Former Mill No. 2 Site
Niagara County, New York

SITE MANAGEMENT PLAN

NYSDEC BCP Site Number: C932150

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Revisions to Final Approved Site Management Plan:

Revision #	Submitted Date	Summary of Revision	DEC Approval Date

JUNE 2012

Certification Statement
Site Management Plan

I, John Mohlin, certify that I am currently a NYS registered professional engineer and that this Site Management Plan was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10) and that all activities were performed in full accordance with the DER-approved work plan and any DER-approved modifications.

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6/8/12
Date

Warning: It is a violation of the NYS Education Law Article 145 for any person, unless he is acting under the direction of a licensed Professional Engineer, to alter this item in any way.

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ACRONYMS AND ABBREVIATIONS

BCA	Brownfield Cleanup Agreement
BCP	Brownfield Cleanup Program
C&S	C&S Engineers, Inc.
CAMP	Community Air Monitoring Program
COC	Certificate of Completion
COPCs	Contaminants of Potential Concern
cpm	Counts per Minute
DER	Division of Environmental Remediation
DUSR	Data Usability Summary Report
ERM	ERM Consulting & Engineering, Inc.
ESCP	Erosion Control Sediment Plan
ETA	Existing Transformer Area
EVS	Environmental Visualization Software©
EWP	Excavation Work Plan
FER	Final Engineering Report
Greenpac	Greenpac Mill, LLC
HASP	Health and Safety Plan
IC	Institutional Controls
MW	Monitoring Well
Norampac	Norampac Industries, Inc.
NYS	New York State
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
PID	Photoionization Detector
QA/QC	Quality Assurance / Quality Control
RAD	Radiologically affected
RAWP	Remedial Action Work Plan
RI	Remedial Investigation
SCOs	Soil Cleanup Objectives
SMP	Site Management Plan
SVOCs	Semivolatile Organic Compounds
TAL	Target Analyte List
VOCs	Volatile Organic Compounds

SITE MANAGEMENT PLAN

1.0 INTRODUCTION AND DESCRIPTION OF REMEDIAL PROGRAM

1.1 INTRODUCTION

This document is required as an element of the remedial program at the Former Mill No. 2 Site located at 4400 Royal Avenue in the City of Niagara Falls, Niagara County, New York (hereinafter referred to as the "Site"; see Figure 1-1) under the New York State (NYS) Brownfield Cleanup Program (BCP) administered by New York State Department of Environmental Conservation (NYSDEC). The Site was remediated by Greenpac Mill, LLC (Greenpac) participating in the BCP as a Volunteer as defined in ECL 27-1405(1)(b) in accordance with Brownfield Cleanup Agreement (BCA) Index# C932150-03-10, Site # C932150, which was originally executed by the NYSDEC on 6 April 2010 and last amended by the NYSDEC and Greenpac on 14 December 2011 (Amendment #3).

1.1.1 General

Greenpac entered into a BCA with the NYSDEC to remediate an 18.52 acre property located in the City of Niagara Falls, Niagara County, New York. This BCA required the Remedial Party, Greenpac, to investigate and remediate contaminated media at the Site. Figures showing the location and boundaries of this Site are provided as Figure 1-1 and 1-2. The boundaries of the Site are more fully described in the metes and bounds Site description (Appendix A) that is part of the Environmental Easement (Appendix B). The final Environmental Easement was approved by NYSDEC on 4 June 2012 and filed with Niagara County on 6 June 2012. Appendix C provides a drawing showing the planned facility layout as of May 2012.

After completion of the remedial work described in the Remedial Action Work Plan, some contamination was left in the subsurface at this Site, which is hereafter referred to as 'remaining contamination." This Site Management Plan (SMP) was prepared to manage remaining contamination at the Site until the Environmental Easement is extinguished in accordance with ECL Article 71, Title 36. All reports associated with the Site can be viewed by contacting the NYSDEC or its successor agency managing environmental issues in New York State.

This SMP was prepared by ERM Consulting & Engineering, Inc. (ERM), on behalf of Greenpac, in accordance with the requirements in NYSDEC Division of Environmental Remediation (DER) Technical Guidance for Site Investigation and Remediation (DER-10), dated May 2010, and the guidelines provided by

NYSDEC. This SMP addresses the means for implementing the Institutional Controls (ICs) that are required by the Environmental Easement for the Site.

1.1.2 Purpose

The Site contains contamination left after completion of the remedial action. ICs have been incorporated into the Site remedy to control exposure to remaining contamination during the use of the Site to ensure protection of public health and the environment. An Environmental Easement granted to the NYSDEC, and recorded with the Niagara County Clerk, will require compliance with this SMP and all ICs placed on the Site. The ICs place restrictions on Site use, and mandate operation, maintenance, monitoring and reporting measures for all ICs. This SMP specifies the methods necessary to ensure compliance with all ICs required by the Environmental Easement for contamination that remains at the Site. This plan has been approved by the NYSDEC, and compliance with this plan is required by the grantor of the Environmental Easement and the grantor's successors and assigns. This SMP may only be revised with the approval of the NYSDEC.

This SMP provides a detailed description of all procedures required to manage remaining contamination at the Site after completion of the Remedial Action, including: (1) implementation and management of all ICs; (2) sampling requirements; and (3) performance of periodic inspections, certification of results, and submittal of Periodic Review Reports.

To address these needs, this SMP includes two plans: (1) an Institutional Control Plan for implementation and management of ICs; (2) an Inspection & Sampling Plan for implementation of routine inspections and sampling (if conducted).

This plan also includes a description of Periodic Review Reports for the periodic submittal of data, information, recommendations, and certifications to NYSDEC.

It is important to note that:

- This SMP details the Site-specific implementation procedures that are required by the Environmental Easement. Failure to properly implement the SMP is a violation of the environmental easement, which is grounds for revocation of the Certificate of Completion (COC);
- Failure to comply with this SMP is also a violation of Environmental Conservation Law, 6NYCRR Part 375 and the BCA Index # C932150-03-10, Site # C932150, and thereby subject to applicable penalties.

1.1.3 Revisions

Revisions to this plan will be proposed in writing to the NYSDEC's project manager. In accordance with the Environmental Easement for the Site, the NYSDEC will provide a notice of any approved changes to the SMP, and append these notices to the SMP that is retained in its files.

1.2 SITE BACKGROUND

1.2.1 Site Location and Description

The Site is located in the City of Niagara Falls, County of Niagara, New York and is designated on the Tax Map of the County Clerk of Niagara as tax map parcel numbers: Section 160.09 Block 1 Lot 3 and Section 700.00 Block 41 Lot 2. The Site is an approximately 18.52-acre area bounded by an active paper mill (Mill No. 1) operated by Norampac Industries, Inc. (Norampac) to the north, National Grid property to the west; Royal Avenue, Frank's Vacuum Service, and the Former Frontier Chemical Site (NYSDEC Inactive Hazardous Waste Disposal Site No. 9-32-110) to the south; and the former Frontier Chemical Site, 47th Street, and Sentry Metal Services to the east (see Figure 1-2). The boundaries of the Site are more fully described in Appendix A – Metes and Bounds.

1.2.2 Site History

Buildings, facilities, and operations associated with the Former Mill No. 2 historically housed paper manufacturing, finishing, and packaging operations of finished goods. The facility was originally constructed in the 1920s and was expanded several times. The northern part of the Site (referred to as the Northern Extension) included a five story warehouse building (Building 10) and the on-Site Wastewater Treatment Plant. Historic plant drawings indicate that Building No. 10 was apparently constructed in 1936 and the Wastewater Treatment Plant was originally constructed in 1940 with additions and improvements being constructed during ensuing years. Paper manufacturing, finishing, and packaging operations continued at the Site until the Former Mill No. 2 became inactive in 1982.

Greenpac entered into a BCA with the NYSDEC in 2010 to address the significant environmental, legal, and financial barriers that hinder redevelopment of the Site. Former Mill No. 2 structures have been demolished to allow construction of a new, state-of-the-art fiberboard recycling facility by Greenpac.

Several subsurface investigations were conducted at the Site to evaluate soil and ground water quality. Previous subsurface investigations performed by others at the Site included:

- Preliminary Subsurface Assessment (Labella, 2008);
- Subsurface Investigation, Main Parcel (C&S, 2009);
- Subsurface Investigation, Northern Extension (C&S, 2010a); and
- CSX Corridor Phase II Investigation (Benchmark, 2011).

