Final

CURTIS BAY
STORM WATER
POLLUTION PREVENTION PLAN

YOU ARE THE KEY

Defense Logistics Agency
Defense National Stockpile Center

Curtis Bay Depot
Curtis Bay, Maryland

PARSONS

This Storm Water Pollution Prevention Plan was prepared for:

Defense Logistics Agency
Defense National Stockpile Center

Prepared By:

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JULY 2005

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ACRONYMS

AOC	AREA OF CONCERN
AST	ABOVEGROUND STORAGE TANK
BMP	BEST MANAGEMENT PRACTICE
CERCLA	COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION AND LIABILITY ACT
CSWMP	CONSTRUCTION STORM WATER MANAGEMENT PLAN
CWA	CLEAN WATER ACT
DLA	DEFENSE LOGISTICS AGENCY
DNSC	DEFENSE NATIONAL STOCKPILE CENTER
ESOH	ENVIRONMENTAL SAFETY AND OCCUPATIONAL HEALTH
HWMP	HAZARDOUS WASTE MANAGEMENT PLAN
ISCP	INSTALLATION SPILL CONTINGENCY PLAN
MDE	MARYLAND DEPARTMENT OF THE ENVIRONMENT
MEP	MAXIMUM EXTENT PRACTICABLE
MS4	MUNICIPAL SEPARATE STORM SEWER SYSTEM
NOI	NOTICE OF INTENT
NPDES	NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
OSHA	OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
POC	POINT OF CONTACT
PPT	POLLUTION PREVENTION TEAM
RCRA	RESOURCE CONSERVATION AND RECOVERY ACT
RQ	REPORTABLE QUANTITY
SPCC	SPILL PREVENTION, CONTROL AND COUNTERMEASURE
SPDES	STATE POLLUTANT DISCHARGE ELIMINATION SYSTEM
SWPPP	STORM WATER POLLUTION PREVENTION PLAN
USEPA	UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
USGS	UNITED STATES GEOLOGICAL SERVICE

STORM WATER POLLUTION PREVENTION PLAN CERTIFICATION

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

F. Kevin Reilly 8/8/05

F. Kevin Reilly Date

Director of Environmental Management

SECTION 1

INTRODUCTION

1.1 PURPOSE OF THIS STORM WATER POLLUTION PREVENTION PLAN

The purpose of this manual is to remind you, the Defense Logistic Agency's (DLA) Defense National Stockpile Center (DNSC) employee, that *you* are the key to storm water pollution prevention. This manual will provide you with guidance on how to satisfy this DNSC's Storm Water Pollution Prevention Plan (SWPPP) for the Curtis Bay Depot. The key elements that you will need to complete are as follows:

- Each year during the third quarter (April through June) the Pollution Prevention Team (PPT; identified on Table 3.1) will meet and review the items listed on Table 3.1.
- By the end of the third quarter, the team will complete the Annual Site Compliance Report (Appendix C).
- The Spills and Leaks Form and Annual Site Compliance Report (Appendicies A and C, respectively) will be submitted to Chief Environmental Management Division (currently Steve Surface) by June 30 of each year.
- During the course of each year, annual general storm water training will be provided for all personnel during one monthly safety meeting. This training will be prepared for you and will be provided on CD-ROM for your use.

1.1.1 SWPPP Revisions

This SWPPP is a "living document." It will require periodic updates, the addition of data, the appending of reports, and other modifications. Whenever there is a change in facility operations, such as sources of pollution or control measures, which have the potential to impact storm water quality, the SWPPP must be updated in a timely manner to reflect these changes.

