Department of Environmental Conservation

Division of Environmental Remediation

Record of Decision

Camp Summit Site
Fulton (T), Schoharie County, New York
Site Number 4-48-006

March 2004

New York State Department of Environmental Conservation
GEORGE E. PATAKI, *Governor* ERIN M. CROTTY, *Commissioner*

DECLARATION STATEMENT - RECORD OF DECISION

Camp Summit Inactive Hazardous Waste Disposal Site
Fulton (T), Schoharie County, New York
Site Number 4-48-006

Statement of Purpose and Basis

The Record of Decision (ROD) presents the selected remedy for the Camp Summit site, a Class 2 inactive hazardous waste disposal site. The selected remedial program was chosen in accordance with the New York State Environmental Conservation Law and is not inconsistent with the National Oil and Hazardous Substances Pollution Contingency Plan of March 8, 1990 (40CFR300), as amended.

This decision is based on the Administrative Record of the New York State Department of Environmental Conservation (NYSDEC) for the Camp Summit inactive hazardous waste disposal site, and the public's input to the Proposed Remedial Action Plan (PRAP) presented by the NYSDEC. A listing of the documents included as a part of the Administrative Record is included in Appendix B of the ROD.

Assessment of the Site

Actual or threatened releases of hazardous waste constituents from this site, if not addressed by implementing the response action selected in this ROD, presents a current or potential significant threat to public health and/or the environment.

Description of Selected Remedy

Based on the results of the Remedial Investigation and Feasibility Study (RI/FS) for the Camp Summit site and the criteria identified for evaluation of alternatives, the NYSDEC has selected Excavation, Consolidation and Capping with Limited Off-site Disposal of contaminated soil. The components of the remedy are as follows:

1. Excavation of contaminated soil with limited off-site disposal of grossly contaminated material. The majority of impacted soil will be consolidated on-site and capped with an impermeable multi-layer geomembrane cap.

2. Implementation of a groundwater monitoring program to assess the effectiveness of the cap.

3. Development of a site management plan to: (a) maintain the capped area (mowing, erosion repairs, etc); (b) restrict use of shallow groundwater in the area subject to long term monitoring (c) evaluate the potential for vapor intrusion for any buildings developed on the

site, including provisions for mitigation of any impacts; and (d) prohibit redevelopment or use of the capped area.

4. The property owner will provide an annual certification, prepared and submitted by a professional engineer or environmental professional acceptable to the NYSDEC, which will certify that the institutional controls and engineering controls put in place, are unchanged from the previous certification and nothing has occurred that could impair the ability of the control to protect public health or the environment or constitute a violation or failure to comply with any operation and maintenance or soil management plan.

5. Imposition of an institutional control in the form of an environmental easement that will: (a) require compliance with the approved site management plan, (b) prohibit use and development of the capped area; (c) restrict use of shallow groundwater as a source of potable or process water without the necessary water quality treatment; and (d) require the property owner to complete and submit to the NYSDEC an annual certification to insure compliance with the use restrictions.

New York State Department of Health Acceptance

The New York State Department of Health (NYSDOH) concurs that the remedy selected for this site is protective of human health.

Declaration

The selected remedy is protective of human health and the environment, complies with State and Federal requirements that are legally applicable or relevant and appropriate to the remedial action to the extent practicable, and is cost effective. This remedy utilizes permanent solutions and alternative treatment or resource recovery technologies, to the maximum extent practicable, and satisfies the preference for remedies that reduce toxicity, mobility, or volume as a principal element.

_____ _____

Date

Dale A. Desnoyers, Director
Division of Environmental Remediation

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RECORD OF DECISION

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SECTION 1: SUMMARY AND PURPOSE OF THE RECORD OF DECISION

The New York State Department of Environmental Conservation (NYSDEC), in consultation with the New York State Department of Health (NYSDOH), has selected this remedy for the Camp Summit site. The presence of hazardous waste has created significant threats to human health and/or the environment that are addressed by this proposed remedy. As more fully described in Sections 3 and 4 of this document, past wood treatment operations have resulted in the disposal of fuel oil and hazardous wastes, including pentachlorophenol and dioxins/furans. These wastes have contaminated the soil and groundwater at the site, and have resulted in:

- a significant threat to human health associated with exposure to contaminated soil and groundwater.

- a significant environmental threat associated with the impacts of contaminants to soil, sediment and groundwater.

To eliminate or mitigate these threats, the NYSDEC has selected the following remedy:

- Excavation of contaminated soil with limited off-site disposal of grossly contaminated material. The majority of impacted soil will be consolidated on-site and capped with an impermeable multi-layer geomembrane cap.

- Implementation of a groundwater monitoring program to assess the effectiveness of the cap.

- Development of a site management plan to: (a) maintain the capped area (mowing, erosion repairs, etc); (b) restrict use of shallow groundwater in the area subject to long term monitoring (c) evaluate the potential for vapor intrusion for any buildings developed on the site, including provisions for mitigation of any impacts; and (d) prohibit redevelopment or use of the capped area.

- The property owner will provide an annual certification, prepared and submitted by a professional engineer or environmental professional acceptable to the NYSDEC, which will certify that the institutional controls and engineering controls put in place, are unchanged from the previous certification and nothing has occurred that will impair the ability of the control to protect public health or the environment or constitute a violation or failure to comply with any operation and maintenance or soil management plan.

- Imposition of an institutional control in the form of an environmental easement that will: (a) require compliance with the approved site management plan, (b) prohibit use and development of the capped area; (c) restrict use of shallow groundwater as a source of potable or process water without the necessary water quality treatment; and (d) require the property owner to complete and submit to the NYSDEC an annual certification to insure compliance with the use restrictions.

The selected remedy, discussed in detail in Section 7, is intended to attain the remediation goals identified for this site in Section 5. The remedy must conform with officially promulgated standards and criteria that are directly applicable, or that are relevant and appropriate. The selection of a remedy must also take into consideration guidance, as appropriate. Standards, criteria and guidance are hereafter called SCGs.

SECTION 2: SITE LOCATION AND DESCRIPTION

Camp Summit is located in the Town of Fulton, Schoharie County. The property is located in a New York Reforestation Area known as the Schoharie County Reforestation Area No. 6, located in a rural area in the foothills of the Catskill Mountains (Figure 1). Camp Summit is an active New York State Department of Correctional Services (NYSDCS) incarceration facility. The 290 acre property is owned by the NYSDEC, but operated by NYSDCS. The inactive hazardous waste disposal site occupies approximately 12 acres, approximately 300 feet south of the main prison office building. The site consists of the former wood treatment building and surrounding gravel and grass covered areas.

Camp Summit is bordered on the southeast by additional New York State owned land. The remainder of the property is bordered by private property, some of which is used for residential purposes. The local topography is hilly. An on-site pond feeds a tributary of Panther Creek. The tributary is a Class C (fish propagation) stream and Panther Creek is a Class C(TS) (trout spawning) stream. A NYSDEC Regulated Wetland is located approximately 0.5 miles northeast of the site.

SECTION 3: SITE HISTORY

3.1: Operational/Disposal History

Camp Summit facility inmates participate in various work programs. One of the work activities formerly performed by the Camp Summit inmates was a sawmill and wood treatment operation. The treatment plant was constructed as a dip tank process. The process operated from approximately 1964 to 1975. Initial treatment was with copper napthenate, which began during the fall of 1964, and continued for approximately one year. Pentachlorophenol (PCP) was used beginning in late 1965 or early 1966. The process consisted of soaking poles and lumber in pentachlorophenol filled dip tanks, hanging the wood over the tanks to allow a majority of the treating material to drip off, and transporting the treated wood on a small rail cart to drip and dry in a staging area outside the building. The plant was shut down in July of 1975 due to a fish kill in the on-site pond, resulting from a spill at the treatment building.

3.2: Remedial History

The Camp Summit site is one of three NYSDCS facilities in the State currently under investigation by the NYSDEC due to former wood treatment operations. Each of the three sites is an active incarceration facility operated by the NYSDCS, and located on property under the jurisdiction of the NYSDEC. The NYSDCS provided the funding for building construction at the Camps and provides for the maintenance and security. The NYSDEC provides the work programs, technical forestry staff to supervise work, and tools and equipment required to carry out the work. The wood treatment programs were developed to provide lumber and round poles for NYSDEC construction and maintenance projects. The pole treatment plants, however, are no longer in operation. Wood treatment at Camp Summit was discontinued in 1975.

In October 1997 the NYSDEC Division of Operations requested that the Division of Environmental Remediation (DER) perform an environmental investigation at Camp Summit.

The DER completed a Preliminary Investigation (PI) at Camp Summit in June 1999. The PI consisted of the excavation of test pits, the installation and sampling of monitoring wells and the collection of surface soil, sediment and subsurface soil samples. The investigation found pentachlorophenol in subsurface soil around a NYSDEC office, beneath the former treatment building, in former outdoor staging areas, in a drum rinsing area, in surface soil in the former outdoor staging areas, and on surfaces inside the former treatment building. Pentachlorophenol was also found in sediments at concentrations below the screening levels in the small pond located on site, and in groundwater. Dioxin, a common contaminant of commercially produced pentachlorophenol, was found in surface and subsurface soil, in sediments, in samples of fish and a turtle from the pond on-site, and in groundwater. Based on these findings the NYSDEC listed the site as a Class 2 site in the Registry of Inactive Hazardous Waste Disposal Sites in New York in 1999. A Class 2 site is a site where hazardous waste presents a significant threat to the public health or the environment and action is required.

In 2001, the NYSDEC initiated a Remedial Investigation/Feasibility Study (RI/FS) for the Camp Summit site. The RI was developed to build on the information generated during the PI and to help fully delineate the extent of contamination known to exist.

SECTION 4: SITE CONTAMINATION

A remedial investigation/feasibility study (RI/FS) has been conducted to evaluate the alternatives for addressing the significant threats to human health and the environment.

4.1: Summary of the Remedial Investigation

The purpose of the RI was to define the nature and extent of any contamination resulting from previous activities at the site. The RI was conducted between November 2001 and July 2003**.** The field activities and findings of the investigation are described in the RI report.

The following activities were conducted during the PI and RI:

- Collection of twenty-nine (29) surface soil samples.
- Collection of thirty (30) soil samples from shallow test pits.
- Installation of forty-eight (48) test pits across the site.
- Installation of twenty-two (22) soil borings.
- Conversion of nine (9) of the twenty-two (22) borings to monitoring wells.
- Collection of groundwater samples from all monitoring wells.
- Collection of groundwater samples from five (5) decommissioned production wells.

To determine whether the soil and groundwater contain contamination at levels of concern, data from the investigation were compared to the following SCGs:

- Groundwater, drinking water, and surface water SCGs are based on NYSDEC "Ambient Water Quality Standards and Guidance Values" and Part 5 of the New York State Sanitary Code. *Division of Water Technical and Operational Guidance Series 1.1.1* (TOGS 1.1.1) was used for screening groundwater. The groundwater standard for total phenolic compounds listed in TOGS 1.1.1 is 1.0 part per billion (ppb). Because PCP is the only phenolic compound detected in the groundwater at the site, an SCG of 1.0 ppb has been used. Finally, 6NYCRR Part 700-705 lists a groundwater standard of 0.0007 parts per trillion (ppt) for 2,3,7,8-TCDD. This value has been adopted as the groundwater SCG, with the other forms of dioxins and furans normalized to 2,3,7,8-TCDD using the USEPA's toxicity equivalence factors (TEFs).
- Soil SCGs are based on the NYSDEC "Technical and Administrative Guidance Memorandum (TAGM) 4046; Determination of Soil Cleanup Objectives and cleanup Levels". For dioxins/furans a cleanup level of 1 ppb 2,3,7,8-TCDD equivalence has been selected as the soil cleanup objective.
- Sediment SCGs are based on the NYSDEC "Technical Guidance for Screening Contaminated Sediments."
- NYSDEC Technical Report 87-3, *The Niagara River Biota Contamination Project: Fish Flesh Criteria for Piscivorous Wildlife*, July 1987,

Based on the RI results, in comparison to the SCGs and potential public health and environmental exposure routes, certain media and areas of the site require remediation. These are summarized below. More complete information can be found in the RI report.