ERM was retained by Greenpac to perform a RI at the Site. The goal of the RI was to provide a comprehensive evaluation of soil and ground water across the Site using existing data from previous investigations and new data generated during implementation of the RI in conformance with two NYSDEC-approved RI Work Plans for the Site: one for the Main Parcel (C&S, 2009) and the other for the Northern Extension (ERM, 2011a). The results of the RI effort are summarized in Section 1.3. Between July 2011 and March 2012, and consistent with the NYSDEC-approved Soil Excavation IRM Work Plan (ERM, 2011c) and the approved Addendum to the Soil Excavation IRM Work Plan (ERM, 2011e), a Track 2 cleanup was implemented that achieved the Industrial Soil Cleanup Objectives (SCOs) for the top 15-feet of soil, or to the top of bedrock, whichever is shallower. The results of the remedial efforts are summarized in Section 1.4.

1.2.3 Geologic Conditions

Geologic units encountered at the Site during the Remedial Investigation (RI) include (listed from surface down to bedrock):

- brown to black gravel and historic fill material (Unit 1);
- light colored silty sand to sandy-silt gravel (Unit 2);
- reddish-brown silt and silty gravel (Unit 3);
- dark gray dolomitic limestone of the Lockport Formation (bedrock).

A geologic section is shown in Figure 1-3. The gravel and historic fill unit consists predominantly of brown to gray gravel fill or dark gray to black historic fill. The fill material is widespread across the Site and is generally less than 3-feet thick, but ranges from 0.3- to 13.5-feet in thickness.

The light-colored silty sand to sandy-silt gravel unit consists predominantly of yellow-brown sandy silt with trace amounts of dark gray gravel. Thickness ranges from 0- to 8-feet.

The reddish-brown silt and silty gravel unit consists predominantly of reddish-brown clayey silt to silty gravel. Gravel is often found in horizontal layers. This unit rests on top of bedrock and pieces of bedrock are contained in the lowest layers of this zone. The thickness of Unit 3 ranges between 2.5- and 9-feet.

Bedrock consists of gray dolomitic limestone of the Upper Silurian Lockport Formation (Rickard and Fisher, 1970). The depth to bedrock is generally 12-feet below ground surface but ranges from 7.5- to 20-feet and appears to slope from the northeast to the southwest.

There is very little shallow overburden ground water at the Site as evidenced by the lack of water present in the main excavation at the Site. When present, ground water consists of thin, isolated lenses that are perched on top of bedrock. Depths to ground water measurements in Site wells indicate that ground water, when present, was encountered at depths ranging from approximately 6- to 8-feet bgs. These data suggest the presence of isolated perched ground water lenses sitting on top of relatively impermeable bedrock. Therefore, a ground water contour map was not prepared during the RI due to the apparent lack of laterally continuous shallow ground water at the Site. Where ground water is present, ground water flow at the Site is expected to be predominantly downwards into bedrock based to downward hydraulic gradients typically present in overburden deposits in this area. The relatively impermeable nature of Unit 3 suggests most ground water flow would occur vertically through fractures, macropores, or other more permeable zones (i.e., gravelly areas).

1.3 SUMMARY OF REMEDIAL INVESTIGATION FINDINGS

A RI was performed to characterize the nature and extent of contamination at the Site. The results of the RI are described in detail in the Remedial Investigation Report (ERM, 2012). Generally, the RI determined that remediation of soil was required at the Site but that additional investigation or remediation of ground water, soil vapor, or other environmental media or ecological resources were not required. A qualitative human health exposure assessment was performed and potential exposure pathways were evaluated. Below is a summary of Site conditions when the RI was performed in 2011.

Soil

The current and future contemplated use of the Site is industrial. Chemical analytical results for soil were compared to the Title 6, New York Code of Rules and Regulations [6 NYCRR] Part 375 SCOs for Industrial Use, referred to as the Industrial SCOs (NYSDEC, 2006). Additionally, areas of elevated radioactivity were discovered at the Site during implementation of the Soil Excavation IRM. Radiological field screening results were compared to the NYSDEC-approved Site-specific excavation guidance value of 10,000 counts per minute (cpm) as measured using a Ludlum Model 2221 meter with a 44-10 probe. As instructed by the NYSDEC, radiation readings were subject to the professional judgment of the radiological field technician and NYSDEC and New York State Department of Health (NYSDOH) specialists in radioactive materials removal.

Review and evaluation of resulting chemical data and radiological investigation results, comparison with applicable standards, criteria, and guidance (SCGs), and mapping through use of a geostatistical software program (Environmental Visualization Software© [EVS]) resulted in the lateral and vertical delineation of areas of soil that contain one or more contaminants of potential concern (COPCs) at concentrations above applicable SCGs. Figure 1-4 summarizes the extent of COPCs exceeding the Industrial SCOs at the Site prior to the implementation of the Soil Excavation IRM.

Volatile organic compounds (VOCs) were not detected at concentrations above the Industrial SCOs. However, VOCs were detected at concentrations above the applicable Site-specific field screening guidance value of 5 parts-per-million (ppm) as measured using a calibrated photoionization detector (PID) in two areas: chemical hotspots C-6 and C-10.

Elevated radiation was associated with slag and slag-like materials contained in historic fill materials or bedding associated with Site utilities and foundations. The slag and slag-like materials are consistent with materials produced during historic industrial operations in western New York. Areas of elevated radiation occurred predominantly in excavation Phases 3, 4, and 5 associated with the construction of the new building. Additionally, seven areas of elevated radiation designated as radiologically-affected (RAD) Zones 1 through 7 were identified in areas outside of the main excavation for the new building.

The following semivolatile organic compounds (SVOCs) and metals were detected in one or more soil samples at concentrations above the Industrial SCOs.

SVOCs

- Benzo(a)anthracene
- Benzo(b)fluoranthene
- Benzo(a)pyrene
- Dibenzo(a,h)anthracene
- Indeno(1,2,3-cd)pyrene

Metals

- Arsenic
- Manganese
- Mercury

Table 1-1 summarizes analytical results for COPCs present in Site soil at concentrations above the Industrial SCOs.

Ground Water

There is very little shallow overburden ground water at the Site as evidenced by the lack of water present in the main excavation at the Site. Shallow ground water at the Site is limited to thin isolated areas perched on top of bedrock and is laterally and vertically discontinuous. Therefore, lateral contaminant transport in ground water is not anticipated to be significant at the Site. Shallow ground water flow at the Site is expected to be predominantly downwards towards bedrock due to downward hydraulic gradients typically present in overburden deposits in this area as documented during the hydrogeologic investigation of overburden and bedrock at the adjacent Frontier Chemical site (ERM, 2012).

Where shallow ground water is present at the Site, COPCs in Site soil typically are not present in ground water at concentrations above ambient ground water quality standards and guidance values. Areas of soil containing COPCs at concentrations above Industrial SCOs were permanently removed from the subsurface during implementation of the Soil Excavation IRM. Therefore, the Soil Excavation IRM also acted as a source removal and control action for the protection of ground water, further reducing the potential for contamination of ground water on-Site or off-Site.

Figure 1-5 summarizes analytical results for ground water samples collected at the Site during the RI and previous investigations. VOCs and SVOCs were not detected in shallow ground water at the Site at concentrations exceeding ambient ground water quality standards and guidance values with the exception of two monitoring wells (MW) installed by Labella in 2008 (wells MW-2 and MW-3) located near the southeastern property line in the perceived down-gradient direction from the Frontier Chemical site. The following COPCs were detected in these two wells at concentrations exceeding ambient ground water quality standards and guidance values.

- Bis(2-ethylhexyl)phthalate
- Chlorobenzene
- 1,2-Dichlorobenzene
- 1,3-Dicholorbenzene
- 1,4-Dichlorobenzene
- cis-1,2-Dichlorethene

These compounds are consistent with compounds reported by the NYSDEC as COPCs at the Frontier Chemical site, and therefore, additional investigation or remediation of compounds solely attributable to an off-Site source is not warranted as set forth in 6 NYCRR Part 375-1.8(d)2. Areas of VOCs in Site soil

have been permanently removed from the Site during implementation of the Soil Excavation IRM.

Other ground water quality exceedances in shallow ground water samples collected at the Site are limited to some isolated occurrences of the following metals:

- Antimony
- Iron
- Magnesium
- Manganese
- Sodium

The occurrence and observed concentrations of these naturally-occurring metals is consistent with the anticipated geochemical character of ground water at the Site based on typically low organic carbon content of glacial deposits (Units 2 and 3) and the near-reducing geochemical conditions encountered in Site ground water. Manganese was detected in Site soil at concentrations above NYSDEC Part 375 Protection of Ground Water SCOs. Areas of manganese soil exceeding the Industrial SCO were permanently removed from the Site during implementation of the Soil Excavation IRM.

These metals are considered as predominantly naturally occurring at the Site and raising only aesthetic and not environmental concerns. Additionally, the lack of significant mobile ground water at the Site, the City of Niagara Falls Local Law #4 of 2010 (which prohibits the use of ground water for drinking), the proposed use of ICs at the Site (an Environmental Easement) to prohibit the use of ground water for drinking, and the soil source area removals performed during implementation of the Soil Excavation IRM all suggest that implementation of ground water quality restoration or plume containment/stabilization are not required at the Site.

