



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 1

5 Post Office Square, Suite 100
BOSTON, MA 02109-3912

CERTIFIED MAIL

March 2, 2011

Dale O'Connell
Contamination Program Manager
New Hampshire Department of Transportation
7 Hazen Drive
Concord, New Hampshire 03302

Re: Authorization to discharge under the Remediation General Permit (RGP) –
NHG910000. Hampton Toll Plaza site located at Interstate 95, Hampton, NH 03842
Rockingham County; Authorization # NHG910024 - Reissuance

Dear Mr. O'Connell:

Based on the review of a Notice of Intent (NOI) submitted on behalf of the State of New Hampshire Department of Transportation by the firm Stantec Consulting Services, Inc., for the site referenced above, the U.S. Environmental Protection Agency (EPA) hereby authorizes you, as the named Owner and Operator, to discharge in accordance with the provisions of the RGP at that site.

This letter and authorization terminate any and all exclusion letters and monitoring requirements, as well as the RGP authorization that EPA issued for discharges at this site prior to this date. Your authorization number is listed above.

The checklist enclosed with this RGP authorization indicates the pollutants for which you are required to monitor. Also indicated on the checklist are the effluent limits, test methods and minimum levels (MLs) for each pollutant. Please note that the checklist does not represent the complete requirements of the RGP. Operators must comply with all of the applicable requirements of this permit, including influent and effluent monitoring, narrative water quality standards, record keeping, and reporting requirements, found in Parts I and II, and Appendices I – VIII of the RGP. See EPA's website for the complete RGP and other information at:

<http://www.epa.gov/region1/npdes/mass.html#dgp>.

Please note that EPA has included benzene, BTX, acetone, trivalent chromium, hexavalent chromium and nickel in the list of pollutants to be monitored because you have not provided us with laboratory data or any information to substantiate your

determination that the pollutants are believed absent. Total suspended solid, cyanide, copper and lead were included because you have marked these pollutants believed present in the NOI application.

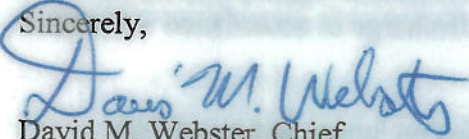
Please note also, that all the metal parameters are dilution dependent subject to limitations based on a dilution factor range (DFR). Due to ample dilution at the point of discharge (89.64) the DFR applicable for this pollutant is greater than fifty to one hundred range (>50-100) DFR established in the RGP. (See the RGP Appendix IV for New Hampshire facilities). Therefore, the limits for trivalent chromium of 1,385ug/L, hexavalent chromium of 570ug/L, copper of 142ug/L, lead of 27ug/L, nickel of 807ug/L, zinc of 1,480ug/L and iron of 5,000ug/L shall not be exceeded in the discharge.

Finally, please note the list of pollutants attached to this authorization is subject to a recertification if the operations at the site result in a discharge lasting longer than six months. A recertification can be submitted to EPA within six (6) to twelve (12) months of operations in accordance with the 2010 RGP regulations.

This general permit and authorization to discharge will expire on September 9, 2015. You have reported that the site termination is indeterminate. If for any reason the discharge terminates at certain point in the future you are required to submit a Notice of Termination (NOT) to the attention of the contact person indicated below within 30 days of project completion.

Thank you in advance for your cooperation in this matter. Please contact Victor Alvarez at 617-918-1572 or Alvarez.Victor@epa.gov, if you have any questions.

Sincerely,


David M. Webster, Chief
Industrial Permits Branch

Enclosure

cc: Jeffrey Andrews, NHDES
Craig R. Gendron, Stantec

**2010 Remediation General Permit
Summary of Monitoring Parameters^[1]**

NPDES Authorization Number:	NHG910024
Date Authorization Issued:	March, 2011
Facility/Site Name:	Hampton Toll Plaza
Facility/Site Address:	Interstate 95, Hampton, NH 03842 Rockingham County
Legal Name of operator:	NHDOT
Operator contact name, title, and Address:	Dale O'Connell, Contamination Program Manager New Hampshire Department of Transportation 7 Hazen Drive Concord, New Hampshire 03302 Email:do'connell@dot.state.nh.us
Estimated Date of Completion:	Indeterminate
Category and Sub-Category:	Category I. Subcategory B. Fuel Oils and Other Oils Sites (Including Residential Non-Business Remediation Discharges)
Receiving Water:	Old River

Monitoring & Limits are applicable if checked. All samples are to be collected as grab samples

	<u>Parameter</u>	<u>Effluent Limit/Method#/ML</u> (All Effluent Limits are shown as Daily Maximum Limit, unless denoted by a **, in that case it will be a Monthly Average Limit)
✓	1. Total Suspended Solids (TSS)	30 milligrams/liter (mg/l) **, 50 mg/l for hydrostatic testing **, Me#60.2/5mL
	2. Total Residual Chlorine (TRC) ¹	Freshwater = 11 ug/l ** Saltwater = 7.5 ug/l **/ Me#330.5/ML 20ug/L
	3. Total Petroleum Hydrocarbons (TPH)	5.0 mg/l/ Me# 1664A/ML 5mg/L
✓	4. Cyanide (CN) ^{2, 3}	Freshwater = 5.2 ug/l ** Saltwater = 1.0 ug/l **/ Me#335.4/ML 5ug/L
✓	5. Benzene (B)	5ug/L /50.0 ug/l for hydrostatic testing only/ Me#8260C/ML 2 ug/L
	6. Toluene (T)	(limited as ug/L total BTEX)/ Me#8260C/ ML 2ug/L
	7. Ethylbenzene (E)	(limited as ug/L total BTEX))/ Me#8260C/ ML 2ug/L
	8. (m,p,o) Xylenes (X)	(limited as ug/L total BTEX))/ Me#8260C/ ML 2ug/L
✓	9. Total Benzene, Toluene, Ethyl Benzene, and Xylenes (BTEX) ⁴	100 ug/l)/ Me#8260C/ ML 2ug/L

