Shaw
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REMEDIAL ACTION WORK PLAN AND EROSION AND SEDIMENT CONTROL PLAN FOR PHASE II CONSTRUCTION OF EARTHWORK AT THE RICHARDSON HILL ROAD LANDFILL SIDNEY, NEW YORK

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Acronyms Used in this Report:

AG	New York State Office of Attorney General
AOL	Administrative Order on Consent
CHASP	Construction Health & Safety Plan
CM	Construction Manager
E&SC Plan	Erosion and Sediment Control Plan
FCO	Field Change Order
GWTP	Groundwater Treatment Plant
HASP	Health and Safety Plan
NPL	National Priorities List
NYCDEP	New York City Department of Environmental Protection
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
NYSEG	New York State Electric and Gas
PCBs	Polychlorinated Biphenyls
RA	Remedial Action
RAC	Remedial Action Contractor
RAWP	Remedial Action Work Plan
RHR	Richardson Hill Road
RHRL	Richardson Hill Road Landfill
RI/FS	Remedial Investigation/Feasibility Study
ROD	Record of Decision
SMP	Site Management Plan
SOP	Site Operations Plan
TSCA	Toxic Substances Control Act
UAO	Unilateral Administrative Order
USEPA	United States Environmental Protection Agency
VOCs	Volatile Organic Compounds

1 Introduction

1.1 Purpose and scope

This revised Remedial Action Work Plan (RAWP) and Erosion and Sediment Control Plan (E&S Plan) identifies and describes the tasks necessary to complete the Earthwork portion of the Richardson Hill Road Landfill (RHRL), United States Environmental Protection Agency (USEPA) site #NYD980507735 during the 2004 construction season. Shaw Environmental, Inc. (Shaw) has been selected to perform this work. The first phase, as described in the Ground Water Treatment Plant (GWTP) RAWP (Parsons, October 2002), included the GWTP construction and start-up activities. The first phase began in September 2002 and was completed in September 2003. The Earthwork commenced in April 2003 and is scheduled to be completed by October 2004.

This RAWP and E&S Plan has been prepared in accordance with the requirements of the Consent Decree entered into by Honeywell, formerly known as Allied Signal, Inc., and Amphenol Corporation, effective February 16, 1999 (USEPA, 1999). This RAWP and E&S Plan has been developed as a part of the approved Final Remedial Design (Parsons, 2002) and includes specific work procedures, organization, and sequencing to be completed during Phase II of the Earthwork in the 2004 construction season.

This document is organized as follows:

- Section 1.0 is an overview of Site Background and actions completed during the 2003 construction season;
- Section 2.0 serves as the Site Management Plan (SMP) for Phase II of the Earthwork portion of the remedial action. The remedial action project team, schedule, and means/methods for completing the construction activities are part of the SMP;
- Section 3.0 discusses the Health and Safety Plan (HASP) and issues related to the Earthwork portion of the remedial construction;
- Section 4.0 provides applicable references;
- Appendix A provides a site Traffic Plan;
- Appendix B provides the tentative schedule for 2004 activities.

1.2 Site Background

1.2.1 Site Description

The RHRL site is located in the Towns of Sidney and Masonville, Delaware County, New York. The site is located in a rural residential area on Richardson Hill Road, approximately 3.3 miles south-southwest of Sidney Center (Figure 1.1). The RHRL site consists of the main landfill, South Pond, Herrick Hollow Creek, and the North Area.

The main landfill is approximately eight acres in size and is situated along a hillside above a marsh and the South Pond. Located within the landfill is a waste oil pit, approximately 25 feet wide by 105 feet long by 14 feet deep, which was formerly used for disposal of waste oils.

Some of the disposed oils contained volatile organic compounds (VOCs) and polychlorinated biphenyls (PCBs).

Surface water from the landfill drains into the marsh and South Pond. Water from the South Pond drains through a sediment trap weir system and a beaver dam into Herrick Hollow Creek, which eventually flows into the Cannonsville Reservoir on the west branch of the Delaware River. The Cannonsville Reservoir is part of the Delaware Watershed System, supplying water to the New York City metropolitan area (USEPA, 1997).

The North Area is located approximately 1,000 feet northeast of the main landfill and is comprised of two waste disposal areas, each approximately 70 feet by 70 feet in size, and the North Pond. The North Area is located on a drainage divide between the Susquehanna and Delaware River basins, with the primary surface water drainage towards the Susquehanna basin. Water from the North Pond drains northwards through a series of beaver dams and into Carr's Creek, which is a tributary of the Susquehanna River (USEPA, 1997).

1.2.2 Site History

The land on which the RHRL is located was purchased by Mr. Devere Rosa, Jr. in 1964 for the purpose of operating a refuse disposal area. Mr. Rosa received a permit from the New York State Department of Health (NYSDOH) in June 1964 to operate a landfill on Richardson Hill Road. He operated the landfill from approximately July 1964 until October 1968. In October 1968, Mr. Rosa signed an order issued against him by the NYSDOH to close the landfill (USEPA, 1997).

Waste materials deposited in the landfill consisted primarily of garbage and municipal refuse from the Town of Sidney. In addition to municipal waste, spent oils from the Scintilla Division of the Bendix Corporation, a predecessor to Honeywell and Amphenol, were disposed in the landfill from approximately July 1964 until July 1966. The spent oils were reportedly disposed as free liquids in the waste oil disposal pit. No records were found indicating the quantities of spent oil collected or disposed in the waste oil disposal pit.

Based on the results of a USEPA site investigation and a New York State Department of Environmental Conservation (NYSDEC) Phase II investigation, the RHRL site was listed on the National Priorities List (NPL) on July 1, 1987. On July 22, 1987, Amphenol Corporation and Honeywell entered into an Administrative Order on Consent (AOC), Index Number II CERCLA-70-205 with the USEPA to perform a remedial investigation and feasibility study (RI/FS) at the site.

On September 30, 1993 the USEPA issued a Unilateral Administrative Order (UAO), Index Number II CERCLA-93-0217, to Amphenol Corporation and Honeywell in response to a reported fish kill in the South Pond. The UAO ordered that a response action be performed to remove an actual or threatened release of hazardous substances from the site to the South Pond. Response actions conducted included excavation of approximately 2,200 cubic yards (cy) of sediment from the South Pond, installation of seep interceptor collection basins upgradient of the South Pond, installation of a sediment trap weir system at the outlet of the South Pond, and installation and maintenance of two whole-house supply water treatment systems (USEPA, 1997).

Upon completion of the RI/FS, a Record of Decision (ROD) documenting USEPA's selection of a remedial action for the site was signed on September 30, 1997.

On February 16, 1999, a Consent Decree between USEPA, Honeywell and Amphenol Corporation was lodged with the United States District Court. The Consent Decree requires Honeywell and Amphenol Corp. to implement the remedial action (RA) specified in the ROD for the RHRL.

The Remedial Design Work Plan for the RHRL [Parsons, August 1999] was submitted to and approved by USEPA. The Work Plan primarily discussed two major components: (1) the Pre-Design Investigation; and (2) the Remedial Design. The pre-design investigation was conducted between October 1999 and January 2000 to supplement information presented in previous reports and to refine the basis of the Remedial Design. The pre-design activities included the following tasks:

- Perimeter security fence installation;
- Topographic survey;
- Sediment trap weir system installation;
- Preparation of a Wetland/Floodplain Mitigation Plan;
- Preparation of a revised Stage 1B Cultural Resources Survey Report;
- Preparation of a Farmland Protection Survey;
- Sediment sampling and analysis;
- Surface and subsurface soil sampling and analysis;
- Hydrological investigation and groundwater modeling;
- Groundwater treatability studies; and
- Site access arrangements.

A comprehensive description of the activities and findings from the pre-design investigation is presented in the Pre-Design Investigation Technical Memorandum (Parsons, April 2000).
The Preliminary (50%) Design Report was submitted to USEPA in May 2000 (Parsons, May 2000). Agency review comments received for the Preliminary Design were incorporated into the Final (100%) Design Report (Parsons, February 2002, Revised July 2002). The Final Design Report was approved by USEPA in November 2002 contingent upon the design approval of additional sediment excavation and restoration in Herrick Hollow Creek Segments 13-9. This additional work is part of the remedial action.

The GWTP RAWP (Parsons, October 2002) was submitted to USEPA and approved. An addendum for the North Area Recovery Wells (RW1-4) and Monitoring Wells (NMW1-10) was also approved by USEPA. The GWTP has been completed and is operational, providing treatment of groundwater extracted from four wells located in the North Area.

1.2.3 Selected Remedy

Based on results of the RI, FS, and public comments, the USEPA issued a Record of Decision (ROD) on September 30, 1997 and a Consent Decree, effective February 16, 1999, which selected a remedy for the RHRL site. The following are the remedy components that pertain to the Earthwork portion:

Remedial Work Element I (the landfill cap and Toxic Substances Control Act (TSCA)--compliant landfill elements):

- Based upon the pre-design sampling of the soil in the area to be capped (primarily in the vicinity of the former waste oil disposal pit), soil with PCB concentrations which equal or exceed 500 mg/kg will be excavated and sent offsite for treatment/disposal at a TSCA-compliant facility;
- Excavation of contaminated waste materials and soil exceeding NYSDEC's Soil Cleanup Objectives in the North Area and South Area (other than the landfill). Clean fill will be used as backfill in the excavated areas;
- Excavation and/or dredging of sediments exceeding 1 mg/kg PCB from South Pond and all areas downstream for approximately 3,800 feet (Segments 9 to 20). Any wetlands impacted by the remedial activities will be fully restored;
- Those waste materials, soils, and sediments which equal or exceed 500 mg/kg will be sent offsite for treatment/ disposal at a TSCA-compliant facility. Those waste materials, soils, and sediments that have PCB concentrations less than 50 mg/kg but greater than 1 mg/kg will be consolidated on the onsite landfill; those with PCB concentrations between 50 and 500 mg/kg will be placed in the TSCA-compliant landfill to be constructed adjacent to or within the existing landfill;
- Following the consolidation of the excavated/dredged waste materials, soils, and sediments with PCB concentrations less than 50 mg/kg onto the existing landfill, a New York State 6NYCRR Part 360 or equivalent closure cap will be constructed.

Remedial Work Element II (the groundwater extraction):

- Extraction of contaminated groundwater from the overburden and shallow bedrock in the South Area utilizing a downgradient vertical barrier/interceptor trench.

1.3 Earthwork Objectives

The objectives associated with the Earthwork portion of the remedial action at the RHRL site, as stated in the Consent Decree, are to:

- Reduce/eliminate contaminant leaching to groundwater;
- Control surface water runoff and erosion;
- Mitigate the migration of contaminated groundwater from the landfill area;
- Prevent human contact with contaminated soil/sediment/waste;
- Minimize exposure to fish and wildlife to contaminants in surface water, sediments, and soils.

1.4 Earthwork Tasks Completed in 2003

Shaw, the Remedial Action Contractor (RAC), mobilized to the site April 8, 2003 and completed the following Earthwork tasks:

- Site preparation;
- Initial site survey;
- Clearing and grubbing;
- Erosion and sediment controls;
- Well/Manhole abandonment;
- South Pond drainage and construction water treatment;
- Landfill subgrade preparation;
- TSCA cell construction;
- Work platform construction to the RHR elevation;
- Identification and excavation of waste beneath RHR and placement in the Landfill;
- Removal of South Pond sediments, stabilization and placement within the landfill/TSCA cell;
- Excavation of satellite excavation areas L-1, L-2, L-2A, L-3, & L-5 and placement within the landfill;
- Excavation and placement of the WOP soils within the TSCA Cell and the temporary SVE treatment cell.
- Asphalt paving of the North Area;
- Construction of the groundwater conveyance system from Pull-box 1 to Pull-box 4;
- Temporary closure of the TSCA Cell and landfill.