Soil Vapor Intrusion

The NYSDEC and the NYSDOH indicated at a meeting on 5 April 2011 that assessment of the soil vapor matrix at the Site would not be required if soil containing VOCs at concentrations above 5 ppm above background, as measured in the field using a calibrated PID, was removed during remedial action at the Site. Two such areas were identified during the RI – chemical hotspot C-6 and hotspot C-10. VOC-affected soil in these two areas was removed during the Soil Excavation IRM. Therefore, investigation of soil vapor at the Site was not performed during the RI as approved by the NYSDEC and the NYSDOH.

Qualitative Human Health Exposure Assessment

Potential exposure pathways at the Site that were complete prior to remedial action at the Site included direct contact with soil, incidental ingestion of soil, and inhalation of soil for on-Site commercial workers and on-Site construction or utility workers. Direct contact with soil and inhalation of soil represent the greatest risk concerning frequency and duration of exposure for on-Site commercial workers and on-Site construction and utility workers. The risk is greatest during intrusive activities (e.g., disturbance of surface soil or subsurface soil excavation). Control measures such as proper implementation and compliance with the Site-specific Health and Safety Plan (HASP), use of appropriate personal protective equipment (PPE), dust suppression techniques, and the use of ICs will greatly reduce the potential risk of exposure. Soil containing COPCs or radiation above applicable SCGs was permanently removed from the Site through remedial activities. Therefore, previously complete exposure pathways are considered incomplete for current and future industrial use of the Site subsequent to the completion of remedial action.

The Site and surrounding areas are serviced by municipal water and the use of ground water for drinking is currently prohibited by the City of Niagara Falls Local Law #4 of 2010. Use of ground water at the Site for drinking will be further prohibited through filing of an Environmental Easement. Therefore, current and future potential pathways for ground water are not complete based on current and future legal restrictions of ground water use at the Site and surrounding areas.

Fish and Wildlife Resources Impact Analysis

The Site is largely developed with buildings, roads, utilities infrastructure, paved or concrete surfaces, and little or no significant vegetation. The NYSDEC's decision key contained in Appendix 3C of DER-10 (NYSDEC, 2010) was utilized to evaluate whether or not performance of a Fish and Wildlife Resources Impact Analysis was needed. The RI demonstrated that there is evidence that COPCs were released into the environment at the Site. Therefore, the Site can be considered to have been affected by one or more discharge or spill events.

The National Grid property and the New York Power Authority (NYPA) property to the west of the Site are zoned "OS" (Open Space) by the City of Niagara Falls. These two properties contain ecological resources consisting of grassy fields and shrubby areas. Other ecological resources may also be present on these two properties. Review of the NYSDEC's internet-based Environmental Resource Mapper suggests that the Site and adjacent properties may contain rare plants or rare animals. However, evidence of significant on-Site ecological resources was not observed during the RI. Additionally, there is no evidence

that contamination present at the Site has the potential to migrate to and impact potential off-Site ecological resources on the National Grid and NYPA properties. Therefore, a Fish and Wildlife Resources Impact Analysis was not needed based on interpretation of NYSDEC guidance (DER-10 Appendix 3C).

1.4 SUMMARY OF REMEDIAL ACTIONS

The Site was remediated in accordance with the following NYSDEC-approved Work Plans:

- Interim Remedial Measure Work Plan – Demolition of Mill No. 2 (C&S, 2010b);
- IRM Work Plan for Demolition of Building No. 10 and the Wastewater Pre-Treatment Plant (ERM, 2011b);
- Soil Excavation IRM Work Plan (ERM, 2011c); and
- Revised Addendum to the Soil Excavation Work Plan (ERM, 2011d).

The following is a summary of the Remedial Actions performed at the Site:

1. Excavation of soil/fill exceeding Industrial SCOs, and Site-specific screening criteria listed in Table 1-2, to a depth of 15 feet or bedrock, whichever was shallower;
2. Demolition of the Former Mill No. 2, Building 10, and the two southernmost tanks for the Wastewater Treatment Plant
3. Execution and recording of an Environmental Easement to restrict land use, as well as to prohibit use of ground water underlying the Site without treatment rendering it safe for intended use.
4. Development and implementation of a SMP for long term management of remaining contamination as required by the Environmental Easement, which includes plans for: (1) ICs, (2) sampling, and (3) reporting;

Remedial excavation activities were substantially complete on 31 December 2011. Demolition activities were substantially completed in February 2012.

1.4.1 Removal of Contaminated Materials from the Site

As stated in the Soil Excavation IRM Work Plan, the remedial activities would involve excavation of affected soil containing compounds of potential concern at concentrations above applicable SCOs as defined in 6 NYCRR Part 375-6.8. Because Greenpac desired a Track 2 cleanup, the SCOs were intended to be applied to the top 15 feet of soil (or to bedrock if less than 15 feet) consistent with

NYSDEC's "Soil Cleanup Guidance" Policy dated 21 October 2011 (CP-51) (NYSDEC, 2011). The current and contemplated use for the Site is industrial. Therefore, the remedy consisted of excavation and off-Site disposal of soil above Industrial SCOs (referred to as the "Chemical Hot Spots" in areas outside the Main Excavation in the footprint of the new building). Furthermore, the NYSDEC and the NYSDOH indicated in a meeting on 5 April 2011 that assessment or mitigation of vapor intrusion at the Site would not be required if soil containing VOCs at concentrations above 5 ppm as measured in the field using a calibrated PID was removed during remedial action at the Site. Therefore, in addition to the two areas identified during the RI, screening of excavated soil was conducted with a PID, and soil exhibiting measurements above 5 ppm was also removed. During the excavation activities, RAD soil was encountered at the Site. Based on measured background levels, the NYSDEC approved an excavation screening criteria of 10,000 cpm for the Site (as measured with a Ludlum 2221 with a 44-10 probe). During the RI, these areas were identified, and are referred to as "RAD Hot Spots". A list of the SCOs for the primary COPCs and applicable land use for this Site, as well as the screening criteria, is provided in Table 1-2.

With the exception of two inaccessible areas (see discussion of the transformer area and soil in the vicinity of sample CONF-110 in Section 1.4.3), and a sample location below a depth of 15 feet, all soil above Industrial SCOs and RAD Hot Spots, as well as all soil above the Site-specific PID and radiologically screening levels, have been excavated and disposed off-Site.

In addition to excavation of soil from the Chemical and RAD Hot Spots, soil was also excavated as part of the construction and installation of foundations for the new recycling facility building (i.e., the new building footprint, also referred to as the Main Excavation) and all other required foundation areas within the Site (e.g., the Wastewater Treatment Plant).

Upon initiation of excavation work at the Site, all Soil Management at the Site was performed according to Table 1-3 (this table was presented as Table 4-1 – Soil Management by Categories as presented in the June 2011 Soil Excavation IRM Work Plan). Excavated soil in the new building footprint that was suitable for reuse in off-Site areas pending soil analysis in accordance with Part 375 and DER-10 was classified as "clean". Excavated soil that was greater than the Residential SCO was classified as "contaminated" during the Site excavation and required transportation and disposal off-Site at a NYSDEC-approved soil disposal, recycling, or reuse facility. As excavation work proceeded, additional details regarding these "clean" and "contaminated" classifications were discussed and more fully evaluated with the NYSDEC. Based upon these revised evaluations, ultimate soil reuse and soil disposal was performed according to Table 1-4 (this table was presented as Table 4-2 – Summary of

Actual Soil Excavation, Handling and Disposal in the June 2011 Soil Excavation IRM Work Plan).

All excavated soils were screened in the field and segregated for reuse on-Site, reuse off-Site, or disposal off-Site at a permitted soil disposal or recycling facility pending the results of sampling and laboratory analyses in conformance with NYSDEC technical requirements for soil reuse and remedial action implementation compliance as contained in DER-10.

Excavated soils were examined in the field for visual, olfactory, or PID field screening evidence of potential contamination by the on-Site competent person. Based on these field evaluations, Figure 1-6 shows the extent of the excavation for the proposed new building for the paperboard recycling facility and the actual extent of Chemical and RAD Hot Spot excavations completed during the Soil Excavation IRM which was generally performed between 9 July 2011 and 31 December 2011. Backfill consisting of crushed rock and/or crushed concrete was used in the Hot Spot excavations, as well as portions of the main building foundation. In summary, the following approximate quantities of soil were shipped off-Site:

- 67,827 tons to Allied Landfill in Niagara Falls, New York for reuse;
- 135,839 tons to Allied & Modern Landfills in Niagara Falls, New York for disposal; and
- 20,087 tons of radiologically-affected soil to Environmental Quality Landfill in Belleville, Michigan.