	<u>Parameter</u>	<u>Effluent Limit/Method#/ML</u> (All Effluent Limits are shown as Daily Maximum Limit, unless denoted by a **, in that case it will be a Monthly Average Limit)
	10. Ethylene Dibromide (EDB) (1,2- Dibromoethane)	0.05 ug/l/ Me#8260C/ ML 10ug/L
	11. Methyl-tert-Butyl Ether (MtBE)	70.0 ug/l /Me#8260C/ ML 10ug/L
	12.tert-Butyl Alcohol (TBA) (TertiaryButanol)	Monitor Only (ug/L)/ Me#8260C/ ML 10ug/L
	13. tert-Amyl Methyl Ether (TAME)	Monitor Only (ug/L) /Me#8260C/ ML 10ug/L
✓	14. Naphthalene ⁵	20 ug/l /Me#8260C/ ML 2ug/L
	15. Carbon Tetrachloride	4.4 ug/l /Me#8260C/ ML 5ug/L
	16. 1,2 Dichlorobenzene (o-DCB)	600 ug/l /Me#8260C/ ML 5ug/L
	17. 1,3 Dichlorobenzene (m-DCB)	320 ug/l /Me#8260C/ ML 5ug/L
	18. 1,4 Dichlorobenzene (p-DCB)	5.0 ug/l /Me#8260C/ ML 5ug/L
	18a. Total dichlorobenzene	763 ug/l - NH only /Me#8260C/ ML5ug/L
	19. 1,1 Dichloroethane (DCA)	70 ug/l /Me#8260C/ ML 5ug/L
	20. 1,2 Dichloroethane (DCA)	5.0 ug/l /Me#8260C/ ML 5ug/L
	21. 1,1 Dichloroethene (DCE)	3.2 ug/l/Me#8260C/ ML 5ug/L
	22. cis-1,2 Dichloroethene (DCE)	70 ug/l /Me#8260C/ ML 5ug/L
	23. Methylene Chloride	4.6 ug/l/Me#8260C/ ML 5ug/L
	24. Tetrachloroethene (PCE)	5.0 ug/l /Me#8260C/ ML 5ug/L
	25. 1,1,1 Trichloro-ethane (TCA)	200 ug/l/Me#8260C/ ML 5ug/L
	26. 1,1,2 Trichloro-ethane (TCA)	5.0 ug/l /Me#8260C/ ML 5ug/L
	27. Trichloroethene (TCE)	5.0 ug/l /Me#8260C/ ML 5ug/L
	28. Vinyl Chloride (Chloroethene)	2.0 ug/l /Me#8260C/ ML 5ug/L
✓	29. Acetone	Monitor Only (ug/L) /Me#8260C/ ML 50ug/L
	30. 1,4 Dioxane	Monitor Only /Me#1624C/ML 50ug/L
	31. Total Phenols	300 ug/l Me#420.1&420.2/ML 2ug/L/ Me#420.4 /ML 50ug/L
	32. Pentachlorophenol (PCP)	1.0 ug/l /Me#8270D/ML5ug/L,Me#604 &625/ML 10ug/L
	33. Total Phthalates (Phthalate esters) ⁶	3.0 ug/L ** /Me#8270D/M L5 ug/L, Me#606/ML 10ug/L & Me#625/ML 5ug/L
	34. Bis (2-Ethylhexyl) Phthalate [Di- (ethylhexyl) Phthalate]	6.0 ug/l /Me#8270D/ML5ug/L,Me#606/ML10ug/L& Me#625/ML5ug/L
	35. Total Group I Polycyclic Aromatic Hydrocarbons	10.0 ug/l

	<u>Parameter</u>	<u>Effluent Limit/Method#/ML</u> (All Effluent Limits are shown as Daily Maximum Limit, unless denoted by a **, in that case it will be a Monthly Average Limit)
	b. Benzo(a) Pyrene ⁷	0.0038 ug/l /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
	c. Benzo(b)Fluoranthene ⁷	0.0038 ug/l /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
	d. Benzo(k)Fluoranthene ⁷	0.0038 ug/l /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
	e. Chrysene ⁷	0.0038 ug/l /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
	f. Dibenzo(a,h)anthracene ⁷	0.0038 ug/l /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
	g. Indeno(1,2,3-cd) Pyrene ⁷	0.0038 ug/l /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
	36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)	100 ug/l
✓	h. Acenaphthene	5ug/L/Me#8270D/ML 5ug/L/Me#610/ML 5ug/L & Me#625/ML 5ug/L & Me#610 (HPLC)/ ML 2ug/L
✓	i. Acenaphthylene	5ug/L/Me#8270D/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
	j. Anthracene	X/Me#8270D/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
	k. Benzo(ghi) Perylene	X/Me#8270D/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
✓	l. Fluoranthene	X/Me#8270D/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
✓	m. Fluorene	X/Me#8270D/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
✓	n. Naphthalene ⁵	20 ug/l / Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
	o. Phenanthrene	X/Me#8270D/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
✓	p. Pyrene	X/Me#8270D/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
	37. Total Polychlorinated Biphenyls (PCBs) ^{8,9}	0.000064 ug/L / Me# 608/ ML 0.5 ug/L
✓	38. Chloride	Monitor only/Me# 300.0/ ML 0.1ug/L

			<u>Total Recoverable Metal Limit @ H ¹⁰ = 25 mg/l CaCO₃ for Discharges in New Hampshire (ug/l) ¹¹</u>	
	<u>Metal parameter</u>	<u>Minimum Levels = ML</u>	<u>Freshwater</u>	<u>Saltwater</u>
	39. Antimony		5.6/ML 10	
	40. Arsenic **		10/ML 20	36/ML 20

	Metal parameter	Minimum Levels = ML		Total Recoverable Metal Limit @ H¹⁰ = 25 mg/l CaCO₃ for Discharges in New Hampshire (ug/l)¹¹	
				Freshwater	Saltwater
	41. Cadmium **			0.8/ML 10	9.3/ML 10
✓	42. Chromium III (trivalent) **			1,385/ML 15	100/ML 15
✓	43. Chromium VI (hexavalent) **			570/ML 15	50.3/ML 10
✓	44. Copper **			142/ML 15	3.7/ML 15
✓	45. Lead **			27/ML 20	8.5/ML 20
	46. Mercury **			0.9/ML 0.2	1.1/ML 0.2
✓	47. Nickel **			807/ML 20	8.2/ML 20
	48. Selenium **			5.0/ML 20	71/ML 20
	49. Silver			0.4/ML 10	2.2/ML 10
✓	50. Zinc **			1480/ML 15	85.6/ML 15
✓	51. Iron			5,000/ML 20	

	Other Parameters	Limit
✓	52. Instantaneous Flow	Site specific in CFS
✓	53. Total Flow	Site specific in CFS
	54. pH Range for Class A & Class B Waters in MA	6.5-8.3; 1/Month/Grab ¹³
	55. pH Range for Class SA & Class SB Waters in MA	6.5-8.3; 1/Month/Grab ¹³
✓	56. pH Range for Class B Waters in NH	6.5-8; 1/Month/Grab ¹³
	57. Daily maximum temperature - Warm water fisheries	83°F; 1/Month/Grab ¹⁴
	58. Daily maximum temperature - Cold water fisheries	68°F; 1/Month/Grab ¹⁴
	59. Maximum Change in Temperature in MA - Any Class A water body	1.5°F; 1/Month/Grab ¹⁴
	60. Maximum Change in Temperature in MA - Any Class B water body- Warm Water	5°F; 1/Month/Grab ¹⁴
	61. Maximum Change in Temperature in MA - Any Class B water body - Cold water and Lakes/Ponds	3°F; 1/Month/Grab ¹⁴
	62. Maximum Change in Temperature in MA - Any Class SA water body - Coastal	1.5°F; 1/Month/Grab ¹⁴
	63. Maximum Change in Temperature in MA - Any Class SB water body - July to September	1.5°F; 1/Month/Grab ¹⁴
	64. Maximum Change in Temperature in MA - Any Class SB water body - October to June	4°F; 1/Month/Grab ¹⁴

Footnotes:

¹ Although the maximum values for TRC are 11ug/l and 7.5 ug/l for freshwater, and saltwater respectively, the compliance limits are equal to the minimum level (ML) of the test method used as listed in Appendix VI (i.e., Method 330.5, 20 ug/l).