4.1.1: Site Geology and Hydrogeology

Depth to bedrock across the site varies greatly, ranging from zero to 95 feet or more below ground surface (bgs). This is evidenced by the visible rock outcrops in the shale quarry (northeast portion of the Camp property), and the water supply well logs documenting 21 to 95 feet of overburden. Well logs for supply wells located at the correctional facility reported the bedrock as brown rock, blue and gray sandstone, and blue shale. The overburden was described as brown and gray hardpan, boulders, and gray clay. The wells range in depth from 250 feet to 610 feet bgs.

During the RI, subsurface conditions were recorded during drilling and test pit activities. Observations of the shallow overburden were made during the test pit investigation. In general, the top two feet of overburden consists of broken gray shale that ranges in size from gravel to boulders. Intermixed within the shale is brown silt and sand. This surface layer is likely fill material placed as a base for buildings and for staging treated and untreated lumber. The shale quarry is the likely source of the fill material. Beneath the fill is very dense glacial till consisting of clay, sand, silt, and shale cobbles and boulders varying in color; including orange, gray, tan, and brown.

The RI revealed that groundwater occurs primarily in the lenses of sand and gravel under unconfined conditions within the till unit . Although these lenses appear to be discontinuous, they are likely hydraulically connected to some degree through fractures in the till. Shallow groundwater recharge occurs through the infiltration of precipitation. Groundwater discharge, if present, appears to occur to the on-site pond. Groundwater is known to exist in the bedrock based on the production well logs and it is expected that confined or semi-confined conditions exist within the bedrock. It was not determined if groundwater within the till and the bedrock are hydraulically connected, but this could reasonably be expected in areas where bedrock is relatively shallow.

Depth to groundwater ranged from seven to fourteen feet bgs during the latest groundwater sampling event. The RI revealed that groundwater flows in a northeasterly direction, generally following surface topography in the direction of the pond.

4.1.2: Nature of Contamination

As described in the RI report, many soil, sediment, and groundwater samples were collected to characterize the nature and extent of contamination. As summarized in Table 1, the main categories of contaminants that exceed their SCGs are pentachlorophenol (PCP) and dioxins/furans.

PCP is a manufactured chemical which is a restricted use pesticide and is used industrially as a wood preservative for utility poles, railroad ties, fence posts, and wharf pilings. PCP was used at the Camp Summit site in the treatment of wood using a mixture of PCP and fuel oil. Fuel oil was used to dissolve the PCP into solution for the dipping process.

The primary fuel oil constituents of concern at this site are a subset of semi-volatile compounds (SVOCs), known as polycyclic aromatic hydrocarbons (PAHs).

PCP and dioxins/furans have low water solubility and a strong tendency to adhere to soil or sediment particles in the environment. Furthermore, PCP breaks down rapidly when exposed to sunlight and is less likely to be present in exposed surface soils. PAHs are also expected to be adsorbed to soil with limited potential for leaching. Therefore, their mobility in the environment is mainly limited to physical (erosional and depositional) mechanisms.

4.1.3: Extent of Contamination

This section describes the findings of the investigation for all environmental media that were investigated.

Chemical concentrations are reported in parts per billion (ppb) for water, parts per million (ppm) for waste, soil, and sediment. For comparison purposes, where applicable, SCGs are provided for each medium.

Table 1 summarizes the degree of contamination for the contaminants of concern in soil, sediment, and biota and compares the data with the SCGs for the site. The following are the media which were investigated and a summary of the findings of the investigation.

Discussions that follow this section include the data generated during both the PI and the RI.

Much of the soil sample data from the PI presented below is from immunoassay testing. Immunoassay testing is a screening procedure that allows for efficient and cost effective analysis of the sample for a specific compound, in this case pentachlorophenol. A percentage of the samples collected were split, with one half undergoing the immunoassay testing, the other half sent to a contract laboratory for verification that the immunoassay tests were producing reliable results and therefore usable data. All immunoassay testing was found to be reliable based on this verification method.

Surface Soil

A total of thirty-eight surface soil samples were collected during the PI an screened with immunoassay testing. Eleven of the thrity-eight exceeded the screening concentration of 1 ppm. The of the thirty-eight were sent for analsysis of dioxins with two samplees slightly exceeding the scfeening level of 1 ppb.

A total of twenty-nine surface soil samples were collected and sent for laboratory analysis of PAHs, metals, and dioxins.

PAHs were randomly detected in twenty-three of the twenty-nine samples ranging in total concentrations from 0.038, ppm to 6.7 ppm. None of the locations exhibited total PAHs in excess of the TAGM 4046 guidance value of 500 ppm. PCP was detected above TAGM 4046 guidance values at six locations (SS-6, SS-7, SS-12, SS-16, SS-19, and SS-22). These surface soil samples

are located northeast of Building 49. Detected levels of PCP in these samples ranged from 1 ppm to 6.3 ppm. All six samples exceeded the screening level of 1 ppm for the protection of groundwater.

Seventeen of the twenty-nine surface soil samples were sent for the analysis of dioxins. Although dioxins and furans were detected at low concentrations in every sample, only four samples showed 2,3,7,8-TCDD equivalence concentrations above the 1 ppb screening level.

Subsurface Soil

A total of 30 shallow test pits were installed south of Building 51 within the former lumber storage treatment area.

Several PAHs were detected in 19 of the 30 samples. Only PCP was detected above TAGM 4046 guidance values. Four shallow test pits exhibited PCP concentrations above the 1 ppm guidance value, ranging from 1.6 ppm to 26 ppm.

A total of 17 shallow test pit samples were sent for laboratory analysis of dioxins. While congeners were detected in several of the samples, only STP-17 and STP-19 exhibited a 2,3,7,8-TCDD equivalence above the 1 ppb screening level. The elevated 2,3,7,8-TCDD equivalence in STP-19 is consistent with the elevated PCP concentrations detected in this sample.

In addition to the 30 shallow test pits, a total of 48 test pits, were excavated across the site to deeper depths (e.g. top of water table). A total of 53 samples were collected and analyzed for PAHs, VOCs, metals and dioxin.

Four of the 53 samples collected were sent for laboratory analysis of VOCs. Total VOC concentrations ranged from 0.318 ppm to 58.7 ppm. Acetone, 2-butanone, methylene chloride and total xylenes were detected in TP-1 in concentrations above TAGM 4046 guidance values. Total xylenes were in exceedance of TAGM 4046 guidance values in TP-33. Test pit TP-1 is located in a former satellite disposal (ref. Figure 5) area and TP-33 is located just east of the former treatment building.

Several PAHs were detected in 35 of the 53 test pit soil samples. Total PAH concentrations ranged from 0.019 ppm to 130 ppm. No samples exceeded the TAGM 4046 guidance value of 500 ppm for total PAHs. Two locations (TP-18 and TP-32), however, possessed individual PAH analytes in excess of TAGM 4046 guidance values. PCP was detected in six test pits above the 1 ppm guidance value.

Eighteen samples collected from the former treatment areas were submitted for laboratory analysis of metals. All samples exhibited concentrations in excess of average background concentrations for several metals.

A total of 32 samples were collected and sent for the laboratory analysis of dioxins. Dioxins and furans were detected in 29 of the samples. Two of the 32 samples analyzed contained 2,3,7,8-

TCDD equivalence above the 1 ppb screening level. Test pits TP-1 and TP-3 possessed a 2,3,7,8-TCDD equivalence of 7.41 ppb and 1.36 ppb respectively.

Sediments

A total of 37 sediment samples were collected from 27 sampling locations during both the PI and RI investigative activities. Sediment sample locations are identified on Figure 3.

The PAH, benzo(a) pyrene (690 ppb), was detected above the SCG of 34.64 ppb in SED-5. Di-n-octyl phthalate was detected in DSED-1, DSED-2, DSED-3 and SED-4. No comparison value could be calculated for this analyte as it is not listed in the NYSDEC Technical Guidance for Screening Contaminated Sediments document.

PCP was not detected in any sediment sample above the SCG. Sediments were also analyzed for dioxins. A 2,3,7,8-TCDD equivalence site specific benchmark was calculated for each sediment sample based on total organic carbon. Three of the 10 samples (DSED-2, DSED-3 and SED-3) possessed concentrations of 2,3,7,8-TCDD equivalence, however, none of the samples exceeded the calculated location specific benchmark.

Groundwater

Groundwater samples from on-site monitoring wells and production wells were collected in December 2001 and January 2002. Samples from the six newly installed wells were sent for laboratory analysis of PAHs, pesticides, PCBs, metals and fuel oil components. Samples collected from four monitoring wells installed during the previous investigation were sent for laboratory analysis of SVOCs, dioxins and fuel oil components. Samples collected from five decommissioned production wells were sent for laboratory analysis of PAHs, pesticides, PCBs, metals and VOCs.

VOCs and PCBs were not detected in any groundwater samples.

Diesel fuel was detected in MW-4 at 24,000 ppb.

The highest PAH concentrations (and the most analyte detections) were encountered in monitoring well MW-7. Acenaphthene, 4-chloro-3-methylphenol, 2-chlorophenol, 2,4-dinitrotoluene, 1,4-dichlorobenzene, 4-nitrophenol, N-nitroso-di-n-propylamine, phenol pyrene, and 1,2,4-trichlorobenzene were all detected above guidance values.

4-Methylphenol and naphthalene were detected above guidance values in MW-4.

PCP was detected above the guidance value of 1 ppb in MW-4 (190 ppb), MW-6 (28 ppb) and MW-7 (490 ppb).

The groundwater guidance value for 2,3,7,8-TCDD is 0.00007 ppb. This has been adopted as the groundwater screening level, with the concentrations of other forms of dioxins and furans normalized to 2,3,7,8-TCDD using toxicity equivalence factors.

Dioxins were encountered in monitoring wells MW-2 through MW-5. All dioxin water results are reported in parts per trillion (ppt). Concentrations ranged from 0.000016 ppt to 0.065403 ppt. Monitoring wells MW-3 and MW-4 exhibited a 2,3,7,8-TCDD equivalence above the 0.00007 ppt screening level.

The metals most frequently detected were aluminum, iron, manganese and sodium. These metals are not considered to be associated with treatment operations and most likely represent background conditions.

Figure 4 illustrates groundwater monitoring well locations and groundwater sampling data.

Biota

During the PI, the NYSDEC Wildlife Pathology Unit collected several fish and one snapping turtle for pentachlorophenol analysis. Snapping turtle fat and two fish (shiners) were also analyzed for dioxins and furans by DER. Dioxin results are expressed both as the concentration of the individual 2,3,7,8-TCDD congener, and as the overall TCDD equivalence (TEQ), to allow for comparison to both Division of Fish and Wildlife guidance values and to NYSDOH guidance values. The two shiner samples contained 2,3,7,8-TCDD at 2.07 ppt and 3.36 ppt, and 10.5 ppt TEQ and 19.8 ppt TEQ, respectively. The snapping turtle fat contained 2,3,7,8-TCDD at 48.6 ppt. The higher concentration in the snapping turtle fat is expected, as dioxins bio-accumulate in body fat over time. Turtles are, on average, much longer-lived than minnows, and have a larger percentage of body fat than minnows.

The 2,3,7,8-TCDD fish concentration data was compared to risk calculations which evaluate possible effects on wildlife through the consumption of fish, contained in *The Niagara River Biota Contamination Project: Fish Flesh Criteria for Piscivorous Wildlife,* A.J. Newell *et al.*, July 1987, NYSDEC Technical Report 87-3, p. 72. The criteria listed are 3 ppt for non-carcinogenic effects, and 2.3 ppt for carcinogenic risk, using a threshold of 1 in 100 risk. One fish sample was slightly under these screening levels at 2.07 ppt, and the other exceeded both screening levels, at 3.36 ppt.

During the RI a total of 30 trout samples were collected from various locations within Panther Creek, located north (down-gradient) of the site. Several dioxin and furan congeners were detected in the trout samples. However, no trout samples collected exceeded the fish and wildlife screening level of 3 ppt.