Additional excavations for utility lines and drainage structures were performed in discrete areas of the Site in early 2012. These volumes represent a small fraction of the above totals and are not reflected here.

The effectiveness of the Soil Excavation IRM was assessed through collection of confirmation soil samples in conformance with DER-10 technical requirements and comparison of the post-remediation sampling results with pre-remediation sampling results.

In addition, although not a component of the Soil Excavation IRM, the building demolition activities covered under the following two documents were completed:

- Interim Remedial Measure Work Plan – Demolition of Mill No. 2 (C&S, 2010b); and
- IRM Work Plan for Demolition of Building No. 10 and the Wastewater Pre-Treatment Plant (ERM, 2011b).

1.4.2 Site-Related Treatment Systems

No long-term treatment systems were installed as part of the Site remedy.

1.4.3 Remaining Contamination

Since Track 1 Unrestricted SCOs were not the selected remedy and residual contaminated soil and ground water/soil vapor is to remain beneath the Site after the remedy is complete, ICs will be required for long term management to protect human health and the environment. Long-term management of ICs and of residual contamination would be executed under this Site-specific SMP.

As identified in the RI, historic fill material is present across much of the Site. The majority of this material contains chemical constituents in excess of the Unrestricted SCOs. For this reason, all historic fill material is anticipated to exceed the Unrestricted SCOs, and additional tables and maps are not provided.

While the remedial action has achieved a BCP Track 2 cleanup for the Industrial SCOs, some areas remain where soil contains chemical constituents above the Industrial SCOs. Table 1-5 summarizes the results of all soil samples remaining at the Site after completion of Remedial Action that exceed the Industrial SCOs. The data from these and other sample locations remaining at the Site, were input into a geostatistical software program (EVS) to generate the lateral and vertical delineation of areas of soil that contain one or more compounds of potential concern (COPCs) at concentrations above the Industrial SCOs. This mapping is presented as Figures 1-7a through 1-7e. Further details regarding the sample locations and adjacent areas are detailed below.

B-01 and B-01F (Existing Transformer Area)

These samples are part of the area referred to as Chemical Hot Spot C-1 in the Soil Excavation IRM Work Plan. These samples are also located in the Existing Transformer Area (ETA) which is presented in Figure 1-2. A portion of RAD Hot Spot R-1 is also located within the ETA (see Figure 1-7). During the Soil Excavation IRM, these areas were not accessible, and soil was not excavated. Once the existing electrical substation within the ETA is accessible, these areas will be addressed within 90 days. The work will be conducted following the Excavation Work Plan in Appendix D. Soil will be excavated to the extents shown in Figures 1-7a through 1-7e. The excavated soil will be screened and managed in accordance with Table 1-6. Confirmation sampling for the remaining areas of Chemical Hot Spot C-1 will be conducted in accordance with the Soil Excavation IRM Work Plan. The samples will be analyzed for the area-specific compounds of concern. The confirmation sampling locations and analytes will be approved by NYSDEC prior to excavation. Soil excavation will continue until screening criteria are met and confirmation samples results are less than the Industrial SCOs. RAD Hot Spot R-1 will be excavated following the

requirements of the Soil Excavation IRM Work Plan Addendum (ERM, 2011). A report of the excavation activities will be prepared following the requirements for a Construction Completion Report outlined in DER-10 Section 5.8, and submitted to NYSDEC within 90 days after completion of the excavation.

B-201E

Sample location B-201E is located just outside the ETA. After consultation with NYSDEC, it was agreed that soil in the vicinity of this sample location would be excavated at the same time as soil within the ETA was addressed. The excavation of this area will proceed as described above for the ETA.

CONF-110

At confirmation soil sample CONF-110, arsenic and mercury were detected at concentrations above the Industrial SCOs. This sample is located beneath an active steam line in an area that cannot be further excavated without removing the active steam line, which is necessary for ongoing Norampac production operations. Greenpac has submitted a demonstration to the NYSDEC of the technical impracticability of additional soil excavation in this area as a basis for preservation of a BCP Track 2 cleanup for the Site. In a letter dated 4 May 2012, NYSDEC approved this document (NYSDEC, 2012a), and indicated that no further remediation is required in this area. However, if the steam line is relocated or de-energized, or if soil is disturbed in this area, soil excavation activities must be conducted in accordance with the Excavation Work Plan (Appendix D), and the soil must be managed in accordance with Table 1-6.

SB-11

Mercury was detected from this sample above the Industrial SCO at a depth of 16 to 20 feet. As part of the BCP Track 2 cleanup, only soil at depths of 15 feet or less was required to be addressed. If soil is disturbed in this area, soil excavation activities must be conducted in accordance with the Excavation Work Plan (Appendix C), and the soil must be managed in accordance with Table 1-6.

Previous reuse and disposal of soil at local landfills has been dictated on whether or not Residential SCOs are met. Therefore, Table 1-7 is provided showing all sample results for soil remaining at the Site in excess of Residential SCOs. Based on these data, EVS modeling was conducted to identify areas of soil remaining above Residential SCOs, and this is presented in Figures 1-8a through 1-8e.

2.0 INSTITUTIONAL & ENGINEERING CONTROL PLAN

2.1 INTRODUCTION

2.1.1 General

Since remaining contaminated soil and ground water exists beneath the Site, ICs are required to protect human health and the environment. This Institutional Control Plan describes the procedures for the implementation and management of all ICs at the Site. The IC Plan is one component of the SMP and is subject to revision by NYSDEC.

2.1.2 Purpose

This plan provides:

- A description of all ICs on the Site;
- The basic implementation and intended role of each IC;
- A description of the key components of the ICs set forth in the Environmental Easement;
- A description of the features to be evaluated during each required inspection and periodic review;
- A description of plans and procedures to be followed for implementation of ICs, such as the implementation of the Excavation Work Plan for the proper handling of remaining contamination that may be disturbed during maintenance or redevelopment work on the Site; and
- Any other provisions necessary to identify or establish methods for implementing the ICs required by the Site remedy, as determined by the NYSDEC.

2.2 INSTITUTIONAL CONTROLS

A series of ICs is required by the Decision Document (NYSDEC, 2012b) to: (1) prevent future exposure to remaining contamination by controlling disturbances of the subsurface contamination; and, (2) limit the use and development of the Site to industrial uses only. Adherence to these ICs on the Site is required by the Environmental Easement and will be implemented under this SMP. These ICs are:

- Compliance with the Environmental Easement and this SMP by the Grantor and the Grantor's successors and assigns;

- Data and information pertinent to Site Management of the Controlled Property must be reported at the frequency and in a manner defined in this SMP;

ICs identified in the Environmental Easement may not be discontinued without an amendment to or extinguishment of the Environmental Easement.

The Site has a series of ICs in the form of Site restrictions. Adherence to these ICs is required by the Environmental Easement. Site restrictions that apply to the Controlled Property are:

- The property may only be used for industrial use provided that the long-term ICs included in this SMP are employed.
- The property may not be used for a higher level of use, such as unrestricted, residential, restricted residential, or commercial use without additional remediation and amendment of the Environmental Easement, as approved by the NYSDEC;
- All future activities on the property that will disturb soil must be conducted in accordance with this SMP;
- The use of ground water underlying the Site is prohibited without treatment rendering it safe for the intended use;
- Vegetable gardens and farming on the property are prohibited;
- The Site owner or remedial party will submit to NYSDEC a written statement that certifies, under penalty of perjury, that: (1) land use and ground water restrictions employed at the Controlled Property are unchanged from the previous certification or that any changes to the restrictions were approved by the NYSDEC; and, (2) nothing has occurred that impairs the ability of the controls to protect public health and environment or that constitute a violation or failure to comply with the SMP. NYSDEC retains the right to access such Controlled Property at any time in order to evaluate the continued maintenance of any and all controls. This certification shall be submitted annually, or an alternate period of time that NYSDEC may allow and will be made by an expert that the NYSDEC finds acceptable.

2.2.1 Excavation Work Plan

The Site has been remediated for restricted industrial use. Any future intrusive work that will encounter or disturb the remaining contamination, including the planned excavation in and adjacent to, the ETA will be performed in compliance with the Excavation Work Plan (EWP) that is attached as Appendix D to this SMP. Any work conducted pursuant to the EWP must also be conducted in

accordance with the procedures defined in a HASP and Community Air Monitoring Plan (CAMP) prepared for the Site. A sample HASP is attached as Appendix E to this SMP that is in current compliance with DER-10, and 29 CFR 1910, 29 CFR 1926, and all other applicable Federal, State and local regulations. A Site-Specific Radiological Safety Plan that was used during removal of radiological materials during the IRM is also provided in Appendix E. Based on future changes to State and federal health and safety requirements, and specific methods employed by future contractors, the HASP and CAMP will be updated and re-submitted with the notification provided in Section B-1 of the EWP. Any intrusive construction work will be performed in compliance with the EWP, HASP and CAMP, and will be included in the periodic inspection and certification reports submitted under the Site Management Reporting Plan (See Section 5).