1.2 WHAT IS STORM WATER?

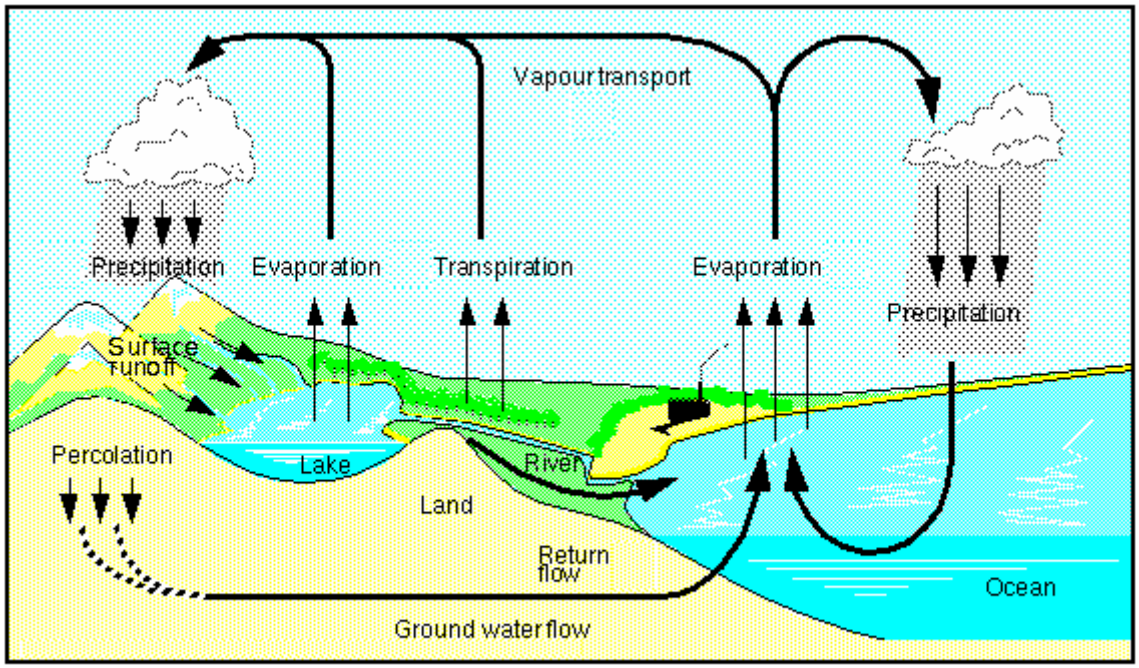
Storm water can be defined as precipitation runoff, snow melt runoff, surface runoff and drainage. Although it may seem obvious, heavy rains and melting snow can significantly increase the amount of storm water flowing into natural watercourses, such as rivers and lakes, or man-made distribution systems, such as canals and sewer systems. However, other factors also influence storm water runoff. Principal factors directly influencing storm water runoff include the following:

- **Rainfall duration** – even a light rain can saturate soil and result in storm water runoff, if rain falls for a long enough time.
- **Rainfall intensity** – heavy rain will saturate the soil more quickly than a light rain, resulting in the generation of runoff more quickly.

- **Moisture in Soil** – soil that is already moist will result in runoff being generated sooner than would be the case for dry soil because the dry soil has a greater capacity to absorb rainfall. Frozen soil can result in all of the rain that falls or snowmelt to run off the ground surface as sheetflow.
- **Soil Composition** – hard, clay soils absorb little water, while sandy soils easily allow water to flow through.
- **Vegetative cover** – roots, layers of leaves, branches and pine needles (i.e., ground cover) readily allow water to soak into the soil. Barren surfaces tend to increase storm water runoff.
- **Ground slope** – the rate of storm water flow on flat land is typically slow, with the opportunity for the water to infiltrate into the soil, while water that falls on steeply sloping land tends to rapidly runoff in a downslope direction.
- **Human influences** – human activities have a definite impact on storm water runoff. Impervious surfaces (i.e., surfaces that do not absorb water), such as building roofs, paved roads and parking lots, greatly increase the amount of runoff. Bare soils from construction activities and some agricultural land uses also result in increased amounts of storm water runoff being generated.