² Limits for cyanide are based on EPA's water quality criteria expressed as micrograms per liter. There is currently no EPA approved test method for free cyanide. Therefore, total cyanide must be reported.

³ Although the maximum values for cyanide are 5.2 ug/l and 1.0 ug/l for freshwater and saltwater, respectively, the compliance limits are equal to the minimum level (ML) of the Method 335.4 as listed in Appendix VI (i.e., 10 ug/l).

⁴ BTEX = sum of Benzene, Toluene, Ethylbenzene, and total Xylenes.

⁵ Naphthalene can be reported as both a purgeable (VOC) and extractable (SVOC) organic compound. If both VOC and SVOC are analyzed, the highest value must be used unless the QC criteria for one of the analyses is not met. In such cases, the value from the analysis meeting the QC criteria must be used.

⁶ The sum of individual phthalate compounds(not including the #34, Bis (2-Ethylhexyl) Phthalate . The compliance limits are equal to the minimum level (ML) of the test method used as listed in Appendix VI.

Total values calculated for reporting on NOIs and discharge monitoring reports shall be calculated by adding the measured concentration of each constituent. If the measurement of a constituent is less than the ML, the permittee shall use a value of zero for that constituent. For each test, the permittee shall also attach the raw data for each constituent to the discharge monitoring report, including the minimum level and minimum detection level for the analysis.

⁷ Although the maximum value for the individual PAH compounds is 0.0038 ug/l, the compliance limits are equal to the minimum level (ML) of the test method used as listed in Appendix VI.

⁸ In the November 2002 WQC, EPA has revised the definition of Total PCBs for aquatic life as total PCBs is the sum of all homologue, all isomer, all congener, or all "Oroclor analyses." Total values calculated for reporting on NOIs and discharge monitoring reports shall be calculated by adding the measured concentration of each constituent. If the measure of a constituent is less than the ML, the permittee shall use a value of zero for that constituent. For each test, the permittee shall also attach the raw data for each constituent to the discharge monitoring report, including the minimum level and minimum detection level for the analysis.

⁹ Although the maximum value for total PCBs is 0.000064 ug/l, the compliance limit is equal to the minimum level (ML) of the test method used as listed in Appendix VI (i.e., 0.5 ug/l for Method 608 or 0.00005 ug/l when Method 1668a is approved).

¹⁰ Hardness. Cadmium, Chromium III, Copper, Lead, Nickel, Silver, and Zinc are Hardness Dependent.

¹¹ For a Dilution Factor (DF) from 1 to 5, metals limits are calculated using DF times the base limit for the metal. See Appendix IV. For example, iron limits are calculated using $DF \times 1,000 \text{ ug/L}$ (the iron base limit). Therefore DF is 1.5, the iron limit will be 1,500 ug/L; DF 2, then iron limit = $1,000 \times 2 = 2,000 \text{ ug/L}$, etc. not to exceed the $DF=5$.

¹² Minimum Level (ML) is the lowest level at which the analytical system gives a recognizable signal and acceptable calibration point for the analyte. The ML represents the lowest concentration at which an analyte can be measured with a known level of confidence. The ML is calculated by multiplying the laboratory-determined method detection limit by 3.18 (see 40 CFR Part 136, Appendix B).

¹³ pH sampling for compliance with permit limits may be performed using field methods as provided for in EPA test Method 150.1.

¹⁴ Temperature sampling per Method 170.1



Stantec

Stantec Consulting Services Inc.
5 Dartmouth Drive Suite 101
Auburn NH 03032
Tel: (603) 669-8672
Fax: (603) 669-7636

12/7/10
Received

December 1, 2010
File: 191710637

U.S. Environmental Protection Agency
5 Post Office Square, Suite 100
Mail Code OEP06-4
Boston, MA 02109-3912

Attention: Remediation General Permit NOI Processing

Dear Sir/Madame:

**Reference: Notice of Intent for Coverage under the Remediation General Permit
NHDOT Hampton Toll Plaza, Hampton, NH
Remediation General Permit # NHG910024**

On behalf of the Operator of this discharge system (the New Hampshire Department of Transportation [NHDOT]) and as its Agent carrying out the day-to-day operation and maintenance of this system, Stantec Consulting Services Inc. (Stantec) has attached the above-referenced Notice of Intent (NOI). In support of this NOI, attached please find:

- mass loading calculations;
- water quality impairment determination;
- threatened and endangered species determination;
- raw laboratory analytical reports;
- Figures
 - Figure 1 – Site and Discharge Location
 - Figure 2 – Sump Treatment System As-Built

B. Suggested Form for Notice of Intent (NOI) for the Remediation General Permit

1. General facility/site information. Please provide the following information about the site:

a) Name of facility/site: Hampton Toll Plaza		Facility/site mailing address:	
Location of facility/site:		Street: Interstate 95	
longitude: -70.8556	Facility SIC code(s): 4785		
latitude: 42.9628			
b) Name of facility/site owner: NHDOT (attn: Dale O'Connell)		Town: Hampton	
Email address of facility/site owner: do'connell@dot.state.nh.us		State: NH	County: Rockingham
Telephone no. of facility/site owner: 603-271-3226		Zip: 03842	
Fax no. of facility/site owner: 603-271-3914			
Address of owner (if different from site):		Owner is (check one): 1. Federal ☐ 2. State/Tribal ☒ 3. Private ☐ 4. Other ☐ if so, describe:	
Street: 7 Hazen Drive			
Town: Concord	State: NH	Zip: 03302	County: Merrimack
c) Legal name of operator: New Hampshire Department of Transportation		Operator telephone no: 603-271-3226	
Operator contact name and title: Dale O'Connell, P.G. - Contamination Program Manager		Operator fax no.: 603-271-3914	Operator email: do'connell@dot.state.nh.us
Address of operator (if different from owner):			
Town:	State:	Zip:	County:

d) Check Y for "yes" or N for "no" for the following: 1. Has a prior NPDES permit exclusion been granted for the discharge? Y ☐ N ☐ if Y, number: <u>NH-031-013</u> 2. Has a prior NPDES application (Form 1 & 2C) ever been filed for the discharge? Y ☐ N ☐ if Y, date and tracking #: <u></u> 3. Is the discharge a "new discharge" as defined by 40 CFR 122.2? Y ☐ N ☐ 4. For sites in Massachusetts, is the discharge covered under the Massachusetts Contingency Plan (MCP) and exempt from state permitting? Y ☐ N ☐	
e) Is site/facility subject to any State permitting, license, or other action which is causing the generation of discharge? Y ☐ N ☐ If Y, please list: 1. site identification # assigned by the state of NH or MA: <u></u> 2. permit or license # assigned: <u></u> 3. state agency contact information: name, location, and telephone number: <u></u>	f) Is the site/facility covered by any other EPA permit, including: 1. Multi-Sector General Permit? Y ☐ N ☐ if Y, number: <u></u> 2. Final Dewatering General Permit? Y ☐ N ☐ if Y, number: <u></u> 3. EPA Construction General Permit? Y ☐ N ☐ if Y, number: <u></u> 4. Individual NPDES permit? Y ☐ N ☐ if Y, number: <u></u> 5. any other water quality related individual or general permit? Y ☐ N ☐ if Y, number: <u></u>
g) Is the site/facility located within or does it discharge to an Area of Critical Environmental Concern (ACEC)? Y ☐ N ☐	
h) Based on the facility/site information and any historical sampling data, identify the sub-category into which the potential discharge falls.	
Activity Category I - Petroleum Related Site Remediation	Activity Sub-Category A. Gasoline Only Sites ☐ B. Fuel Oils and Other Oil Sites (including Residential Non-Business Remediation Discharges) ☒ C. Petroleum Sites with Additional Contamination ☐
II - Non Petroleum Site Remediation	A. Volatile Organic Compound (VOC) Only Sites ☐ B. VOC Sites with Additional Contamination ☐ C. Primarily Heavy Metal Sites ☐
III - Contaminated Construction Dewatering	A. General Urban Fill Sites ☐ B. Known Contaminated Sites ☐

IV - Miscellaneous Related Discharges	A. Aquifer Pump Testing to Evaluate Formerly Contaminated Sites ☐ B. Well Development/Rehabilitation at Contaminated/Formerly Contaminated Sites ☐ C. Hydrostatic Testing of Pipelines and Tanks ☐ D. Long-Term Remediation of Contaminated Sumps and Dikes ☐ E. Short-term Contaminated Dredging Drain Back Waters (if not covered by 401/404 permit) ☐
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2. Discharge information. Please provide information about the discharge, (attaching additional sheets as necessary) including:

a) Describe the discharge activities for which the owner/applicant is seeking coverage:	
*See below	
b) Provide the following information about each discharge:	
1) Number of discharge points: 1	2) What is the <u>maximum</u> and <u>average flow rate</u> of discharge (in cubic feet per second, ft ³ /s)? Max. flow 0.0011 Is <u>maximum</u> flow a <u>design</u> value? Y ☐ N ☒ Average flow (include units) 0.0007 Is average flow a design value or estimate? <u>estimate</u>
3) Latitude and longitude of each discharge within 100 feet:	
pt.1: lat 42.960167 long 70.855424	pt.2: lat long
pt.3: lat long	pt.4: lat long
pt.5: lat long	pt.6: lat long
pt.7: lat long	pt.8: lat long etc.
4) If hydrostatic testing, total volume of the discharge (gals) NA	5) Is the discharge intermittent ☒ or seasonal ☐ ? Is discharge ongoing? Y ☒ N ☐
c) Expected dates of discharge (mm/dd/yy): start on-going end indeterminate	
d) Please attach a line drawing or flow schematic showing water flow through the facility including:	
1. sources of intake water. 2. contributing flow from the operation. 3. treatment units. and 4. discharge points and receiving waters(s) See Figures 1 and 2 attached	

*A 10,000-gallon UST used for fuel oil storage was removed and replaced at the subject site in 1989 because there was evidence of a leak from the UST. The evidence of the leak consisted of free product accumulating in a sump in the toll booth tunnel. Inspection of the drainage plans indicated the sump was equipped with a pump, which lifted the sump contents to a drainage pipe that discharged to a nearby wetland. A groundwater treatment system was installed at the Site in late-2001 and went into full-time operation on January 30, 2002. This treatment system continues to operate at the Site under Remediation General Permit #NHG910024. Since the original authorization of this permit, the discharge drainage pipe has been relocated so that the system discharges directly to Old River Stream (rather than the wetlands) and the system no longer treats for fuel oil which has been remediated at this Site.

**Data provided below based on most recent sampling data for each parameter (as required by current RGP) and summarized below:

TSS - October 2010
Cyanide & TPH - September 2010
PAH & Metals - June 2010
Lab reports for each sample event attached

NPDES Permit No. MAG910000
NPDES Permit No. NHG910000

3. Contaminant information.

a) Based on the sub-category selected (see Appendix III), indicate whether each listed chemical is **believed present** or **believed absent** in the potential discharge. Attach additional sheets as needed.

Parameter *	CAS Number	Believed Absent	Believed Present	# of Samples	Sample Type (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Average daily value	
								concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
1. Total Suspended Solids (TSS)		☐	☒	1	grab	2540D	5 mg/l	34,000	0.095	34,000	0.056
2. Total Residual Chlorine (TRC)		☐	☐								
3. Total Petroleum Hydrocarbons (TPH)		☒	☐	1	grab	1664 rev A	5 mg/l	---	---	---	---
4. Cyanide (CN)	57125	☐	☒	1	grab	335.4	5 ug/l	6.43	1.79x10-5	6.43	1.051x10-5
5. Benzene (B)	71432	☒	☐								
6. Toluene (T)	108883	☒	☐								
7. Ethylbenzene (E)	100414	☒	☐								
8. (m,p,o) Xylenes (X)	108883; 106423; 95476; 1330207	☒	☐								
9. Total BTEX ²	n/a	☒	☐								
10. Ethylene Dibromide (EDB) (1,2-Dibromoethane) ³	106934	☒	☐								
11. Methyl-tert-Butyl Ether (MtBE)	1634044	☒	☐								
12. tert-Butyl Alcohol (TBA) (Tertiary-Butanol)	75650	☒	☐								

* Numbering system is provided to allow cross-referencing to Effluent Limits and Monitoring Requirements by Sub-Category included in Appendix III, as well as the Test Methods and Minimum Levels associated with each parameter provided in Appendix VI.

² BTEX = Sum of Benzene, Toluene, Ethylbenzene, total Xylenes.