Summary

Evaluation of the analytical data generated during the PI and RI resulted in the identification of several areas of concern with soil and localized groundwater contamination exceeding the SCGs. As shown on Figure 5, those areas include:

- A satellite disposal area east of the shale quarry access road;
- An area along the quarry access road due east of the pond;

- An area southwest of Building 50 formerly used for wood storage;
- An area south of Building 50 formerly used for wood storage;
- Entire area beneath Building 50;
- Entire area beneath Building 49;
- Entire area beneath the railroad slab north of Building 49;
- Entire area beneath Building 48;
- An area north of Building 51;
- An area north of Building 52;
- An area partially below and north of Building 52;
- An area west of Building 52;
- An area of the overgrown former access road southeast of Building 52;
- An area along the wood line south of Building 52.

4.2: Interim Remedial Measures

An interim remedial measure (IRM) is conducted at a site when a source of contamination or exposure pathway can be effectively addressed before completion of the RI/FS.

To help assess the nature and extent of contamination at the Camp Summit site, in Summer 2001, two of the on-site structures were demolished. The former treatment building and the former office were demolished during the Remedial Investigation to permit investigation beneath these structures. Demolition debris was disposed offsite at a permitted disposal facility. Following completion of the demolition program the concrete slab of the former treatment building was sealed.

4.3: Summary of Human Exposure Pathways:

This section describes the types of human exposures that may present added health risks to persons at or around the site. A more detailed discussion of the human exposure pathways can be found in Section 2.2 of the RI report.

An exposure pathway describes the means by which an individual may be exposed to contaminants originating from a site. An exposure pathway has five elements: [1] a contaminant source, [2] contaminant release and transport mechanisms, [3] a point of exposure, [4] a route of exposure, and [5] a receptor population.

The source of contamination is the location where contaminants were released to the environment (any waste disposal area or point of discharge). Contaminant release and transport mechanisms carry contaminants from the source to a point where people may be exposed. The exposure point is a location where actual or potential human contact with a contaminated medium may occur. The route of exposure is the manner in which a contaminant actually enters or contacts the body (e.g., ingestion, inhalation, or direct contact). The receptor population is the people who are, or may be, exposed to contaminants at a point of exposure.

An exposure pathway is complete when all five elements of an exposure pathway exist. An exposure pathway is considered a potential pathway when one or more of the elements currently does not exist, but could in the future.

There are no complete exposure pathways currently at the site. Potential pathways of exposure include:

- Direct contact with contaminated surficial soils in the former treatment area. There is currently an institutional control, in the form of warning signs, which serves to alert personnel to avoid impacted areas.

- Direct contact with contaminated subsurface soils by construction or utility workers in the future. Ingestion of contaminated shallow groundwater in the immediate area of the former treatment building is a potential future pathway should a well be installed.

- Inhalation of volatile site contaminants that may migrate from beneath a newly constructed building to the indoor air of the structure.

4.4: Summary of Environmental Impacts

This section summarizes the existing and potential future environmental impacts presented by the site. Environmental impacts include existing and potential future exposure pathways to fish and wildlife receptors, as well as damage to natural resources such as aquifers and wetlands.

The Fish and Wildlife Impact Analysis, which is included in the RI report, presents a detailed discussion of the existing and potential impacts from the site to fish and wildlife receptors. The following potential environmental exposure pathways and ecological risks have been identified:

- Terrestrial animal contact with chemicals present in the surface soil, subsurface soil, and groundwater;

- Ingestion of chemicals from surface soil, groundwater and food sources, and;

- Direct uptake of chemicals in soil or groundwater by terrestrial and aquatic plants

Samples of the sediments and biota in the on-site pond which receives drainage from the site, contained elevated levels of site related contaminants, therefore a completed exposure pathway to fish and wildlife receptors within the pond was identified. However, aquatic invertebrate tissue

analysis was conducted and dioxins were not detected above the appropriate wildlife protection criteria beyond the on-site pond.

SECTION 5: SUMMARY OF THE REMEDIATION GOALS

Goals for the remedial program have been established through the remedy selection process stated in 6 NYCRR Part 375-1.10. At a minimum, the remedy selected must eliminate or mitigate all significant threats to public health and/or the environment presented by the hazardous waste disposed at the site through the proper application of scientific and engineering principles.

The remediation goals for this site are to eliminate or reduce to the extent practicable:

- Exposures of persons at or around the site to PCP, dioxins/furans and metals in soil and groundwater;
- Environmental exposures of flora or fauna to PCP, dioxins, and metals in surface soil and groundwater;
- The release of contaminants from soil into groundwater that may create exceedances of groundwater quality standards; and

Further, the remediation goals for the site include attaining to the extent practicable:

- Ambient groundwater quality standards, and;
- Compliance with all applicable SCGs and cleanup goals.

SECTION 6: SUMMARY OF THE EVALUATION OF ALTERNATIVES

The selected remedy must be protective of human health and the environment, be cost-effective, comply with other statutory requirements, and utilize permanent solutions, alternative technologies or resource recovery technologies to the maximum extent practicable. Potential remedial alternatives for the Camp Summit Site were identified, screened and evaluated in the FS report which is available at the document repositories identified in Section 1.

A summary of the remedial alternatives that were considered for this site are discussed below. The present worth represents the amount of money invested in the current year that would be sufficient to cover all present and future costs associated with the alternative. This enables the costs of remedial alternatives to be compared on a common basis. As a convention, a time frame of 30 years is used to evaluate present worth costs for alternatives with an indefinite duration. This does not imply that operation, maintenance, or monitoring would cease after 30 years if remediation goals are not achieved.

6.1: Description of Remedial Alternatives

The following potential remedies were considered to address the contaminated soil, and groundwater at the site. The alternatives below are numbered sequentially for simplicity and do not necessarily correspond to the numbering system in the FS.

Alternative 1: No Action

Present Worth: *$450,000*
Capital Cost: *$26,000*
Annual OM&M: *$28,000*

The No Action Alternative is evaluated as a procedural requirement and as a basis for comparison. It requires continued monitoring only, allowing the site to remain in an unremediated state. This alternative would leave the site in its present condition and would not provide any additional protection to human health or the environment.

Under this alternative soil would not be actively treated and the site conditions would remain the same. Property maintenance (security, fence repairs, etc.) currently exists and would continue to exist as part of the daily operations of Camp Summit as an incarceration facility. However, access restrictions and security operations (beyond warning signs) do not currently exist at the site to prevent contact with impacted media. Groundwater monitoring would occur annually. For cost purposes a 30 year monitoring program has been assumed.

Alternative 2: Excavation and Off-site Disposal

Present Worth: *$16,945,000*
Capital Cost: *$16,826,000*
Annual OM&M:
(Years 1-5): *$28,000*

In Alternative 2 the PCP and dioxin impacts in the soil would be addressed by excavation and off-site disposal at a permitted disposal facility. Specifically, the source areas (Figure 5) would be excavated using conventional methods and equipment. The former railroad slab adjacent to Building 49 and the Buildings 48, 49, and 50 slabs/foundations would be demolished and disposed of off-site as part of this remedial alternative.

The total estimated removal volume of impacted soil is approximately 10,605 cubic yards, measured in place. A 20% bulking factor yields roughly 12,726 cubic yards of soil to be managed. Additionally, stabilization of saturated soils (i.e., soils removed from beneath the elevation of the groundwater table – approximately 1,800 cubic yards) would be necessary (estimated 30% by volume), which would require approximately 540 cubic yards of ash or similar product. The building slabs and foundations removed and crushed as part of this remedial alternative would produce roughly 140 cubic yards of waste that would require disposal. Consequently, the total volume that would require off-site disposal would be approximately 13,406 cubic yards. Soils at the

site have been determined to be hazardous (USEPA Hazardous Waste No. F032). As such, soils would have to be managed in accordance with all pertinent State and Federal regulations.

Dewatering operations may be required during excavation operations as the water table typically occurs between 5 to 6 feet bgs. Site geologic conditions indicate that groundwater exists within the overburden across the site. Water generated during excavation activities would be managed and either sent for off-site treatment or treated on-site.

The excavation would be performed in phases to minimize exposure and construction hazards. Construction workers would wear adequate personal protective equipment (PPE). Air monitoring would be conducted during all intrusive activities. No sheeting, shoring, or bracing is expected to be required due to the dense soils at the site and the manageable size of the excavation areas. Sloping or benching would be utilized to achieve stability of excavation sidewalls. Excavated materials would be transported to a permitted off-site treatment and disposal facility. The excavated areas would be backfilled with clean fill from an off-site source.

Excavated soils would be transported to a permitted treatment and disposal facility. NYCRR Part 371 defines the contaminated soils as hazardous (F032) waste. As such, soils would have to be disposed of in an appropriate hazardous waste landfill. Some pre-treatment of the excavated soils, prior to disposal, may be necessary in accordance with USEPA Land Disposal Restrictions (LDRs).

Groundwater monitoring would occur annually for five years. Based on the results, the need for further groundwater monitoring would be evaluated, and possibly continue at a modified frequency (e.g. biannually).

Alternative 3: Excavation, Consolidation and Limited Off-site Disposal

Present Worth: *$10,607,000*
Capital Cost: *$10,165,000*
Annual OM&M:
(Years 1-30): *$29,000*

Under Alternative 3, the PCP and dioxin impacts to soil would be addressed through excavation and a combination of on-site containment and off-site disposal. The majority of the excavated material would be consolidated and covered with a modified part 360 multi-layered synthetic cap and a limited amount of the material would be disposed off-site. Segregation of material for off-site disposal would be based upon visual impacts to the soil (i.e., staining, oily sheens, etc.). Areas of concern are shown on Figure 5 .

The former railroad slab, and Buildings 48, 49, and 50 slabs/foundations would be demolished as part of this remedial alternative. The concrete rubble generated during the demolition of these building slabs and foundations would also be placed in the consolidation area.

The total estimated removal volume of impacted soil is approximately 10,605 cubic yards, measured in place. A 20% bulking factor yields roughly 12,726 cubic yards of soil to be managed. Additionally, stabilization of saturated soils (i.e., soils removed from beneath the elevation of the

groundwater table – approximately 1,800 cubic yards) would be necessary (estimated 30% by volume). The building slabs and foundations removed and crushed as part of this remedial alternative would produce roughly 140 cubic yards of waste that would require disposal. Based upon review of the site data, it is estimated that approximately 2,800 cubic yards of impacted soil would be segregated and considered for disposal off-site in a permitted disposal facility. As noted in Alternative 2 pre-treatment of grossly contaminated material is likely. Consequently, the total volume of material that would be consolidated and capped at the site would be approximately 9,926 cubic yards.

Dewatering operations consistent with Alternative 2 may be required during excavation operations.

The excavation would be performed consistent with that described in Alternative 2 and the excavated areas would be backfilled with clean fill from an off-site source.

The contaminated soil to be contained on site would be consolidated on grade in the area of contamination, covered with a modified NYCRR Part 360 multi-layered geomembrane cap. This multi-layer cap would eliminate the potential for direct contact with impacted media and prevent rainwater infiltration into the material beneath the cap.

All future site development would be required to consider the requirements of the containment area and cap in their design. Institutional controls and environmental easements would be implemented to limit site access and usage (e.g. groundwater use restriction). Groundwater monitoring would occur annually for five years. Based on the results, further groundwater monitoring would continue either annually or the sampling frequency would be modified (e.g. biannually). For cost purposes a 30 year monitoring program has been assumed.

The approximate 2,800 cubic yards that would be disposed off-site in a permitted disposal facility is regulated by 6NYCRR Part 371 which defines the contaminated soils as hazardous (F032) waste. As such, these soils would have to be disposed of in an appropriate hazardous waste landfill and may require treatment prior to disposal

6.2 Evaluation of Remedial Alternatives

The criteria to which potential remedial alternatives are compared are defined in 6 NYCRR Part 375, which governs the remediation of inactive hazardous waste disposal sites in New York State. A detailed discussion of the evaluation criteria and comparative analysis is included in the FS report.

The first two evaluation criteria are termed “threshold criteria” and must be satisfied in order for an alternative to be considered for selection.

1. Protection of Human Health and the Environment. This criterion is an overall evaluation of each alternative’s ability to protect public health and the environment.

2. Compliance with New York State Standards, Criteria, and Guidance (SCGs). Compliance with SCGs addresses whether a remedy will meet environmental laws, regulations, and other standards

and criteria. In addition, this criterion includes the consideration of guidance which the NYSDEC has determined to be applicable on a case-specific basis.