1.5 Earthwork Tasks to Be Completed in 2004

The Earthwork was not completed in 2003; therefore, work will continue in 2004. A mid-May 2004 remobilization date is scheduled to establish E&S Controls and complete the working platform to prepare the site for the remaining Earthwork tasks in the 2004 construction season. The tasks that remain to be completed in 2004 include:

- Establish E&S controls;
- Complete the working platform in accordance with the Extraction Trench Field Change Summary Memo (Parson 4/8/04, Trench Changes Rev 2.doc). Work will include proof-rolling the existing platform grade to ensure proper compaction prior to additional fill;
- Excavation and restoration of Herrick Hollow Creek downstream of South Pond;
- Draining, re-establishment of the survey grid, confirmatory sampling and restoration of South Pond;
- Two sediment trap removals;

- Extraction trench excavation and HDPE vertical barrier installation;
- Backfill of the extraction trench and completion of the groundwater extraction and conveyance system including hydrostatic testing of work completed in 2003;
- Removal of portions of the working platform to reach final grade and restore the area;
- Satellite excavation areas N1 and N2;
- Satellite excavation area where the SVE system fuel spill occurred on the access road;
- Final TSCA cell and landfill capping;
- Site restoration;
- Demobilization.

2 Site Management Plan 2004

2.1 Remedial Action Project Team

To assist in completing the Earthwork elements, Honeywell and Amphenol have procured a Construction Manager (CM) and a RAC. Parsons has been selected as the CM. Shaw has been selected as the RAC. An organizational chart of the Earthwork Remedial Action Project Team is presented as Figure 2.1. Roles and responsibilities of the team members as well as involved agencies are described below. Key contact information is presented as Table 2.1.

2.1.1 Honeywell and Amphenol

Honeywell and Amphenol are ultimately responsible for implementing the Earthwork portion of the Remedial Action in accordance with the Consent Degree. Mr. Frank Leming will serve as Honeywell's Project Manager. Mr. Joseph Bianchi will continue to serve as Amphenol's Project Manager. Mr. Bianchi is the lead engineer at the Amphenol Plant in Sidney, NY and will be the point of contact for the long-term operation and maintenance of the GWTP. Mr. Leming and Mr. Bianchi will attend public meetings, review the RAWP and Construction Certification Report prior to submission to the agencies, and approve invoice payments to the CM and Shaw.

2.1.2 Parsons

Parsons will serve as Honeywell and Amphenol's full-time, on-site CM for the Earthwork. Parsons will manage the construction by interfacing directly with Honeywell, Amphenol, Shaw, agency representatives, local highway departments, utility companies, and other site-related subcontractors. Mr. William Long will serve as the Project Manager. Mr. Norman Sulock will be the Construction Manager and will be the main point of contact for Earthwork construction activities. He will be responsible for orchestrating and participating in progress meetings, reviewing construction-related submittals, conducting quality control, documenting the construction activities, and certifying the construction. Mr. Sulock will also serve as the point of contact between Shaw and the agencies. Construction related issues between Shaw and the agencies will go through Mr. Sulock. Mr. William Bingham will be the Construction Technician that will assist the Parsons Construction Manager in all phases of the project. Mr. Bingham will be responsible for confirmatory sampling, turbidity monitoring, site inspections, daily reports and project QA/QC.

Parsons will subcontract with CME Associates for field QA/QC testing and O'Brien & Gere Laboratories for laboratory QA/QC analytical services.

2.1.3 Shaw

As the Earthwork RAC, Shaw will be responsible for the Earthwork construction activities as described in this RAWP. Mr. John Waechter will continue to serve as the Project Manager.

As Project Manager, Mr. Waechter will be responsible for the overall Earthwork construction activities. He will be responsible for managing the project's daily activities and will communicate directly with Parsons. Mr. Waechter's specific responsibilities will include:

- Providing centralized leadership for Shaw's project activities;
- Interpreting and planning Shaw's overall work effort;
- Approving Shaw's work products, plans, and deliverables;

- Defining personnel and equipment requirements and securing resource commitments;
- Preparing for, and attending, meetings as required;
- Maintaining daily contact with the off-site support personnel, alerting them of potential problems, changed conditions, etc.;

To carry out these functions, Mr. Waechter will have the authority to:

- Assign work for staff and subcontractors;
- Allocate additional personnel as needed;
- Establish work budgets and schedules with milestones;
- Approve subcontractor work and invoices;
- Maintain Shaw's quality and safety standards.

Mr. Jeffery Gage is Shaw's Site Superintendent in charge of the day-to-day operations of the project. Mr. Gage, as Site Superintendent, will be responsible for the implementation of on-site activities. In this capacity, he will direct the crew on daily operations. Mr. Gage will manage all the issues encountered and solutions developed throughout the day. He will also make assignments. At the end of each day, Mr. Gage will review the work completed and establish the following day's objectives. Mr. Gage will report to Mr. Waechter on all matters affecting project.

Mr. Allen will serve as the full time Site Safety Officer responsible for implementation of the Site-Specific Health and Safety Plan (HASP). His specific responsibilities will include:

- Ensuring that site personnel possess necessary training and medical surveillance;
- Conducting weekly safety meetings with the workers;
- Establishing work zones and relocating zones as necessary;
- Determining personnel protective equipment requirements for specific work tasks and ordering any changes based on work area monitoring data;
- Ensuring work is performed in compliance with the HASP and applicable regulations;
- Implementing air monitoring program and report data;
- Performing routine safety inspections;
- Reporting and investigating any accidents or incidents.

2.1.4 Agencies

USEPA

The USEPA is the lead agency on this project. Ms. Young Chang has been the USEPA's Project Manager for RHRL throughout the investigation and design phases and will continue in that role. Ms. Chang will orchestrate and participate in public meetings, as necessary, and be the point of contact for public questions and concerns. Ms. Chang will also handle media issues that may arise, participate in progress meetings, and approve major design changes.

Earth Tech (formerly TAMS) will serve as the USEPA's representative and provide full-time on-site construction oversight. Mr. Jeff Hall is currently serving as the Earth Tech field representative for the RHRL project.

NYSDEC

The NYSDEC will support USEPA with this project and take an active role by reviewing submittals, participating in meetings, and discussing important issues. Mr. Gerard Burke has served as NYSDEC's representative for the RHRL project to this point.

Other Agencies

Other state and federal agencies that will support USEPA with this project include the following: New York State Office of Attorney General (AG), Environmental Protection Bureau; U.S. Department of Justice, Environmental Enforcement Section, Environment and Natural Resources Division; and New York City Department of Environmental Protection (NYCDEP), Bureau of Water Supply, Quality & Protection.

The Town of Sidney Highway Department and Town of Masonville Highway Department will be involved in traffic safety measures and road closures.

2.2 Project Management

2.2.1 Project Schedule

A revised project schedule has been developed for the second Phase of the Earthwork portion of the remedial action. Appendix B presents the revised project schedule. The project schedule is predicated on remobilizing to the site on May 17th, 2004. Shaw will provide updates of the project schedule during the monthly progress meetings held on the third Wednesday of each month. Final completion is expected by October 2004.

Shaw is responsible for updating the project schedule on a monthly basis and distributing copies to the project team at the monthly meeting as stated above.

2.2.2 Meetings

During the 2003 construction season, monthly meetings for the Earthwork portion and GWTP activities were conducted at the site on the 3rd Wednesday of each month at 10:00 AM EST. Additionally, weekly meetings for the Earthwork portion and GWTP activities were conducted at the site every Wednesday (with the monthly meeting replacing the 3rd weekly meeting of each month) at 10:00 AM EST. Following Earthwork remobilization in 2004, weekly meetings again will be conducted every Wednesday (with the monthly meeting replacing the 3rd weekly meeting of each month) at 10:00 AM EST to incorporate both the Earthwork and GWTP activities.

2.2.3 Communication

Young Chang of the USEPA will be the point of contact for public and media inquiries. Personnel from Honeywell, Amphenol, Parsons, and Shaw will politely direct public and media related inquiries to Ms. Chang.

Given the number of agencies involved in the project, the aggressive, complex project schedule, and the potential for multiple issues, it is critical to establish an agency point of contact and a consistent procedure for addressing agency issues. Young Chang and/or her representative of

the USEPA will be the point of contact. Issues from the USEPA, NYSDEC, NYCDEP, the Attorney General Office, and all other agencies will be channeled through Ms. Chang and/or her representative. Ms. Chang and/or her representative will communicate agency issues directly to Bill Bingham (Construction Manager – Parsons). For Earthwork related issues, Bill BIngham will

communicate directly with John Waechter (Project Manager – Shaw) or Jeffery Gage (Site Superintendent – Shaw) as appropriate. For GWTP related issues, Bill Bingham will communicate directly with Tom Davide (Project Manager – SAMCO). For non-construction related issues, Bill Bingham will communicate directly with Frank Leming (Project Manager – Honeywell) and Joe Bianchi (Project Manager – Amphenol). If agency representatives raise issues with site workers, they will politely direct them to Ms. Chang and/or her representative. This consistent procedure will minimize confusion and maintain site productivity.

To better communicate between the North Area, landfill area, South Pond area, and HHC area, Shaw and Parsons will utilize 2-way radios. Additionally, the USEPA/USEPA Representative will be provided with 2-way radios.

2.3 Permitting and Access Agreements

Honeywell and Amphenol purchased the Spizziri property that includes the North Area. Honeywell and Amphenol have completed access agreements with all other applicable landowners. A notification of the Earthwork Tasks will be provided to applicable landowners as a courtesy.

Utility companies will be contacted prior to intrusive work for utility mark-out and line relocation.

Phase II Earthwork Tasks – Means and Methods

2.3.1 Mobilization

Shaw will remobilize the labor, materials, and equipment necessary to complete the work and ensure temporary site facilities are reestablished in accordance with section 3.3 (Mobilization and Site Preparation) of the Final Design and Section 01500 (Temporary Facilities and Field Office) of the Design Specifications. Shaw will have a core project team that consists of a Project Manager, Site Superintendent, Field QA/QC Engineer, Site Safety Officer, a Foreman, and a Field Accountant/Buyer. Shaw will have multiple work crews made up of Shaw employees, subcontractors, and local union operators and laborers. The crews, equipment, and materials will be mobilized at the appropriate times to complete each specific task.

At a minimum, Shaw intends to mobilize the following equipment during the course of the project:

Equipment	Task
CAT D6 Dozer	Sediment Removal Landfill Construction
320 Excavator	Sediment/Soil/Waste Removal
CAT 375 Long Reach Excavator	Extraction Trench
All Terrain Dumps	Sediment/Soil Handling
Drum Roller	Landfill Construction, Backfill
Crane	HDPE Vertical Barrier Placement
Loaders	Sediment Handling Excavation, Trench Spoils Handling/Backfill Landfill Construction
On-Road Dumps (as needed)	Material Delivery
Water Truck	Decontamination/Road-Washing/Dust Suppression
Pickup Trucks	Multi-Use
Backup Generators (as needed)	Multi—Use
Biopolymer Slurry Batch Mix Unit	Extraction Trench
Kobelco Longreach Excavators	Sediment Stabilization/Excavation
Drill Rig	Installation of Piezometers at Extraction Trench
Temporary Water Treatment System	Sediment Excavation

Shaw will deliver backfill materials (i.e., gravel, sand, topsoil), and remaining liner materials (i.e., Landfill/TSCA cell liners, geotextiles, erosion control matting, geocomposites, etc.), piping, sumps, controls as specified by design.

2.3.2 Site Preparation

Shaw will utilize the existing field trailers located within the North Area. Shaw's core project team will continue to occupy the southernmost existing field trailer and the USEPA and representative EarthTech will continue to occupy the northernmost existing field trailer. Honeywell, Amphenol, and Parsons will continue to occupy the field office (former Spizziri house).

Temporary utilities such as electrical, phone, and sanitary are currently existing and active; therefore reactivation is not required.

The storage barn located within the North Area will be used by Parsons and Shaw for storage of equipment. The existing storage shed located within the landfill area will be utilized by Shaw for equipment and material storage. Additionally, Shaw will mobilize a break trailer and locate it near the lay down area to be used by the union operators and laborers.

Temporary decontamination pads and tire scrubbers will be installed as indicated in the specific portions of this plan.