The Site owner and associated parties preparing the remedial documents submitted to the State, and parties performing this work, are completely responsible for the safe performance of all intrusive work, the structural integrity of excavations, proper disposal of excavation de-water, control of runoff from open excavations into remaining contamination, and for structures that may be affected by excavations (such as building foundations and bridge footings). The Site owner will ensure that Site development activities will not interfere with, or otherwise impair or compromise, the ICs described in this SMP.

2.2.2 Soil Vapor Intrusion Evaluation

The NYSDEC and NYSDOH indicated in a meeting on 5 April 2011 that investigation or mitigation of VOCs for the vapor intrusion pathway would not be required at the Site if VOC-affected soil was addressed during the Soil Excavation IRM (as it has been). Therefore, an evaluation of soil vapor intrusion is not applicable.

2.3 *ENGINEERING CONTROLS*

Engineering controls are not necessary at this Site.

2.4 INSPECTIONS AND NOTIFICATIONS

2.4.1 Inspections

Inspections will be conducted at the frequency specified in the SMP Sampling/Inspection Plan schedule. A comprehensive Site-wide inspection will be conducted annually, regardless of the frequency of the Periodic Review Report. The inspections will determine and document the following:

- Whether ICs remain in place;

- If these controls continue to be protective of human health and the environment; and
- Compliance with requirements of this SMP and the Environmental Easement.

Inspections will be conducted in accordance with the procedures set forth in the Inspection & Sampling Plan of this SMP (Section 3). The reporting requirements are outlined in the Periodic Review Reporting section of this plan (Section 5).

If an emergency, such as a natural disaster occurs, an inspection of the Site will be conducted within 5 days of the event to verify the effectiveness of the ICs implemented at the Site by a qualified environmental professional as determined by NYSDEC.

2.4.2 Notifications

Notifications will be submitted by the property owner to the NYSDEC as needed for the following reasons:

- 60-day advance notice of any proposed changes in Site use that are required under the terms of the BCA, 6NYCRR Part 375, and/or Environmental Conservation Law.
- 7-day advance notice of any proposed ground-intrusive activities pursuant to the Excavation Work Plan.

Any change in the ownership of the Site or the responsibility for implementing this SMP will include the following notifications:

- At least 60 days prior to the change, the NYSDEC will be notified in writing of the proposed change. This will include a certification that the prospective purchaser has been provided with a copy of the BCA, and all approved work plans and reports, including this SMP
- Within 15 days after the transfer of all or part of the Site, the new owner's name, contact representative, and contact information will be confirmed in writing.

2.5 CONTINGENCY PLAN

Emergencies may include injury to personnel, fire or explosion, environmental release, or serious weather conditions.

2.5.1 Emergency Telephone Numbers

In the event of any environmentally related situation or unplanned occurrence requiring assistance, the Owner or Owner's representative(s) should contact the appropriate party from the contact list below. For emergencies, appropriate emergency response personnel should be contacted. Prompt contact should also be made to Site management. These emergency contact lists must be maintained in an easily accessible location at the Site.

Table 2-1: Emergency Contact Numbers

Medical, Fire, and Police:	911
One Call Center:	(800) 272-4480 (3 day notice required for utility markout)
Poison Control Center:	(800) 222-1222
Pollution Toxic Chemical Oil Spills:	(800) 424-8802
NYSDEC Spills Hotline	(800) 457-7362
Mount St. Mary's Hospital	(716) 297-4800

Security must be notified of any Site emergency to allow emergency services access to the Site.

Table 2-2: Other Contact Numbers

Owner: Luc Nadeau (Greenpac)	(450) 461-8603
On-Site Owner's Representative: Srini Balaji (MiniMill Technologies, Inc.)	(315) 692-4557
NYSDEC Regional Remediation Engineer	(716) 851-7220
Qualified Environmental Professional: Jon Fox (ERM)	(315) 256-5352 (cell)
Project Director: John Kuhn (ERM)	(585) 820-3957 (cell)
ERM Syracuse Office	(315) 445-2554

* Note: Contact numbers subject to change and should be updated as necessary

2.5.2 Map and Directions to Nearest Health Facility

Site Location: 4400 Royal Avenue
Niagara Falls, NY 14304 (Location A)

Nearest Hospital Name: Mount St. Mary's Hospital

Hospital Location: 5300 Military Road
Lewiston, NY 14092 (Location B)

Hospital Telephone: (716) 297-4800

Directions to the Hospital:

1. Head east on Royal Ave toward 47th St for 0.2 miles

2. Turn left onto 47th St and go 0.4 miles

3. Take the 1st right onto Niagara Falls Blvd and go 1.0 mile

4. Turn left to merge onto I-190 N for 5.3 miles

5. Take exit 25A for NY-265 toward Lewiston and go 0.1 mi

6. Turn left onto NY-265 N/Military Rd and go 0.3 miles

Destination will be on the left

Approximate Total Distance: 7.3 miles

Total Estimated Time: 13 minutes

2.5.3 Response Procedures

As appropriate, the fire department and other emergency response group will be notified immediately by telephone of the emergency. The emergency telephone number list is found at the beginning of this Contingency Plan (Table 2-1). The list will also be posted prominently at the Site and made readily available to all personnel at all times.

2.5.3.1 Spill Procedures

Should a spill occur, it should be properly contained if possible, then the Owner should be contacted immediately. The Owner will determine what agencies, if any, need to be notified and will make these notifications.

2.5.3.2 Evacuation Plan

In the event that an emergency alarm sounds at the facility, Site personnel will comply with the Greenpac facility specific emergency evacuation procedures.

2.5.3.3 Management of Change – Contingency Plan

Should the contingency plan need to be modified, the modification should be noted on the cover of the SMP, included herein and provided to the NYSDEC for inclusion in the Master File.

3.0 INSPECTION & SAMPLING PLAN

3.1 INTRODUCTION

3.1.1 General

This Inspection & Sampling Plan describes the measures for evaluating the performance and effectiveness of the remedy and to confirm that the remedy continues to be effective for the protection of public health and the environment. This Plan may only be revised with the approval of NYSDEC.

3.1.2 Purpose and Schedule

With the exceptions noted in Section 1.4.3, all soil containing contaminants in excess of Industrial SCOs have been remediated to Track 2 requirements (i.e., removed to bedrock or 15 feet below grade surface whichever is shallower). In addition, the RI determined that ground water quality restoration or plume containment/stabilization is not required at the Site. For these reasons, no routine media monitoring is required. However, routine inspection shall be performed to ensure all ICs remain in place and the SMP is being implemented as required.

This Inspection & Sampling Plan describes the methods to be used for:

- Sampling and analysis during excavation in the ETA (in particular the confirmation soil samples);
- Any sampling and analysis conducted during implementation of the Excavation Work Plan (Appendix D);
- Evaluating Site information periodically to confirm that the remedy continues to be effective in protecting public health and the environment; and
- Preparing the necessary reports for any sampling activities.

To adequately address these issues, this Plan provides information on:

- Sampling locations, protocol, and frequency;
- Analytical requirements;
- Reporting requirements;
- Quality Assurance/Quality Control (QA/QC) requirements;
- Monitoring well decommissioning procedures; and
- Annual inspection and periodic certification.

Inspection and sampling programs are summarized in Table 3-1 and outlined in detail in Sections 3.2 and 3.3 below.

Table 3-1: Sampling/Inspection Schedule

Task	Frequency*	Matrix	Analysis
Confirmation soil sampling during excavation in, and adjacent to, the ETA	One-time event	Soil	TCL SVOCs plus 20 TICs (EPA Method 8270) Target Analyte List (TAL) Metals (not including cyanide) (EPA Method 6010B) plus Mercury (EPA Method 7471A)
Site-Wide Inspection (per Section 3.3)	Annual	Not applicable	None

* The frequency of events will be conducted as specified until otherwise approved by NYSDEC and NYSDOH

3.2 CONFIRMATION SOIL SAMPLING

During the soil excavation activities to be performed in (and adjacent to) the ETA, confirmation samples will be collected as described in Section 1.4.3.

3.3 WELL DECOMMISSIONING

While a ground water monitoring program is not part of the Site remedy, a network of monitoring wells exists at the Site. There are seven on-Site wells (MW-01, MW-02, MW-03, MW-06, MW-07, MW-08, and MW-09), and one off-Site well (MW-05). MW-04 and MW-10 were destroyed during Site construction activities. These wells were all installed as part of the RI and their locations are presented in Figure 1-5. Other wells shown on this map were not observed at the Site and are presumed to no longer exist.