1.3 WATER (OR HYDROLOGIC) CYCLE

Water in and on the earth moves in a continuous cycle. This is called the Water (or Hydrologic) Cycle. As water evaporates from oceans and lakes, vapors rise and condense into clouds. The clouds then move over land and precipitation (water) falls in the form of rain, ice or snow. The water travels through the soil (called infiltration or percolation) and recharges the groundwater, or travels overland to fill in streams and rivers, eventually flowing back into the oceans and lakes where evaporation starts the process anew. Storm water runoff is a part of this process. Figure 1.1 illustrates the Water Cycle.



Courtesy Erich Roeckner, Max Planck Institute for Meteorology

Figure 1.1 The Water Cycle

1.4 STORM WATER CONVEYANCE

Beginning in the mid-1800's, storm water conveyance systems were constructed in cities and developed areas throughout the world. These systems often consisted of ground surface drain inlets emptying into buried pipes or tunnels. Storm water then flowed into the underground systems, carrying with it whatever mud, debris and filth was present on the streets above.

The conveyance systems usually consisted of pipes or tile tunnels with impervious sides and bottoms, so all the storm water and collected pollutants were carried directly to a point of discharge (or outfall), such as a nearby river, lake or ocean. The storm water drainage system may also consist of surface features, such as grass-lined swales or ditches.

It is uncommon for storm water in a collection system to be treated (or cleaned) before emptying into a body of water. Some municipal storm water systems are combined with a sanitary wastewater sewage system, and the combined storm water and wastewater are processed at a treatment facility. However, these combined systems can easily be overwhelmed during heavy rain, causing the system to overflow, resulting in untreated storm water and sewage being released into the environment.

1.4.1 Effects of Increased Urbanization

As populations grow, cities and suburban areas expand, resulting in the creation of more paved and impervious surfaces, such as buildings, roads, driveways, parking areas and the like. Some effects of this increased urbanization and the proliferation of impervious surfaces are listed below:

- Decreased infiltration of storm water into the ground
- Reduced amount of groundwater recharge
- Contamination and slowing of subsurface flow
- Increased erosion
- Increase of sediment and pollutants introduced into waterways
- Increased storm water runoff
- Acid rain

SECTION 2

STORM WATER REGULATION

2.1 REGULATORY REQUIREMENTS

Federal storm water regulations were first issued in 1990. Under Phase I of the storm water program, the United States Environmental Protection Agency (USEPA) regulations focused on the use of National Pollutant Discharge Elimination System (NPDES) and State Pollutant Discharge Elimination System (SPDES) permit coverage to address storm water runoff from "medium" and "large" municipal separate storm sewer systems (MS4s), direct industrial storm water discharges, and construction activity impacting five or more acres of land.

Phase II of EPA's storm water program was published in 1999, and expands the program to cover "small" MS4s in urban areas, as well as small construction activities between one and five acres in size. MS4s are "municipal" separate storm sewer systems that convey only storm water, and the definition of "municipal" includes federal facilities such as storage depots. However, these facilities are covered only if they have a separate storm water system (rather than a combined storm water and sanitary wastewater sewer system) and are present in an "urbanized area". These urbanized areas have a specific definition, which includes a total population of at least 50,000 and a population density of at least 1,000 people per square mile.

2.1.1 SPDES Permits

Implementation of EPA Phase II storm water regulations relies on most individual states issuing general permits covering MS4s. In Maryland, regulated MS4 facilities must file a Notice of Intent (NOI) in order to receive the SPDES general permit. Once covered, regulated facilities will normally have up to five years to fully implement a storm water management program. These programs must be designed to reduce the discharge of pollutants to the "maximum extent practicable" (MEP) to protect water quality.

The Curtis Bay Depot obtained a SPDES general permit under Phase I regulations (see Section 2.1.2), as it was considered an industrial facility with storm water drainage into waters of the United States. Although not mandatory for this site, aspects of the Phase II requirements are being incorporated into this SWPPP, as a practical way to help ensure protection of our environment, and to comply with DNSC policy.