The next five "primary balancing criteria" are used to compare the positive and negative aspects of each of the remedial strategies.

3. Short-term Effectiveness. The potential short-term adverse impacts of the remedial action upon the community, the workers, and the environment during the construction and/or implementation are evaluated. The length of time needed to achieve the remedial objectives is also estimated and compared against the other alternatives.

4. Long-term Effectiveness and Permanence. This criterion evaluates the long-term effectiveness of the remedial alternatives after implementation. If wastes or treated residuals remain on-site after the selected remedy has been implemented, the following items are evaluated: 1) the magnitude of the remaining risks, 2) the adequacy of the engineering and/or institutional controls intended to limit the risk, and 3) the reliability of these controls.

5. Reduction of Toxicity, Mobility or Volume. Preference is given to alternatives that permanently and significantly reduce the toxicity, mobility or volume of the wastes at the site.

6. Implementability. The technical and administrative feasibility of implementing each alternative are evaluated. Technical feasibility includes the difficulties associated with the construction of the remedy and the ability to monitor its effectiveness. For administrative feasibility, the availability of the necessary personnel and materials is evaluated along with potential difficulties in obtaining specific operating approvals, access for construction, institutional controls, and so forth.

7. Cost-Effectiveness. Capital costs and operation, maintenance, and monitoring costs are estimated for each alternative and compared on a present worth basis. Although cost-effectiveness is the last balancing criterion evaluated, where two or more alternatives have met the requirements of the other criteria, it can be used as the basis for the final decision. The costs for each alternative are presented in Table 2.

This final criterion is considered a "modifying criterion" and is taken into account after evaluating those above. It is evaluated after public comments on the Proposed Remedial Action Plan have been received.

8. Community Acceptance - Concerns of the community regarding the RI/FS reports and the PRAP have been evaluated. The responsiveness summary (Appendix A) presents the public comments received and the manner in which the NYSDEC addressed the concerns raised.

In general, the public comments received were supportive of the selected remedy.

SECTION 7: SUMMARY OF THE SELECTED REMEDY

Based on the Administrative Record (Appendix B) and the discussion presented below, the NYSDEC has selected Alternative 3: Excavation, Consolidation and Capping with Limited Off-site Disposal as the remedy for this site. The elements of this remedy are described at the end of this section.

The selected remedy is based on the results of the RI and the evaluation of alternatives presented in the FS.

The areas of contamination are shown on Figure 5. The conceptual consolidation area is illustrated on Figure 6. This area would coincide with one or more areas of known contamination, however, the actual location would be determined during the remedial design.

The comparative evaluation of overall protection of human health and the environment evaluates attainment of SCGs, as well as the analysis of other criteria evaluated for each alternative (specifically, short- and long-term effectiveness). The evaluation of this criteria focuses on such factors as the manner in which the remedial alternatives achieve protection over time, the degree to which site risks would be reduced, and the manner in which the source of contamination would be eliminated, reduced, or controlled.

Alternative 1 (No Action) would not be protective of human health and the environment.

Alternatives 2 and 3 would involve the excavation and either limited off-site disposal or containment of surface and subsurface soil that exceed the SCGs. Excavation of the soil exceeding the SCGs would remove the source of groundwater contamination. Alternative 2 involves the placement of excavated soil in a secured, permitted, off-site hazardous waste landfill, which would effectively mitigate the potential for exposure to soil exceeding the SCGs. The on-site containment component of Alternative 3 would isolate impacted soil from the surrounding environment and would also effectively mitigate the potential for exposure to soil exceeding the SCGs. The modified part 360 multi-layered synthetic cap would serve to impede the potential for transport of contaminants into groundwater. Short-term impacts to both human health and the environment during the implementation of Alternatives 2 and 3 could be managed using appropriate controls (e.g. dust monitoring, etc.). Alternatives 2 and 3 are considered effective measures to protect against potential long-term human health risks and environmental impacts.

Alternative 1 (No Action) would not comply with the SCGs. The other alternatives under evaluation in the section would comply with SCGs via the excavation and off-site disposal (Alternative 2) or by on-site containment (Alternative 3) of surface and subsurface soil that exceed the SCGs. LDR guidelines would be applicable to Alternatives 2 and 3 because they involve the transport of impacted materials off-site (i.e. outside the area of concern) for disposal. All remedial actions would be completed in a manner compliant with action-specific standards and regulatory requirements.

The short-term effectiveness comparison includes the evaluation of the relative potential for impacts to the nearby communities, site worker exposures, environmental impacts, and the time frame for implementation of the alternatives.

The implementation of Alternative 1 (No Action) would result in the least short-term impact, because minimal action would be taken to disturb the impacted media at the site. Alternatives 2 and 3 would both involve an increased short-term risk of exposures to on-site construction workers, the community, and the environment during construction activities. These risks could be managed through the appropriate utilization of erosion and sediment controls and health and safety measures, including engineering controls, air monitoring, and use of PPE, in accordance with OSHA 1910.120. Of the alternatives that would achieve the SCGs, Alternative 2 would pose the greatest short-term risks to human health and the environment because it would involve the largest volume of impacted material to be transported off-site.

Alternative 1 (No Action) would not reduce the risk of direct contact with impacted media. Therefore, it would not be a permanent or effective remedy.

Alternatives 2 and 3 would provide an effective and long-term solution to soil impacts exceeding the SCGs. They would effectively mitigate the potential for exposure to soil exceeding the SCGs. Excavation of the soil exceeding the SCGs would remove the source of groundwater contamination. Alternatives 2 and 3 would involve the placement of excavated soil in a secured, permitted, off-site hazardous waste landfill, which would reduce the on-site volume, toxicity, and mobility of the contamination. On-site containment (Alternative 3) would isolate impacted soil from the surrounding environment and impede the potential for transport of contaminants into groundwater. The long-term effectiveness of the modified part 360 multi layered synthetic cap would be ensured through routine inspection and maintenance of the cap as well as institutional controls, restrictions on land usage and environmental easements.

Groundwater monitoring would be performed under all alternatives. Alternatives 2 and 3 are considered effective measures to protect against potential long-term human health risks and environmental impacts.

Under Alternative 1 (No Action) the volume and toxicity of soil impacted with PCP would gradually decrease over time through natural degradation; dioxin concentrations would remain unaffected. Impacted soil would remain a potential source of contamination to the groundwater, as the infiltration of precipitation, which appears to be the primary mechanism of contamination transport at the Site, would not be impeded.

Alternatives 2 and 3 would reduce the on-site volume, toxicity, and mobility of contaminants through the excavation and off-site disposal of impacted soil exceeding the SCGs; however, there would not be any expected reduction in the volume, toxicity, or mobility of the contaminants disposed of off-site. On-site containment (Alternative 3) of impacted soil would not lessen the toxicity or volume of contaminated materials remaining on-site. It would, however, consolidate the material into a manageable unit that would impede mobility by preventing the infiltration and transport of contaminants.

Alternative 1 (No Action) would require minimal planned or implemented activities.

Alternative 3 would include the construction of a modified part 360 multi-layered synthetic cap. Quality assurance/quality control parameters would have to be adhered to during construction of the cap to ensure its effectiveness. The area of consolidation and construction of the modified part 360 multi- layered synthetic cap would have to be carefully integrated into the long-range development plans for the site. The long-term effectiveness of the cap would be ensured through routine inspection and maintenance as well as institutional controls and restrictions on land usage.

Alternatives 2 and 3 could be implemented using standard construction equipment and practices. Each of these alternatives would involve excavation, and are thus equally likely to encounter limitations associated with excavation activities. Excavation and transport equipment, clean fill, synthetic liner materials, materials to complete groundwater monitoring, and other items associated with these alternatives would be readily available.

Alternatives 2 and 3 would both involve off-site disposal. Given the levels of contamination observed during sampling it is likely that soil sent off-site for disposal would require pretreatment before being sent to an appropriate disposal facility..

The comparative evaluation of the cost of remediation is based on the net present worth of each alternative. Cost estimates are provided in Table 2.

Based on the above evaluation Alternative 3 would be the most appropriate remedy for this site.

The estimated present worth cost to implement the remedy is $10,607,000. The cost to construct the remedy is estimated to be $10,165,000 and the estimated average annual operation, maintenance, and monitoring costs for 30 years is $29,000.

The elements of the selected remedy are as follows:

- A remedial design program will be implemented to provide the details necessary for the construction, operation, maintenance, and monitoring of the remedial program.

- Excavate areas of contaminated soil to meet SCGs and segregate as necessary for off-site disposal and on-site consolidation.

- Transport an estimated 2,800 cubic yards of grossly contaminated soil to an appropriate hazardous waste landfill in accordance with USEPA Land Disposal Restrictions (LDRs).

- Consolidation of an estimated 9,900 cubic yards of contaminated soil for on-site containment.

- Demolition and placement in the area of consolidation of the Building 48, 49 and 50 slabs/foundations.

- Construction of an approximately 1.6 acre modified Part 360 multi- layered synthetic cap

over the consolidated excavated material. The cap will consist of:

  - Low Permeability Layer
  - Synthetic Barrier
  - Vegetative Layer

- The site will be restored by grading, placement of topsoil, and seeding of excavated and/or filled areas.

- Since the remedy results in untreated hazardous waste remaining at the site, a long term monitoring program will be instituted. Groundwater monitoring will occur annually for five years. Based on the results, further groundwater monitoring will continue either annually or the sampling frequency will be modified (e.g. biannually). This program will allow the effectiveness of the cap to be monitored and will be a component of the operation, maintenance, and monitoring for the site.

- Development of a site management plan to: (a) maintain the capped area (mowing, erosion repairs, etc); (b) restrict use of shallow groundwater in the area subject to long term monitoring (c) evaluate the potential for vapor intrusion for any buildings developed on the site, including provisions for mitigation of any impacts; and (d) prohibit redevelopment or use of the capped area.

- The property owner will provide an annual certification, prepared and submitted by a professional engineer or environmental professional acceptable to the Department, which will certify that the institutional controls and engineering controls put in place, are unchanged from the previous certification and nothing has occurred that could impair the ability of the control to protect public health or the environment or constitute a violation or failure to comply with any operation an maintenance or soil management plan.

- Imposition of an institutional control in the form of an environmental easement that will: (a) require compliance with the approved site management plan, (b) prohibit use and development of the capped area; (c) restrict use of shallow groundwater as a source of potable or process water; and, (d) require the property owner to complete and submit to the NYSDEC an annual certification to insure compliance with the use restrictions.

SECTION 8: HIGHLIGHTS OF COMMUNITY PARTICIPATION

As part of the remedial investigation process, a number of Citizen Participation activities were undertaken to inform and educate the public about conditions at the site and the potential remedial alternatives. The following public participation activities were conducted for the site:

- Repositories for documents pertaining to the site were established.

- A public contact list, which included nearby property owners, elected officials, local media and other interested parties, was established.

- A fact sheet was sent on March 2, 2004 detailing the Proposed Remedial Action Plan and announcing both the start of the comment period and a public meeting.

- A meeting was held on March 16, 2004 with onsite staff from the NYSDEC and NYSDCS. The purpose of the meeting was to present the RI findings, the proposed remedy, and answer questions concerning the remedial program.

- The public meeting was held on March 17, 2004 to present and receive comment on the PRAP.

- A responsiveness summary (Appendix A) was prepared to address the comments received during the public comment period for the PRAP.