Existing driveways, parking areas, and access roads to be utilized during the work will be improved as indicated in the specific portions of this plan.

A turbidity meter will be installed downstream of HHC Segment 9 to collect background turbidity measurements. This turbidity meter will be an In-Situ™ Troll 9000 Professional XP. If needed, a backup meter will be obtained overnight from Pine Environmental, the company from which the Troll 9000 is being purchased. The turbidity meter will be equipped with a data logger to record turbidity readings at a minimum of once per every two hours during discharge. This turbidity

meter will be an In-Situ™ Troll 9000 Professional XP. If needed, a backup meter will be obtained overnight from Pine Environmental, the company from which the Troll 9000 is being purchased. Additionally, a Hach 2100P Portable Turbidity meter will be used to monitor turbidity at various points while dewatering. The turbidity monitoring will be conducted by Parsons and all data will be submitted to Shaw, USEPA and EarthTech.

2.3.3 Initial Site Survey

B&B HiTech Solutions, LLC (B&B) performed approximately 95% of the initial survey of Herrick Hollow Creek during the 2003 construction season. B&B will complete the remaining portion of the initial survey (lower portion of Herrick Hollow Creek) and reestablish controls as necessary from the previous season. Wood stakes and bright colored flagging will be used to designate areas. The extraction trench, force main, landfill perimeters, storm water channels, etc. will also be relocated. For the landfill, grade stakes will be installed to control cuts and fills.

Throughout the remainder of the project, the surveyor will be utilized for grade control, pay lines, specific location mark-outs, etc. A final survey will be conducted following substantial completion of each portion of the project.

2.3.4 Establishing Initial Erosion & Sediment Controls

During the 2003 construction season, erosion and sediment controls were established at the site in accordance with Section 3.3, Erosion and Sediment Control, of the Final (100%) Design Report; Section 01564 of the Design Specifications; Drawing C-2, Surface Water and Sediment Control Plan; and Shaw's Stage 1 and 2 Erosion and Sediment Control (E&SC) Plan (Revised June 9, 2003).

Currently, storm water immediately from the west and north of the landfill is diverted by a series of berms and swales along the northern access road and directed to the western side ditch of RHR. It then passes underneath RHR in a culvert were it empties into the wetland area north of South Pond at a rock-lined basin. Storm water from the west and south of the landfill is again diverted using a series of berms and swales to the ditch along the west side of RHR south of the landfill where it crosses underneath RHR via a culvert and empties into the Herrick Hollow Creek system downstream of South Pond. Water from the landfill empties into the RHR western ditch where it drains into either of the two culverts underneath RHR and into the Herrick Hollow Creek System either upstream or downstream of South Pond.

Additionally, during the 2003 construction season Shaw utilized the two existing steel sheetpile sediment traps (one immediately downstream of South Pond and one immediately downstream of HHC Segment 9) as well as numerous beaver dams to provide temporary soil erosion and sediment control during work activities. Supplemental temporary erosion control measures such as silt fence, rock check dams, and diversion berms were also constructed as necessary to minimize erosion from the site.

Upon remobilization in 2004, Shaw will immediately establish additional E&S controls to facilitate the Herrick Hollow Creek sediment removal. Shaw will establish these controls in accordance with the Section 3.3, Erosion and Sediment Control of the Final (100%) Design Report; Section 01564 of the Design Specifications; and Drawing C-2, Surface Water and Sediment Control Plan. (Note that Shaw's Stage 1 and 2 E&SC Plan (Revised June 9, 2003) does not include HHC downstream of the South Pond.)

Specifically, upon remobilization, Shaw will dewater South Pond by using a pump to lower the South Pond below the sediment trap weir blocks. A six-inch, self-priming pump will be connected to a temporary sump (as illustrated on Figure 1.2B) in South Pond. The pump will discharge to a dissipater just south of segment 18 (Figure 1.2B). The discharge outlet will consist of fine rip rap and geotextile matting to minimize discharge area washout and dissipate entrained sediment from the pump. The pumping rate will be adjusted to maintain less than 50 NTUs greater than background 100 feet downstream of the dissipater as indicated by a hand-held meter and less than 50 NTUs on the permanently installed turbidity meter downstream of the sluice and dam.

Simultaneously, Shaw will construct two sluice and dam arrangements downstream of the southernmost beaver pond and weir. These sluice and dam configurations (Figure 1.2C) will be used to reduce the flow velocity of the diverted water (from pump arounds upstream) in order to minimize turbidity discharged downstream of the sluice and dam. They will be located on each side of RHR within the existing ditches. Turbidity will be monitored continually 50 feet downstream of the sluice and dam arrangement located on the western side of RHR. This will monitor the discharge from both sluice and dam systems at one location. Shaw will then drain the last three beaver ponds using pumps discharging to a rock and geotextile discharge basin (Figure 1.2B) located downstream of the sediment trap. Draining South Pond and the last sets of beaver ponds will provide a surge volume of water retention during storm activities and will allow a controlled dewatering of the entire Herrick Hollow Creek system.

Additionally, Shaw will cut off the flow of storm water to the Herrick Hollow Creek system by preventing water from draining into the system from the west by stopping (using inflatable boots) the water draining through the nine culverts underneath RHR. It is the intent to use the ditch along the western side of Richardson Hill Road to keep as much water off of the Herrick Hollow Creek system from the west as much as possible during normal non-rain and light rain events. It is understood that this ditch is capable of handling approximately 7 cfs of flow and that this ditch can easily be overwhelmed during moderate to heavy rain events. It is Shaw's intention to monitor this ditch closely and when large storm events are forecasted, pumping from South Pond and subsequently the pump around to the ditch will be secured and South Pond will be used as a reservoir until after the storm event and the ditch can handle the volume. To protect the segmented work area during this scenario, the pump up to the RHR ditch will be redirected around the working segment and discharge downstream via the creek. Prior to starting excavation in each segment, this bypass piping will be staged for a timely switch over from pumping up to the RHR ditch to bypassing the working segment along the creek. Additionally, two pump arounds will be established along the western ditch of RHR to manage storm water from the southern portion of the landfill to the downstream end of the excavation area (Southern Weir).

While draining the South Pond, the discharge will be directed to the south of segment 18. This will remove all sources of water to the Herrick Hollow System from the West and North. Storm water entering from the east of the excavation areas will be diverted and pumped around as described in the Herrick Hollow Excavation portion of this Plan.

Additionally, to mitigate the wet and muddy conditions experienced around the area of the landfill in front of the building to the southern access, Shaw will upgrade the culvert crossing the access road immediately north of the building and establish rock check dams between the culvert outlet and the ditch along RHR. This will prevent water from traveling along the eastern portion of this road and emptying into the parking and working area around the shed and

southern access road area of the landfill. As a contingency, if this does not completely mitigate this wet area, a rock-filled swale along the eastern portion of the road though this area will be established to divert water from the east and upslope of the work area to the RHR drainage ditch south of the access area as illustrated on Figure 1.2B.

2.3.5 South Pond and HHC Drainage

As described above, the South Pond and the lower three beaver ponds will be drained immediately upon remobilization. First, South Pond will be drained, then the lower three beaver ponds will be drained one at a time starting with the most downstream. These ponds will be drained by installing temporary sumps as illustrated on Figure 1.2B and connecting to a six-inch, self-priming pump. The water will be monitored 100 feet downstream of the discharge point with a hand held turbidity meter. The pumping rate will be adjusted to maintain the turbidity concentration to less than 50 NTUs above background on this meter and less than 50 NTUs at the permanently installed turbidity meter downstream of the sluice and dam. Once these ponds are drained, they will remain drained during Herrick Hollow Creek excavation activities and used to control discharge during storm events. Once the ponds are drained, the successive beaver dams in the Herrick Hollow system will be removed to allow drainage of the entire system as soon as practical. The beaver dams will be excavated in two stages. First, once the standing water has been pumped around and clear of the beaver dams, Shaw will carefully open a small channel through the dam by hand and with the aid of an excavator (if necessary). The debris will be removed and direct hauled to the landfill. Any water encountered during this activity will be handled as construction water. After a small channel has been established through the successful dams, water not coming into contact with the excavation areas upstream (i.e., normal run-off from non-excavation areas) will be allowed to drain throughout the creek system to the southernmost weir where it will be pumped directly to the sluice and dam without treatment. Secondly, the remaining portions of the beaver dams will be removed using an excavator during the applicable segment excavation. These ponds will remain drained throughout the sediment excavation process to provide storage of excess water during storm events. After each storm event, the ponds will be re-drained at a controlled rate.

After South Pond is drained, confirmatory samples will be collected and analyzed per he approved Final Design Report, Revised July 2002 per page 3-12, Section 3.6.4, 3rd paragraph.

2.3.6 Groundwater Extraction Trench

The groundwater extraction trench will be constructed in accordance with the following documents previously approved by USEPA:

- Final (100%) Design (Parsons, Revised July 2002);
- Groundwater Extraction Trench Site Operations Plan (SOP) (Shaw, April 3, 2003; amended by USEPA comment letters dated May 6 and 15, 2003; and responses to USEPA comments (Shaw submittal #56, May 15, 2003)); and
- Extraction Trench Field Change Summary Memo (Parsons, 4/8/04)(Trench Changes Rev2.doc as amended by USEPA comment letter dated April 28, 2004).

The work platform was partially completed in 2003 and will be completed to a final elevation of 1759/1760 prior to trench construction. The underground telephone cable, which is presently above ground at this time, will be relocated by Shaw once the extraction trench is completed.

Shaw will install a buried conduit adjacent to the trench as requested by Frontier Communications. Frontier will then reroute the existing line or install a new line through the conduit.

2.3.7 Satellite Excavation Areas

Satellite excavation Areas NI and N2 adjacent to the North Pond remain to be excavated. The areas will be excavated in accordance with Section 3.6.1, North Area of the engineering specifications and C-5, Excavation Plan North Area. The North Pond will be lowered using a self-priming, four-inch diameter pump discharging to a rock dissipater lined with geotextile as illustrated in the previously accepted plan for "North Pond Water Lowering" (Appendix C). The water level will be lowered to sufficiently drain the N1 and N2 excavation perimeters preventing any disturbance in the North Pond. The material will be excavated using a 320 excavator and hauled to the landfill in off-road dumps. Care will be taken to disturb the pond water as little as possible and the pond level will only be lowered to a level permitting the excavation of the satellite areas.

Approximately one gallon of diesel fuel spilled during operation of the SVE system and will be cleaned up via excavation of the contaminated soil. The contaminated soil is located under the generator; therefore, excavation will occur upon completion of the SVE treatment or relocation of the generator. The excavated soil will be disposed offsite with the treated SVE soils or onsite in the TSCA cell.

2.3.8 Herrick Hollow Creek Sediment Excavation and Handling

The South Pond will be kept drained as described in section 2.3.4 above and will act as a surge volume control during storm events (approximately 8,000,000 gallons capacity) during HHC Segments 9-20 work.

Sediment in the creek will be excavated in sections working upstream to downstream. These sections are illustrated in Figure 1.2B and consist of the Initial Excavation Area (segments 18-20), Excavation Area 1 (segment 17) and 1A (Segment 16), Excavation Area 2 (northern portion of segment 15), Excavation Area 3 (southern portion of segment 15 and northern portion of segment 14), Excavation area 4 (southern portion of segment 14), Excavation Area 5 (segment 13), Excavation Area 6 (segments 12 and 11 and a portion of segment 10), and Excavation Area 7 (remaining portion of segment 10 and segment 9). The excavation(s) will remain within the work zone until all excavation of creek sediments are complete. This equipment will be decontaminated using a steam cleaner prior to being removed from the work zone. All decontamination water will be collected from the decontamination pad (located near the southern sediment trap on Figure 1.2B) and treated using the on-site water treatment plant.

The South Pond sediment trap will act as the upstream dam for the Initial Excavation Area. A downstream earthen dam will be constructed at the lower end of the first section to be remediated. In turn, this earthen dam will act as the upstream dam for the next section and another earthen dam will be placed downstream of the second section. Damming of sections will continue in this fashion until complete. Each segment is illustrated on Figure 1.2B.