Facilities subject to Phase II requirements must address the following six minimum control measures, and specific procedures being implemented at Curtis Bay are noted:

- **Public education and outreach** – to increase awareness of sources of storm water pollution and measures used to control these sources. As part of its environmental program, DNSC has arranged for a "working group" of local citizens, elected officials and other interested parties to discuss environmental issues at the depot. DNSC periodically issues newsletters to the local public and holds meetings for the "working

group" and the public to inform everyone of major environmental issues at the Curtis Bay Depot.

- **Public participation/involvement** – an informed and knowledgeable community is critical to the success of a SWPPP. The community must be included in the SWPPP development process. Workers at the Curtis Bay facility, including management, have provided input to this SWPPP.

- **Illicit discharge detection and elimination** – often connections of sanitary sewer lines are illegally made to storm water systems, greatly increasing concentrations of pollutants in storm water. Phase II requires the elimination of these connections. Section 5 of this plan discusses the assessment of non-storm water discharges and illicit connections at the Curtis Bay Depot.
- **Construction site runoff control** – land stripped of vegetative cover will increase the amount of runoff, as well as the sediment load contained in that runoff. Phase II requires the development of a construction site ordinance; however, an ordinance has not been developed for the depot. Any construction projects undertaken at the Curtis Bay Depot will include provisions for storm water management and erosion control and mitigation of impacts.
- **Post-construction runoff control** – many techniques exist that can be implemented to reduce the amount of storm water that enters a drainage system and increase the amount that infiltrates into the ground. Post-construction measures and controls must be developed as part of Phase II. As mentioned above, any construction projects at the Curtis Bay Depot will include provisions for storm water management and erosion control to minimize impacts, both during and post-construction
- **Pollution prevention/good housekeeping** – steps taken by facility / property occupants to minimize the amount of pollutants discharged from industrial areas into storm water systems. The Curtis Bay Depot has implemented a series of best management practices (BMPs) designed to protect storm water quality (Section 4).

As new construction is not anticipated at the depot, a Construction Storm Water Management Plan (CSWMP) has not been included as part of this SWPPP (as Phase II would

require). In the event a construction project sized one acre or more in size is planned, a CSWMP must be prepared, and appropriate BMPs developed and implemented.

When a regulated facility applies for a SPDES permit, the facility must identify its BMPs and measurable goals for each of the six above-mentioned control measures.

2.1.2 Curtis Bay Depot's SPDES Permit

The SPDES permit registration number issued by the Maryland Department of the Environment (MDE) to the Curtis Bay facility is: 02SW0692. The permit is a General Discharge Permit for Storm Water Associated with Industrial Activities, Permit No. 02-SW. A copy of the permit is located in Appendix B, along with the depot's NOI form requesting coverage under the SPDES general permit program. The permit expires November 30, 2007.

2.1.3 SPDES Permit Implications

With a SPDES Permit, the depot is required to:

- Perform an annual review by completing the Spills and Leaks Form and Annual Site Compliance Report located in Appendicies A and C, respectively. (The Spills and Leaks Form should be completed whenever there is a spill, not necessarily once per year). Directions for completing the Annual Site Compliance Report are provided in Appendix C.
- Update this SWPPP whenever conditions change, as noted during inspections or otherwise (i.e., materials becoming exposed to or removed from exposure to storm water runoff).
- Renew the SPDES permit every five years.

2.2 SIGNIFICANT SPILLS AND LEAKS

Significant spills and leaks of toxic or hazardous pollutants that occur in areas exposed to precipitation or that otherwise drain to a storm water conveyance at the facility must be reported as soon as possible. Spills and leaks occurring over the past three years prior to the approval date of the facility's storm water permit are to be documented in this SWPPP (see Appendix A). This list must be updated, as appropriate, during the term of the permit. No spills or leaks have been reported at the Curtis Bay Depot in the three years prior to the date of this SWPPP (February 2004).