Table 1
Nature and Extent of Contamination

SURFACE SOIL	Contaminants of Concern	Concentration Range Detected (ppm)[a]	SCG [b] (ppm)[a]	Frequency of Exceeding SCG
Semivolatile Organic Compounds (SVOCs)	Pentachlorophenol	0.038-6.3	1	16 of 67
Inorganic Compounds	Arsenic	5.8-17.9	7.5	17 of 24
	Copper	5.9-26.5	25	4 of 24
Dioxin Compounds	2,3,7,8-TCDD TEF[c]	0.000036-3.76815	0.001	6 of 37

SUBSURFACE SOIL - Test Pits	Contaminants of Concern	Concentration Range Detected (ppm)[a]	SCGb (ppm)[a]	Frequency of Exceeding SCG
Volatile Organic Compounds (VOCs)	Acetone	0-3200	0.2	2 of 4
	2-Butanone	0-410	0.3	3 of 4
	Ethylbenzene	33-12000	5.5	4 of 4
	Methylene Chloride	5-9	0.1	4 of 4
	Toluene	0-100	1.5	2 of 4
	Total Xylenes	280-43000	1.2	4 of 4
Semivolatile Organic Compounds (SVOCs)	Benzo{a}anthracene	0-420	0.33	1 of 80
	Chrysene	0-440	0.4	1 of 80
	2-Methylnaphthalene	0-73000	36.4	1 of 80
	Pentachlorophenol	0-130000	1	11 of 80
PCB/Pesticides	4, 4'-DDD	0-37	2.9	1 of 2
	4, 4'-DDT	0-20	2.1	1 of 2

Table 1 (cont.)
Nature and Extent of Contamination

SUBSURFACE SOIL - Test Pits	Contaminants of Concern	Concentration Range Detected (ppm)[a]	SCG [b] (ppm)[a]	Frequency of Exceeding SCG
Inorganic Compounds	Arsenic	5.9-28.6	7.5	23 of 34
	Copper	8.7-125	25	5 of 34
Dioxin Compounds	2,3,7,8-TCDD TEF[c]	BDL[d]-7.41	0.001	5 of 49

SUBSURFACE SOIL - Soil and MW Borings	Contaminants of Concern	Concentration Range Detected (ppm)[a]	SCG [b] (ppm)[a]	Frequency of Exceeding SCG
Semivolatile Organic Compounds (SVOCs)	Fluorene	0-8000	50	1 of 56
	2-Methylnaphthalene	0-63	0.1 or MDL	17 of 56
	Naphthalene	0-18	13	1 of 56
	Pentachlorophenol	0-820	1.0 or MDL	28 of 56
	Phenol	0-0.33	0.03 or MDL	2 of 28
PCB/Pesticides	4,4'-DDT	0-3000	2100	1 of 8
Inorganic Compounds	Arsenic	0-22.2	7.5	6 of 8
Dioxin Compounds	2,3,7,8-TCDD TEF[c]	BDL[d]-1.0715	0.001	1 of 28

Table 1 (cont.)
Nature and Extent of Contamination

SEDIMENTS	Contaminants of Concern	Concentration Range Detected (ppm)[a]	SCG [b] (ppm)[a]	Frequency of Exceeding SCG
Semivolatile Organic Compounds (SVOCs)	Benzo(a) pyrene	0-690	34.64	1 of 37
Inorganic Compounds	Arsenic	6.4-12.1	6	5 of 5
	Copper	7.1-27.7	16	2 of 5

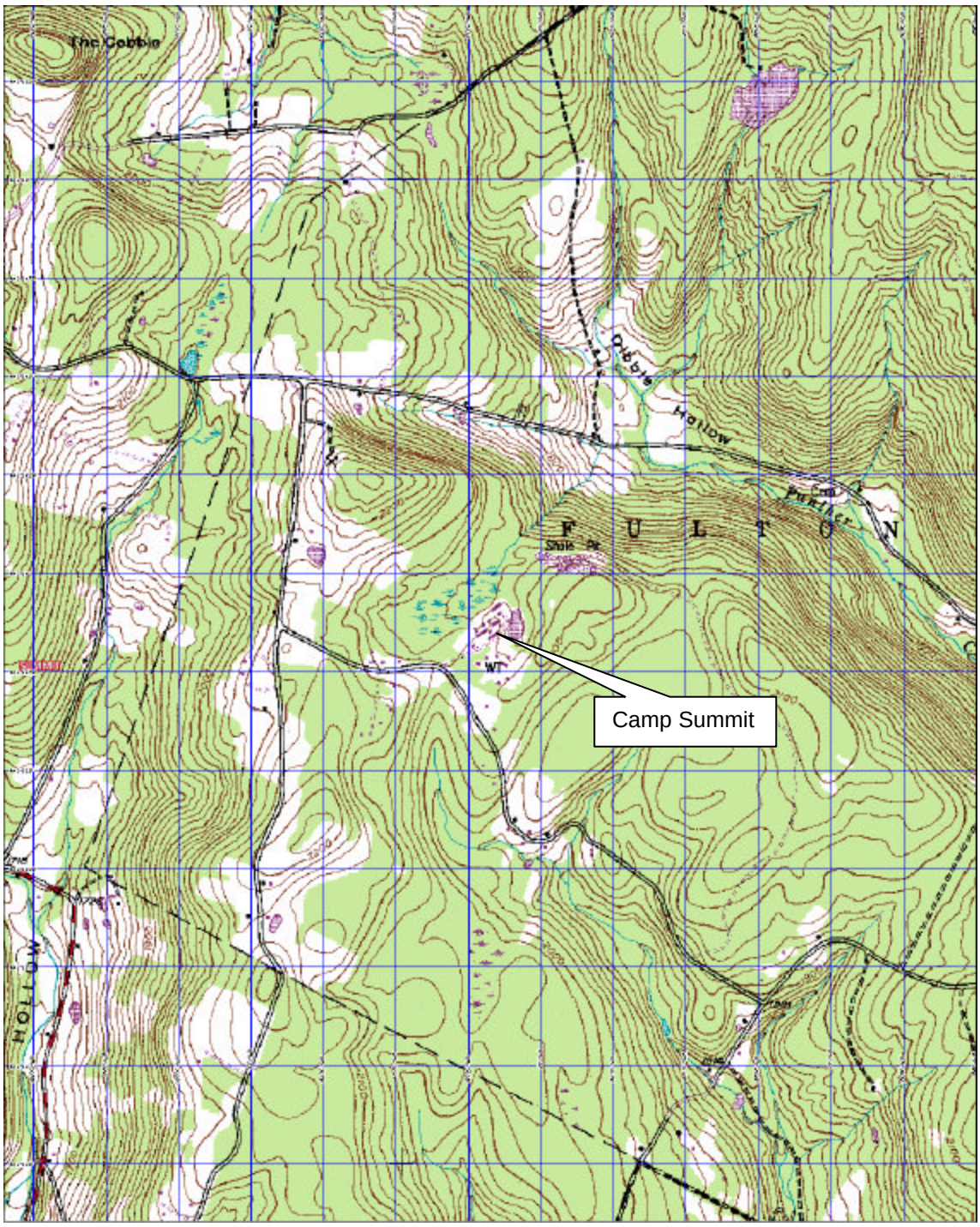
GROUNDWATER	Contaminants of Concern	Concentration Range Detected (ppb)[a]	SCG [b] (ppb)[a]	Frequency of Exceeding SCG
Volatile Organic Compounds (VOCs)	Xylenes (total)	ND-18	5	1 of 4
Semivolatile Organic Compounds (SVOCs)	Bis (2-ethylhexyl) phthalate	3-140	5	4 of 31
	2,4,6-Trichlorophenol	0-0.7	NP	1 of 31
	Pentachlorophenol	0-810	NP	8 of 31
Dioxin Compounds	2,3,7,8-TCDD TEF[c]	0.000016-0.065403	0.0007	7 of 17

BIOTA	Contaminants of Concern	Concentration Range Detected (ppb)[a]	SCG [b] (ppb)[a]	Frequency of Exceeding SCG
Dioxin Compounds	2,3,7,8-TCDD TEF[c]	BDL[d]-.000263	0.0003	3 of 34

[a] ppb = parts per billion, which is equivalent to micrograms per liter, ug/L, in water;
ppm = parts per million, which is equivalent to milligrams per kilogram, mg/kg, in soil;
[b] SCG = standards, criteria, and guidance values
[c] TEF = toxicity equivalence factors
[d] BDL = below detection limits

Table 2
Remedial Alternative Costs

Remedial Alternative	Capital Cost	Annual OM&M	Total Present Worth
No Action	**$26,000**	**$28,000**	**$450,000**
Alternative3: Excavation and Off-site Disposal	**$16,826,000**	**$28,000**	**$16,946,000**
Alternative 4: Excavation and On-site Containment with Limited Off-site Disposal	**$10,165,000**	**$29,000**	**$10,607,000**

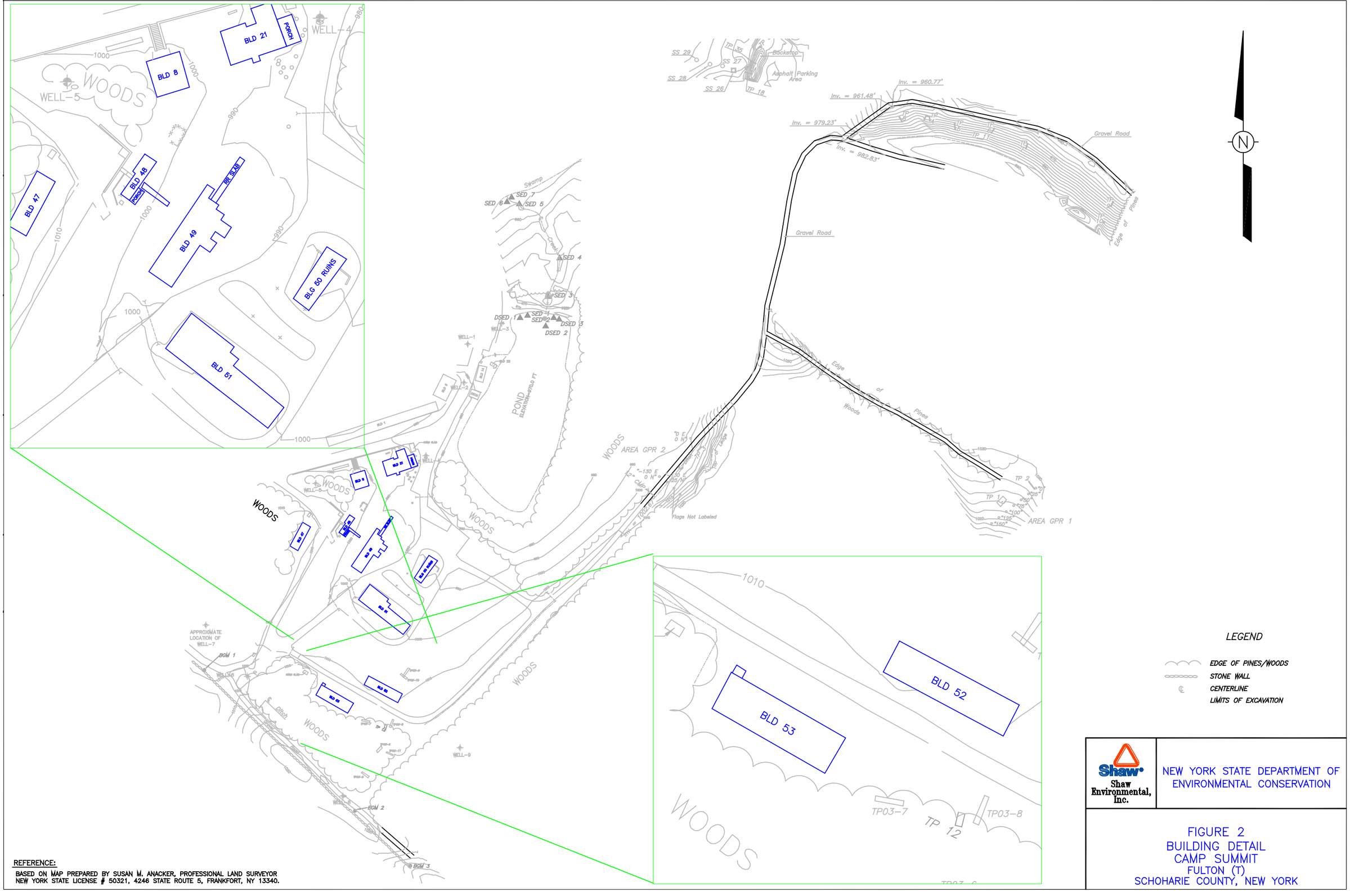


Scale: 1:24,000

Reference:
DeLorme 3-D Topo Quads, 1999
Yarmouth, Me.
Datum WGS84

NYSDEC

Figure 1
Site Location Map
Camp Summit



REFERENCE:

BASED ON MAP PREPARED BY SUSAN M. ANACKER, PROFESSIONAL LAND SURVEYOR
NEW YORK STATE LICENSE # 50321, 4246 STATE ROUTE 5, FRANKFORT, NY 13340.

