SECTION 2

SITE DESCRIPTION, OPERATIONAL HISTORY AND WASTE CHARACTERISTICS

2.1 SITE LOCATION

The former SADVA is located south of NYS Route 146 and east of County Route 201, approximately one-quarter mile southeast of the Village of Guilderland Center, New York (Figure 1.1). The site is approximately thee miles north of Voorheesville and three miles west of Guilderland. The former SADVA included approximately 650 acres, most of which was surrounded by a chain-link fence topped with barbed wire. A separate tract of approximately 40 acres, located west of Route 201, was also included in the former SADVA. The former SADVA was primarily a warehouse and storage complex set on leveled and paved grounds. The area south of the SADVA warehouse complex borders NYSDEC Wetland V-19 and contains AOC 5 (Voorheesville Depot), AOC 1 (U.S. Army Southern Landfill), AOC 4 (C&D Landfill), and AOC 7 (Triangular Disposal Area). There is a pond located in AOC 1, near the southeastern corner of the SADVA. The area north of the warehouse complex contains AOC 3 (Burn Pit Area), AOC 6 (Waste Water Treatment Plant), and AOC 9 (Building 60 Area). Black Creek (AOC 8) enters the former SADVA between AOC 1 and AOC 5, and flows northward along the eastern side of the SADVA. A perimeter ditch collects water from the southern and western sides of the SADVA and discharges into Black Creek. The Town of Guilderland Central School is located northwest of the SADVA on School Road.

2.2 SITE OWNERSHIP

2.2.1 The DoD held ownership of the SADVA property from 1941 until 1969. The site was originally constructed as a regulating station and a holding and reconsignment point in 1941, and later it became a general Army depot. The principal mission of the installation was the receipt, storage, maintenance, and distribution of supply items for the DOA. Prior to construction of the facility in 1941, the land use was agricultural.

2.2.2 In April 1948, a 15.5-acre parcel located north of the main SADVA complex, which was used as a gravel pit, was sold to a private owner. In 1963, approximately 40 acres on the west side of Route 201 were sold to a private party for use as a residence. This parcel has been designated AOC 2 (Figure 1.2). SADVA was closed in 1969, and 35.5 acres were transferred to the U.S. GSA. That parcel became the DLA/DNSC Voorheesville Depot (AOC 5) located adjacent to the southwest portion of the former SADVA (Figures 1.1 and 1.2).

2.2.3 The rest of the SADVA property was sold to the GURA in 1969. GURA, in turn, leased the property to the Galesi Group, Inc., which established the NEIP. The NEIP has been operated as an industrial park since 1969. Galesi took ownership of the NEIP property in 1993. Various open spaces and buildings are leased to tenants. The majority of the tenants have used the leased space for storage of goods. Some of the tenants have performed manufacturing

operations in their leased space. There have also been several maintenance/repair shops at NEIP. The Galesi Group has constructed several structures at the former SADVA since 1969. A small parcel of land between AOC 3 and the Guilderland Central School was formerly part of SADVA. It is now part of the school grounds. A bus garage has been constructed in this area by the Guilderland School District. A comprehensive account of property ownership is documented in the Final Archival Search Report (EAEST, 2003).

2.3 REGIONAL SETTING

2.3.1 Surface Features

The former SADVA is situated in an area of generally low relief at the base of the Helderberg Mountains, at an elevation of approximately 320 feet above mean sea level (AMSL). The former SADVA is bordered by Route 201 on the west and south, by Route 146 on the north, by Guilderland High School to the northwest, and by Black Creek and Penn Central Railroad tracks to the east. Most of the former SADVA is surrounded by a chain-link fence topped with barbed wire. The former SADVA lies within the Normans Kill drainage basin, an area of about 180 square miles (Buttner, 1997). Most of the former SADVA is paved and consists of warehouses. The dominant surface water features in the vicinity are Black Creek, the Bozenkill, the Normans Kill and the associated Watervliet Reservoir.