Following the issuance of the Certificate of Completion, all Site-related wells (both on-Site and off-Site) will be abandoned. Well abandonment will be performed in accordance with NYSDEC's "Groundwater Monitoring Well Decommissioning Procedures." A record of the abandonment will be provided in the first Periodic Review Report.

3.4 SITE-WIDE INSPECTION

Site-wide inspections will be performed on a regular schedule at a minimum of once a year. During these inspections, an inspection form will be completed (Appendix F). The form will compile sufficient information to assess the following:

- Compliance with all ICs, including Site usage;
- Whether ICs continue to perform as intended and are protective of human health and the environment;
- General Site conditions at the time of the inspection; and
- Documentation of any soil disturbance activities.

3.5 QUALITY ASSURANCE/QUALITY CONTROL

Routine sampling is not required. However, sampling will be performed during excavation activities in, and adjacent to, the ETA. In addition, sampling may be necessary during implementation of soil disturbance activities (as outlined in Appendix D – Excavation Work Plan). Any sampling and analyses will be performed in accordance with the requirements of the Sampling & Analysis Plan contained in the NYSDEC-approved Remedial Investigation Work Plan for the BCP Main Parcel dated April 2010, revised August 2010 (Appendix G). Main Components of the plan include:

- QA/QC Objectives for Data Measurement;
- Sampling Program:
  - Sample containers will be properly washed, decontaminated, and appropriate preservative will be added (if applicable) prior to their use by the analytical laboratory. Containers with preservative will be tagged as such.
  - Sample holding times will be in accordance with the NYSDEC ASP requirements.
  - Field QC samples (e.g., trip blanks, coded field duplicates, and matrix spike/matrix spike duplicates) will be collected as necessary.
- Sample Tracking and Custody;
- Calibration Procedures:
  - All field analytical equipment will be calibrated immediately prior to each day's use. Calibration procedures will conform to manufacturer's standard instructions.

- The laboratory will follow all calibration procedures and schedules as specified in USEPA SW-846 and subsequent updates that apply to the instruments used for the analytical methods.

- Analytical Procedures; and
- Preparation of a Data Usability Summary Report (DUSR), which will present the results of data validation, including a summary assessment of laboratory data packages, sample preservation and chain of custody procedures, and a summary assessment of precision, accuracy, representativeness, comparability, and completeness for each analytical method.

3.6 REPORTING REQUIREMENTS

Forms and any other information generated during inspections and any sampling will be kept on file on-Site. All forms, and other relevant reporting formats used during the inspection and any sampling events, will be (1) subject to approval by NYSDEC and (2) submitted at the time of the Periodic Review Report, as specified in the Reporting Plan of this SMP.

Any sampling results will be reported to NYSDEC on a periodic basis in the Periodic Review Report. The report will include, at a minimum:

- Date of event;
- Personnel conducting sampling;
- Description of the activities performed;
- Type of samples collected (e.g., soil, proposed backfill, etc);
- Copies of all field forms completed (e.g., well sampling logs, chain-of-custody documentation, etc.);
- Sampling results in comparison to appropriate standards/criteria;
- A figure illustrating sample type and sampling locations;
- Copies of all laboratory data sheets and the required laboratory data deliverables required for all points sampled (to be submitted electronically in the NYSDEC-identified format); and
- Any observations, conclusions, or recommendations.

Data will be reported in hard copy or digital format as determined by NYSDEC. A summary of the inspection and sampling program deliverables are summarized in Table 3-2 below.

Table 3-2: Schedule of Sampling/Inspection Reports

Task	Reporting Frequency*
Confirmation soil sampling during excavation in, and adjacent to, the ETA	Once, within 90 days after completion of excavation (see Section 1.4.3 for reporting requirements)
Site-Wide Inspection	Report results in Periodic Review Reports (see Section 5.3 for reporting requirements)

* The frequency of events will be conducted as specified until otherwise approved by NYSDEC

4.0 OPERATION AND MAINTENANCE PLAN

The Site remedy does not rely on any mechanical systems, such as sub-slab depressurization systems or air sparge/ soil vapor extraction systems to protect public health and the environment. Therefore, the operation and maintenance of such components is not included in this SMP.

5.0 INSPECTIONS, REPORTING AND CERTIFICATIONS

5.1 SITE INSPECTIONS

5.1.1 Inspection Frequency

All inspections will be conducted at the frequency specified in the schedules provided in Section 3 Inspection & Sampling Plan. At a minimum, a Site-wide inspection will be conducted annually. If an emergency, such as a natural disaster occurs, an inspection of the Site will be conducted within 5 days of the event to verify the effectiveness of the ICs implemented at the Site by a qualified environmental professional as determined by NYSDEC.

5.1.2 Inspection Forms, Sampling Data, and Maintenance Reports

A general Site-wide inspection form will be completed during the annual Site-wide inspection, as well as all other inspections (see Appendix F). This form is subject to NYSDEC revision.

All applicable inspection forms and other records, including all media sampling data and system maintenance reports, generated for the Site during the reporting period will be provided in electronic format in the Periodic Review Report.

5.1.3 Evaluation of Records and Reporting

The results of the inspection will be evaluated as part of the IC certification to confirm that the:

- ICs are in place, are performing properly, and remain effective;
- The Inspection & Sampling Plan is being implemented;
- The Site remedy continues to be protective of public health and the environment and is performing as designed in the Remedial Action Work Plan (RAWP) and Final Engineering Report (FER).

5.2 CERTIFICATION OF INSTITUTIONAL CONTROLS

After the last inspection of the reporting period, a qualified environmental professional or Professional Engineer licensed to practice in New York State will prepare the following certification:

For each institutional identified for the Site, I certify that all of the following statements are true:

- The institutional control employed at this Site is unchanged from the date the control was put in place, or last approved by the Department;
- Nothing has occurred that would impair the ability of the control to protect the public health and environment;
- Nothing has occurred that would constitute a violation or failure to comply with any SMP for this control;
- Access to the Site will continue to be provided to the Department to evaluate the remedy, including access to evaluate the continued maintenance of this control;
- Use of the Site is compliant with the environmental easement.
- The information presented in this report is accurate and complete.
- I certify that all information and statements in this certification form are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law. I, [name], of [business address], am certifying as [Owner or Owner's Designated Site Representative] (if the Site consists of multiple properties) [and I have been authorized and designated by all Site owners to sign this certification] for the Site.
- No new information has come to my attention, including ground water monitoring data from wells located at the Site boundary, if any, to indicate that the assumptions made in the qualitative exposure assessment of off-Site contamination are no longer valid; and

  Every five years, the following certification will be added:

- The assumptions made in the qualitative exposure assessment remain valid.

The signed certification will be included in the Periodic Review Report described below.

5.3 PERIODIC REVIEW REPORT

A Periodic Review Report will be submitted to the Department every year, beginning eighteen months after the Certificate of Completion or equivalent document e.g., Satisfactory Completion Letter, No Further Action Letter, etc. is issued. In the event that the Site is subdivided into separate parcels with different ownership, a single Periodic Review Report will be prepared that addresses the Site described in Appendix A (Metes and Bounds). The report will

be prepared in accordance with NYSDEC DER-10 and submitted within 45 days of the end of each certification period. Media sampling results will also incorporated into the Periodic Review Report. The report will include:

- Identification, assessment and certification of all ICs required by the remedy for the Site;
- Results of the required annual Site inspections and severe condition inspections, if applicable;
- All applicable inspection forms and other records generated for the Site during the reporting period in electronic format;
- Data summary tables of contaminants of concern by media (soil, proposed fill material, etc.), which include a listing of all compounds analyzed, along with the applicable standards, with all exceedances highlighted;
- Results of all analyses, copies of all laboratory data sheets, and the required laboratory data deliverables for all samples collected during the reporting period will be submitted electronically in a NYSDEC-approved format;
- A Site evaluation, which includes the following:
    - The compliance of the remedy with the requirements of the Remedial Alternatives Analysis and Interim Remedial Measure Construction Completion Report;
    - Any new conclusions or observations regarding Site contamination based on inspections or data generated by the Inspection & Sampling Plan;
    - Recommendations regarding any necessary changes to the remedy and/or the Inspection and Sampling Plan; and
    - The overall performance and effectiveness of the remedy.

The Periodic Review Report will be submitted, in hard-copy format, to the NYSDEC Central Office and Regional Office in which the Site is located, and in electronic format to NYSDEC Central Office, Regional Office and the NYSDOH Bureau of Environmental Exposure Investigation.