LEGEND

- EDGE OF PINES/WOODS
- STONE WALL
- CENTERLINE
- LIMITS OF EXCAVATION

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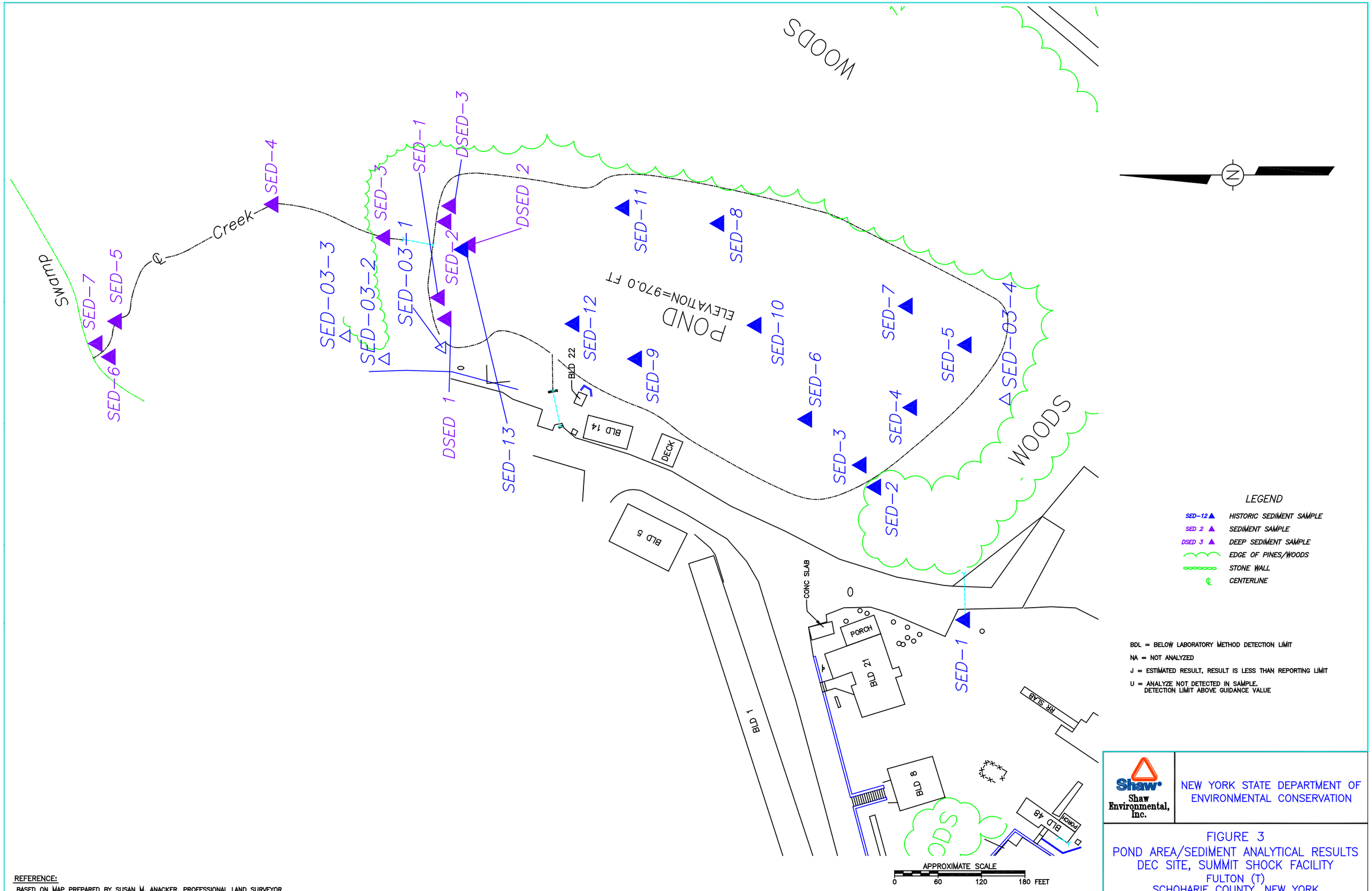
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

FIGURE 2
BUILDING DETAIL
CAMP SUMMIT
FULTON (T)
SCHOHARIE COUNTY, NEW YORK



LEGEND

- SED-12 ▲ HISTORIC SEDIMENT SAMPLE
- SED 2 ▲ SEDIMENT SAMPLE
- DSED 3 ▲ DEEP SEDIMENT SAMPLE
- EDGE OF PINES/WOODS
- STONE WALL
- ℄ CENTERLINE

BDL = BELOW LABORATORY METHOD DETECTION LIMIT

NA = NOT ANALYZED

J = ESTIMATED RESULT, RESULT IS LESS THAN REPORTING LIMIT

U = ANALYZE NOT DETECTED IN SAMPLE. DETECTION LIMIT ABOVE GUIDANCE VALUE

REFERENCE:

BASED ON MAP PREPARED BY SUSAN M. ANACKER, PROFESSIONAL LAND SURVEYOR NEW YORK STATE LICENSE # 50321, 4246 STATE ROUTE 5, FRANKFORT, NY 13340.

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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

FIGURE 3
POND AREA/SEDIMENT ANALYTICAL RESULTS
DEC SITE, SUMMIT SHOCK FACILITY
FULTON (T)
SCHOHARIE COUNTY, NEW YORK

MW-13	
NS	BDL
NS	0.041549J

MW-14	
NS	BDL
NS	0.000394

MW-9	
BDL	0.8J
NA	0.003435

MW-7	
490B	810
NA	0.01305J

MW-8	
0.8BJ	BDL
NA	0.000107J

MW-6	
28BJ	24J
NA	0.003679

MW-11	
BDL	BDL
NA	0.000188J

MW-10	
BDL	BDL
NA	0.000040J

MW-5	
BDL	BDL
0.000016	0.000121J

MW-4	
190BD	250
0.065403	0.061502J

MW-12	
NS	11J
NS	0.000492J

MW-3	
BDL	BDL
0.005833	0.01285J

MW-2	
BDL	BDL
0.000396J	0.000169J

APPROXIMATE LOCATION OF WELL-7

WELL-4 WELL-5 WELL-6 WELL-8 WELL-9

MW-2 MW-3 MW-4 MW-5 MW-6 MW 7 MW 8 MW 9 MW-10 MW-11 MW-12 MW-13 MW-14

BLD 21 BLD 8 BLD 47 BLD 48 BLD 49 BLG 50 RUINS BLD 51 BLD 52 BLD 53

CONC SLAB BR SLAB PORCH

WOODS

BGM 1 BGM 2

TP03-5 TP03-6 TP03-7 TP03-8 TP03-9 TP03-10 TP03-11 TP 12

Ditch Gravel Road

LEGEND

- PRODUCTION WELL
- MONITORING WELL
- EDGE OF PINES/WOODS
- STONE WALL
- ℄ CENTERLINE

REMEDIAL INVESTIGATION

MW-4	
190BD	250
0.065403	0.061502J
2002 GROUNDWATER DATA	2003 GROUNDWATER DATA

LOCATION
PCP (ug/L)
DIOXIN (ng/L)

B = INDICATES A VALUE GREATER THAN OR EQUAL TO THE INSTRUMENT DETECTION LIMIT BUT LESS THAN THE QUANTITATION LIMIT

D = RESULT OBTAINED FROM DILUTION

BDL = BELOW LABORATORY METHOD DETECTION LIMIT

NA = NOT ANALYZED

NS = NOT SAMPLED

J = ESTIMATED RESULT, RESULT IS LESS THAN REPORTING LIMIT

APPROXIMATE SCALE
0 50 100 150 FEET

REFERENCE:
BASED ON MAP PREPARED BY SUSAN M. ANACKER, PROFESSIONAL LAND SURVEYOR NEW YORK STATE LICENSE # 50321, 4246 STATE ROUTE 5, FRANKFORT, NY 13340.

Shaw Environmental, Inc.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

FIGURE 4
GROUNDWATER ANALYTICAL MAP
DEC SITE, SUMMIT SHOCK FACILITY
FULTON (T)
SCHOHARIE COUNTY, NEW YORK

G DEPTH 0–8 FEET
VOLUME 3,000 CY

H DEPTH 0–6 FEET
VOLUME 1,000 CY

E DEPTH 0–3 FEET
VOLUME 250 CY

F DEPTH 0–6 FEET
VOLUME 1,500 CY

C DEPTH 0–3 FEET
VOLUME 235 CY

D DEPTH 0–3 FEET
VOLUME 45 CY

I DEPTH 0–4 FEET
VOLUME 400 CY

B DEPTH 0–10 FEET
VOLUME 75 CY

A DEPTH 0–6 FEET
VOLUME 1,400 CY

L DEPTH 0–3 FEET
VOLUME 400 CY

J DEPTH 0–6 FEET
VOLUME 840 CY

K DEPTH 0–3 FEET
VOLUME 410 CY

N DEPTH 0–6 FEET
VOLUME 800 CY

M DEPTH 0–3 FEET
VOLUME 250 CY

LEGEND

- EDGE OF PINES/WOODS
- STONE WALL
- ℄ CENTERLINE
- LIMITS OF EXCAVATION

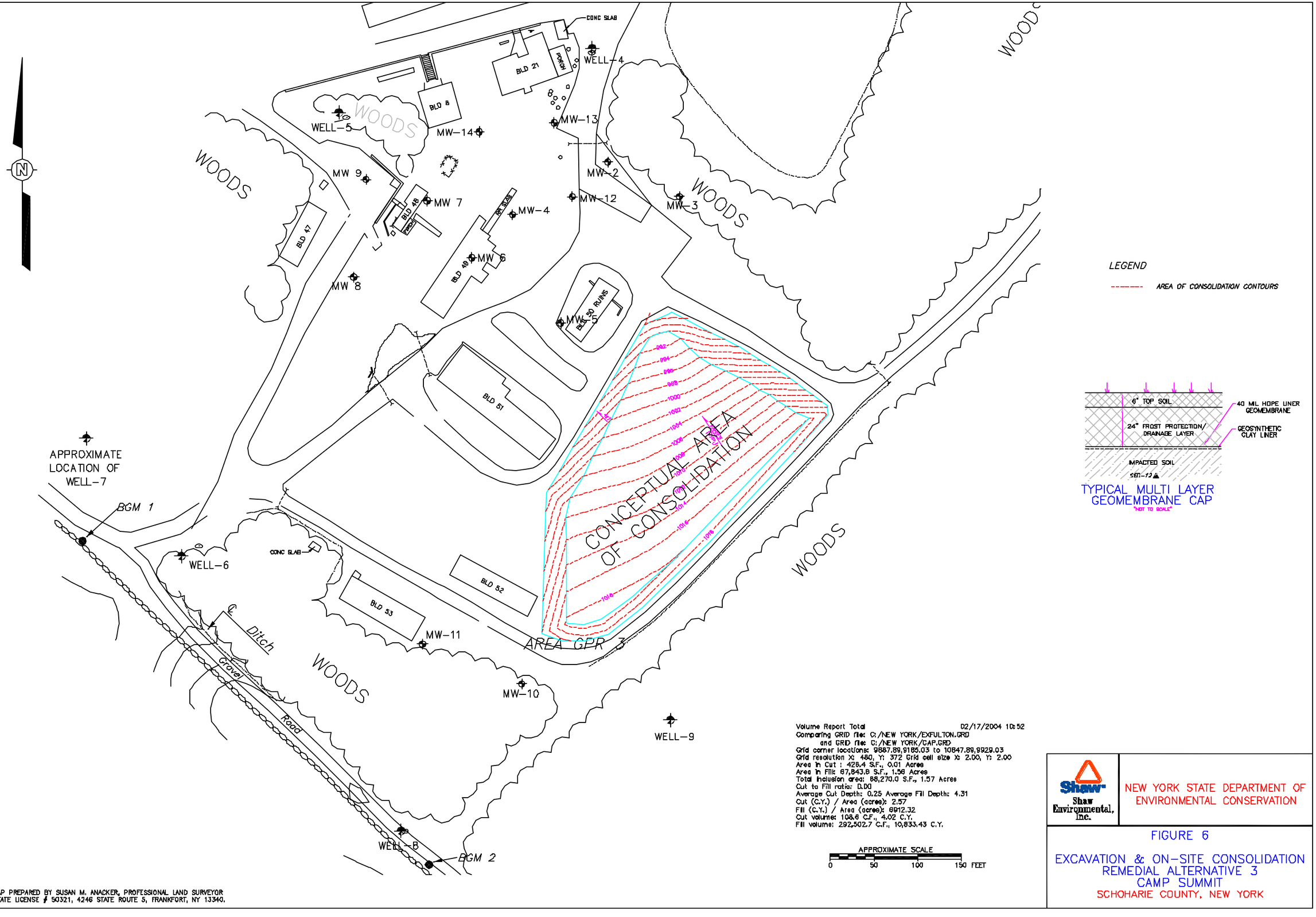
REFERENCE:

BASED ON MAP PREPARED BY SUSAN M. ANACKER, PROFESSIONAL LAND SURVEYOR
NEW YORK STATE LICENSE # 50321, 4246 STATE ROUTE 5, FRANKFORT, NY 13340.