2.3.2 Physical Geography

2.3.2.1 Hydrogeology

2.3.2.1.1 Black Creek is the primary drainage feature in the vicinity of the former SADVA. Black Creek drains a large part of the site vicinity, and passes through the site. Surface water drainage over the mostly impervious surface area of the former SADVA is diverted into Black Creek, which has a drainage basin of approximately 25 square miles (Buttner, 2000). From its headwaters at the Helderberg Escarpment, Black Creek flows east, then north into the south end of the former SADVA. It flows in a man-made channel along the east side of the former SADVA before rejoining the main channel at the north end of the site. A perimeter drainage ditch collects surface water runoff from the southern and western sides of the site and directs it to Black Creek. These man-made ditches and channel were constructed at the time the SADVA was constructed. Black Creek formerly flowed through the center of the site, prior to SADVA's construction. Black Creek flows north out of the SADVA, and then meanders toward the northwest before discharging into the Bozenkill, approximately two miles from the site. The Bozenkill empties into the Watervliet Reservoir, which is part of the Normans Kill. Downstream of the reservoir, the Normans Kill flows southeast approximately five miles before it empties into the Hudson River.

2.3.2.1.2 The New York State Bureau of Watershed Management and the NYSDEC have classified the section of Black Creek adjacent to the former SADVA as a Class C stream, suitable for recreation and human consumption of fish. Class C waters are considered suitable for fishing and fish propagation and primary and secondary recreation, even though other factors may limit the use for that purpose. Black Creek flows north and joins the Bozenkill which enters the Watervliet Reservoir approximately four miles north of AOC 1. The Watervliet Reservoir is a Class A water body which is suitable for drinking, culinary or food processing, and all other

uses. The Watervliet Reservoir water supply serves a population of over 40,000 people. The public water supply system in the vicinity of the former SADVA was developed after SADVA operations ended. The public used domestic wells before the water system was installed. There may be surface water intakes between the former SADVA and the Watervliet Reservoir (NYSDOH, 1992). Individuals were known to withdraw water from Black Creek just south of the Bozenkill (Town of Guilderland, 2000). This stretch of the Black Creek is classified as a Class B waterway by the NYSDEC. Class B waters are considered suitable for primary contact recreation and any other uses except as a source of water supply for drinking, culinary or food processing purposes.

2.3.2.1.3 Most residences in the site vicinity are served by municipal drinking water; however, the homes east of the former SADVA are still on private, residential wells. The source of the municipal water supply is the Watervliet Reservoir, which is located approximately two miles north of SADVA. Public water supply lines run along Route 146 between Route 201 and Ostrander Road, and along Route 201 as far as the railroad tracks west of the intersection of Ostrander Road and Route 201 (Figure 2.1). The municipal water supply lines extend approximately 1,500 feet west along Meadowdale Road (Route 202). Homes west and southwest of the former SADVA, along the rest of Meadowdale Road, Frederick Road, and Hawes Road use private wells, as do homes northwest of the intersection of Routes 201 and 146 (Town of Guilderland, 2000). Groundwater was used by the DNSC Voorheesville Depot for washing and septic purposes during its period of active operations. Bottled drinking water was used for drinking at the Voorheesville Depot; however, the depot is now inactive and vacant. The NEIP and the Guilderland Central School are supplied by the Town of Guilderland Water Department. However, the school had been using its wells to occasionally irrigate the athletic fields and school grounds.

2.3.2.1.4 The following information was provided by the Town of Guilderland Water Department:

- There are 8,500 water hook-ups in Guilderland and 4,700 water hook-ups in the Town of Watervliet. Assuming about three persons served per hook-up, there are over 40,000 people served by water from Watervliet Reservoir;
- In 1971, the northern half of the NEIP was provided with municipal water supply, and water service was brought as far east along Depot Road as the AOC 2 property;
- In 2000, the southern portion of NEIP was provided with municipal water supply and service was extended farther east along Depot Road.