³ EDB is a groundwater contaminant at fuel spill and pesticide application sites in New England.

Parameter *	CAS Number	Believed Absent	Believed Present	# of Samples	Sample Type (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Average daily value	
								concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
13. tert-Anyyl Methyl Ether (TAME)	9940508	☒	☐								
14. Naphthalene	91203	☐	☒	1	grab	8270D	0.1 ug/l	0.1	2.78x10 ⁻⁷		1.64x10 ⁻⁷
15. Carbon Tetrachloride	56235	☒	☐								
16. 1,2 Dichlorobenzene (o-DCB)	95501	☒	☐								
17. 1,3 Dichlorobenzene (m-DCB)	541731	☒	☐								
18. 1,4 Dichlorobenzene (p-DCB)	106467	☒	☐								
18a. Total dichlorobenzene		☒	☐								
19. 1,1 Dichloroethane (DCA)	75343	☒	☐								
20. 1,2 Dichloroethane (DCA)	107062	☒	☐								
21. 1,1 Dichloroethene (DCE)	75354	☒	☐								
22. cis-1,2 Dichloroethene (DCE)	156592	☒	☐								
23. Methylene Chloride	75092	☒	☐								
24. Tetrachloroethene (PCE)	127184	☒	☐								
25. 1,1,1 Trichloro-ethane (TCA)	71556	☒	☐								
26. 1,1,2 Trichloro-ethane (TCA)	79005	☒	☐								
27. Trichloroethene (TCE)	79016	☒	☐								

<u>Parameter *</u>	<u>CAS Number</u>	<u>Believed Absent</u>	<u>Believed Present</u>	<u># of Samples</u>	<u>Sample Type (e.g., grab)</u>	<u>Analytical Method Used (method #)</u>	<u>Minimum Level (ML) of Test Method</u>	<u>Maximum daily value</u>		<u>Average daily value</u>	
								<u>concentration (ug/l)</u>	<u>mass (kg)</u>	<u>concentration (ug/l)</u>	<u>mass (kg)</u>
28. Vinyl Chloride (Chloroethene)	75014	☒	☐								
29. Acetone	67641	☒	☐								
30. 1,4 Dioxane	123911	☒	☐								
31. Total Phenols	108952	☒	☐								
32. Pentachlorophenol (PCP)	87865	☒	☐								
33. Total Phthalates (Phthalate esters) ⁴		☒	☐								
34. Bis (2-Ethylhexyl) Phthalate [Di-(ethylhexyl) Phthalate]	117817	☒	☐								
35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)		☒	☐								
a. Benzo(a) Anthracene	56553	☒	☐	1	grab	8270D	0.1 ug/l				
b. Benzo(a) Pyrene	50328	☒	☐	1	grab	8270D	0.1 ug/l				
c. Benzo(b)Fluoranthene	205992	☒	☐	1	grab	8270D	0.1 ug/l				
d. Benzo(k)Fluoranthene	207089	☒	☐	1	grab	8270D	0.1 ug/l				
e. Chrysene	21801	☒	☐	1	grab	8270D	0.1 ug/l				
f. DiBenzo(a,h)anthracene	53703	☒	☐	1	grab	8270D	0.1 ug/l				
g. Indeno(1,2,3-cd) Pyrene	193395	☒	☐	1	grab	8270D	0.1 ug/l				
36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)		☐	☒								

⁴ The sum of individual phthalate compounds.

Parameter *	CAS Number	Believed Absent	Believed Present	# of Samples	Sample Type (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Average daily value	
								concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
h. Acenaphthene	83329	☐	☒	1	grab	8270D	0.1 ug/l	1.2	3.34x10 ⁻⁶	1.2	1.96x10 ⁻⁶
i. Acenaphthylene	208968	☐	☒	1	grab	8270D	0.1 ug/l	0.1	2.78x10 ⁻⁷	0.1	1.64x10 ⁻⁷
j. Anthracene	120127	☒	☐	1	grab	8270D	0.1 ug/l	-	-	-	-
k. Benzo(ghi) Perylene	191242	☒	☐	1	grab	8270D	0.1 ug/l	-	-	-	-
l. Fluoranthene	206440	☐	☒	1	grab	8270D	0.1 ug/l	0.2	2.78x10 ⁻⁷	0.2	1.64x10 ⁻⁷
m. Fluorene	86737	☐	☒	1	grab	8270D	0.1 ug/l	2.1	5.84x10 ⁻⁶	2.1	3.43x10 ⁻⁶
n. Naphthalene	91203	☐	☒	1	grab	8270D	0.1 ug/l	0.1	2.78x10 ⁻⁷	0.1	1.64x10 ⁻⁷
o. Phenanthrene	85018	☐	☒	1	grab	8270D	0.1 ug/l	0.3	8.34x10 ⁻⁷	0.3	4.91x10 ⁻⁷
p. Pyrene	129000	☐	☒	1	grab	8270D	0.1 ug/l	0.4	1.11x10 ⁻⁶	0.4	6.54x10 ⁻⁷
37. Total Polychlorinated Biphenyls (PCBs)	85687; 84742; 117840; 84662; 131113; 117817.	☒	☐								
38. Chloride	16887006	☒	☐								
39. Antimony	7440360	☒	☐								
40. Arsenic	7440382	☒	☐								
41. Cadmium	7440439	☒	☐								
42. Chromium III (trivalent)	16065831	☒	☐								
43. Chromium VI (hexavalent)	18540299	☒	☐								
44. Copper	7440508	☐	☒	1	grab	200.8	0.5 ug/l	74	0.0002	74	0.0001
45. Lead	7439921	☐	☒	1	grab	200.8	0.2 ug/l	11	3.06x10 ⁻⁵	11	1.8x10 ⁻⁵
46. Mercury	7439976	☒	☐								
47. Nickel	7440020	☒	☐								
48. Selenium	7782492	☒	☐								
49. Silver	7440224	☒	☐								
50. Zinc	7440666	☐	☒	1	grab	200.8	5 ug/l	67	0.0002	67	0.0001
51. Iron	7439896	☐	☒	1	grab	200.8	50 ug/l	13,000	0.036	13,000	0.021
Other (describe):		☐	☐								

Parameter *	CAS Number	Believed Absent	Believed Present	# of Samples	Sample Type (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Average daily value	
								concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
		☐	☐								
		☐	☐								

b) For discharges where **metals** are believed present, please fill out the following (attach results of any calculations):