Shaw
Shaw Environmental, Inc.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

FIGURE 5
AREAS OF CONCERN
CAMP SUMMIT
FULTON (T)
SCHOHARIE COUNTY, NEW YORK



REFERENCE:

BASED ON MAP PREPARED BY SUSAN M. ANACKER, PROFESSIONAL LAND SURVEYOR NEW YORK STATE LICENSE # 50321, 4246 STATE ROUTE 5, FRANKFORT, NY 13340.

APPENDIX A

Responsiveness Summary

RESPONSIVENESS SUMMARY

Camp Summit Site
Proposed Remedial Action Plan
Fulton, Schoharie County
Site No.4-48-006

The Proposed Remedial Action Plan (PRAP) for the Camp Summit Site was prepared by the New York State Department of Environmental Conservation (NYSDEC) in consultation with the New York State Department of Health (NYSDOH) and issued to the local document repository on March 2, 2004. This Plan outlined the preferred remedial measure proposed for the remediation of the contaminated soil and groundwater at the Camp Summit Site. The preferred remedy is a Excavation, Consolidation and Limited Off-site Disposal of contaminated soil. The majority of the excavated material would be consolidated and covered at the site with a modified part 360 multi-layered synthetic cap and a limited amount of the material determined to be grossly contaminated would be disposed off-site.

The release of the PRAP was announced via a notice to the mailing list, informing the public of the PRAP's availability.

A project briefing for the Department of Correctional Services was held on March 16, 2004 to present the PRAP to those working at the site. A public meeting was held on March 17, 2004, which included a presentation of the Remedial Investigation (RI) and the Feasibility Study (FS) as well as a discussion of the proposed remedy. The meetings provided an opportunity for on-site employees and the general public to discuss their concerns, ask questions and comment on the proposed remedy. Written comments were received from Ms. von Glahn and Mr. Meany, both residents of the Town of Summit. All comments have become part of the Administrative Record for this site. The public comment period for the PRAP ended on March 31, 2004.

This Responsiveness Summary responds to all questions and comments raised at the March 16th and March 17th meetings.

The following are the comments received, with the NYSDEC's responses immediately following:

Question 1: What methods will be employed to control dust, both during construction activities and during the period between now and implementation of the remedy?

Response 1: During construction activities dust suppression methods, such as keeping the soil moist with a water spray, will be employed. In addition, during any ground intrusive activities dust monitoring will be conducted on a continuous basis at the perimeter of the work area. This will prevent the migration of potentially contaminated dust in concentrations that might represent a health concern. Between now and implementation of the remedy, no dust suppression is planned. Although there are a few localized locations on-site where contamination was detected in surface soil, the bulk of contamination is in the subsurface and is thus unavailable for exposure.

Question 2: Soil from the shale pit area has been used as fill near the Chapel. Is this a problem?

Response 2: There is no historical evidence that contaminated material was disposed of in the area of the shale pit. The use of the soil from the shale pit as fill material is not cause for concern.

Question 3: Are there any exposures to the corrections officers while using the roads through the site as jogging routes?

Response 3: The possibility of exposure to site-related contaminants while jogging on the roads running near contaminated areas is remote. Although there are a few localized locations on-site where contamination was detected in surface soil, the bulk of contamination is in the subsurface and is thus unavailable for exposure.

Question 4: Is pentachlorophenol (PCP) volatile? If you can smell the fuel oil containing a mixture of PCP, are you also inhaling the PCP?

Response 4: Pentachlorophenol (PCP) has very low volatility when compared to fuel oil. Although it is possibly that some PCP could volatilize from a PCP/fuel oil mixture, the vast majority of vaporized compounds would be from the fuel oil.

Question 5: There is a residential spring-fed well near the entrance of the facility. With concerns regarding the use of shallow groundwater at the site, is there a problem using this well as a source of potable water?

Response 5: Review of topographic maps as well as the site data generated during the remedial investigation indicate that this location is hydraulically up gradient from the site and would not be impacted. This well was sampled by the NYSDOH in May and September of 2000. Site-related contaminants were not detected. In respect to potability, spring fed and/or shallow wells are typically more vulnerable to bacteriological contamination from a variety of sources including but not limited to leaking septic tanks and leach fields and animal excrement in surface water run-off. Bacteriological contaminants are not associated with the Camp Summit site and samples were not collected by the NYSDOH for this analysis. It would be prudent for the homeowner with a shallow/spring fed well used for potable purposes to have the well analyzed periodically for bacteriological contamination.

Question 6: Has Betty Brook been sampled? If no, why not? Isn't the source of Betty Brook near the satellite area where the drums were found?

Response 6: The upper most source of Betty Brook appears to be more than 1200 feet from the satellite area, based on review of the topographic map of the area. Furthermore, review of aerial photographs does not show any surface drainage pattern connecting the headwater area with the satellite area. There is currently no expectation that the contaminants could have migrated to a point where they would have impacted the Brook, especially considering the strong tendency for these contaminants to bind to soil particles and remain near the source.

When the drums and surrounding contaminated soil are excavated as part of the remedy, confirmation samples will be taken to ensure contaminants have not migrated beyond the area of excavation.

Question 7: Soil excavated as part of a 1990 fuel oil spill was staged on plastic sheeting in the shale pit and later used to re-grade Monkey Run Road. How was it determined that the soil was clean and suitable to be spread on the road? Has the road been sampled?

Response 7: The spill event in question was recorded as a 400 gallon diesel spill caused by human error with the affected resource listed as "on land". The spill took place on April 12, 1990, approximately 15 years after wood treatment operations ceased at the site, therefore the potential for the spill to have included PCP mixed with the diesel is not of concern. A spill cleanup contractor was called to the site for appropriate action. The cleanup for this spill was determined complete as meeting standards on August 30, 1990. At that time there were no restrictions on the use of the soil.

As the spill event in question was properly addressed and there was no reason to suspect wood treatment related contamination, there are no plans to collect samples along Monkey Run Road.

Question 8: Did the drums that were found buried in the satellite area near the shale pit contain contamination?

Response 8: Three rusted and partially crushed drums were found buried approximately 28 inches below the surface along with other debris. There was a noticeable fuel oil odor and some water with an oily sheen within the drums. Samples collected indicated the presence of compounds associated with fuel oil as well as PCP and dioxins at concentrations above the cleanup criteria.

Comment 9: The newspaper article stated that twelve acres of soil was to be excavated as part of the cleanup. That seems to be a large amount of soil.

Response 9: The main site is twelve acres is size. The estimated volume of contaminated soil to be addressed through excavation is 13,000 cubic yards.

Question 10: How will the dust and mud from the construction equipment be handled during construction of the remedy?

Response 10: Requirements for dust suppression and monitoring will be included in the remedial design for the site (see Response 1). There will also be requirements for decontamination of equipment, including tires and the outer surfaces of the trucks, prior to leaving the work area. A decontamination area will be constructed where the equipment will be washed and all water and material from the equipment will be containerized for proper treatment and disposal.

Question 11: Why is there no air monitoring currently in place at the site to monitor for dust?

Response 11: Although there are a few localized locations on-site where contamination was detected in surface soil, the bulk of contamination is in the subsurface and is thus unavailable for exposure.

Question 12: Where will the grossly contaminated soil be sent for off-site disposal? What guarantee can you give that it will not simply be dumped in the woods down the road?

Response 12: The grossly contaminated soil will be sent to a permitted hazardous waste landfill. The specific facility that will be used for disposal can not be determined until bids have been received and the contract awarded for the project.

All aspects of the remediation project must follow the applicable New York State and federal laws and regulations. Disposal of hazardous waste is regulated under 6 NYCRR Part 373 (state law) and 40 CFR Part 261-265 and Part 268 (federal law), which specifically state that material meeting the definition of hazardous wastes, as this material does, must be disposed of in a permitted hazardous waste landfill and may be subject to treatment prior to disposal depending on the type and concentration of the wastes. An additional requirement of these laws includes the manifest system which tracks the wastes from generation (in this case the excavation and loading into trucks) to disposal at the permitted landfill.

Question 13: If it is unknown where the soil will be sent, how can a cost estimate be developed?

Response 13: Cost estimates are developed based on current rates for construction, transportation, disposal, etc. and used in a comparative analysis for each remedial alternative. It is known that the off-site disposal will require the material to be handled as hazardous waste, therefore an average current rate per ton for disposal of hazardous waste was used to develop the estimate for both remedial alternatives evaluated. The actual rate will not be known until bids have been received and the contract awarded for the project.

Question 14: Will the contractor hired to perform the construction be required to post a bond? Who will be responsible for any/all damage to property, including the roads due to heavy truck traffic?

Response 14: The contractor will be required to post a bond and will be responsible for restoration of any damaged property prior to the close out of the contract. NYSDEC inspectors will oversee the work performed.

Question 15: Why was the use of copper napthenate discontinued in 1965?

Response 15: Because pentachlorophenol was recommended for use in 1966 as a more effective treatment solution for wood poles and lumber.

Question 16: Why are trees currently being cut at the facility?

Response 16: There is currently clearing being performed at the facility for the construction of new offices and utility buildings. Areas selected for this construction are outside and up gradient of the site. Additional samples were collected within the footprint of the proposed building to confirm the area was clean. All sample results were non-detect indicating no contamination present.

Question 17: Who is addressing the de-valuation of our properties? I can't sell my house because it is located next to a hazardous waste site.

Response 17: If the perceived value of property has diminished due to its proximity to a site, cleanup of the site is the most direct positive action the State can provide toward improving the value of the property. There is no mechanism available for the State to either assess or reimburse monetary loss perceived to have occurred due to the presence of a nearby hazardous waste disposal site.

Question 18: Are the former employees who were involved with the wood treatment operation being tested for exposure? What about the current employees at the site?

Response 18: Biological testing for dioxins/furans in blood was conducted on several former employees. Dioxins /furans are common contaminants of technical grade PCP and persist longer in the body. These tests indicated that the dioxin/furans levels for the workers were comparable to the lower one-third of unexposed U.S. residents. Currently the bulk of contamination at this site is in the sub-surface and is thus unavailable for exposure. The few localized areas where lower levels of contamination were detected in surface soil have been posted. Therefore, it is unlikely that a current employees would be exposed to consequential amounts of contamination.

Former employees who are concerned that they have been exposed should contact the Public Employee Safety (PESH) Bureau, which oversees workplace protection of public employees at the State and local level. Alternatively, employees can contact one of the New York State Department of Health Occupational Health Clinics. Contact information is as follows:

PESH District Office - Binghamton
44 Hawley Street 9th Floor
Binghamton, NY 13901
Tel. (607) 721-8211
Fax (607) 721-8207

New York State Department of Health
Network of Occupational Health Clinics
Syracuse/Binghamton/Utica
Central New York Occupational Health Clinical Center
6712 Brooklawn Parkway, Suite 204, Syracuse NY 13211
Tel. (315) 432-8899
Fax. (315) 431-9528

Question 19: Has the Department of Probation been notified of the contamination problem at the site?