2.3.2.2 Geology

2.3.2.2.1 The former SADVA overlies the upper Middle Ordovician Schenectady Formation. The Schenectady Formation consists of black and gray argillaceous (clayey) shale interbedded with greywackes (clayey sandstone) and sandstones of variable texture. The Schenectady Formation clays and sands were marine sediments deposited in deep Middle Ordovician seas in which a great mass of alternating sands and muds were deposited. Crustal deformation during the Taconic and Appalachian orogenies have faulted and folded the

Schenectady Formation rocks. The folding gradually dies out toward the west and disappears near a thrust fault (low angle reverse fault) which marks the boundary between the Snake Hill and Schenectady Formations.

2.3.2.2.2 During the Mesozoic and Cenozoic eras, the region was subjected to a long period of erosion, which lasted until the advance of the Pleistocene ice sheet. Prior to the glacial ice advance, there was an existing drainage network consisting of streams eroded into the shale bedrock that formed deep valleys. The advance of the ice sheet modified this existing drainage network. One of the larger tongues of the Pleistocene ice sheet moved down the Champlain-Hudson trough, depositing a great mass of glacial debris which now covers most of Albany County. The present drainage pattern was established after the Pleistocene ice sheet retreated and the modern stream erosion and alluvial deposition was established (Arnow, 1949). However, remnants of the pre-glacial drainage network remain, and can influence present groundwater flow patterns.

2.3.2.2.3 Subsurface investigations at the former SADVA have encountered bedrock as shallow as five feet in the southwest portion of the site at the Voorheesville Depot, and as deep as 67 feet in the southeastern corner, near the US Army Southern Landfill (AOC 1). Borings drilled in the western portion of the former SADVA encountered gray shale at 14 to 20 feet. Test borings from various studies, including this investigation, indicate that the overburden consists of a complex sequence of glacial drift, glacial till, and stream deposits which were laid down during the last Wisconsin glacial episode. Borings drilled in 1988 generally showed glacial till in the south end of the site, and silt and sand with varying amounts of clay and gravel lenses in the northeast portion of the site.

2.3.2.2.4 The rocks of the Schenectady Formation are dense and relatively impermeable. The bedrock may yield small amounts of water from fractures and bedding planes. In this part of Albany County, low yield characterizes the bedrock water-bearing zone. The direction of groundwater flow in the bedrock water-bearing zone is determined locally by fracture position and size, density of joints and bedding planes, and by the interconnection with the overburden water-bearing zone. In some locations, the presence of a dense layer of glacial till between the overburden and bedrock water-bearing zones may hydraulically isolate the bedrock water-bearing zone from the shallow overburden water-bearing zone.

2.3.2.2.5 The shallow groundwater flow directions at the former SADVA range from northwesterly to southwesterly to easterly, depending on the location at the site and the proximity to Black Creek. The occurrence and depth to groundwater in the overburden ranged from 2.5 feet at AOC 5 in the southern part of the former SADVA, to 23.87 feet at AOC 3 in the northwest corner of the former SADVA.

2.3.2.3 Climate

General information on the climate of the Albany area was obtained from a 1995 National Oceanic and Atmospheric Administration (NOAA) report (USACE, 1999). Additional climate data were obtained from the Albany County Airport weather station located approximately nine miles east-northeast of the former SADVA; this is the nearest complete reporting weather station

to the site. Monthly mean values for precipitation and temperature, along with monthly data for the years 2000-2006, are presented in Table 2.1. The prevailing wind is reportedly from the south for the months of May through December, and from the west for the months January through April. Average wind speed is highest in the spring, at approximately 10 miles per hour. The seasonal mean surface wind direction is generally from the west throughout the year.

2.3.2.4 Wetlands

2.3.2.4.1 In 1999, USACE contracted with EA Engineering Science and Technology to identify and delineate wetlands at AOCs 1, 2 and 4 (EA, 1999). A copy of the report is included in Appendix H. The wetland survey at AOC l consisted of a subsection of the U.S. Army Southern Landfill designated AOC lW (west). The results of the field examination indicate that two separate wetland systems occur within AOC lW: a pond/marsh system and a forested wetland. The habitat quality of the two systems varies widely. While the pond/marsh environment supports wildlife and waterfowl, it does not represent an extensive or diverse habitat. The forested wetland is contiguous with a larger wetland system lying within the 100-year floodplain of the Black Creek and has the potential to be high quality habitat for wildlife and waterfowl.