Step 1: Do any of the metals in the influent exceed the effluent limits in Appendix III (i.e., the limits set at zero dilution)? Y ☐ N ☐	If yes, which metals? Iron, Zinc, Lead, Copper
Step 2: For any metals which exceed the Appendix III limits, calculate the dilution factor (DF) using the formula in Part I.A.3.c (step 2) of the NOI instructions or as determined by the State prior to the submission of this NOI. What is the dilution factor for applicable metals? Metal: Iron, Zinc, Lead, Copper DF: 80.67 Metal: _____ DF: _____ Metal: _____ DF: _____ Metal: _____ DF: _____ Etc.	Look up the limit calculated at the corresponding dilution factor in Appendix IV. Do any of the metals in the influent have the potential to exceed the corresponding effluent limits in Appendix IV (i.e., is the influent concentration above the limit set at the calculated dilution factor)? Y ☐ N ☐ If Y, list which metals: Iron

4. Treatment system information. Please describe the treatment system using separate sheets as necessary, including:

a) A description of the treatment system, including a schematic of the proposed or existing treatment system:

The treatment system consists of a submersible pump that discharges recovered groundwater from a sump into an aeration system then through a bag filter and cartridge filter and finally through two granulated activated carbon (GAC) units.

b) Identify each applicable treatment unit (check all that apply):

Frac. tank ☐	Air stripper ☐	Oil/water separator ☐	Equalization tanks ☐	Bag filter ☒	GAC filter ☒
Chlorination ☐	De-chlorination ☐	Other (please describe): cartridge filter, in-line aerator			

c) Proposed **average** and **maximum flow rates** (gallons per minute) for the discharge and the **design flow rate(s)** (gallons per minute) of the treatment system:
 Average flow rate of discharge gpm Maximum flow rate of treatment system gpm
 Design flow rate of treatment system gpm

d) A description of chemical additives being used or planned to be used (attach MSDS sheets):

NA

5. Receiving surface water(s). Please provide information about the receiving water(s), using separate sheets as necessary:

a) Identify the discharge pathway:	Direct to receiving water ☐	Within facility (sewer) ☐	Storm drain ☒	Wetlands ☐	Other (describe):
b) Provide a narrative description of the discharge pathway, including the name(s) of the receiving waters: Treated groundwater is gravity-conveyed to an existing stormwater drainage system that discharges directly to Old River Stream.					
c) Attach a detailed map(s) indicating the site location and location of the outfall to the receiving water: 1. For multiple discharges, number the discharges sequentially. 2. For indirect discharges, indicate the location of the discharge to the indirect conveyance and the discharge to surface water The map should also include the location and distance to the nearest sanitary sewer as well as the locus of nearby sensitive receptors (based on USGS topographical mapping), such as surface waters, drinking water supplies, and wetland areas.					
d) Provide the state water quality classification of the receiving water: Class B					
e) Provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving water 0.0975 cfs Please attach any calculation sheets used to support stream flow and dilution calculations.					
f) Is the receiving water a listed 303(d) water quality impaired or limited water? Y ☐ N ☒ If yes, for which pollutant(s)?					
Is there a final TMDL? Y ☐ N ☐ If yes, for which pollutant(s)? NA					

6. ESA and NHPA Eligibility.

Please provide the following information according to requirements of Permit Parts I.A.4 and I.A.5 Appendices II and VII.

a) Using the instructions in Appendix VII and information on Appendix II, under which criterion listed in Part I.C are you eligible for coverage under this general permit?

A ☒ B ☐ C ☐ D ☐ E ☐ F ☐ *See attached letter

b) If you selected Criterion D or F, has consultation with the federal services been completed? Y ☐ N ☐ Underway ☐

c) 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? Y ☐ N ☐

d) Attach documentation of ESA eligibility as described in the NOI instructions and required by Appendix VII, Part I.C, Step 4.

e) Using the instructions in Appendix VII, under which criterion listed in Part II.C are you eligible for coverage under this general permit?

1 ☒ 2 ☐ 3 ☐

f) If Criterion 3 was selected, attach all written correspondence with the State or Tribal historic preservation officers, including any terms and conditions that outline measures the applicant must follow to mitigate or prevent adverse effects due to activities regulated by the RGP.

7. Supplemental information.

Please provide any supplemental information. Attach any analytical data used to support the application. Attach any certification(s) required by the general permit.

8. Signature Requirements: The Notice of Intent must be signed by the operator in accordance with the signatory requirements of 40 CFR Section 122.22, including the following certification:

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 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.

Facility/Site Name:	Hampton Toll Plaza
Operator signature:	
Printed Name & Title:	Contamination Program Manager
Date:	11/29/10

STANTEC CONSULTING

NOV 30 2010

5 DARTMOUTH DR., STE 101
AUBURN, NH 03032

Hampton Toll Plaza
Hampton, NH
NOI Support

Contaminant Information

Compound	[C] in ug/L	kg/L	Ave Q (gpm)	Ave Q (gpd)	Ave Q (Lpd)	Max Q (gpm)	Max Q (gpd)	Max Q (Lpd)	Ave M/day (kg)	Max M/day (kg)
TSS	34000	0.000034	0.3	432	1635.12	0.51	734.4	2779.704	0.05559408	0.094509936
Cyanide	6.43	6.43E-09	0.3	432	1635.12	0.51	734.4	2779.704	1.05138E-05	1.78735E-05
Acenaphthene	1.2	1.2E-09	0.3	432	1635.12	0.51	734.4	2779.704	1.96214E-06	3.33564E-06
Acenaphthylene	0.1	1E-10	0.3	432	1635.12	0.51	734.4	2779.704	1.63512E-07	2.7797E-07
Fluorene	2.1	2.1E-09	0.3	432	1635.12	0.51	734.4	2779.704	3.43375E-06	5.83738E-06
Fluoranthene	0.1	1E-10	0.3	432	1635.12	0.51	734.4	2779.704	1.63512E-07	2.7797E-07
Naphthalene	0.1	1E-10	0.3	432	1635.12	0.51	734.4	2779.704	1.63512E-07	2.7797E-07
Phenanthrene	0.3	3E-10	0.3	432	1635.12	0.51	734.4	2779.704	4.90536E-07	8.33911E-07
Pyrene	0.4	4E-10	0.3	432	1635.12	0.51	734.4	2779.704	6.54048E-07	1.11188E-06
Copper	74	0.000000074	0.3	432	1635.12	0.51	734.4	2779.704	0.000120999	0.000205698
Lead	11	0.000000011	0.3	432	1635.12	0.51	734.4	2779.704	1.79863E-05	3.05767E-05
Zinc	67	0.000000067	0.3	432	1635.12	0.51	734.4	2779.704	0.000109553	0.00018624
Iron	13000	0.000013	0.3	432	1635.12	0.51	734.4	2779.704	0.02125656	0.036136152

Metal Dilution Factor (DF) Calculation

$$DF = [(Q_d + Q_s)/Q_d] \times 0.9$$

$$DF = [(0.0011 + 0.0975)/0.0011] \times 0.9$$

$$DF = 80.672727$$



NEW HAMPSHIRE NATURAL HERITAGE BUREAU

To: Chyna Levesque
Stantec Consulting Services
5 Dartmouth Drive, Suite 101
Auburn, NH 03032