5.4 CORRECTIVE MEASURES PLAN

If any component of the remedy is found to have failed, or if the periodic certification cannot be provided due to the failure of an institutional control, a corrective measures plan will be submitted to the NYSDEC for approval. This plan will explain the failure and provide the details and schedule for performing

work necessary to correct the failure. Unless an emergency condition exists, no work will be performed pursuant to the corrective measures plan until it is approved by the NYSDEC.

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Figures

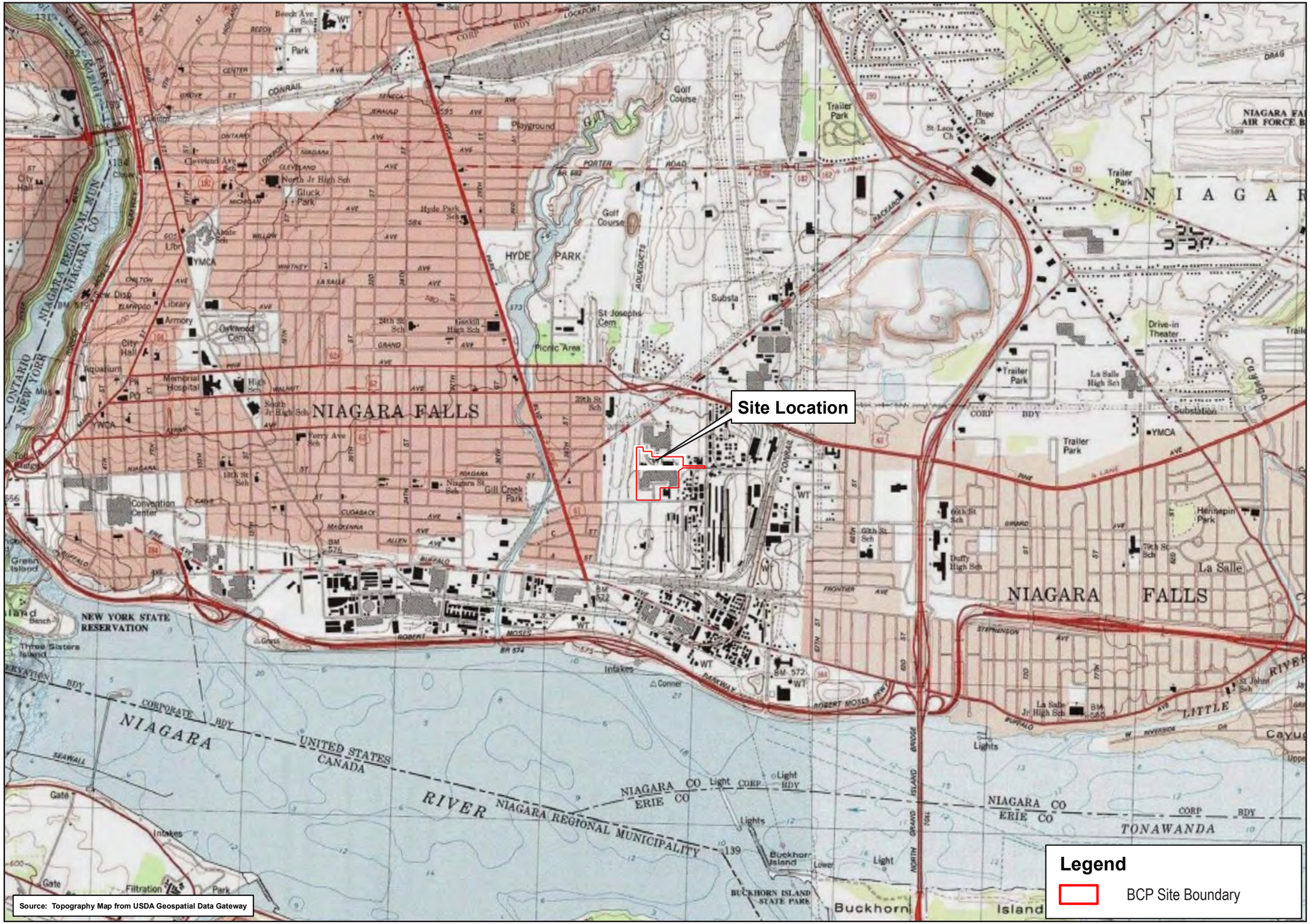

Figure 1-1 - Site Location Map
Greenpac Mill, LLC
Niagara Falls, New York
NYSDEC BCP Site #C932150

ERM

N

Packard Road

47th Street

WWTP A

WWTP B

WWTP C

Phase 1

Phase 2

Phase 3

Phase 4

Phase 5

Existing
Electrical Substation

Proposed
Electrical Substation

Royal Ave

Legend:

- Norampac's No Dig Zone
- Greenpac Mill Proposed Building Outline
- Main Excavation Phases
- BCP Site Boundary
- ETA Area
- Former Building Outline
- Excavation Grid

Source: Aerial photography (April 2008) from New York State GIS Clearinghouse.
Data for all property lines, perimeters and building outlines were obtained from the MiniMill Technologies provided CAD files.

80 0 80 160 320

Figure 1-2 - Site Layout Map
Greenpac Mill, LLC
NYSDEC BCP Site No. C932150
Niagara Falls, New York

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N

Packard Road

47th Street

Royal Ave

MW-04 Exceedances of New York State TOGS 1.1.1		
Constituent	TOGS 1.1.1 Standard or Guidance Value (ug/L)	6/17/2011 (ug/L)
Iron	300	**33,400**
Magnesium	35,000	**212,000**
Manganese	300	**1,760**
Sodium	20,000	**179,000**

MW-03 Exceedances of New York State TOGS 1.1.1		
Constituent	TOGS 1.1.1 Standard or Guidance Value (ug/L)	6/17/2011 (ug/L)
Magnesium	35,000	**333,000**
Manganese	300	**526**
Sodium	20,000	**217,000**

MW-1 Exceedances of New York State TOGS 1.1.1		
Constituent	TOGS 1.1.1 Standard or Guidance Value (ug/L)	4/17/2008 (ug/L)
None	-	-

MW-02 Exceedances of New York State TOGS 1.1.1		
Constituent	TOGS 1.1.1 Standard or Guidance Value (ug/L)	6/16/2011 (ug/L)
Sodium	20,000	**440,000**

MW-09 Exceedances of New York State TOGS 1.1.1		
Constituent	TOGS 1.1.1 Standard or Guidance Value (ug/L)	6/17/2011 (ug/L)
Antimony	3	**4.9**
Sodium	20,000	**39,900**

MW-2 Exceedances of New York State TOGS 1.1.1		
Constituent	TOGS 1.1.1 Standard or Guidance Value (ug/L)	4/17/2008 (ug/L)
Bis(2-ethylhexyl) phthalate	5	**11**

MW-3 Exceedances of New York State TOGS 1.1.1		
Constituent	TOGS 1.1.1 Standard or Guidance Value (ug/L)	4/17/2008 (ug/L)
1,2-Dichlorobenzene	3	**21**
1,3-Dichlorobenzene	3	**34**
1,4-Dichlorobenzene	3	**25**
1,2-Dichloroethane	0.6	**0.7**
Chlorobenzene	5	**6**
cis-1,2-Dichloroethene	5	**13**

MW-08 Exceedances of New York State TOGS 1.1.1			
Constituent	TOGS 1.1.1 Standard or Guidance Value (ug/L)	6/16/2011 (ug/L)	6/16/2011 DUP (ug/L)
Magnesium	35,000	**502,000**	**507,000**
Sodium	20,000	**178,000**	**179,000**

MW-04 (B-137)
MW-05 (B-171)
MW-06 (B-150)
MW-11
MW-03 (B-147)
MW-07(B-194)
MW-1 (SB-5)
MW-2 (SB-8)
MW-02 (B-170)
MW-09 (B-263)
MW-10 (B-264)
MW-3 (SB-9)
MW-4 (SB-10)
MW-01 (B-169)
MW-08 (B-197)

WWTP A
WWTP B
WWTP C
Phase 1
Phase 2
Phase 3
Phase 4
Phase 5
Phase 6
Existing Electrical Substation
Proposed Electrical Substation

Legend:
- RI Monitoring Well
- Labella Monitoring Well (2008)
- Attempted Monitoring Well
- Norampac's No Dig Zone
- Greenpac Mill Proposed Building Outline
- Main Excavation Phases
- BCP Site Boundary
- Former Building Outline