2.3.2.4.2 One major wetland complex was identified at AOC 2 containing a variety of different habitats. A forested hardwood swamp has the greatest potential to be high quality habitat for wildlife and waterfowl. It is connected to the Black Creek wetland system, although it does not lie within the 100-year floodplain. Other wetland areas identified include the power line right-of-way and a recently disturbed scrub/shrub and forested wetland, but these areas provide more limited habitat.

2.3.2.4.3 The wetlands located at AOC 4 are forested floodplain wetlands associated with Black Creek. This wetland is probably seasonally saturated and to some extent flooded between November and June. The moderately mature forest occurring in this wetland floodplain supports highly valuable wildlife and waterfowl habitat.

2.3.2.5 Demography and Land Use

According to the 2000 census, the Town of Guilderland has a population of 32,688. In 1980, the population in the Town of Guilderland was 26,515 (USACE, 1999). The former SADVA is currently zoned industrial, while most properties adjacent to the site are zoned agricultural. According to the 1983 census of agriculture, about 27.2 percent of the area in Albany County was farmed (USACE, 1999). There are also residences occupying the various agricultural parcels. Other properties zoned as single-family residences are located near the site. The Guilderland High School is adjacent to the former SADVA, and in the past, the school has used groundwater wells as a source of water to irrigate their ball fields. Park Guilderland Apartments, an apartment complex which is zoned multi-residential, is located north of the former SADVA. A small shopping center, zoned as a large business, is located adjacent to the Park Guilderland Apartments. Tawasentha Park, which is zoned open space, is situated northeast of the former SADVA along Altamont Road.

2.4 OPERATIONAL HISTORY

2.4.1 A comprehensive site history has been developed from available site records and other DoD documentation for the period 1941 to 1969; that information can be found in the Final Archival Search Report (EAEST, 2003). In addition, the Final Archival Search Report includes an analysis of historical aerial photos for SADVA. The site history and aerial photo analysis were among the tools and information used to identify the AOCs being investigated during this RI. The Archival Search Report information has been supplemented and/or confirmed by recent interviews with former SADVA employees that were conducted during the writing of the RI Field Sampling Plan (Parsons, 2000), and during the RI by USACE staff.

2.4.2 The DoD held ownership of the approximately 650-acre SADVA property from 1941 until 1969. The site was originally constructed as a regulating station and a holding and reconsignment point in 1941, and later it became a general Army depot. The principal mission of the installation was the receipt, storage, maintenance, and distribution of supply items for the DOA. Prior to construction of the facility in 1941, the land use was agricultural. The initial construction consisted of six large warehouses totaling 1,000,000 square feet, and 18 open storage areas totaling 3,363,000 square feet. SADVA had its own water supply, sewage treatment, steam heating (using coal and later oil as fuel), and storm water and electrical systems. There was also a fire department, infirmary, security force, kennels for dogs, and stables for horses. SADVA had more than 30 miles of government-owned railroad tracks connecting to New York Central Railroad (NYCRR) tracks, and more than 12 miles of paved roads.

2.4.3 In 1943, SADVA employed more than 1,000 people, and organizational units present included: Post Engineer, Motor Transport, Operations Division, Personnel Division, Military Intelligence, Ordnance Supply Division, Transportation Division, Quartermaster Supply Section (QMS), Depot Division, and Engineering Supply Section (ESS). During World War II (WWII), the workforce at SADVA grew to more than 1,500 civilian employees and 100 military personnel.

2.4.4 In 1946, the ESS handled approximately 3,558 tons of material per week, including items from nails to bulldozers. Between 1946 and 1952, activities at SADVA included the construction of five additional warehouses, two sheds, and two inflammable material storage buildings. The function of the ESS was the storage and distribution of materials and the disposal of surplus buildings, surplus property sales, and the processing and storage of materials returned from overseas. Ancillary operations included maintenance of materials stored and used at SADVA, surplus and salvage operations, fire fighting, and security.