Date: 11/10/2010

From: NH Natural Heritage Bureau

Re: Review by NH Natural Heritage Bureau of request dated 11/10/2010

NHB File ID: NHB10-2804

Applicant: NHDOT

Tax Map(s)/Lot(s): Map 28
Hampton

Project Categories:

Water/Wastewater: Stormwater treatment
Other: Contaminant removal

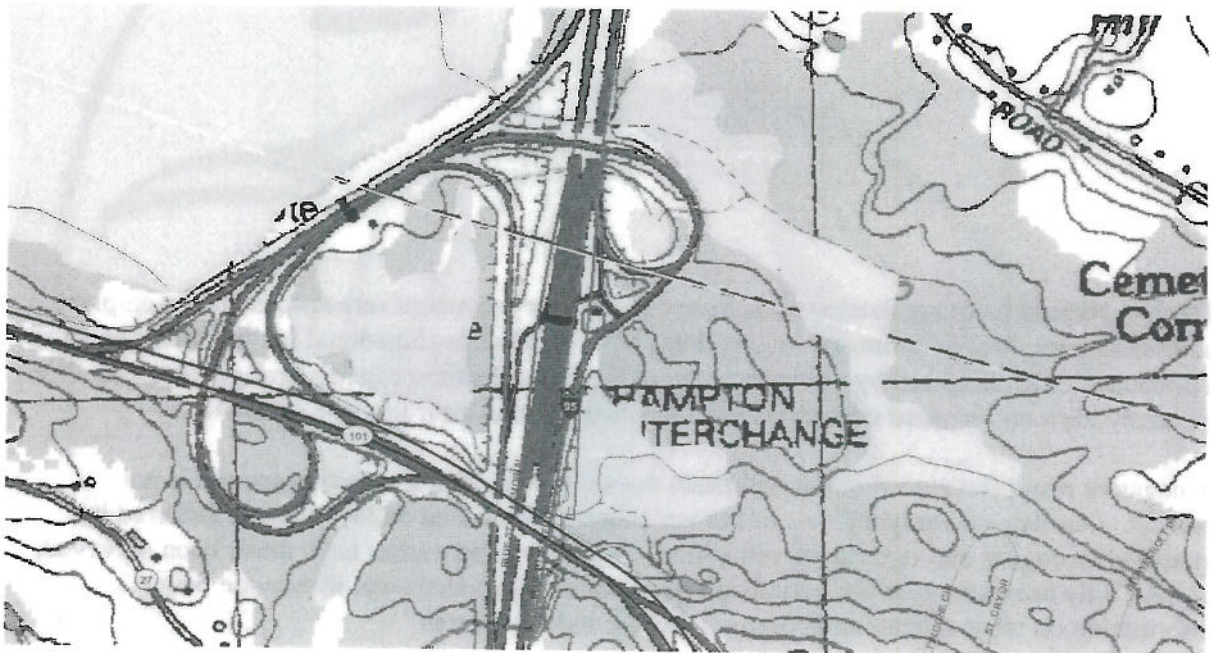
The NH Natural Heritage database has been checked for records of rare species and exemplary natural communities near the area mapped below. The species considered include those listed as Threatened or Endangered by either the state of New Hampshire or the federal government. We currently have no recorded occurrences for sensitive species near this project area.

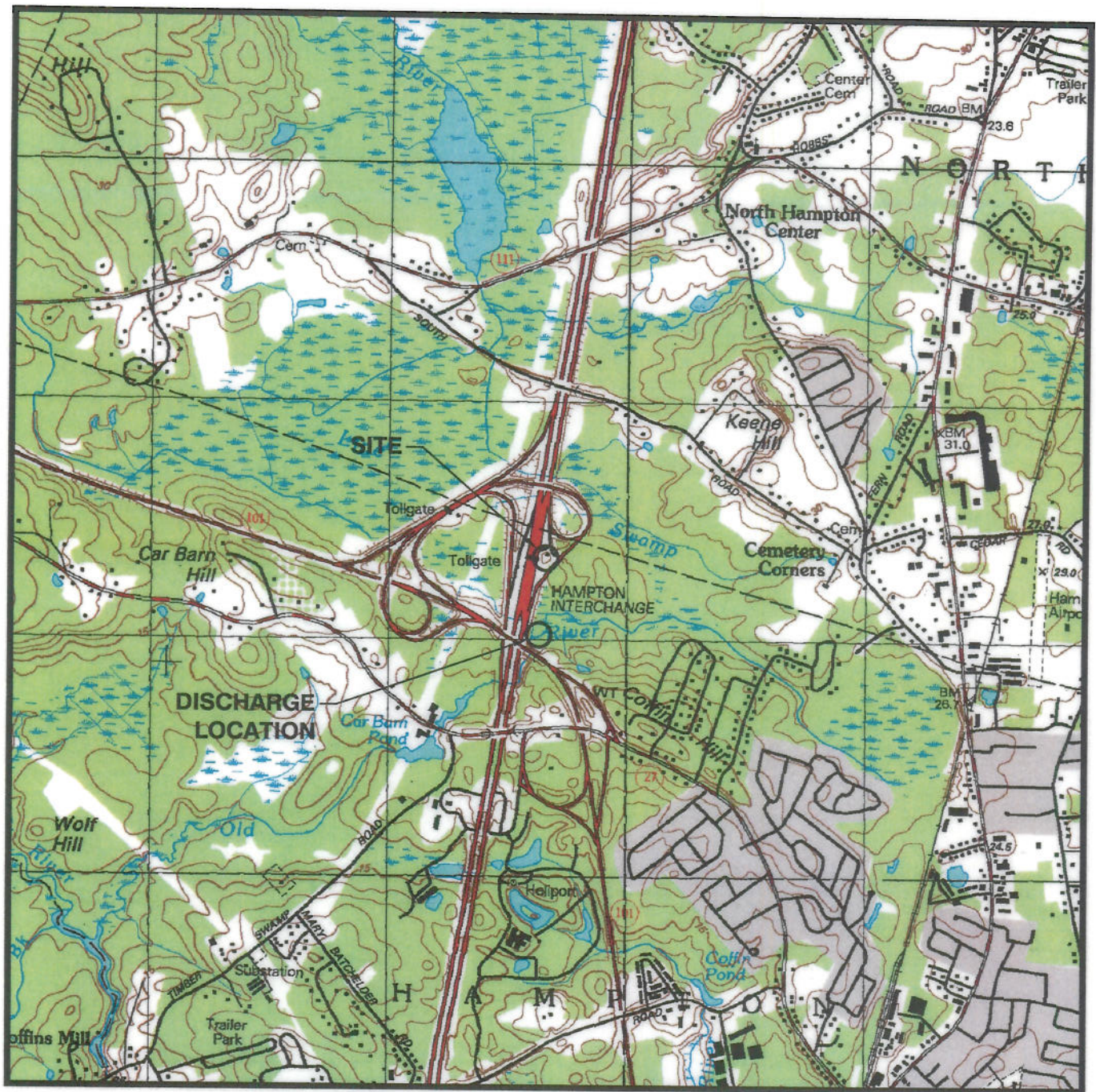
A negative result (no record in our database) does not mean that a sensitive species is not present. Our data can only tell you of known occurrences, based on information gathered by qualified biologists and reported to our office. However, many areas have never been surveyed, or have only been surveyed for certain species. An on-site survey would provide better information on what species and communities are indeed present.