Initial Excavation Area

To facilitate the excavation of this area, the existing roads to/from the laydown area and the South Pond Weir will be utilized to transport the sediments from this excavation area to the landfill. The roads will be fitted with tire scrubbers consisting of fine riprap (Figure 1.2B) to prevent tracking mud/debris onto RHR during transport.

Shaw will begin this segment by excavating and stabilizing (using Portland cement) the sediments within segments 18 and 19 and stockpiling them in 100 cy stockpiles adjacent to the edge of the laydown area. The stockpile will be bermed and covered with poly and secured with sandbag while awaiting confirmatory sampling by Parsons as per Section 3.6.5 of the Final Design Report Revised July 2002 and Appendix H (CQAPP) (1 sample per 100 cy). Once the sample results are obtained, the soil will be placed on the landfill (1 to less than 50 ppm) or within the TSCA Cell (50 ppm to less than 500 ppm).

While the soil from segments 18 & 19 are awaiting analytical results, Shaw will excavate and stabilize (using Portland cement) the sediments from segment 20. These soils will be either hauled to the landfill and placed or stockpiled at the end of each day and covered with secured poly.

During excavation activities, turbidity concentrations will be measured using the hand held turbidity monitor 100 feet downstream of the work area. This is defined as 100 feet downstream of the downstream earthen dam or the beaver dam used to delineate the downstream terminus of the work area.

If the sediments dry sufficiently to allow foot traffic access into the segment 18 and 19 ponds, Parsons may conduct characterization sampling of the sediment within segments 18 and 19 prior to excavation to expedite loadout.

Once the sediment from the Initial Excavation Area are excavated, the area will be surveyed and confirmatory sampled by Parsons which will be conducted per the approved Final Design Report (Revised July 2002) pages 3-14, Section 3.6.5 and Appendix H (CQAPP). Shaw will begin restoration of the Initial Excavation Area immediately after confirmation that the sediment cleanup goal of 1 ppm PCBs has been achieved. The restoration will be completed in accordance with section 2.3.12 of this RAWP.

Total task time for this excavation area including time for substantial restoration (includes those items described in Section 2.3.12 of this RAWP up to and including seeding, mulching and removal of temporary access roads, dikes, and sumps not needed for the excavation of the next work segment) is scheduled to take 8 days. It is expected that stabilizing and stockpiling segments 18 and 19 will take approximately 3 workdays and excavating, stabilizing and placing the sediment from segment 20, 3 workdays. Hauling and placing the sediments from segments 18 and 19 after receiving the analytical results, will take an additional two days. Restoration of the area will occur simultaneously (starting a few days after the excavation begins).

Excavation Area 1 and 1A

A 15 wide haul road constructed of Tensar^{TM} BX1300 geogrid overlaid with fine riprap fitted with a tire scrubber will be constructed at the southern end of area 1A at the entrance to RHR (Figure 1.2B, Northern Access Road). This road will be used for the transport of sediments from Excavation areas 1A through Excavation Area 4. It is estimated that no trees will need to be removed for this haul road.

Once the Initial Excavation Area is substantially restored, the southern portion of Excavation Area 1A will be dammed and fitted with a pump discharging to the ditch along the western edge of RHR (Figure 1.2B). Soils from Excavation Area 1A (segment 16) will be excavated, stabilized, and stockpiled in 100 cy stockpiles at the southern portion of the excavation area (segment 16), bermed and covered with secured poly. Parsons will sample the soil for PCBs as per Section 3.6.5 of the Final Design Report Revised July 2002 and Appendix H (CQAPP) to determine the placement of this sediment within the landfill (less than 50 ppm) or within the

TSCA cell (50 ppm to less than 500 ppm)(1 sample per 100 cy).

Soils from Excavation Area 1A (non-segment 16) will be excavated, stabilized and directly placed in the landfill. However, if the sediments cannot be directly placed within the landfill at the end of the work day, those excavated sediments remaining will be stockpiled and covered with secured poly. Sediments from Excavation Area 1 will be transported from the area using the haul road located at the lay-down area.

If the sediments dry sufficiently to allow foot traffic access into the segment 16 pond, Parsons may conduct characterization sampling of the sediment within segment 16 prior to excavation to expedite loadout.

During excavation activities, turbidity concentrations will be measured using the hand held turbidity monitor 100 feet downstream of the work area. This is defined as 100 feet downstream of the downstream earthen dam or the beaver dam used to delineate the downstream terminus of the work area.

Once the analytical results are received from sediments from segment 16, the sediments will be transported to the appropriate place within the landfill and placed using the Haul Road immediately south of Excavation Area 1A. The end dumps used to transport the sediments will travel adjacent to the excavation area from the end of the haul road as close as practical to the excavation area. This area will be monitored daily for rutting and any ruts will be graded and mulched at the end of the work day. As a contingency, if rutting is not controllable in this manner, the affected areas of this road adjacent to the excavation area will be fitted with Tensar^{TM} BX1300 geogrid overlaid with fine riprap for temporary travel by the end dumps. These adjacent areas of travel will be incorporated in the restoration portion of the excavated areas by removing all riprap and geogrid, regrading, seeding and mulching the area. All removed road improvement materials will be disposed of in the landfill.

Once the sediment from Areas 1 and 1A are excavated, the areas will be surveyed and confirmatory sampled by Parsons as necessary. Shaw will begin restoration of the areas immediately after confirmation that the sediment cleanup goal of 1 ppm PCBs has been achieved. The restoration will be completed in accordance with section 2.3.12 of this RAWP.

Total task time for this excavation area including time for restoration is scheduled to take 15 days. It is expected that the excavation, stabilization, placement and substantial restoration of Excavation Area 1 will take 3 workdays and excavation stabilization of Area 1A will take an additional 2 days with 2 days to transport, place and substantially restore.

Excavation Area 2

Once the sediments are removed from Excavation Area 1A and the area substantially restored in accordance with section 2.3.12 of this RAWP, an earthen dam will be placed at the southern portion of Excavation Area 2 (as indicated Figure 1.2B). The pump and discharge piping will be moved to this location from the previous area and the sediments from this area will then be excavated, stabilized and transported to the landfill for direct placement. However, if the sediments cannot be directly placed within the landfill at the end of the work day, those excavated sediments remaining will be stockpiled as indicated in Figure 1.2B and covered with secured poly. Sediments from Excavation Area 2 will be transported from the area using the haul road located immediately north of Excavation Area 2.

Similar to Excavation Area 1A, the end dumps used to transport the sediments will travel adjacent to the excavation area from the end of the haul road as close as practical to the excavation area. This area will be monitored daily for rutting and any ruts will be graded and mulched at the end of the work day. As a contingency, if rutting is not controllable in this manner, the affected areas of this road adjacent to the excavation area will be fitted with Tensar™ BX1300 geogrid overlaid with fine riprap for temporary travel by the end dumps. These adjacent areas of travel will be incorporated in the restoration portion of the excavated areas.

During excavation activities, turbidity concentrations will be measured using the hand held turbidity monitor 100 feet downstream of the work area. This is defined as 100 feet downstream of the downstream earthen dam or the beaver dam used to delineate the downstream terminus of the work area.

Once the sediment from Area 2 is excavated, the area will be surveyed and confirmatory sampled by Parsons as per Section 3.6.5 of the Final Design Report Revised July 2002 and Appendix H (CQAPP). Shaw will begin restoration of the area immediately after confirmation that the sediment cleanup goal of 1 ppm PCBs has been achieved. The restoration will be completed in accordance with section 2.3.12 of this RAWP.

It is expected that the excavation, stabilization, placement and substantial restoration of this area will take 3 workdays.

Excavation Areas 3 & 4

The process will repeat itself for Excavation Areas 3 & 4. It is expected that Excavation Areas 3 and 4 will take 3 days each to complete and substantially restore for a total of 6 workdays. Once this is completed, the temporary haul road will be removed and the rip rap will either be reused on-site or disposed of in the landfill. The area will be restored with 6" of topsoil, seeded and mulched.

Excavation Area 5

A southern haul road similar to the northern haul road (Figure 1.2B) will be constructed adjacent to the west side of HHC to RHR in Excavation Area 7 to facilitate access for the remaining excavation areas. This road will be constructed of Tensar™ BX1300 geogrid overlaid with fine riprap fitted with a tire scrubber at the entrance to RHR

Once the sediments are removed from Excavation Area 4 and the area substantially restored in accordance with section 2.3.14 of this RAWP, the area will be dewatered by utilizing the existing beaver dam and relocating the southern portion of Excavation Area 5 pump and discharge piping to this location. The sediments from this area will then be excavated, stabilized and transported to the landfill for direct placement. However, if the sediments cannot be directly placed within the landfill at the end of the work day, those excavated sediments remaining will be stockpiled and covered with secured poly. Sediments from Excavation Area 5 will be transported from the area using the haul road located immediately south within Excavation Area 7. Similar to previous Excavation Areas, the end dumps used to transport the sediments will travel adjacent to the excavation area from the end of the southern haul road as close as practical to the excavation area. This area will be monitored daily for rutting and any ruts will be graded and mulched at the end of the work day. As a contingency, if rutting is not controllable in this manner, the affected areas of this road adjacent to the excavation area will be fitted with Tensar™ BX1300 geogrid overlaid with fine riprap for temporary travel by the end dumps. These adjacent areas of travel will be incorporated in the restoration portion of the excavated areas.

During excavation activities, turbidity concentrations will be measured using the hand held turbidity monitor 100 feet downstream of the work area. This is defined as 100 feet downstream of the downstream earthen dam or the beaver dam used to delineate the downstream terminus of the work area.

Once the sediment from Area 5 is excavated, the area will be surveyed and confirmatory sampled by Parsons as per Section 3.6.5 of the Final Design Report revised July 2002 and Appendix H (CQAPP). Shaw will begin restoration of the area immediately after confirmation that the sediment cleanup goal of 1 ppm PCBs has been achieved. The restoration will be completed in accordance with Section 2.3.12 of this RAWP as per Parsons approved Downstream Design letter dated April 11, 2003.

It is expected that the excavation, stabilization, placement and substantial restoration of this area will take 4 workdays.

Excavation Area 6

Excavation Areas 6 will be completed as Excavation Area 5 above. It is expected that this area will take 4 workdays to complete.

Excavation Area 7

Excavation of Area 7 will be completed similarly to Excavation Areas 5 and 6 above except that work will take place in several stages. First, the northern portion of the area will be excavated and then restoration of the northern area will begin. The sediments will be excavated, stabilized and stockpiled as necessary in the areas indicated in Figure 1.2B. After the northern portion of this area is completed the southern portion will be excavated in a similar manner. Once the portions around the weir are excavated, stabilized and removed, a decontamination pad will be constructed at the southern portion of the excavation area. Details of this decontamination pad are shown on Figure 1.2B. This pad will be used in decontaminating the excavation and stabilization equipment. All water used in decontaminating the equipment will be containerized and transported to the onsite water treatment plant for treatment. At this time, the southern weir will be removed and the two access roads constructed to facilitate transportation of material will

be removed and the material placed in the landfill. The access road areas will be regraded and restored with 6 inches of topsoil, seeded and mulched.

Once Excavation Area 7 is completely restored in accordance with Section 2.3.12 of this RAWP, all E&S controls will be directed to discharge their outfalls into the upper portion of Herrick Hollow Creek area. The South Pond weir will still be used to regulate flow to Herrick Hollow Creek in order to establish vegetation in the restored areas. It will also continue to act as a surge volume for storms as much as practical.

At this time, the sluice and dam configurations will be removed from the downstream outfalls and placed in the landfill. Removal of the southern sheetpile weir and the excavation and restoration of Excavation Area 7 is expected to take 10 workdays. Also, the temporary haul road materials will be removed and either reused on-site or disposed of in the landfill. The disturbed area will be restored with 6" of topsoil, seeded and mulched.

