. List each outfall under the following categories and number sequentially: equipment-related cooling water; equipment and floor drain water; maintenance-related water; facility maintenance-related water during flood/high water events, and equipment-related backwash strainer water (see Parts I.A.1, 2, 3, and 4; or Parts I.B.1, 2, 3, and 4). Attach additional sheets to identify outfalls as needed.

Equipment-related cooling water

Equipment and floor drain water

See attached table for questions 3 and 4.

Maintenance-related water

Facility maintenance-related water during flood/high water events

Equipment-related backwash strainer water

4. List each outfall discharging any combination of the following to identify the combined discharges: equipment-related cooling water, equipment and floor drain water, maintenance-related water, equipment-related backwash strainer water, and facility maintenance-related water during flood/high water events (see Parts I.A.5 and B.5) and continue the sequential numbering. Attach additional sheets to identify outfalls as needed.

5. Provide for each outfall the following:

a. Latitude and longitude to the nearest second (see EPA's siting tool at: http://www.epa.gov/tri/report/siting_tool/) and the name(s) of the receiving water(s) into which the discharge will occur.

b. The operations contributing flow and the treatment received by the discharge. Indicate the average flow from each operation.

c. Indicate if the discharge can be sampled at least once per year or can be sampled using the representative outfall sampling provisions (see Parts I.A.6 or B.6 and III.E).

d. Note if the outfall discharges intermittently or seasonally.

See attached table.

C. Chemical Additives

Are any non-toxic neutralization chemicals used in the discharge(s)? Yes ____ No X ____ If so, include the chemical name and manufacturer; maximum and average daily quantity used on a monthly basis as well as the maximum and average daily expected concentrations (mg/l) in the discharge, and the vendor's reported aquatic toxicity (NOAEL and/or LC_{50} in percent for typically acceptable aquatic organism).

D. Endangered Species Act Eligibility Information

A facility, with a previous ESA Section 7 consultation with the National Marine Fisheries Service (NMFS), seeking coverage under the Massachusetts general permit and discharging to the Connecticut River or Merrimack River should provide one of the following, if available.

1. A formal certification indicating consultation with the National Marine Fisheries Service (NMFS) resulted in either a no jeopardy opinion or a written concurrence on a finding that the discharges are not likely to adversely affect the shortnose sturgeon or critical habitat. Information should also be provided indicating the hydroelectric facility's previous ESA Section 7 consultation with NMFS covered the discharges to be authorized under this general permit and demonstrating no significant changes in the discharges have occurred since the previous consultation.

2. Another operator's certificate of the ESA eligibility for those discharges to be authorized under this general permit.

E. Supplemental Information

Please provide any supplemental information, including antidegradation review information applicable to new or increased discharges. Attach any certification(s) required by the general permit.

F. Signature Requirements

The Notice of Intent must be signed by the operator in accordance with the signatory requirements of 40 CFR Section 122.22 (see below) including the following certification:

I certify under penalty of law that no chemical additives are used in the discharges to be authorized under this general permit except for those used for pH adjustment and (2) 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 my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, I certify that the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I certify that I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature _____ Date 6/28/10

Printed Name and Title John M. MacDonald, Vice President, Generation

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.

