**ecology and environment engineering, p.c.**

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September 22, 2005

Heather Bishop
New York State Department of Environmental Conservation
Division of Environmental Remediation
Remedial Bureau A
625 Broadway, 11th Floor
Albany, New York 12233-7015

Re: SPDES Permit Equivalent Application
Liberty Industrial Finishing Site
Farmingdale, Nassau County, New York

Dear Ms. Bishop:

On behalf of the Liberty Industrial Finishing Site, Ecology and Environment Engineering, PC (EEEPC) is currently implementing a design for groundwater treatment at the industrial site (Index No. II CERCLA-97-0203), as required by the United States Environmental Protection Agency (EPA). To complete this design, EEEPC will increase the capacity of the existing non-time critical removal action (NTCRA) treatment system and add extraction wells to remediate the off-site portion of the groundwater plume. The existing treatment system pumps in groundwater from three on-site wells and treats approximately 120 gallons per minute (GPM). The future planned treatment system will be expanded to include up to three off-site extraction wells and will treat up to approximately 400 GPM total. Treated effluent will be piped to the local storm sewer system, which ultimately discharges into a tributary of Massapequa Creek.

For this design to move forward, it is required that EEEPC submits to you an application for a State Pollution Discharge Elimination System (SPDES) permit. I have attached the appropriate SPDES Equivalent Application from the Division of Environmental Remediation for your review. Please contact me at your earliest convenience as we would like to establish the expected discharge limitations as soon as possible. The discharge limitations will dictate the required level of treatment in our remedial design.

I would like to thank you in advance for your assistance in this matter. Please contact me at (716) 684 – 8060 or jfazzolari@ene.com if you require any additional information.

Sincerely,

John Fazzolari, P.E.
Project Manager

Ecology and Environment Engineering, PC

001910.EN17.03
SPDES Application.doc - 9/22/2005

## SPDES Permit Equivalent Application Requirements

1. Discharge Rate (i.e. treatment system design capacity)
   Approximately 400 GPM is estimated at this time; however, groundwater flow modeling will be completed to determine the proper flow rates for design. The existing system treats approximately 120 GPM and the ROD estimated that the new wells will pump approximately 250 GPM from off-site.

2. A brief description/flow diagram for the proposed treatment system
   The specific treatment elements will be determined after preliminary SPDES discharge limits are received. However, we anticipate that this system will include flow measurement and control, preliminary filtration, and organics removal using Granulated Activated Carbon. The sizes of these and other equipment will be determined based on meeting discharge limitations.

3. A description of the receiving stream, including an accurate map showing the stream and discharge location. When available, provide latitude and longitude of discharge point.
   Map is attached. The proposed discharge point is a storm sewer on Lambert Street that discharges ultimately to a tributary of Massapequa Creek.

4. Provide available wastewater monitoring data in the attached forms, prepared using the attached Table 6-10.
   Please see Attachment 1.

5. The proposed first day of discharge (for pump test discharges please do not encourage pump tests during summer low flow periods).
   Discharge is estimated to begin during calendar year 2008.

6. Proposed duration of discharge.
   The estimated duration depends on the progress of the groundwater cleanup effort, and is therefore difficult to estimate. However, for the purposes of this application, the duration is estimated at 50 years.

7. State whether it is a potentially responsible party, federal superfund or state superfund site.
   Liberty Industrial Finishing Site is a federal superfund site (Identification Number NYD000337295).

8. Please note that it is not unusual for a DOW review to take 12 weeks. Please inform responsible parties to plan on submitting requests for effluent criteria at least 12 weeks in advance of the proposed first day of discharge.

9. Include the name and telephone number of the responsible DER project engineer to contact if we have questions or want to borrow a copy of the RI report.
   TBD by Heather Bishop

10. The Site number.
    CERCLIS Identification Number NYD000337295.

11. The DER contact/address where compliance monitoring data is to be sent.
    The DER contact for the Liberty Industrial Finishing Site is as follows:
    Heather Bishop
    Division of Environmental Remediation
    Remedial Bureau A
    625 Broadway, 11th Floor
    Albany, NY 12233-7015

12. For discharges that will have iron in excess of 0.3 mg/L:
    a. Provide monitoring data for iron from both filtered and unfiltered samples.
       Monitoring data from the two on-site pumping locations shows that raw water concentrations range from 0.5 to 10.0 mg/L. After treatment, discharge concentrations have ranged from non-detectable to about 0.02 mg/L.

    b. If the discharge is to groundwater please provide monitoring data for the iron from both filtered and unfiltered samples from monitoring wells not influenced by site contamination.
       Discharge is to a storm sewer that outlets to a tributary of Massapequa Creek. However, due to the sandy nature of the soil and lack of other water sources in the storm sewer, it is anticipated that the discharge water will infiltrate into the soil shortly after it exits the storm sewer.