After approximately 2 weeks after restoration of Herrick Hollow Creek and removal of the southern weir and sluice and dam configurations, Shaw will begin slowly dewatering South Pond. Once South Pond is dewatered, it will be graded to promote flow to the south, and restored in accordance with Figure C-8, Wetland Restoration Plan South Pond/Herrick Hollow Creek of the Design Drawings and Section 02910, Wetland Restoration of the Design Specifications.

As a contingency, if water enters the Excavation Areas from the east during segment excavation activities, Shaw will install temporary berm and swales to divert surface waters towards the temporary sumps. These will be constructed in accordance with the New York Guidelines for Urban Erosion and Sediment Control (Blue Book). Details and most likely required locations are illustrated on Figure 1.2B.

2.3.9 Sediment Solidification and Placement

The landfill will be operated during the excavation of the North Area (N1 & N2) and HHC sediment removal tasks. The sediment will be stabilized as much as practical in place at excavation and hauled to the landfill in all-terrain dump trucks equipped with sealed tailgates. The material will be solidified using the appropriate Portland cement mixture (again at the excavation location to the extent practical) and then spread in one-foot maximum lifts, graded, and compacted to meet the specifications indicated in Field Change 004.

2.3.10 Construction Water Management

During the excavation, stabilization and restoration of downstream Herrick Hollow Creek, engineering controls will be established to eliminate/minimize the production of construction water. Construction water includes that water that comes in contact with an open excavation that is not determined to be clean (PCB level equal to and greater than 1 ppm), water generated during activities using construction equipment in the area that has been determined to have contamination and decon water. Many steps will be taken to eliminate the need for water treatment as described above. These include, diverting water from the north, west and as much as practical from the east, planning and scheduling activities in conjunction with weather forecasts, excavation and stabilization of sediments in "manageable segments", and the use of cover materials (poly sheeting) and diversion swales/berms and pump arounds. If construction water is produced, that requires treatment beyond the turbidity requirements, then Shaw will pump the construction water into a 21,000-gallon stationary Frac tank located near the

applicable excavation areas. Water will then be transferred to the treatment plant enabling the tank to remain positioned to constantly accept water.

2.3.11 Final Landfill and TSCA Cell Capping

After the sediment and soils have been placed in the landfill and the required subgrade is met, a NYS Part 360 cap will be placed on the landfill, including the TSCA Cell area, in accordance with section 3.7 (Landfill Cap) of the Design report, sections 02405 (Geomembranes) 02421 (Geotextiles) of the Design Specifications and Design Drawings C-7 (Final Grading) and C-10 and C-11 (Details and Sections). The cap will consist of the following layers: Geocomposite drainage net, 40 mil LLDPE geomembrane, 12-inch drainage layer, 12-inch barrier protection layer, and 6 inches of topsoil. The landfill access road will be completed with gravel. Specified slopes will receive erosion control matting. The entire landfill and TSCA Cell will be seeded.

During installation of the geomembrane, daily inspections will be performed by Shaw and Parsons to look for rips, tears or punctures. If any discrepancies are identified during the inspection, repairs will be made immediately and the repair information will be submitted to the USEPA/USEPA Representative.

Landfill drainage piping, fence repairs, and storm water channels will be installed as part of the landfill capping work.

2.3.12 Restoration

The South Pond will be transformed into a marsh area by installing 6 inches of vegetated top soil as indicated in section 3.8 (Wetland Mitigation) and Appendix E of the Design Report, sections 02910 (Wetland Restoration) and 02990 (Finish Grading, Topsoil and Seeding) of the Design Specifications and Design Drawings C-8 (Wetland Restoration South Pond/Herrick Hollow Creek).

Herrick Hollow Creek will be restored to the specified condition during the excavation process as per Design Drawing C-8 and Parsons approved Downstream Design letter dated April 11, 2003. The creek channel, including the channel through the existing South Pond, will be restored by backfilling with 1-in. cobbles. Rock cross vanes will be constructed as shown on the drawings.

The remaining disturbed areas along the creek will be restored with 6 inches of topsoil. Unclassified fill may be added below the topsoil in certain areas to promote drainage towards the stream channel. A wetland seed mixture, plantings and/or cover crop will be added per the specifications. Erosion matting and/or mulch will be placed as specified. Finally, grading out ruts and reseeding will be performed to restore areas disturbed by the excavator and off-road dumps.

Temporary erosion control measures will remain in place until USEPA agrees that adequate vegetated growth has taken place which will prevent erosion.

2.3.13 Demobilization

Upon completion of Earthwork tasks, Shaw will demobilize as specified in section 01500 (Temporary Facilities and Field Office) of the Design Specifications. Equipment will be decontaminated prior to shipping off-site. Unused materials will be shipped off-site. The office complex consisting of two field trailers and associated office equipment will be disassembled

and demobilized. Temporary utilities (i.e., phone, electrical, sanitary) will be discontinued as appropriate.

2.4 Construction Quality Control

Construction quality control measures will be implemented throughout the Earthwork portion of remedial action to ensure the work is performed in accordance with the Consent Decree, approved Final Remedial Design, and the Construction Quality Assurance Project Plan (included within the Final Design Report as Appendix H).

2.4.1 Inspections

Inspections will be conducted by members of the project team at various points of the project to ensure consistent quality is maintained. Shaw, Parsons and EarthTech will be on-site full time to conduct inspections of the work. USEPA, NYSDEC, NYCDEP, and other agencies will be on-site periodically to conduct inspections.

2.4.1.1 Routine Work Inspections

Items included in routine inspections are the access roads, soil erosion and sediment control measures, security fence/gate(s), and survey markings.

Inspections of each facet of the work will be conducted to ensure that the quality is in accordance with the design documents and Construction Quality Assurance Project Plan.

2.4.1.2 PreFinal and Final Inspections

The USEPA will conduct a prefinal inspection at the substantial completion of the Earthwork. Shaw will notify the USEPA of substantial completion. A work punch list created by USEPA and other agencies will be established. Once the punch list items have been addressed by Shaw, the USEPA will be contacted, and a final inspection will be conducted. If USEPA is satisfied that the work is complete, Shaw and Parsons will be notified in writing.

2.4.2 Testing

2.4.2.1 Materials Testing

In accordance with the design specifications, Shaw is responsible for quality control testing of materials (i.e., soils, liner materials, biopolymer slurry, etc.).

Parsons is responsible for quality assurance testing (i.e., compaction, permeability, deflection testing, etc.). An independent, Honeywell/Amphenol-approved testing firm will be subcontracted by Parsons to conduct the quality assurance testing.

Characterization and confirmation testing of soil/sediment is the responsibility of Parsons. A combination of PCB field test kits and laboratory analysis in accordance with the Sampling and Analysis Plan will be utilized.

Parsons is responsible for monitoring turbidity within HHC.

SAMCO is responsible for GWTP discharge sampling.

The USEPA field representative will be notified of all upcoming testing so that he may observe the testing. All testing results will be provided to the USEPA field representative.

2.4.3 Submittal Review

Shaw will continue to meet the submittal requirements as stated in the design specifications. Construction submittals will be reviewed by Parsons. Submittals required by the Consent Decree such as the RAWP, O&M Plan, Certification Report will be reviewed by the agencies.

2.4.4 Documentation

2.4.4.1 Field Logbook

Shaw, Parsons, and EarthTech will maintain daily field logbooks for the project. Construction activities will be documented with the following details at a minimum: dates, times, weather conditions, personnel on-site, equipment used, materials installed, visitors, health and safety issues, and other construction related issues.

2.4.4.2 Daily Field Reports

Parsons will prepare a daily field report that summarizes construction activities. The daily field report will include site photos and sketches of work completed as necessary. The report will be submitted to Honeywell, Amphenol, and the agencies via email on a daily basis and become part of the Construction Certification Report.

Shaw will also prepare daily field reports of construction activities for their own management purposes. These reports will not be submitted to the project team but may be requested by Parsons or the agency as needed.

2.4.4.3 Monthly Progress Report

Per the Consent Decree, Honeywell and Amphenol will prepare and submit a Monthly Progress Report to the USEPA by the 10th day of each month. The first Monthly Progress Report will be submitted following the first full month after mobilization. The final Monthly Progress Report will include the final inspection.

2.4.4.4 Construction Certification Report

Per the Consent Decree, a Construction Certification Report will be prepared by Parsons and submitted to the USEPA 60 days following the final inspection. A NYS licensed Professional Engineer will certify that the construction was performed in accordance with the Consent Decree, the approved Final Design Report, design specifications and drawings, this RAWP, and approved field changes.

2.4.4.5 Field Change Order (FCO)

Changes to the approved Final Design and/or this RAWP will require approval by Parsons and the USEPA. A Field Change Order (FCO) requiring the signature of Parsons, Shaw and USEPA will be issued for all field changes to the design.

2.4.4.6 Operation and Maintenance Manual

As part of the GWTP work, SAMCO prepared a draft O&M Manual for USEPA review. SAMCO will revise the draft O&M Manual following completion of the groundwater extraction trench/delivery system and treatment plant adjustments needed to accommodate/treat the additional flow from the trench. In addition, Shaw will prepare an Earthwork O&M section to be incorporated into the Final O&M Manual 90 days prior to the earthwork final inspection. The Final O&M Manual will include a description, operational procedure, catalog cut, and owner's

manual for each component, an overall description, and record drawings. The manual will provide clear understanding on how to operate and maintain the GWTP, extraction trench, wetlands, and landfill.

3 Construction Health & Safety Plan (CHASP)

3.1 Construction Health and Safety Plan

A Construction HASP was prepared and submitted by Shaw on March 17, 2003.. All work in 2003 was completed in accordance with the CHASP. Likewise, all work in 2004 will be performed in accordance with the CHASP.

4 References

O'Brien & Gere, 1994. Unilateral Administrative Order Report for the Richardson Hill Road Municipal Landfill. Prepared for Amphenol Corporation by O'Brien & Gere Engineers, Inc. November 1994.

O'Brien & Gere, 1995. Remedial Investigation Report for the Richardson Hill Road Municipal Landfill. Prepared for Amphenol Corporation by O'Brien & Gere Engineers, Inc. August 1995.

O'Brien & Gere, 1996. Feasibility Study Report for the Richardson Hill Road Municipal Landfill. Prepared for Amphenol Corporation by O'Brien & Gere Engineers, Inc. July 1996.

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TABLES

Table 2.1
Contact List – RHRL – Earthwork

Honeywell, Inc.