USEPA has defined "significant spills" to include releases within a 24-hour period of hazardous substances in excess of reportable quantities (RQ) under the Clean Water Act (CWA) and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). Reportable quantities are set amounts of substances in pounds, gallons, or other units.

Substances present at the Curtis Bay Depot and the corresponding RQs are provided in Table 2.1. These RQ's are applicable only to CERCLA regulations, and smaller quantities of spilled substances may be reportable to other state agencies.

Table 2.1 **Reportable Quantities (RQ) of Hazardous Substances**		
Substance	**Component(s)**	**RQ (gallons)**
Hess Gasoline, Unleaded Plus [a]	Xylene	101 [b]

[a] Other substances with RQs are present in gasoline, but xylene has the lowest RQ and would trigger reporting requirements.
[b] Concentration of xylene may range between 1% and 15%; RQ is based on a concentration of 15%.

2.2.1 Action Following a Significant Spill

If a hazardous substance listed in Table 2.1 is released to the environment in excess of the RQ, you are required to notify the National Response Center at (800) 424-8802 as soon as possible. Releases are defined to include any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment. Simply put, a release is when a material gets out of its designated container into the environment.

In the event a hazardous substance is spilled that is not included on Table 2.1, the product's Material Safety Data Sheet (MSDS) should indicate the RQ, if applicable. An extensive listing of RQs is also available on the USEPA website. Materials are listed alphabetically by chemical name and also by Chemical Abstracts Service (CAS) Registry Numbers®. The internet address is: http://www.epa.gov/ceppo/pubs/title3.pdf . Calculations may be required to determine the RQ of a product if individual components of a product constitute a hazardous material.

All significant spills and leaks of toxic or hazardous pollutants that have occurred in the past three years prior to the date of this SWPPP must be reported on the Spills and Leaks Form, included in Appendix A. Spills and leaks of toxic and hazardous pollutants should be handled in accordance with precautions and procedures recommended on the MSDS, and should be reported immediately to the Distribution Facilities Manager. In any event, immediate measures should be taken to stop or remove the source of the spill, and to stop or prevent further migration. Any release of a fuel, oil or oil product must also be documented, and handled in accordance with DNSC's Spill Prevention, Control and Countermeasure (SPCC) plan for the depot."

2.3 WHY DO WE DO THIS? – OBJECTIVES OF THE SWPPP

The purpose of the storm water pollution prevention plan is to minimize or eliminate the potential for contamination of storm water by DNSC activities. The plan is to address physical changes that could be made at DNSC facilities to minimize or eliminate the potential for the contamination of storm water. Also, the purpose of the plan is to investigate sources of potential contamination, develop on-going practices and procedures for minimizing or eliminating storm water pollution, and implement those practices and procedures.

The primary objectives of this SWPPP are to:

- Identify and characterize potential sources of storm water pollution
- Select and design BMPs to be implemented for control of pollution sources
- Develop a program of continuing inspection, maintenance and monitoring to facilitate reduction or elimination of storm water pollution.

2.4 YOU ARE THE KEY

DNSC's Environmental, Safety and Occupational Health (ESOH) Policy Statement provides the foundation for controlling the environmental impacts of DNSCs activities, commodities, and services and establishes environmental goals and objectives. Compliance with this SWPPP and protecting water quality are a part of these goals.

The key elements of the ESOH Policy Statement include:

- Compliance with all relevant environmental, safety and occupational health laws and regulations, and DNSC's policies and procedures.

- Fostering a dialogue with employees and the public regarding the potential impact of DNSC's operations.
- Promoting environmental stewardship through the prevention of pollution.
- Supporting efforts to conserve and improve natural resources in the regions in which DNSC operates.
- Continually improving DNSC's environmental, safety and occupational health performance through training, and integrating environmental, safety and occupational health considerations for DNSC's business planning processes.