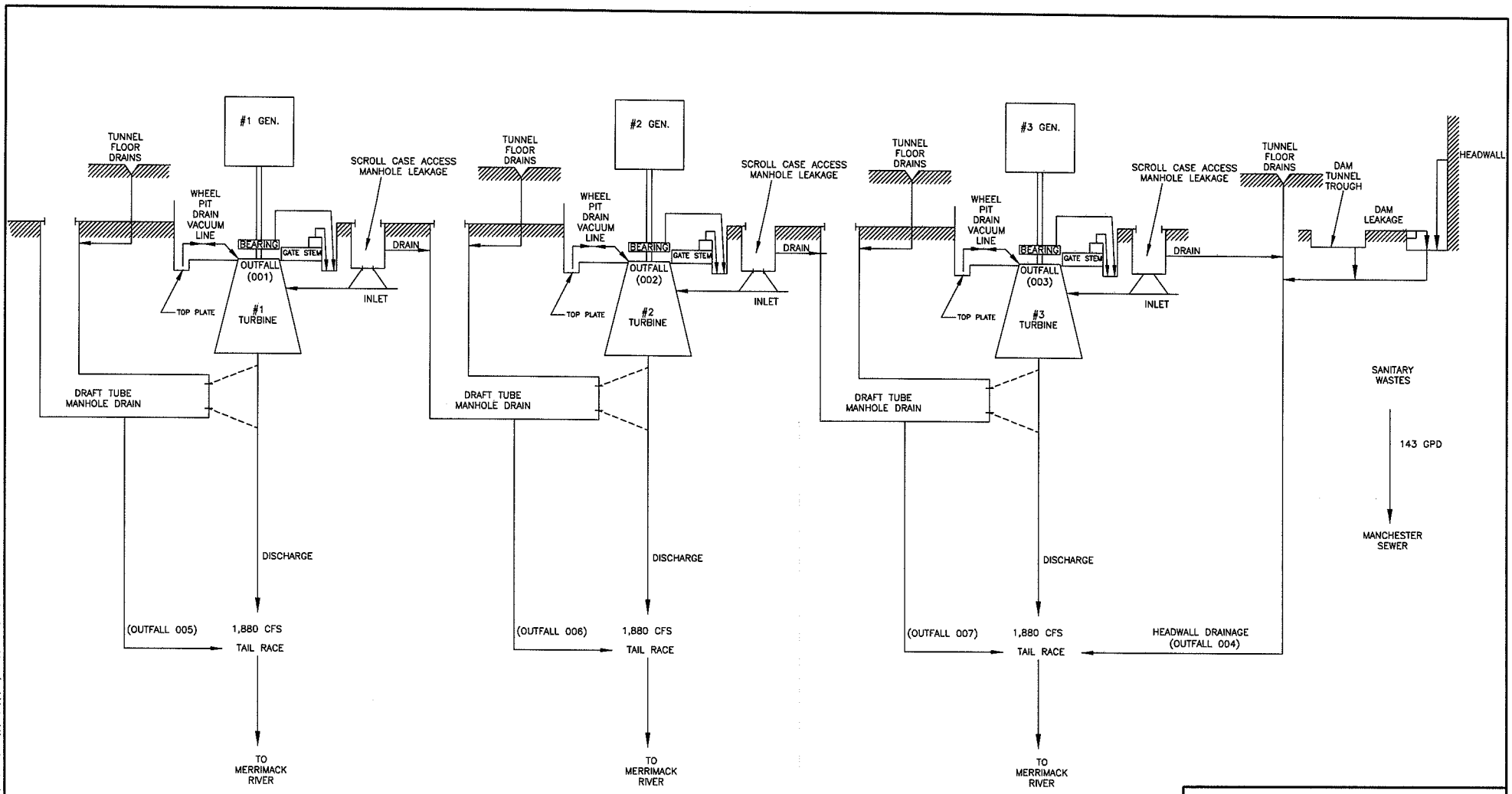
Public Service Company of New Hampshire
Amoskeag Hydro Station