Response 19: A Department of Probation contact name and address was provided at the March 17th meeting. This contact has been added to the site mailing last.

Question 20: Is there any potential for the contaminants to be pushed up through paved areas due to a build up of rain water getting trapped beneath the pavement?

Response 20: No. Asphalt serves as an effective barrier. It prevents direct contact with underlying contaminants and precludes infiltration of precipitation. Test pit excavations near the paved areas of the site indicate there is no free chemical product that would have migrated beneath the pavement.

Question 21: What will happen with rain water in the event of an open excavation during construction?

Response 21: If an excavation fills with rain during construction, the water will be pumped, treated, and discharged. Treatment and discharge may occur on-site or off-site.

Question 22: Who will be performing the actual construction activities? Will the contractor be selected based on low bid?

Response 22: The NYSDEC will procure a Qualified Remedial Consultant to develop the plans, specifications, and bid documents. The project will then be advertised in local and regional newspapers, and in publications with statewide circulation to get the best possible response. Only qualified hazardous waste remediation contractors submitting a responsive bid will be awarded the contract.

Question 23: What is the time frame to complete the cleanup?

Response 23: The first step involves completing the remedial design for the construction of the project and development of the contract documents for the solicitation of bids. This typically takes about one year. Once the contract is awarded, actual construction is expected to be completed within the following year.

Question 24: Will the State be sampling private water supply wells in the future?

Response 24: In 2000, the NYSDOH sampled three private well supplies from homes near the Camp Summit site. Site-related contaminants were not detected. Based on these results and the results of the site investigation, which indicates that groundwater from the site is not migrating toward any residential wells, the State does not plan to sample private wells near this site in the future.

Question 25: If analytical technology improves over the years and new chemical compounds are discovered or the detection limits become lower allowing lower concentrations of PCP to be detected, how will this be handled during the long term monitoring?

Response 25: Analytical methods employed during the RI currently scan for in excess of 180 chemical compounds including volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), metals and dioxins/furans. PCP, a SVOC, and dioxins along with components of fuel oil were the contaminants of concern identified for the site.

Data will be evaluated during each monitoring event to ensure the remedy remains effective, utilizing a comparison of the results to the standards and criteria applicable to the site. Current analytical technology allows for detection limits well below the standards and criteria and therefore improved technology (i.e. even lower detection limits) would not be expected to reveal any new information relative to a contravention of standards or criteria.

Question 26: Who was responsible for the on-site testing and laboratory results?

Response 26: The State is responsible through the NYSDEC and NYSDOH for the implementation of the remedial program at this site, including all on-site testing and proper application of laboratory methods during the RI. Samples collected were sent to private laboratories for analysis.

Question 27: Who is responsible for monitoring human health for those exposed in the past?

Response 27: Please refer to Response 18.

Question 28: What are the health risks for those exposed to PCP?

Response 28: There are currently no significant exposures to PCP occurring at the Camp Summit facility. Levels in surface soils are generally low and very localized. According to ATSDR (Agency for Toxic Substances and Disease Registry) studies in workers show that exposure to high levels of PCP in industrial settings can cause increases in body temperature, liver effects, damage to the immune system, reproductive effects, and developmental effects. Former workers at the treatment facility may direct their questions about occupational exposures to PESH, Public Employees Safety & Health (see Response 18).

For additional information concerning the health effects associated with exposure to PCP you may contact the ATSDR Information Center at 1-888- 422-8737 or visit ATSDR's web site at http:\\www.atsdr.cdc.gov/tfacts51.html.

Question 29: What activities are the inmates currently involved at the site?

Response 29: On-site activities performed by the inmates include cutting and stacking of firewood at the southern corner of the site. There are no longer wood treatment or saw mill operations at the site.

Question 30: Is it possible for the contaminants to migrate through the fractures that are present in the glacial till?

Response 30: Yes. Although these fractures are very fine, it is thought that some of the fuel oil containing PCP has migrated downward through these fractures to the first water bearing unit, usually encountered in the upper 10 feet of soil. Once here it then floats on the groundwater and possibly migrates horizontally for a short distance depending on soil conditions. Observations during the drilling of the soil borings and installation of monitoring wells, as well as analysis of groundwater, have shown that widespread contaminant migration away from the source area has not occurred due

to the chemical properties of the contaminants and the dense fine grain nature of the soil.

Question 31: Will the area of consolidation be located over areas of contamination?

Response 31: The area of consolidation and cap will be located over contaminated areas, eliminating the need to excavate and backfill those locations since they will be covered with the cap.

Question 32: Will contaminated soil remain at the site?

Response 32: Yes. The impacted soil will be excavated and segregated based on the degree of contamination. Grossly contaminated soil, defined as containing free product or residual contamination which is identifiable visually, through the perception of odor or elevated contaminant vapor levels as indicated by field instrumentation, or otherwise readily detectable, will be separated for off-site disposal. The remaining impacted soil, identified through chemical analysis either during the RI or during confirmation sampling during construction, but otherwise not grossly contaminated based on visual examination, will be consolidated in a designated area and covered with a modified Part 360 synthetic liner cap.

Question 33: Will the remedial design documents be available for public review prior to the work taking place?

Response 33: Although there will not be a formal public comment period, the remedial design documents will be made available at the document repositories for review. An information Fact Sheet will be issued to announce the availability of the documents.

The remedial design, contract plans and specifications, and community air monitoring plan will be placed in the repositories as they become available.

Question 34: With contaminated groundwater migrating toward the pond, what are the impacts to the aquatic animals living in the pond and the beaver pond beyond that?

Response 34: There is no evidence of contaminated groundwater reaching the pond at this time. Monitoring wells located between the pond and the source area beneath the former treatment building have been sampled for analysis with no PCP detected. There is residual contamination at concentrations below cleanup levels in the sediments at the bottom of the pond, apparently from the chemical spill that occurred in 1975. Analysis of sediment samples collected further down stream of the pond, specifically in the drainage swale and beaver pond, as well as biota samples from Panther Creek, all indicated there are no site related impacts beyond the on-site pond.

Question 35: Is the area planned for new offices near the contamination?

Response 35: See Response 16 above.

Comment 36: The two remedies considered in the PRAP include leaving the bulk of contaminated soil at the site beneath a cap with limited off-site disposal for an estimated $10,600,000 or completely removing all contaminated soil from the site with off-site

disposal for an estimated $17,250,000. Considering the relatively small difference in cost, why would the State not go forward with the full removal approach? The full removal would be final and allow restoration of property values near the site. Please consider my support only for the full removal remedy.

Response 36: Both of the remedial approaches described were compared against the evaluation criteria for remedy selection. Both were determined to be effective and protective remedies to clean up the site. The remedies compared equally to each of the evaluation criteria with the exception of cost and short term impacts, making the proposed remedy the more effective approach to clean up the site. Short term impacts in the form of significantly more truck traffic associated with the full removal approach was considered in the selection process. The projected cost difference of $6,650,000 is significant. As this project is funded with tax dollars, the State is obligated to use its financial resources in as an efficient and responsible manner.

A copy of the letter dated March 19, 2004 from Ms. von Glahn, a resident of the Town of Summit, is included in Appendix B of the Administrative Record of the ROD. The letter commended the State for their conduct at the March 17th public meeting as well as reiterated concerns regarding bonding requirements for the contractors performing the work. Those concerns have been addressed in Response 14 above.

A copy of the letter dated March 27, 2004 from Mr. Meany, a resident of the Town of Summit, is included in Appendix B of the Administrative Record of the ROD. The letter raised several concerns regarding the PRAP. The issues in the letter are re-stated below, immediately followed with the response.

Comment 37: I heavily favor the alternative plan to remove all contaminated soil at this time, despite the greater cost of this alternative. I believe that would be the only method that would help restore the value of the surrounding properties, as well as protect the health of current and future employees and inmates at the site. Although expensive, that alternative would also add immense value to the large amount of acreage owned by New York State itself, which property will almost certainly remain worthless, or worse, as long as it contains contamination.

Response 37: See Response 36 above.

Comment 38: NYS should also reimburse surrounding property owners for the diminution in the value of their realty due to the State's toxic chemical spill.

Response 38: See Response 17 above.

Comment 39: Secondly, I feel very strongly that New York State should, at the very least, conduct a study of any possible health effects that the hazardous waste may have had on employees and inmates who worked at the Camp Summit site, particularly during the period of time the dangerous chemicals were being used daily.

Response 39: See Response 18 above.

Comment 40: It appears to me that DEC representatives have been extremely evasive and disingenuous in their persistent refusal to investigation the possible effects of the spilled toxic substances, including PCP and Dioxins, on the health of those who worked in and around those materials. It is very difficult to believe that the State of New York would spend between $10 million and $17 millions dollars to merely clean up dirt, if the contaminants in that dirt were not very hazardous to human health. But, if that is, in fact, the case, this would be a valuable opportunity for the State to prove it.

Response 40: See Response 18 above with respect to the investigation of possible health effects of employees who worked at the facility.

With respect to the 10 to 17 million cost to cleaning the site, any party responsible for the disposal of hazardous wastes, in this case the State of New York, is required by law (6NYCRR Part 375) to implement a remedial program to determine the nature and extent of contamination at a site, and select and implement a remedial approach to address the contamination if necessary. The purpose of this proposed remedy is to eliminate or reduce to the extent practicable, the potential for human or environmental exposure to the contaminants, defined as hazardous wastes, identified at the site during the remedial investigation.

Comment 41: Comments from DEC representatives that they do not know, and cannot find out, the identities of the people who worked at the contaminated sites are completely unbelievable. NYS did, literally, have a captive audience to the hazardous waste use and spill, and the State certainly has an obligation to those people.

Response 41: The records available to the NYSDEC regarding the identity of personnel working at the site are limited to former NYSDEC employees. The remaining work force that would have worked at the site during the wood treatment operations was composed of inmates during their limited stay at Camp Summit.

Comment 42: Finally, as others noted during the public informational meeting, I find it very inappropriate that New York State is investigating its own hazardous waste spill. While DEC responses to questions about the effects of the Camp Summit spill on the people and property surrounding the site appeared to ameliorate many common concerns, DEC lacks credibility. To be satisfied by the responses given, and to expect that any remedial action plan will be successful, one must believe that the investigation of the Camp Summit hazardous waste spill was done thoroughly and competently.

Response 42: The NYSDEC is the primary agency responsible for implementation of the remedial program in the State of New York. In this case, it is also the party responsible for the disposal of hazardous wastes at the site due to past wood treatment operations. A professional environmental consultant performed the remedial investigation and feasibility study under the direction of the NYSDEC, utilizing accepted standards and practices in the environmental field. These same practices and standards are required for all hazardous waste sites addressed in New York State. All documentation generated during the identification and subsequent investigation of the site has been made available for public review.

Comment 43: I recommend that both the DEC's investigation of the Camp Summit site, and its Proposed Remedial Action Plan, be repeated, or at least reviewed, by an expert, independent entity, so that we may have confidence in the conclusions made, as well as the ultimate, and clearly costly, result.

Response 43: As stated in Response 42 above, the documentation is available for public review at any time. The project will continue forward with the remedial design and implementation of the remedy with opportunity for additional public review and comment of the information as it becomes available.

APPENDIX B

Administrative Record

Administrative Record

Camp Summit Site
Proposed Remedial Action Plan
Fulton (T), Schoharie County
Site No.4-48-006

1. Proposed Remedial Action Plan (PRAP) for the Camp Summit site, dated March 2004, prepared by the NYSDEC.

2. Preliminary Investigation Report, September 1998, Addendum No. 1 June 1999,NYSDEC.

3. Camp Summit Remedial Investigation Report, February 2004, Shaw Environmental, Inc.

4. Camp Summit Feasibility Study, March 2004, Shaw Environmental, Inc.

5. Fact Sheet announcing the PRAP, March 2004.

6. Responsiveness Summary for the Remedial Investigation/Feasibility Study and the Proposed Remedial Action Plan (Appendix A of the Record of Decision).

7. Comment letter dated March 19, 2004 from Ms. Charlotte vonGlahn.

8. Comment letter dated March 27, 2004 from Mr. John C. Meany.