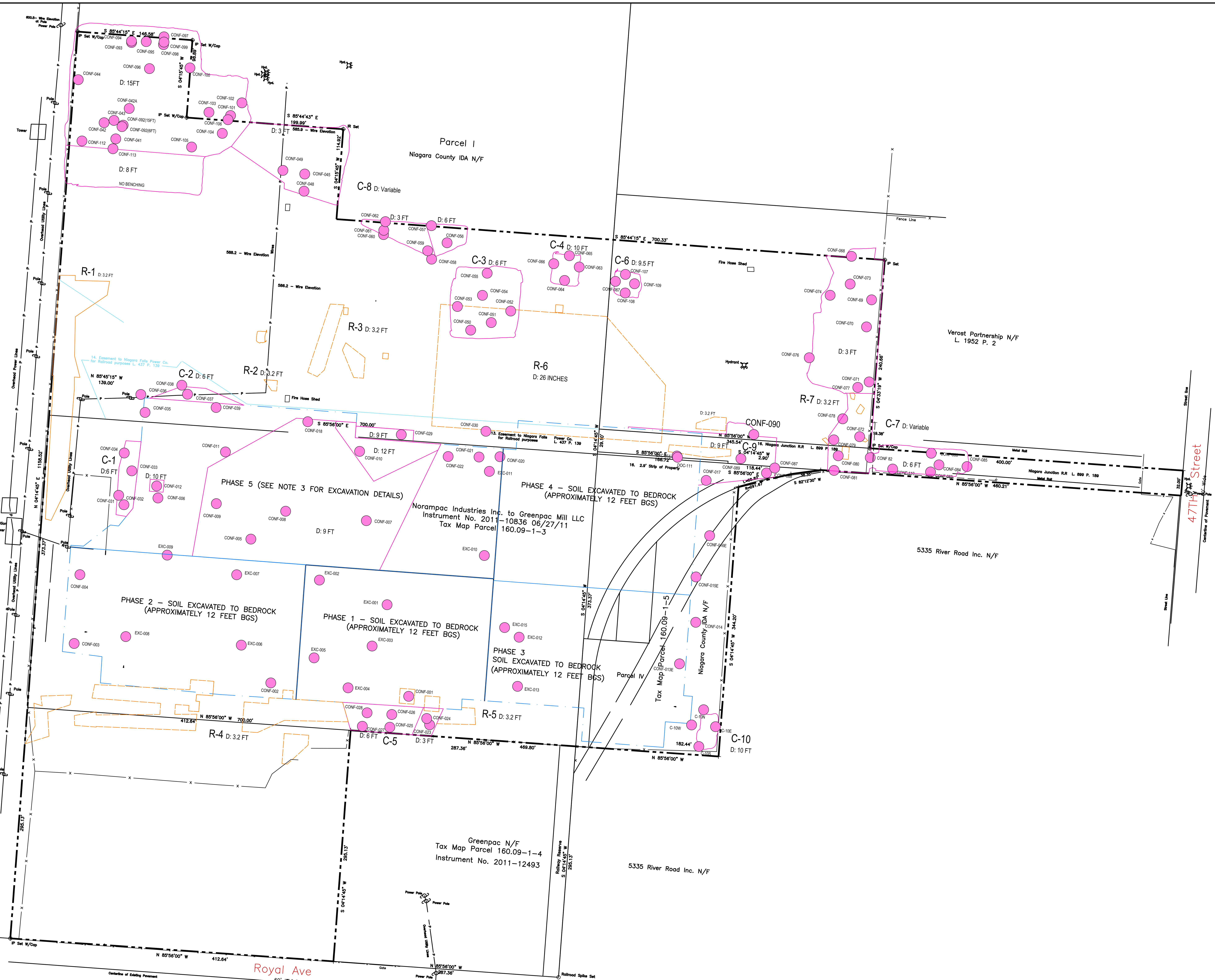
Source: Aerial photography (April 2008) from New York State GIS Clearinghouse.
Data for all property lines, perimeters and building outlines were obtained from the MiniMill Technologies provided CAD files.

80 0 80 160 320

Figure 1-5 - Remedial Investigation Groundwater Contamination Summary
Greenpac Mill, LLC
NYSDEC BCP Site No. C932150
Niagara Falls, New York

ERM

G:\Graphics\Clients_F_K\Greenpac\Mill\Niagara Falls, New York\CAD\Site Figures.dwg (01/10/2012 - 9:35am Boston)



GRAPHIC SCALE

60 0 30 60 120 240

(IN FEET)
1 inch = 60 ft.

LEGEND

- MAIN EXCA□ATION EXTENT
- PHASE BOUNDARY FOR MAIN EXCA□ATION
- CHEMICAL HOTSPOT EXCA□ATION EXTENT
- RADIOLOGICAL HOTSPOT EXCA□ATION EXTENT
- D: X FT — FINAL EXCA□ATION DEPTH
- CONF-000 — APPROXIMATE CONFIRMATION/EXCA□ATION DOCUMENTATION SAMPLE LOCATION
- BCP BOUNDARY
- PROPERTY LINE
- ACTI□E STREAM LINE
- FENCE LINE
- POWER POLE
- O□ERHEAD UTILITY
- HYDRANT

NOTES:

1. ALL EXCA□ATIONS GREATER THAN 4 FEET IN DEPTH WERE BENCHED AT APPROXIMATELY A 1:1 HORI□ONTAL TO □ERTICAL RATIO, UNLESS OTHERWISE INDICATED.

2. THE PRESENTED DEPTHS OF SOIL EXCA□ATION BELOW THE GROUND SURFACE WERE BASED ON MODELED DATA FROM THE RI THAT UTILI□ED APPROXIMATE SITE ELE□ATIONS TO DESIGNATE THE DEPTH OF SOILS EXCEEDING SOIL CLEANUP OB□ECTI□ES. CONFIRMATION SAMPLES WERE TAKEN TO □ERIFY THE FINAL EXCA□ATION DEPTH WAS SUFFICIENT FOR REMO□AL OF IMPACTED SOIL.

3. THE PRESENTED MAIN EXCA□ATION EXTENTS WERE DELINEATED FROM SUR□EY DATA PERFORMED BY D.W. HANNIG. THE BOUNDARIES OF PHASE 1 THRU 5 WERE BASED ON FIELD MARKINGS BY MINIMILL. ALL SOIL WITHIN PHASES 1 THRU 4 OF THE MAIN EXCA□ATION EXTENTS WAS REMO□ED TO BEDROCK AT A DEPTH OF APPROXIMATELY 12 FEET. THE TARGET DEPTH WAS 6 FEET FOR PHASE 5. SOIL WAS REMO□ED TO THE EXTENTS SHOWN TO ACHIE□E INDUSTRIAL SCOs IN THOSE AREAS OF PHASE 5. THESE EXTENTS WERE DELINEATED BASED ON FIELD MEASUREMENTS AND OBSER□ATIONS RECORDED BY ERM AND MINIMILL. ADDITIONAL SOIL WAS REMO□ED FROM PHASE 5 FOR STRUCTURAL PURPOSES AND THOSE EXTENTS ARE NOT PRESENTED.

4. THE PRESENTED CHEMICAL HOTSPOT EXTENTS WERE DELINEATED FROM FIELD MEASUREMENTS AND OBSER□ATIONS RECORDED BY ERM.

5. THE PRESENTED RADIOLOGICAL HOTSPOT EXTENTS WERE DELINEATED FROM FIELD MEASUREMENTS RECORDED BY ERM AND FIELD MARKINGS BY MINIMILL.

6. CONFIRMATION AND DOCUMENTATION SAMPLE LOCATIONS WERE DOCUMENTED BY ERM USING GPS E□UIPMENT AND FIELD OBSER□ATIONS.

7. THE BASE INFORMATION SHOWN HEREIN IS FROM AN ALTA/ASCM LAND TITLE SUR□EY PREPARED BY D.W. HANNIG L.S., P.C., AND COMPLETED 08 MARCH 2011 AND RE□ISED ON 13 FEBRUARY 2012. ADDITIONAL FEATURES INCLUDING EXCA□ATION EXTENTS, PHASE DELINEATION, AND CONFIRMATION SAMPLE LOCATIONS WERE PRO□IDED BY ERM.

WARNING:

IT IS A □IOLATION OF THE NYS EDUCATION LAW ARTICLE 145 FOR ANY PERSON, UNLESS HE/SHE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS ITEM IN ANY WAY.

REV.	DATE	DESCRIPTION	BY	CHK
0	05/04/12	ORIGINAL ISSUE	MF	□M

DRAWN BY DW HANNIG | CADD Review MF | CHECKED BY JM

ERM CONSULTING & ENGINEERING, INC.

GREENPAC MILL, LLC

NYSDEC BCP SITE NO. C932150
NIAGARA FALLS, NEW YORK

EXTENT OF REMEDIAL EXCAVATION PERFORMED

SCALE	PROJECT NUMBER	DRAWING	REV.
AS NOTED	0128439	FIGURE 1-6	0

DATE 05/04/2012