Equipment and Floor Drain Water

Outfall	Description	Location	Contributing Operations	Average Flow	Total Average Flow	Occasional or Consistent Discharge	Discharging Water	Sample Location or Representative Outfall	Possible Annual Sampling
001	Wheel Pit Drain Generator 1	N 43° 00' 8.3" W 71° 28' 21.2"	Seal bearing shaft	0-65 GPY	0-260 GPY	Consistent	Merrimack River	Sample from Wheel Pit	Yes
			Top plate leakage	0-65 GPY					
			Gate stem leakage	0-130 GPY					
002	Wheel Pit Drain Generator 2	N 43° 00' 8.1" W 71° 28' 21.1"	Seal bearing shaft	0-65 GPY	0-260 GPY	Consistent	Merrimack River	Representative Outfall 001	Yes
			Top plate leakage	0-65 GPY					
			Gate stem leakage	0-130 GPY					
003	Wheel Pit Drain Generator 3	N 43° 00' 7.5" W 71° 28' 21.8"	Seal bearing shaft	0-65 GPY	0-260 GPY	Consistent	Merrimack River	Representative Outfall 001	Yes
			Top plate leakage	0-65 GPY					
			Gate stem leakage	0-130 GPY					
004	Headwall Drainage	N 43° 00' 7.2" W 71° 28' 21.2"	Headwall leakage	3 GPM	9 GPM	Consistent	Merrimack River	Grab sample from headwall trough, dam leakage, dam tunnel trough, tunnel floor drains, and scroll case access manhole leakage	Yes
			Tunnel floor drains	3 GPD					
			Dam tunnel trough	3 GPM					
			Dam leakage	3 GPM					
			Scroll case access manhole leakage (G #3)	0-3 GPD					

Combined Equipment and Floor Drain Water and Maintenance - Related Water

005	Draft Tube Manhole Drain (G #1)	N 43° 00' 8.4" W 71° 28' 20.8"	Tunnel floor drains	0-20 GPY	0-20 GPY	Intermittent	Merrimack River	Representative Outfall 006	Yes
006	Draft Tube Manhole Drain (G #2)	N 43° 00' 8.3" W 71° 28' 21.0"	Tunnel floor drains	0-20 GPY	0-70 GPY	Intermittent	Merrimack River	Grab sample from floor drain vacuum line and scroll case	Yes
			Scroll case access manhole leakage (G #1)	0-50 GPY					
007	Draft Tube Manhole Drain (G#3)	N 43° 00' 7.9" W 71° 28' 20.8"	Tunnel floor drains	0-20 GPY	0-70 GPY	Intermittent	Merrimack River	Representative Outfall 006	Yes
			Scroll case access manhole leakage (G #2)	0-50 GPY					