Frank Leming – Project Engineer Honeywell, Inc. 101 Columbia Road, MEY-4 Morristown, NJ 07962 Phone: 973-455-4163 Fax: 973-455-3345 Email: Frank.Leming@honeywell.com	Rich Galloway, P.E. – Project Manager Honeywell, Inc. 101 Columbia Road, MEY-4 Morristown, NJ 07962 Phone: 973-455-4640 Fax: 973-455-3345 Email: Rich.Galloway@honeywell.com

Amphenol Corporation

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Agencies

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Earth Tech (formerly TAMS) – USEPA On-Site Rep. - Jeff Hall Site phone: 607-369-5456 Site Fax: 607-369-5457	James Kaczor Earth Tech University Corporate Parkway 100 Corporate Parkway, Suite 341 Amherst, New York 14226 Phone: 716-836-4506 Fax: 716-834-8785 Email: james.kaczor@earthtech.com
Alan Belensz Environmental Protection Bureau NYS Office of Attorney General The Capital Albany, NY 12224-0341 Emal: alan.belensz@org.state.ny.us	U.S. Department of Justice Environmental Enforcement Section Environment and Natural Resources Division P.O. Box 7611 Ben Franklin Station Washington, DC 20044

Joe Damrath New York City Dept. of Environmental Protection Bureau of Water Supply, Quality & Protection PO Box 370 Shokan, NY 12481 Phone: 845-657-6069 Email: jdamrath@dep.nyc.gov	Christina Dowd NYSDEC Bureau of Habitat 625 Broadway, 5th Floor Albany, NY 12233-4756 Phone: Fax: Email:
Charlotte M. Bethomey NYSDOH Flanigan Square Room 300 547 River Street Troy, NY 12180-2216 Phone: 518-402-7860 Fax: Email: cmbl8@health.state.ny.us	

Parsons

Bill Long – Project Manager 290 Elwood Davis Road, Suite 312 Liverpool, NY 13088 Phone: 315-451-9560 Fax: 315-451-9570 Email: William.Long@Parson.com	Norman Sulock Construction Manager Site Address: 2211 Richardson Hill Road Sidney Center, NY 13839 On-site Phone: 607-369-4522 On-site Fax: 607-369-5459 On-site Email: ParsonsRHRL@frontiernet.net Email: norm.sulock@parsons.com
William Bingham Construction Technician Site Address: 2211 Richardson Hill Road Sidney Center, NY 13839 On-site Phone: 607-369-4522 On-site Fax: 607-369-5459 On-site Email: ParsonsRHRL@frontiernet.net Email: Bill.Bingham@parsons.com	

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John Waechter – Project Manager 13 British American Boulevard Latham, NY 12110 Phone: 518-783-6088, extension 232 Fax: 518-783-8397 Email: john.waechter@shawgrp.com	Sid Archinal – Project Director 200 Horizon Center Boulevard Trenton, NJ 08691-1904 Phone: 609-584-8900 Fax: 609-588-6399 Email: Sid.Archinal@shawgrp.com
Jeffery Gage – Site Superintendent Site Address: 2211 Richardson Hill Road Sidney Center, NY 13839 On-Site Phone: 607-369-3126 On-Site Fax: 607-369-3127 On-Site Email: TBD	

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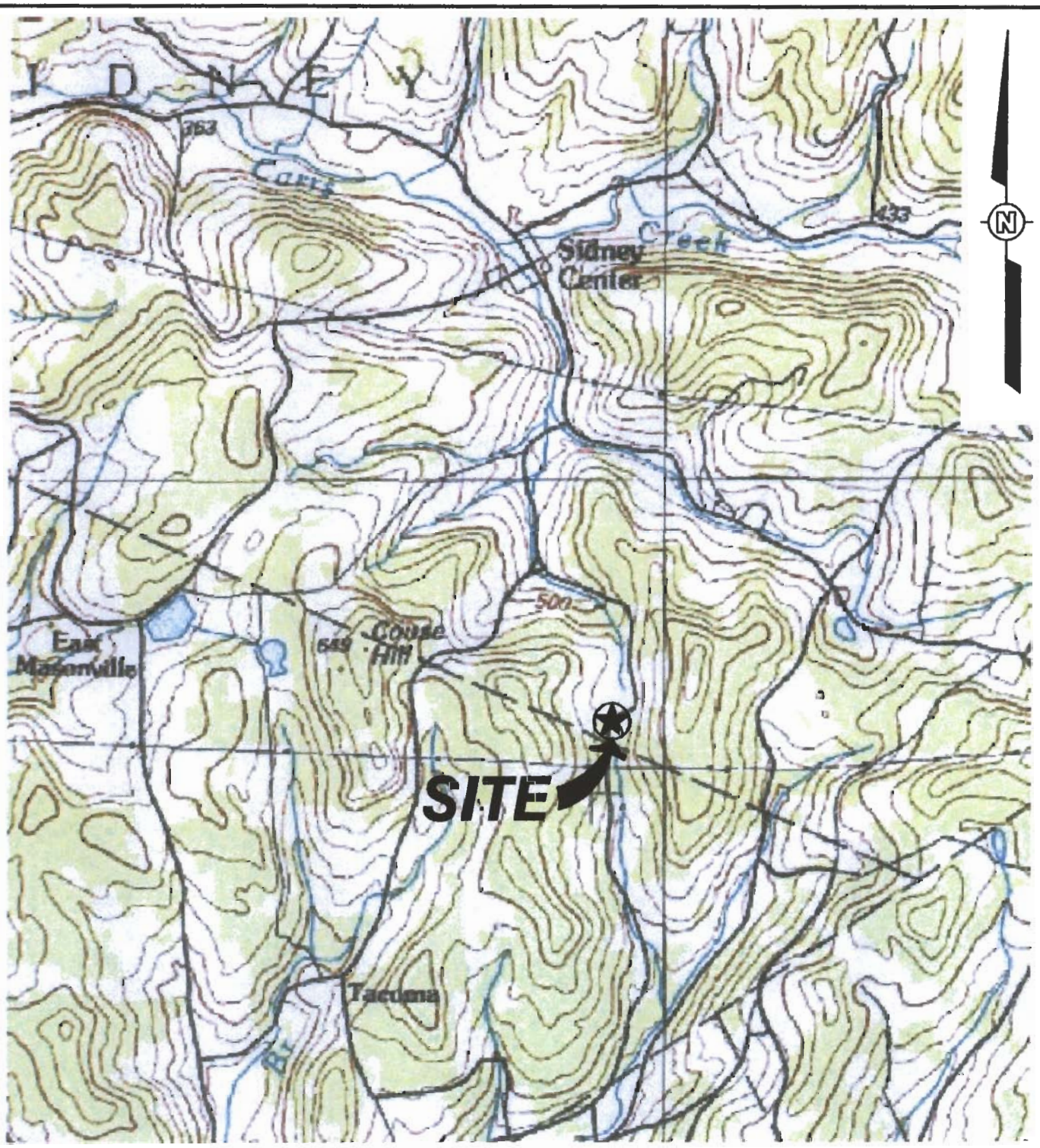
FIGURES



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Trenton, NJ	W. Allen 3/12/03			841824-A01

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Format Revised: 05/17/01
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Shaw
Shaw E & I, Inc.