Table 1. Iron Monitoring Data from Groundwater Monitoring Wells Located Outside the Plume Area.

| Well Identification | Date of Sample Collection | Analyte | Iron Concentration (mg/L) |
|---|---|---|---|
| MW-10B | 08 Apr 1998 | Unfiltered | 0.304 |
| MW-10B | 19 Aug 1998 | Unfiltered | 0.0471 |
| MW-10B | 08 Apr 1998 | Filtered | 0.0475 |
| MW-10B | 19 Aug 1998 | Filtered | 0.0471 |
| MW-10C | 08 Apr 1998 | Unfiltered | 1.51 |
| MW-10C | 19 Aug 1998 | Unfiltered | 2.99 |
| MW-10C | 08 Apr 1998 | Filtered | 1.27 |
| MW-10C | 19 Aug 1998 | Filtered | 2.59 |
| MW-23B | 08 Apr 1998 | Unfiltered | 6.80 |
| MW-23B | 19 Aug 1998 | Unfiltered | 0.174 |
| MW-23B | 08 Apr 1998 | Filtered | 6.29 |
| MW-23B | 19 Aug 1998 | Filtered | 0.0471 |
| MW-24B | 08 Apr 1998 | Unfiltered | 0.181 |
| MW-24B | 19 Aug 1998 | Unfiltered | 0.582 |

| | | | |
|---|---|---|---|
| MW-24B | 08 Apr 1998 | Filtered | 0.0475 |
| MW-24B | 19 Aug 1998 | Filtered | 0.0471 |
| MW-24C | 08 Apr 1998 | Unfiltered | 3.25 |
| MW-24C | 19 Aug 1998 | Unfiltered | 2.93 |
| MW-24C | 08 Apr 1998 | Filtered | 3.13 |
| MW-24C | 19 Aug 1998 | Filtered | 3.05 |

Data taken from the 2000 Remedial Investigation completed for the Liberty Industrial Finishing Site by URS Corporation.

c. If the discharge is relatively large compared to the receiving water, please provide monitoring data for iron from both filtered and unfiltered samples from an upstream point of the receiving water.

This data cannot be provided because the upstream areas of the receiving water stream are a storm sewer system and low flows are expected to be zero.

# ATTACHMENT 1

## SPDES Permit Equivalent Requirements Application

Table 1. Conventional Monitoring Information

| Parameter | Raw Wastewater or Monitoring Well | | | | Projected or Actual Treated Wastewater (if available) | | |
|---|---|---|---|---|---|---|---|
| | Units | Min | Max | Avg. | Min | Max | Avg. |
| **Flow** | GPM | N/A | N/A | N/A | 88 | 122.7 | 108.5 |
| **pH** | s.u. | N/A | N/A | N/A | 6.11 | 5.76 | 7.12 |

Monitoring information for $BOD_5$, TSS, TDS, TKN, and Ammonia can be sampled if requested and/or required by the NYSDEC.

Sampling Information:

i. Do you know or have reason to believe that any of the pollutants listed in Tables 6, 7, or 8 of the instructions are present in the discharge from this outfall?
- ☑ **Yes** - If yes, monitoring data must be included in Table 2.
- ☐ **No** – Go to Item ii below.

ii. Do you know or have reason to believe that any of the pollutants listed in Table 9 or Table 10 of the instructions or any other toxic harmful, or injurious chemical substances not listed in Tables 6 – 10, are present in the discharge from this outfall?
- ☐ **Yes** – Source or reason for presence in discharge attached.
- ☐ **Yes** – Quantitative or qualitative data attached.
- ☑ **No**

Table 2-a. Current Monitoring Information for Priority Pollutants, Toxic Pollutants, and Hazardous Substances From On-site Treatment System to Sanitary Sewer

| CAS # | Parameter | Raw Wastewater or Monitoring Well | | Projected or Actual Treated Wastewater | | |
|---|---|---|---|---|---|---|
| | | Units | Estimated Average | Min | Max | Avg. |
| 7440-43-9 | Cadmium | µg/L | 100 | 35.00 | 74.00 | 42.52 |
| 7440-47-3 | Chromium | µg/L | 150 | 7.30 | 39.70 | 16.76 |
| 18540-29-9 | Hexavalent Chromium | µg/L | 100 | 3.94 | 23.00 | 9.96 |
| 79-01-6 | TCE | µg/L | 10 | 0.25 | 5.20 | 0.77 |
| 127-18-4 | PCE | µg/L | 10 | 0.20 | 7.90 | 1.40 |
| 1634-04-4 | MTBE | µg/L | 100 | 3.40 | 45.80 | 18.91 |
| 75-71-8 | Freon | µg/L | n/a | n/a | n/a | n/a |