This review is valid through 11/10/2011.



MAP OF PROJECT BOUNDARIES FOR: NHB ID# NHB10-2804





MAP SOURCE:

UNITED STATES GEOLOGICAL SURVEY
TOPOGRAPHIC MAPS

EXETER, NH-MA
1985



2000 0 2000
Scale in feet



Stantec

Stantec Consulting Services, Inc.

STANTEC LOCATION:
AUBURN, NEW HAMPSHIRE

DATE PREPARED: 9-15-05	DESIGNED BY: CRG	DRAWN BY: JPP	CHECKED BY: CRG	REVIEWED BY: CRG
REVISION DATE:	REVISION NO:	DRAWN BY:	CHECKED BY:	REVIEWED BY:

DRAWING TITLE:

**SITE AND
DISCHARGE LOCATION**
HAMPTON TOLL PLAZA
INTERSTATE 95
HAMPTON, NEW HAMPSHIRE

PROJECT NAME/FILE NAME:
HAMPTON TOLLS

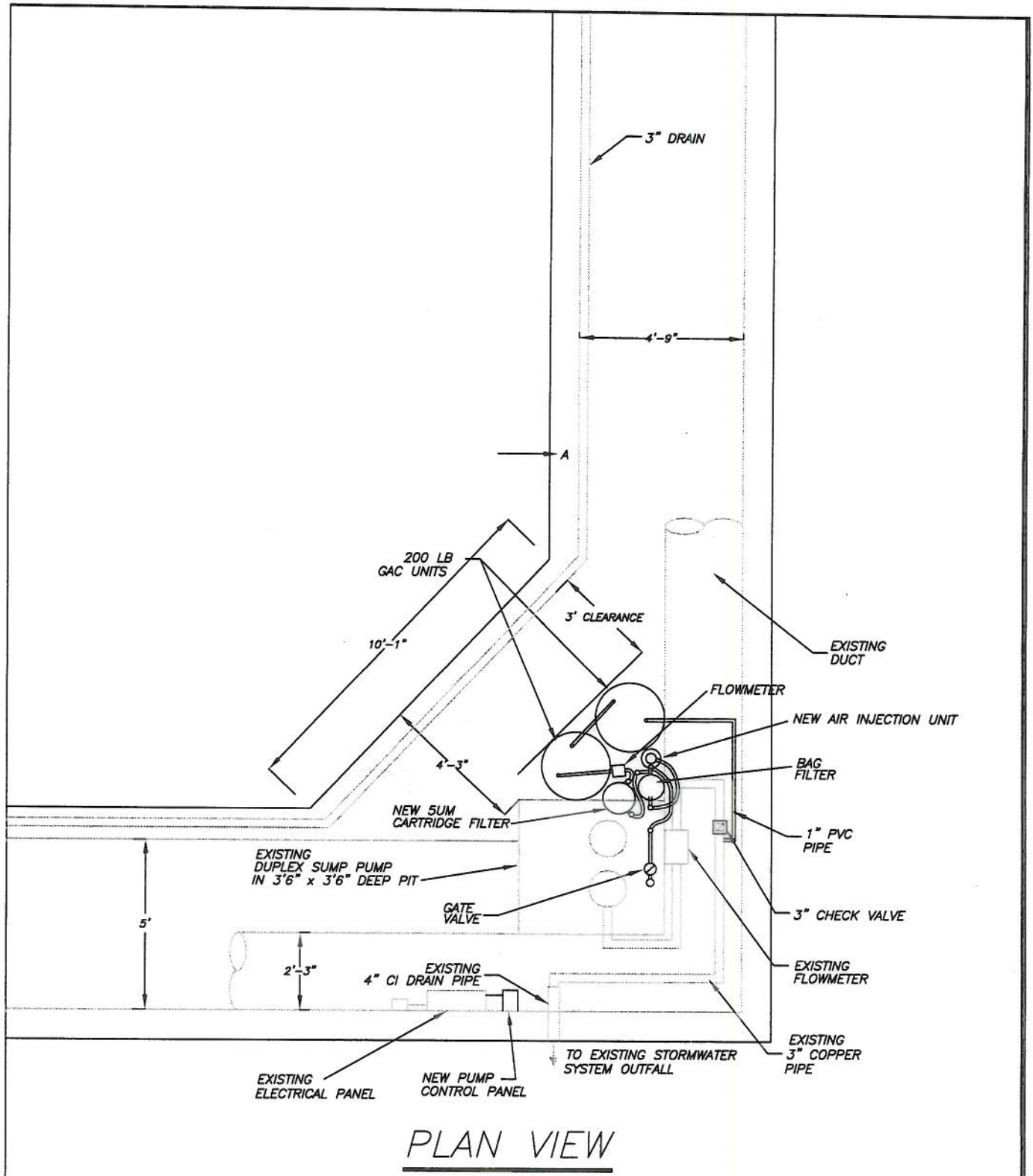
PROJECT NUMBER/PHASE:
191710637

SCALE:
1:24000

PREPARED FOR:
NEW HAMPSHIRE D.O.T.

FIGURE NO.

1



Stantec

Stantec Consulting Services Inc.

STANTEC LOCATION:
AUBURN, NEW HAMPSHIRE

DATE PREPARED: 11-11-10	DESIGNED BY: JJW	DRAWN BY: JJW	CHECKED BY: CL	REVIEWED BY: CRG
----------------------------	---------------------	------------------	-------------------	---------------------

REVISION DATE:	REVISION NO:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
----------------	--------------	-----------	-------------	--------------

PROJECT NAME/FILE NAME:
NHDOT HAMPTON

PROJECT NUMBER/PHASE:
191710637

SCALE:
1/4"=1'

DRAWING TITLE:

SUMP TREATMENT SYSTEM AS BUILT

HAMPTON TOLL PLAZA
HAMPTON, NEW HAMPSHIRE

PREPARED FOR:
NHDOT

FIGURE NO.

2