2.4.5 Some materials stored in the warehouses and open storage areas included: tanks, cranes, pallets, chain ladders, hand trucks, cargo nets, acetylene gas, railroad car parts, scrap metal, small arms and ammunition, canned foods, mobile antiaircraft units, marine supplies, wire and cable, rope, furniture, bathroom fixtures, brooms/brushes, wood products, acids/chemicals, and paints. SADVA was also used for the storage of strategic and critical materials (aluminum, copper, ferrochrome, lead, zinc, etc.). Materials and equipment were preserved in the C&P facility where they were cleaned, painted, and wrapped or in some other way protected against the weather (i.e., chemically-coated). Further details can be found in the Final Archival Search

Report (EAEST, 2003). Appendix C contains a 1964 auto tour brochure that included a brief tour of the SADVA. The brochure describes several warehouses where equipment was stored, where equipment was cleaned and prepared for painting, and where equipment maintenance was performed. Mention is also made about the General Services Administration storage area (now known as the DNSC Voorheesville Depot - AOC 5). The tour brochure provides an interesting look at the depot during its operating period.

2.4.6 In April 1948, a 15.5-acre portion of SADVA used as a gravel pit was sold to a private owner. In 1963, approximately 40 acres were sold to a private party for use as a residence. This parcel has been designated AOC 2 (Figure 1.2). In 1969 SADVA was closed, and 35.5 acres were transferred to the U.S. GSA; this parcel (previously referred to as the Offsite Storage Area) presently is the DLA/DNSC Voorheesville Depot (AOC 5), located adjacent to the southwest portion of the former SADVA (Figure 1.2). The rest of the SADVA property was sold to the GURA. GURA, in turn, leased the property to the Galesi Group, Inc., which established the NEIP. Galesi took ownership of the NEIP property in 1993. The NEIP has been operated as an industrial park since 1969; various open spaces and buildings are leased to tenants. The majority of the tenants have used the leased space for storage of goods while some of the tenants have performed manufacturing operations in their leased space. There have also been several maintenance/repair shops at NEIP. The Galesi Group has constructed several structures at the former SADVA since 1969. A comprehensive account of operational history is documented in the Final Archival Search Report (EAEST, 2003).

2.5 INTERVIEWS WITH FORMER EMPLOYEES

2.5.1 An advertisement was developed to acquire information from former Schenectady-Voorheesville Area Army Depot employees. The advertisement was placed in/on:

1. The Altamont Enterprise (weekly newspaper); it ran for one month May 25-June 15, 2000.
2. Cable News Channel (Channel 7); it ran for one week, June 6-13, 2000, four times daily on the Job Bank portion of the Around Town Program.
3. Cable News Channel (Channel 17) Town of Guilderland community channel; it ran for one month starting June 14, 2000.
4. Bulletin board of the local library and Historian Office.

2.5.2 Every lead was addressed, which resulted in contact with approximately sixty-five people. The current telephone numbers or addresses for many people were unavailable. Twelve interviews were conducted. Any information was deemed valuable, but details referring to the previous layout of the Depot, the chemicals used, locations of dump site(s), and sewage removal procedures were specifically requested. These interviews did not identify any additional areas of concern, nor did they provide any new details about waste disposal practices or chemical use.

2.5.3 In 2004, the USACE Project Manager made contact with four individuals that formerly worked at SADVA. One person worked at the Depot from 1948 to 1962. That person remembered a salvage area next to Bldg. 25 where materials were stored above ground, for

shipment/reuse. Metal banding material was disposed of in the back (near the U.S. Army Southern Landfill - AOC 1); he had no memory of chemicals being stored in the salvage area. He remembered some slit trenching near the bivouac area (AOC 2). This person was also asked about an abandoned concrete bunker that was found at the end of 3rd Street in the woods between AOC 5 and AOC 1. He indicated low-level radioactive ores may have been stored in vicinity of the abandoned bunker. This information was used to further refine the investigation of the bunker as described in Section 3 of this report.