FIGURE 1.1

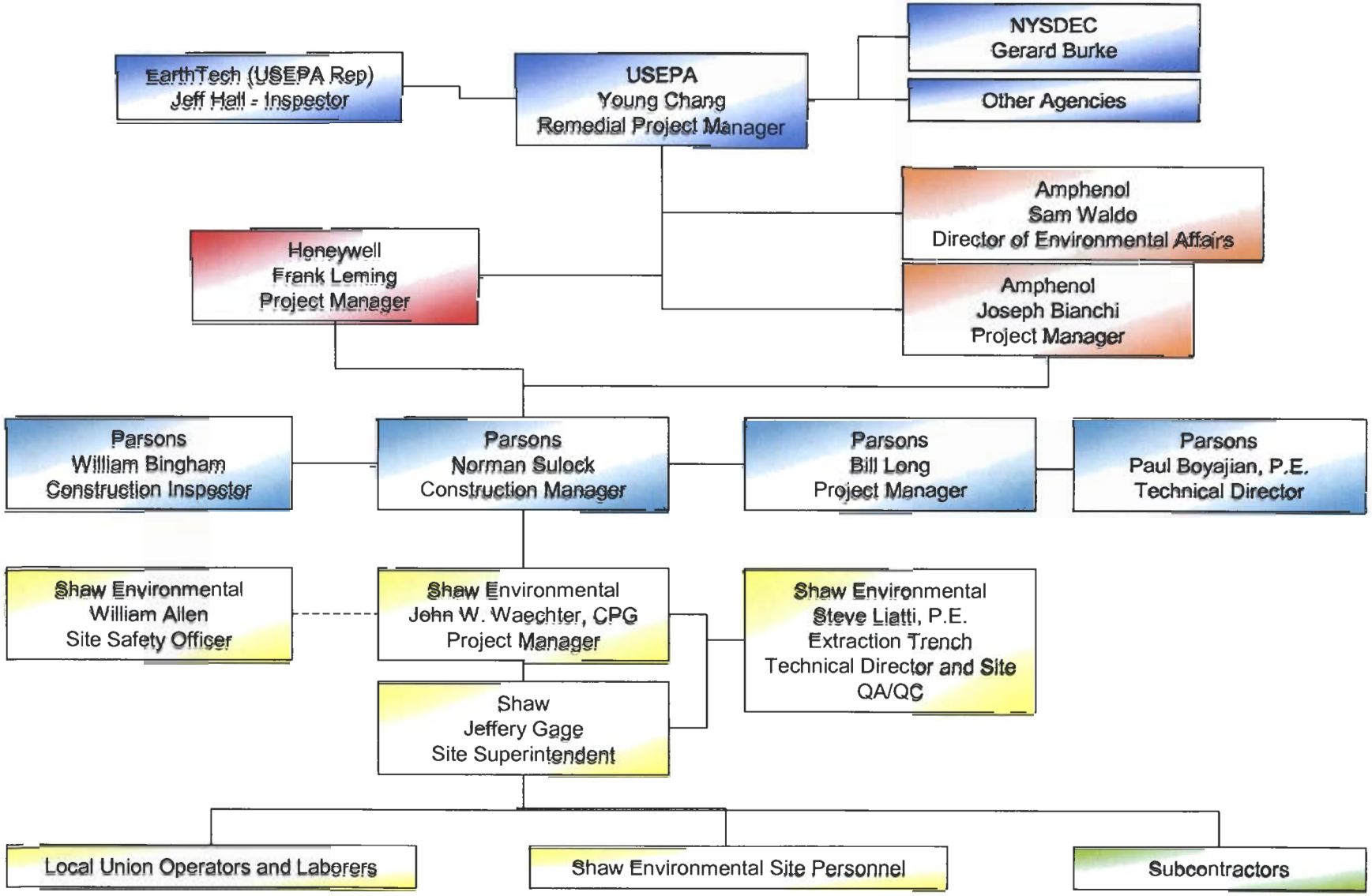
HONEYWELL
AMPHENOL CORPORATION

SITE LOCATION MAP

RICHARDSON HILL ROAD
LANDFILL SITE

SIDNEY CENTER, NEW YORK

Figure 2.1
Remedial Action Organization Chart



DISMANTLED OF 4 BEAVER DAMS

POTENTIAL PERIMETER DIKE/SWALE

DRAIN LAST BEAVER POND AND SEDIMENT TRAP

SLUICE AND DAM

SEDIMENT TRAP LOCATION

HERRICK HOLLOW CREEK

TIRE SCRUBBER

APPROXIMATE LOCATION OF DECONTAMINATION PAD

SOUTHERN ACCESS ROAD

TEMPORARY DISCHARGE DISSIPATER FOR PUMP AROUND OF EXCAVATION AREA #7

DISCHARGE DISSIP

CROSS SE

W' –

W' – WIDTH VARIES TO EX
(DOWNSTREAM WEIR)
DRAINAGE DITCH ON

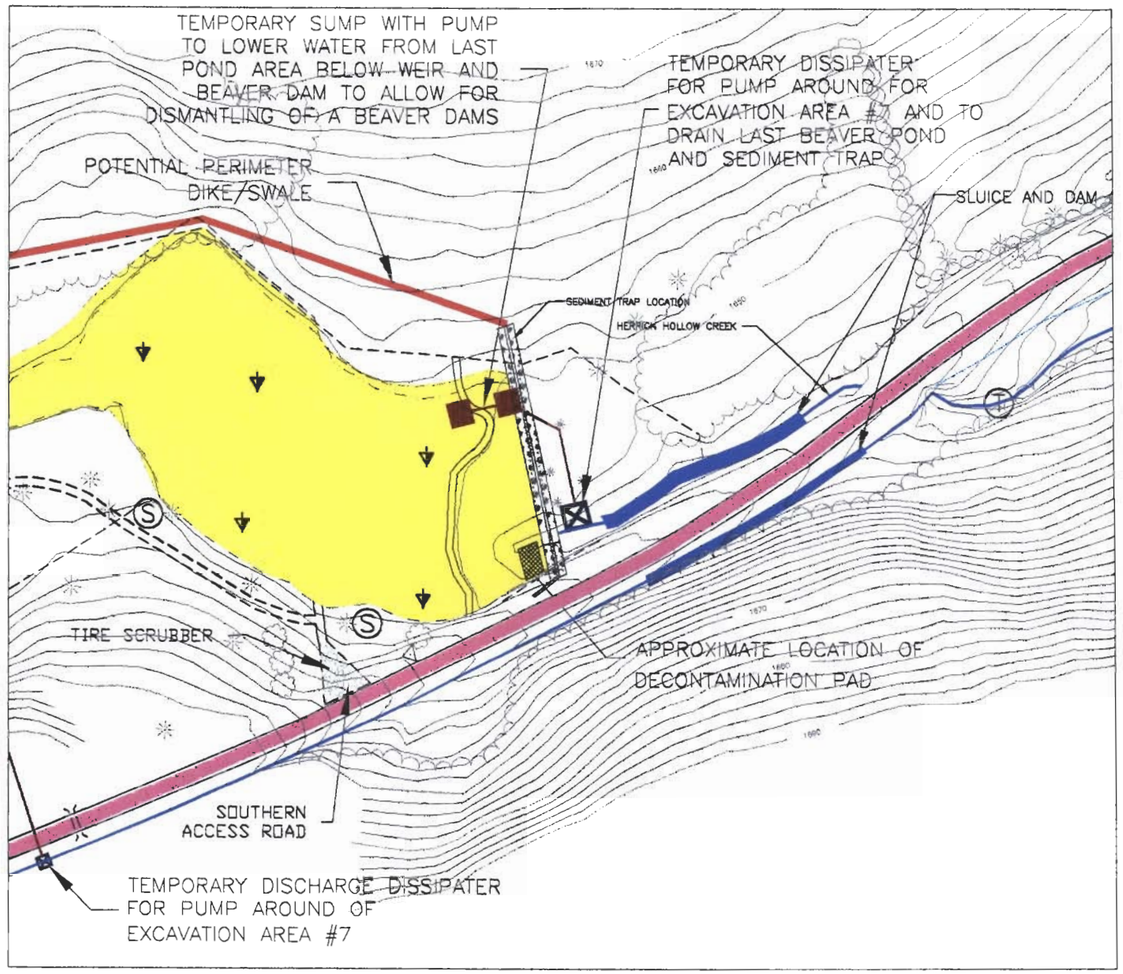
SLUICE AND DAM DETAILS

CROSS SECTION

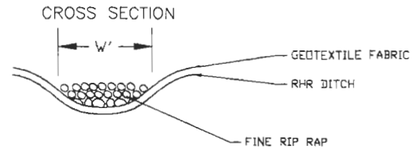
25'

BOTTOM OF EXISTING CREEK / DITCH

PLAN VIEW

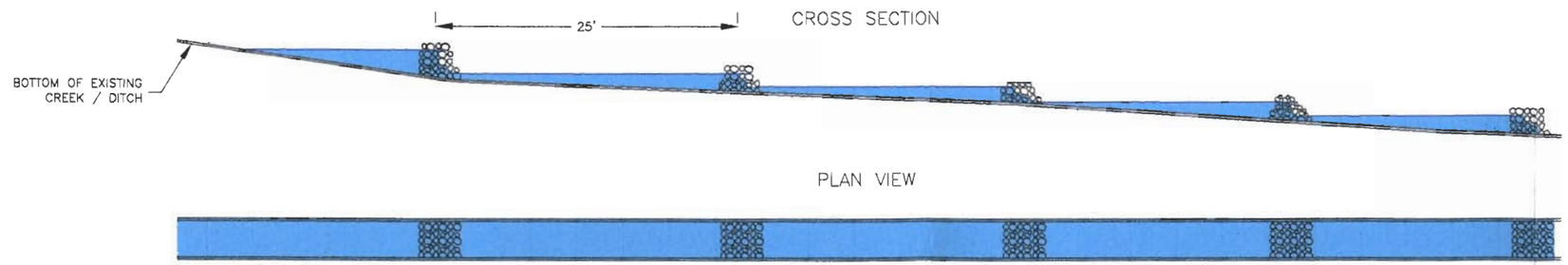


DISCHARGE DISSIPATER DETAILS



W' – WIDTH VARIES TO EXISTING CREEK WIDTH (DOWNSTREAM WEIR) AND TO THE EXISTING DRAINAGE DITCH ON WESTERN SIDE OF RHR

SLUICE AND DAM DETAILS



1 – SLUICE AND DAM WILL USE EXISTING CREEK / DRAINAGE DITCH CONTOURS
2 – BOTTOM OF CREEK / DRAINAGE DITCH WILL BE LINED WITH GEOTEXTILE FABRIC UNDER ROCK CHEEK DAMS TO PREVENT SCOUR
3 – ROCK CHEEK DAMS WILL BE CONSTRUCTED OF FINE RIP RAP.
4 – VIEW IS A "TYPICAL CONFIGURATION", ACTUAL DETAILS OF THE ROCK CHECK DAMS WILL BE FIELD FITTED TO BE IN ACCORDANCE WITH THE NEW YORK STATE GUIDELINES FOR URBAN EROSION AND SEDIMENT CONTROL, PAGE 5A.21.

NOT TO SCALE

LEGEND

- EXCAVATION AREA
- EXCAVATION AREA
- RICHARDSON HILL ROAD
- CULVERT
- BEAVER DAM
- LATERAL ACCESS ROAD WITH TIRE SCRUBBER PRIOR TO ENTRANCE
- SHEET PILE SEDIMENT TRAP TO BE REMOVED
- TEMPORARY OR PERMANENT SUMP WITH PUMP
- DISCHARGE DISSIPATER
- OUTLET DISSIPATER
- ROCK WALL
- RHR DITCH
- (S) EXCAVATED SEDIMENT STOCKPILE LOCATION
- (T) TURBIDITY MONITOR

SCALE
0 120 240 FEET

REV	DESCRIPTION / ISSUE	DATE	APPROVED

Shaw Environmental, Inc.

DESIGNED BY: JW/CS	HONEYWELL AMPHENOL CORPORATION			
DRAWN BY: WGA/SSH	HERRICK HOLLOW RICHARDSON HILL ROAD SOUTH SEDIMENT REMOVAL LANDFILL SITE SIDNEY CENTER, NEW YORK			
CHECKED BY: --				
APPROVED BY: --	DATE: 02/09/04	SCALE: AS SHOWN	DRAWING NO. FIGURE 1.2 C	SHEET NO. -

OFFICE ALBANY, NY
DRAWING NUMBER 843536B1

VERIFY SCALE 0 1"

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Plotted By: Samuel.Shkolnik

APPENDIX A

TRAFFIC PLAN

TRAFFIC PLAN

Introduction

This Traffic Plan describes the traffic safety measures designed to protect the public and site workers during work activities at the Richardson Hill Road Landfill (RHRL) Site. It is the same plan instituted during the 2003 Earthwork portion of the project except for additional clarifications and improvements from the 2003 version.

Richardson Hill Road is a narrow, two-lane rural road (approximately 18 feet wide) that serves multiple residences of the Town of Sidney and the Town of Masonville. Local highway department crews of their respective towns currently maintain the road.

Due to the project's Earthwork activities, normal traffic patterns along Richardson Hill Road will be impacted. During certain portions of the work, particularly construction of the groundwater extraction trench, it may be necessary to temporarily close the northbound lane of traffic or both lanes adjacent to the South Pond. For pipe culvert installation across Richardson Hill Road, it will be necessary to temporarily close (approximately 2 hours per pipe culvert) both lanes of traffic. Shaw and Parsons will work closely with local highway department officials and the Sheriff's Department to coordinate temporary lane or road closures. It is understood that to the extent practical, at least one lane of traffic must be kept open to provide emergency vehicle access on Richardson Hill Road. With exception of the pipe culvert installations and the extraction trench, this requirement will be met throughout the Earthwork activities.

The following Earthwork activities will likely impact traffic patterns along Richardson Hill Road:

- Extraction Trench Construction – Given the location adjacent to the road, heavy equipment (i.e., crane, long-stick backhoe, dump trucks) will impede the eastern lane and possibly both lanes of Richardson Hill Road. Material removed from the trench will be transported across the road to the Landfill Area. Imported material will be transported to the trench via triaxle dump trucks;
- Sediment Excavation/Handling/Stabilization – Watertight dump trucks will transport South Pond and Herrick Hollow Creek sediment across the road to the Landfill Area;
- North Area Excavation – Watertight dump trucks will transport North Pond sediment/soil/waste from the North Pond to the Landfill Area;
- Landfill Construction – Off-site borrow material will be transported via triaxle dump trucks to the Landfill Area;
- Site and Wetland Restoration – Off-site borrow material will be transported via triaxle dump trucks to the work areas.

Access Roads and Signage

A permanent access road has been constructed at the North Area to service the Groundwater Treatment Plant (GWTP). The access road connects with Richardson Hill Road at two locations on each side of the former Spizziri residence. During the Earthwork activities, site workers and authorized personnel will utilize the North Area for field office space and parking. The GWTP will be operated continuously throughout the Earthwork activities and into the foreseeable future. Delivery trucks (i.e., propane, bulk chemicals for GWTP operation, etc.) and waste

disposal trucks (i.e., sludge removal) will utilize the permanent access roads on an as-needed basis.

A permanent access road will be constructed within the Landfill Area during cap construction in the present location of the temporary access road. The access road will connect with Richardson Hill Road at two locations, both along the western side. Both the existing temporary and permanent roads will be used for access during the Earthwork activities.

Temporary access roads and an additional union worker parking area will be constructed during the Earthwork phase. It is likely that up to eight temporary access roads will be constructed from Richardson Hill Road to the South Pond and Herrick Hollow Creek. In some cases, existing resident driveways will be utilized rather than creating new roads. These access points to the South Pond and Herrick Hollow Creek are necessary to conduct sediment removal and wetland restoration. One temporary access road will be constructed within the North Area to conduct sediment/soil/waste removal along the North Pond. Following completion of activities in these areas, the temporary access road materials (i.e., geotextile, gravel) will be removed and the areas restored.

Shaw will install, at a minimum, the following temporary construction signage along Richardson Hill Road:

- "Caution – Men Working";
- "Flagmen – One Lane Temporarily Closed" (when needed);
- "Trucks Entering Roadway";
- "Road Closed – Local Traffic Only" (when needed);
- Speed limit signs.

Traffic Control

To control traffic during Earthwork activities, the following measures will be implemented:

The USEPA will issue a notice to local residences regarding the site work. The notice will provide pertinent facts concerning the site as well as focus on potential traffic concerns.

- Shaw has evaluated the local roads and bridges to determine the most appropriate delivery routes. The truck route as well as speed restrictions will be issued to site-related truck drivers. As representatives of Amphenol/Honeywell, the project team members (Parsons and Shaw) will enforce a zero tolerance policy in terms of speeding and reckless driving;
- A speed limit of 10 mph will be established for the site and along Richardson Hill Road where there is temporary lane modification. Speed limit signs will be erected for these areas;
- Shaw will provide a flagman, orange cones, barriers, and/or temporary traffic lights during Earthwork activities as needed or required by the highway departments.

Road Repair

Prior to the start of Earthwork activities in 2004, Parsons and Shaw will videotape the anticipated truck routes in order to document a baseline physical condition. During and at the end of the Earthwork portion of the RHRL project, additional videotaping will be conducted for comparison to the baseline.

Honeywell/Amphenol have made an agreement with the appropriate Highway Departments to assist financially with Richardson Hill Road repaving once the Earthwork activities are completed. The local highway department crews will perform the repaving. The local highway departments will repair Richardson Hill Road during construction activities only if necessary to maintain safe roads. Additionally, Parsons and Shaw will inspect Richardson Hill Road prior to the start of and occasionally during Earthwork activities for needed repairs to safely accommodate trucks and normal traffic. Should repairs be needed, Parsons and Shaw will notify the highway departments of the needed repairs.

Shaw will repair Richardson Hill Road following culvert installation and/or removal.

Truck Routes to the Site

The following directions have been established for commercial truck traffic entering and leaving the Richardson Hill Road Landfill Site. The following instructions will be provided to transporters involved with delivering materials and supplies to the site. This route has been established to provide the safest and most direct route, while ensuring compliance with weight restrictions that may apply. This truck route is also avoids traffic through the Town of Sidney.