Note: n/a – not available

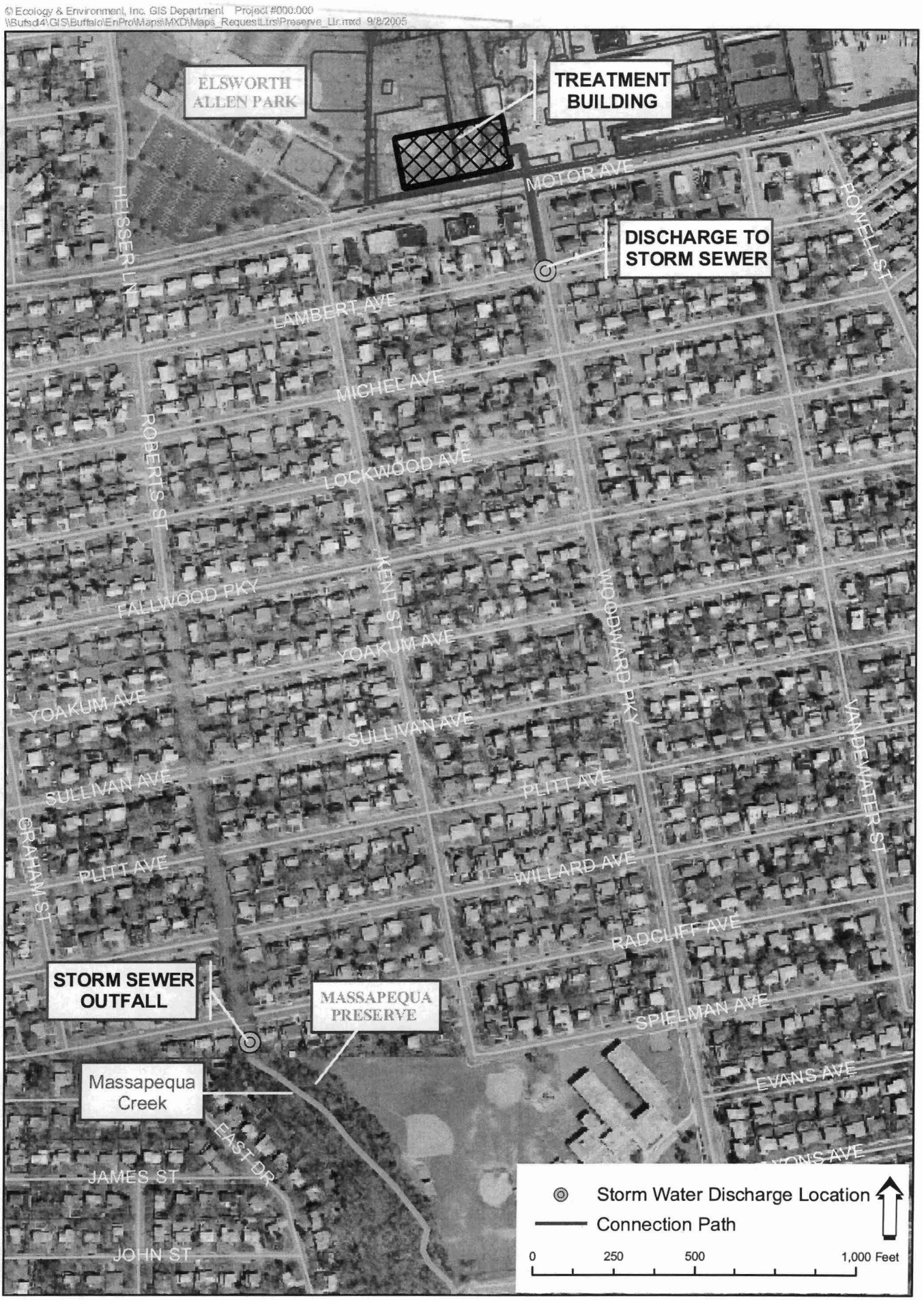
Table 2-b. RAW WATER Monitoring Information for Priority Pollutants, Toxic Pollutants, and Hazardous Substances From Off-site Wells (to be treated as necessary)

| CAS # | Parameter | Raw Wastewater or Monitoring Well | | Projected or Actual Treated Wastewater |
|---|---|---|---|---|
| | | Units | Estimated Average | Estimated Average |
| 7440-43-9 | Cadmium | µg/L | 100 – 200 | Not available |
| 7440-47-3 | Chromium | µg/L | 100 – 150 | Not available |
| 18540-29-9 | Hexavalent Chromium | µg/L | 75 – 150 | Not available |
| 79-01-6 | TCE | µg/L | 200 – 400 | Not available |
| 127-18-4 | PCE[1] | µg/L | ND – 30 | Not available |
| 1634-04-4 | MTBE | µg/L | ND – 5[2] | Not available |
| 75-71-8 | Freon | µg/L | ND - 30 | Not available |

Notes: ND – Non Detect

[1]Daughter products of PCE, such as TCE and DCE, may be present in trace amounts throughout the plume.

[2]An MTBE concentration of 650 µg/L was recorded at one well.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ELSWORTH ALLEN PARK
TREATMENT BUILDING
MOTOR AVE
DISCHARGE TO STORM SEWER
HEISSER LN
POWELL ST
LAMBERT AVE
MICHEL AVE
ROBERTS ST
LOCKWOOD AVE
KENT ST
WOODWARD PKY
FALLWOOD PKY
YOAKUM AVE
SULLIVAN AVE
PLITT AVE
WILLARD AVE
VANDEWATER ST
GRAHAM ST
RADCLIFF AVE
STORM SEWER OUTFALL
MASSAPEQUA PRESERVE
SPIELMAN AVE
Massapequa Creek
EVANS AVE
EAST DR
JAMES ST
JOHN ST
Storm Water Discharge Location
Connection Path
0
250
500
1,000 Feet