2.5.4 Another person interviewed by the USACE Project Manager in 2004 was from the family that owned the AOC 2 property before it was sold to the government for construction of the SADVA. The land was formerly used for dairy farming. This person said that there was no dumping on the property, nor were pesticides used, during the time the family owned the property.

2.5.5 Another person interviewed by the USACE Project Manager in 2004 was a SADVA employee for many years. This person was asked about the concrete bunker at the end of 3rd Street between AOC 1 and AOC 5. To his knowledge, nothing had been stored there.

2.5.6 The fourth person interviewed by the USACE Project Manager in 2004 was an office worked at SADVA from 1944 to 1945, and had no knowledge of disposal practices at the SADVA.

2.6 AOC DESCRIPTIONS

This section presents a brief description of each of the nine AOCs at the SADVA. Each AOC is discussed in greater detail along with previous investigation results in Section 3. The following subsections include discussions of the following AOCs:

- AOC 1 - U.S. Army Southern Landfill
- AOC 2 - Former Bivouac Area/Post Commander's Landfill
- AOC 3 - Former Burn Pit Area
- AOC 4 - Construction & Demolition Landfill
- AOC 5 - DLA/DNSC Voorheesville Depot
- AOC 6 – Waste Water Treatment Plant Area
- AOC 7 - Triangular Disposal Area
- AOC 8 - Black Creek
- AOC 9 – Building 60 Area

2.6.1 AOC 1 - U.S. Army Southern Landfill

2.6.1.1 The U.S. Army Southern Landfill, located in the southeast portion of the SADVA, is designated AOC 1. The U.S. Army Southern Landfill has been listed as a Class 2 site by the NYSDEC. This ranking indicates that the site is a significant threat to public health and environmental action is required.

2.6.1.2 A report by the Albany County Environmental Management Council (1980) prompted environmental concern at the SADVA. This report described aerial photography that showed excavation and disposal activities occurred in the southeastern areas of the SADVA during the time the SADVA was operated by DoD. There is no written documentation regarding past disposal practices at the U.S. Army Southern Landfill. The 1980 Albany County report eventually led to several investigations covering much of the industrial park, including the Southern Landfill.

2.6.1.3 The Southern Landfill reportedly contains C&D debris, industrial and domestic wastes, and wastes from the former burning pit area. The landfill boundaries have previously been determined, and the presence of VOCs, polynuclear aromatic hydrocarbons (PAHs) and metals in surface soil, subsurface soil and groundwater have been documented, particularly in the southern section. Additional data were collected during this RI to assess the groundwater, surface water and sediment quality in areas surrounding the landfill.

2.6.2 AOC 2 - Former Bivouac Area

2.6.2.1 The Former Bivouac Area is a 40.6-acre parcel which is on the west side of County Road 201, and was part of SADVA from its inception until the parcel was sold in 1963 (Figure 1.2). Historical information indicates the parcel was used as a transit troop bivouac area and officer family housing area in the 1950s and 1960s. After being purchased in 1963, the new owners of the parcel noticed a disposal area (later known as the Post Commander's Landfill) which they ultimately reported to the NYSDEC.

2.6.2.2 Previous use of the Bivouac Area included the disposal of drums and other waste in a portion of the 40-acre site. The disposal site has since been backfilled and is covered with vegetation consisting of grass and thick brush. Visual evidence of the disposal activities are present, and consist of small vials containing pills that are observed sporadically around the area. An area of ground, where standing water has been observed during rainy periods, has produced discolored soil and runoff. The disposal area is approximately 1,000 feet west of the onsite residence that formerly utilized a drinking water well adjacent to the house. The residents have been connected to the municipal water supply since approximately 1971 and the well is no longer in use.

2.6.3 AOC 3 - Former Burn Pit Area

The Former Burn Pit Area was less than 10 acres in size in the north end of SADVA (Figure 1.2). Historical aerial photographs and former employee interviews indicate the area was used for waste burning and/or disposal. Historical records for SADVA tend to confirm the presence of a disposal area where materials were burned or otherwise disposed. The historical records and photographs suggest the area had been the site of numerous dump areas and pits, and scarred areas that are thought to have been locations where wastes were burned.