- Traveling east or west on I-88, take Exit #10 (Unadilla);
- Turn at the first left onto River Road;
- Turn at the next left onto Rt-23 (toward Sidney Center);
- Follow Rt-23 through Sidney Center;
- Turn right onto Rt-27, Trout Creek Road;
- Turn at the first left onto Richardson Hill Road (use caution – Blind Child Area);
- Turn right at the truck entrance at 2211 Richardson Hill Road.

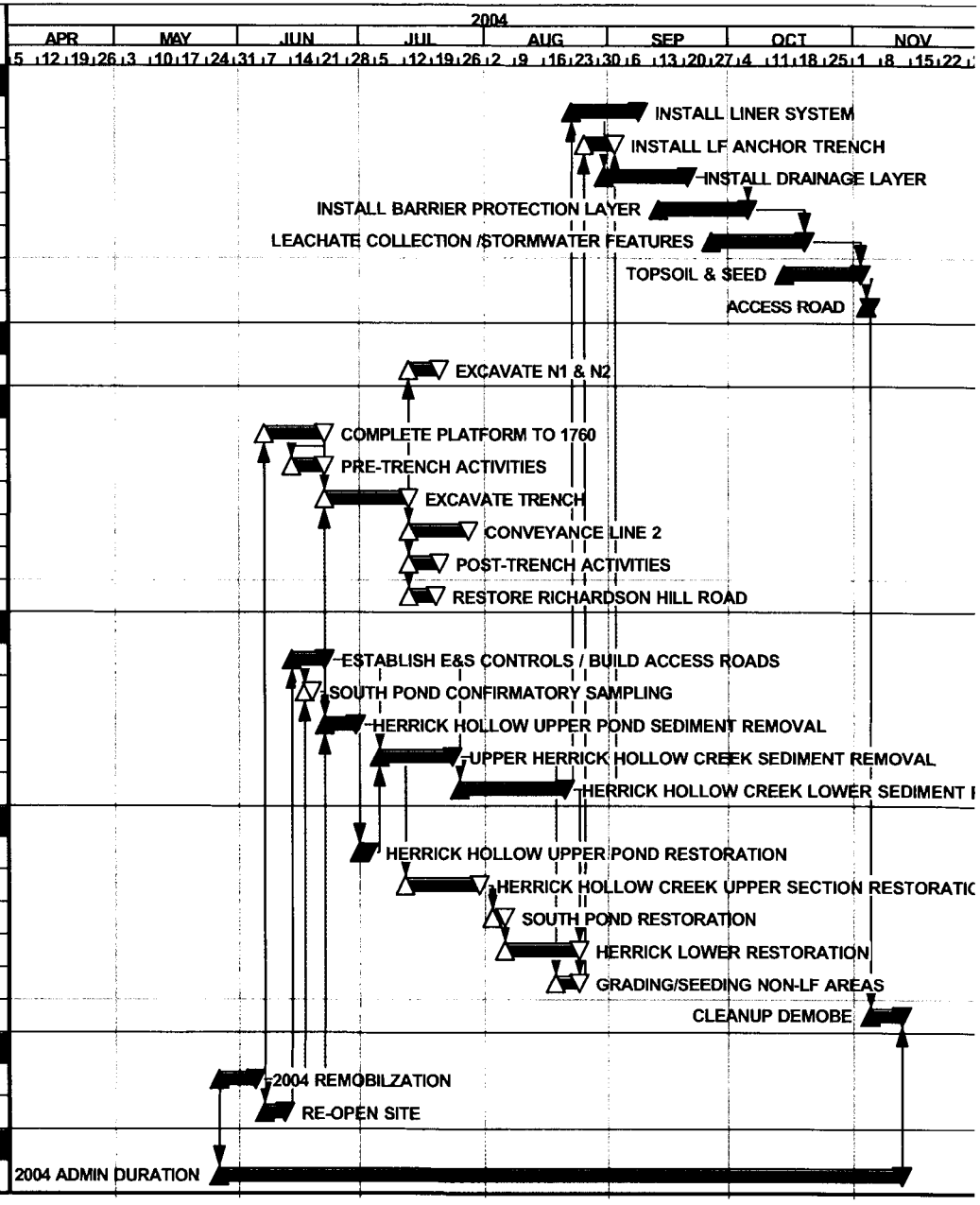
<u>Notes to truck drivers:</u>

- Use extreme caution when entering and exiting the site due to traffic on Richardson Hill Road and within the job site;
- Vehicles are required to follow all road and site speed limits;
- A blind child caution area exists along Richardson Hill Road;
- Any truck driver not obeying posted speed limits or found driving in a reckless manner will be removed from the site for a period of no less than 30 days;
- If a second occurrence is observed that driver will be barred from making deliveries to the site.

APPENDIX B

SCHEDULE

Activity ID	Activity Description	Cal ID	Orig Dur	Early Start	Early Finish
LANDFILL CONSTRUCTION					
1600	INSTALL LINER SYSTEM	1	10	23AUG04	08SEP04
1500	INSTALL LF ANCHOR TRENCH	1	5	26AUG04	02SEP04
1620	INSTALL DRAINAGE LAYER	1	12	31AUG04	20SEP04
1700	INSTALL BARRIER PROTECTION LAYER	1	13	14SEP04	05OCT04
1800	LEACHATE COLLECTION /STORMWATER FEATURES	1	14	27SEP04	19OCT04
2000	TOPSOIL & SEED	1	12	15OCT04	02NOV04
2010	ACCESS ROAD	1	1	04NOV04	04NOV04
MISC. SOIL RELOCATIONS					
2300	EXCAVATE N1 & N2	1	5	13JUL04	20JUL04
EXTRACTION TRENCH CONSTRUCTION					
2610	COMPLETE PLATFORM TO 1760	1	10	07JUN04	21JUN04
2605	PRE-TRENCH ACTIVITIES	1	5	14JUN04	21JUN04
2600	EXCAVATE TRENCH	2	18	22JUN04	12JUL04
8804	CONVEYANCE LINE 2	1	10	13JUL04	27JUL04
2608	POST-TRENCH ACTIVITIES	1	5	13JUL04	20JUL04
2602	RESTORE RICHARDSON HILL ROAD	1	4	13JUL04	19JUL04
SEDIMENT HANDLING					
3010	ESTABLISH E&S CONTROLS / BUILD ACCESS ROADS	1	5	14JUN04	21JUN04
3015	SOUTH POND CONFIRMATORY SAMPLING	1	2	17JUN04	18JUN04
8805	HERRICK HOLLOW UPPER POND SEDIMENT REMOVAL	1	6	22JUN04	29JUN04
3410	UPPER HERRICK HOLLOW CREEK SEDIMENT REMOVAL	1	13	06JUL04	23JUL04
3650	HERRICK HOLLOW CREEK LOWER SEDIMENT REMOVAL	1	17	26JUL04	20AUG04
RESTORATION AND DEMOBILIZATION					
3800	HERRICK HOLLOW UPPER POND RESTORATION	1	2	01JUL04	02JUL04
3415	HERRICK HOLLOW CREEK UPPER SECTION	1	13	12JUL04	30JUL04
3417	SOUTH POND RESTORATION	1	3	03AUG04	05AUG04
3850	HERRICK LOWER RESTORATION	1	12	06AUG04	24AUG04
3900	GRADING/SEEDING NON-LF AREAS	1	4	19AUG04	24AUG04
4100	CLEANUP DEMOBE	1	5	05NOV04	12NOV04
SEASONAL DEMOBE AND CLOSURE					
5020	2004 REMOBILZATION	1	5	27MAY04*	04JUN04
5022	RE-OPEN SITE	1	5	07JUN04	11JUN04
99998	2004 ADMIN DURATION	4	119*	27MAY04	12NOV04



Start Date	31MAY03
Finish Date	12NOV04
Data Date	11DEC03
Run Date	18MAY04 08:25

Early Bar
Progress Bar
Critical Activity

RHE1 Sheet 1 of 1

SHAW E&I

RICHARDSON HILL RD LANDFILL

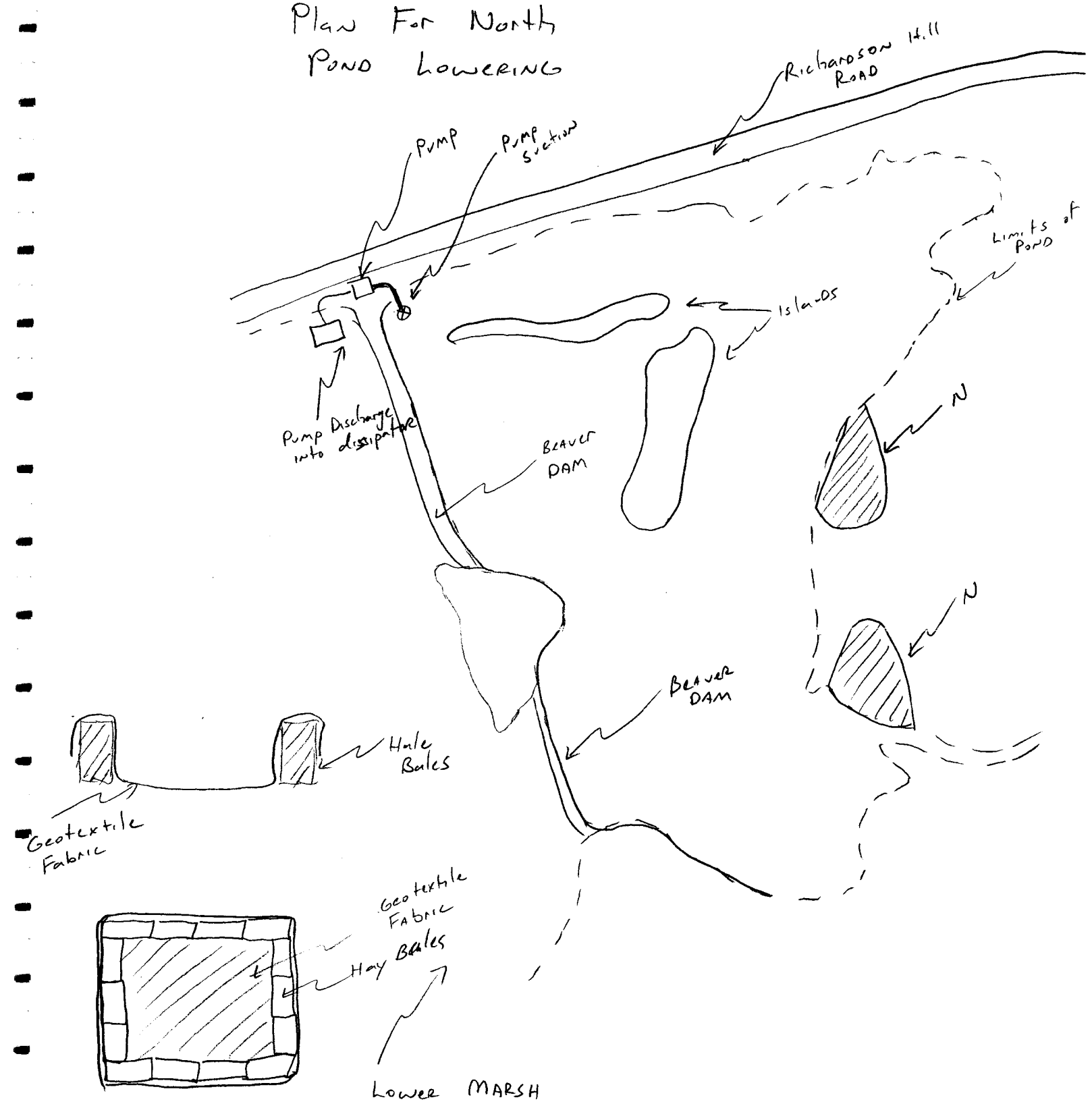
2004 SCHEDULE

Date	Revision	Checked	Approved

APPENDIX C

PLAN FOR NORTH POND LOWERING

Plan For North Pond Lowering



Plan View Dissipator

Notes:

1) Pump Suction to dissipator at low Flow (≤500gpm),
2) Dissipator same construction as south pond discharge except, has no Rock in bottom.