NOTE: UPSTREAM SIDE OF THE ROOF HAS DRAINS THAT DISCHARGE INTO THE HEADGATE AREA FROM INSIDE THE BUILDING

SCHEMATIC OF WATER FLOW
PUBLIC SERVICE OF NEW HAMPSHIRE
4 FLETCHER STREET, MANCHESTER NEW HAMPSHIRE 03101

INTERIOR DRAINAGE PLAN

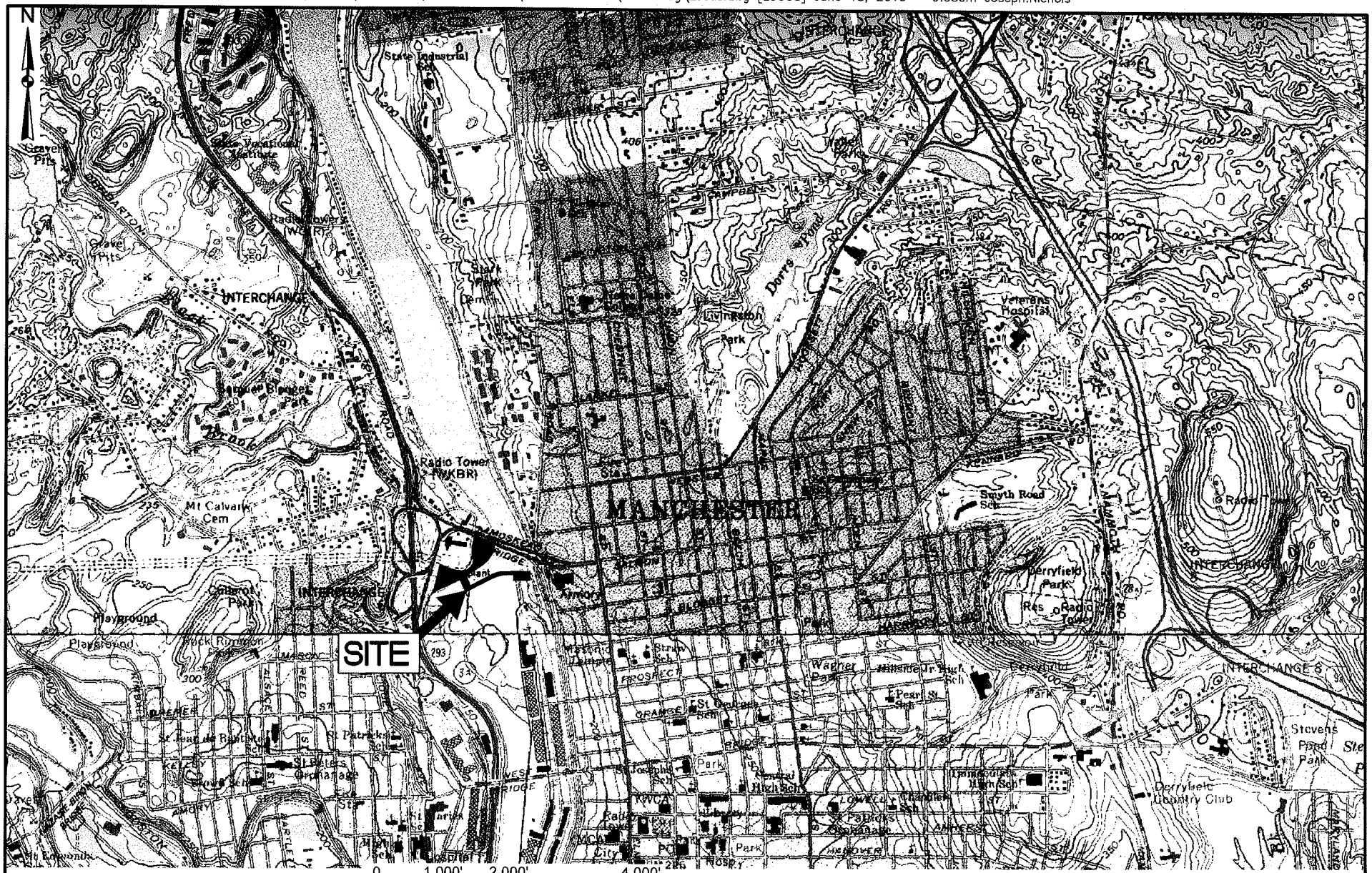
PREPARED BY:
GZA GeoEnvironmental, Inc.
Engineers and Scientists
320 HARVEY ROAD
MANCHESTER, NEW HAMPSHIRE
(603) 623-3500

PREPARED FOR:
PUBLIC SERVICE OF NEW HAMPSHIRE
780 NORTH COMMERCIAL STREET
MANCHESTER, NEW HAMPSHIRE

PROJ MGR:	KDB	REVIEWED BY:	RAB	CHECKED BY:	KDB
DESIGNED BY:	DSJ	DRAWN BY:	MA	SCALE:	NOT TO SCALE
DATE	JUNE 2010	PROJECT NO.	04.0024931.03	REVISION NO.	-

FIGURE 2
SHEET NO.

 GZA–P:\04Jobs\0024900s\04.0024931.00\04.0024931.03\Amoskeag\Locus.dwg [LOCUS] June 18, 2010 – 9:08am Joseph.Nichols



PREPARED BY: GZA GeoEnvironmental, Inc. Engineers and Scientists, 380 HARVEY ROAD, MANCHESTER, NEW HAMPSHIRE 03103, (603) 623-3600 PREPARED FOR: PUBLIC SERVICE OF NEW HAMPSHIRE	NPDES HYDROELECTRIC GENERATING FACILITIES GENERAL PERMIT AMOSKEAG STATION PUBLIC SERVICE OF NEW HAMPSHIRE 4 FLETCHER STREET, MANCHESTER NEW HAMPSHIRE 03101	LOCUS PLAN	PROJ MGR: KDB DESIGNED BY: DSJ REVIEWED BY: RAB DRAWN BY: MA CHECKED BY: KDB SCALE: AS SHOWN	DATE: JUNE 2010 PROJECT NO. 04.0024931.03 REVISION NO. FIGURE 1 SHEET NO.