2.6.4 AOC 4 – Construction and Demolition Landfill

AOC 4 is a C&D landfill located at the south end of SADVA (Figure 1.2). The United States Army Toxic and Hazardous Materials Agency (USATHAMA) conducted an assessment of SADVA in 1980 using historical documents from various agencies, and aerial photographs

from 1940, 1952, 1961, 1963, 1968, 1974, and 1977. The historical documents did not acknowledge any dumping by the Army during its operations at AOC 4. USATHAMA reports that the AOC 4 area was open space and inactive, based on air photos from 1940, 1952, 1961, and 1963. Active dumping and expansion at AOC 4 reportedly began following DoD ownership of the property, and continued through 1989. The Archival Search Report indicates that the sequence of available imagery suggests that dumping activity at this site commenced sometime between October 1969 and 1973, after the DoD relinquished ownership of the property.

2.6.5 AOC 5 – DLA/DNSC Voorheesville Depot

2.6.5.1 The Voorheesville Depot is currently owned by the GSA and operated by the DLA/DNSC. The facility is operated under the National Stockpile Program for the purpose of storing metallurgical ores and materials necessary for manufacturing defense materials, or strategic materials used in national defense. AOC 5 is the only part of the former SADVA that is currently owned by the Federal Government. Therefore, the investigation of AOC 5 is being funded by the DLA/DNSC, as opposed to being funded under the FUDS program, as is the case with the rest of the former SADVA.

2.6.5.2 The Voorheesville Depot is situated adjacent to the southwest corner of the SADVA (Figure 1.2). The Voorheesville Depot has been used for outdoor storage of strategic metals and ores, but is no vacant because DNSC has sold all commodities and is in the process of turning the property back over to GSA. The facility occupies approximately 35.5 acres. During its period of operation by DNSC, there were three buildings onsite: a storage garage, a guard trailer and an administration trailer. Typically, there were three workers present on site; a contract security guard and two DLA workers.

2.6.5.3 It was hypothesized that the outdoor metals and ore stockpiles at the Voorheesville Depot had the potential to leach hazardous substances, and potentially release them to the soil, groundwater, and surface water (and associated sediment) pathways. To test these hypotheses about suspected source area releases, the remedial investigation included sampling and analysis of soil, sediment, surface water and groundwater.

2.6.6 AOC 6 – Waste Water Treatment Plant Area

2.6.6.1 AOC 6 consists of the area surrounding the former SADVA WWTP in the northeastern SADVA (Figure 1.2). The Town of Guilderland used the former SADVA WWTP prior to the construction of the new WWTP plant. The Town of Guilderland demolished the former SADVA WWTP and constructed the new WWTP in its place during the period 1993 to 1995. During that construction, buried bottles were found that were thought to be associated with the former SADVA. The Town of Guilderland made arrangements for removal and disposal of the buried waste.

2.6.6.2 The Archival Search Report states that one small area in the northeast corner of AOC 6 was a possible dumping ground in 1952. The construction of a sewage treatment plant over most of this area leaves one or possibly two small dumpsites near Black Creek that remain to be investigated. A site reconnaissance was performed in this area to locate the boundaries of these dumpsites, so that a subsurface investigation could be performed.

2.6.7 AOC 7 – Triangular Disposal Area

AOC 7 is a triangular-shaped area located on dry, open ground between existing and former railroad tracks at the south end of SADVA (Figure 1.2). This area is located between the U.S. Army Southern Landfill (AOC 1) and the C&D Landfill (AOC 4). Aerial photographs from the early 1940s indicate the presence of a possible dump in this triangular area. No other written documentation has been found to confirm the presence of a dump area, or to indicate what materials may have been dumped there. During the 1990's, the USACE conducted geophysical surveys to investigate the presence of subsurface disposal areas. The geophysical survey results suggested that subsurface disposal areas or fill material may be present in this AOC.

2.6.8 AOC 8 – Black Creek

Black Creek is an AOC because previous investigations have shown the presence of VOCs and metals in surface water and/or sediment at concentrations above applicable regulatory criteria. Black Creek enters the former SADVA between AOC 1 and AOC 5, and flows near AOC 7 and the C&D landfill before flowing north along the east side of the SADVA. In 1998, the USACE investigated Black Creek as part of the Building 60 (AOC 9) investigation at SADVA. Building 60 is in the northeast portion of the site (Figure 1.2). Building 60 was investigated because petroleum contamination was encountered during excavation for a new building. Waters in Black Creek eventually flow into Watervliet Reservoir, which is the local drinking water supply source.

2.6.9 AOC 9 – Building 60 Area

AOC 9 is the area near Building 60, located in the northeast corner of SADVA (Figure 1.2). Petroleum contamination was encountered in February 1998 during excavation at the NEIP. The excavation activities were initiated for the construction of three buildings located just north of Buildings 60 and 77. A site visit was conducted on February 23, 1998 by members of the USACE and the NYSDEC. Review of previous investigations and site maps indicated that the Building 60 Area had been used by the DoD for vehicle maintenance and contained a total of seven large underground storage tanks (USTs). It is believed that the tanks have been removed in recent years; however, no documentation or soil sample results are available for confirmation, and NYSDEC has no records of underground storage tank removals in their files. The primary potential source area for AOC 9 was an oil/water separator and a 12-inch clay sewer pipe. The sewer pipeline leading from the oil/water separator to Black Creek and the oil/water separator were removed by USACE in 1998. The remaining potential source area would be residual contamination in the soil which could have originated from pipeline leaks. Lateral migration to the creek via the soil and pipeline backfill, and downward migration to the groundwater table are the potential pathways investigated during the RI.

Table 2.1

Climatological Data 2000-2006 and Historical Averages

Precipitation (inches)/ Temp. (°F)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2006 Precip.	4.75	1.02	1.23	4.73	5.31	8.74	2.92	3.92	3.86	4.95	3.13	2.02
2005 Precip.	4.27	1.37	4.01	2.36	1.44	3.87	7.54	3.01	2.20	9.00	5.71	2.95
2004 Precip.	0.81	1.10	1.80	3.08	3.56	2.12	7.23	6.30	4.69	1.26	3.06	2.71
2003 Precip.	3.45	2.15	2.26	2.89	5.08	2.84	4.52	4.41	4.91	4.67	3.66	5.48
2002 Precip.	2.77	1.61	3.56	2.51	4.55	5.45	0.83	3.86	3.37	4.02	4.86	3.97
2001 Precip.	1.00	1.85	5.50	1.33	3.21	3.78	3.59	2.1	1.64	1.26	1.38	1.95
2000 Precip.	3.43	2.83	3.80	4.23	4.95	6.69	4.48	4.69	3.06	2.48	1.90	4.38
1895-2004 Average Precipitation	*2.45*	*2.35*	*3.01*	*3.00*	*3.36*	*3.54*	*3.54*	*3.47*	*3.38*	*2.86*	*3.01*	*2.76*
2006 Temp.	32	28	36	50	59	68	75	70	61	49	45	36
2005 Temp.	20	27	31	50	55	73	74	74	66	52	43	27
2004 Temp.	13	23	37	48	60	64	68	68	61	48	38	26
2003 Temp.	14	20	33	43	55	65	70	71	61	46	41	28
2002 Temp.	30	30	35	48	54	65	72	71	63	46	37	26
2001 Temp.	23	25	30	46	58	68	68	72	61	50	43	33
2000 Temp.	19.2	26.1	39.0	44.0	58.2	64.2	65.9	66.8	57.7	48.3	36.3	20.7
1895-2004 Average Temperature	*20.7*	*22.0*	*32.6*	*45.1*	*56.7*	*65.8*	*70.7*	*68.6*	*59.9*	*48.6*	*37.3*	*25.6*