DNSC adopts the ESOH Policy Statement and will conduct its business activities and operations in a manner that is consistent with DNSC's policy statement.

2.4.1 The SWPPP Needs Your Help

You, the DNSC employee, are the key to making this plan effective and keeping the storm water drainage system free of pollutants.

- You are in the best position to protect storm water quality.
- You know your depot.
- You know your job responsibilities and procedures.
- You can make a positive difference by taking the appropriate steps in the event of a spill or emergency.
- You can provide input needed to update and improve the SWPPP.

It is your duty (and every DNSC employee's duty) to keep an eye open to identify conditions that may contribute to contamination of storm water runoff. During your daily routine should you notice a potential problem, take the steps to fix it! Keep the lines of communication open. At your monthly safety meetings address any concerns you may have about the current status of your SWPPP. If you see a situation that requires immediate action, act responsibly. Fix the problem or contact personnel who can.

Knowledge of any storm water contamination, including that from non-DNSC property that shares the storm water drainage system servicing the depot, should be brought to the attention of the depot manager or PPT member (see Section 3.2).

It is the responsibility of every DNSC employee to remember that whatever goes down into the storm water system will end up in our local waterways. Often times, that waterway is used for recreation, as a source for food (i.e., fish), and as a source for drinking water.

2.5 TRAINING

Employee training is essential to effective implementation of the SWPPP. The purpose of a training program is to teach personnel at all levels of responsibility the components and goals of the Plan. When properly trained, personnel are more capable of preventing spills, responding

safely and effectively to an incident when one occurs, and recognizing situations that could lead to storm water contamination.

2.5.1 Existing Training

During the course of each year, general storm water pollution prevention training will be provided for all depot employees during at least one monthly safety meeting. This training will be prepared for depot personnel by member(s) of the pollution prevention team on CD-ROM for your use.

DNSC has designated Training Coordinators at each depot. The Training Coordinators will document completion of the training on a training spreadsheet that has been developed as part of the DNSC Environmental, Safety and Occupational Health Management System (ESOHMS). The tracking spreadsheet will be maintained in accordance with the ESOHMS procedures.

2.5.2 Additional Training Required

- All members of the Storm Water Pollution Prevention Team (PPT) will meet annually to discuss the SWPPP. The Team Leader will coordinate the meetings and will update members on new developments regarding Federal and Maryland storm water regulations.
- All site POCs will be given a copy of the SWPPP, which will be posted at the site. A PPT member will brief the POC annually on Plan changes and requirements, in the form of a written report.
- Team members will receive annual training in storm water pollution prevention and good housekeeping practices.

2.6 INTERNET ACCESS

This SWPPP, along with the DNSC ESOH Policy Statement, are available at the "I Am The Key" link on the DNSC's Home Page located at: https://www.dnsc.dla.mil/iamthekey/

SECTION 3

CURTIS BAY DEPOT

3.1 DNSC CURTIS BAY DEPOT

The DLA DNSC at the Curtis Bay Depot is required to prepare this SWPPP in accordance with the SPDES permit issued by the MDE.

3.1.1 Location and Site Description

The depot is located at 710 Ordnance Road, in Curtis Bay, Anne Arundel County, Maryland, approximately one mile south of the city of Baltimore. The terrain of the depot is generally flat, with some small hilly sections. The depot occupies approximately 483 acres, and is bordered by Curtis Creek to the east, Furnace Creek to the south, and Back Creek to the southwest.

A county detention center and sports complex are located to the west of the depot on land that was previously a part of the depot. To the north of the depot is a U.S. Army Reserve compound. Partially vacant industrial land and railroad tracks also lie north of the depot. At the east side of the depot is a dock area that has recently been turned over to the Army Reserve Marine Unit. The Baltimore Police Canine Unit uses an area and a building along Solomon Road at G-Line Road. The approximate center of the facility is referenced at 39˚ 11’ 40” north latitude and 76˚ 35’ 24” west longitude.

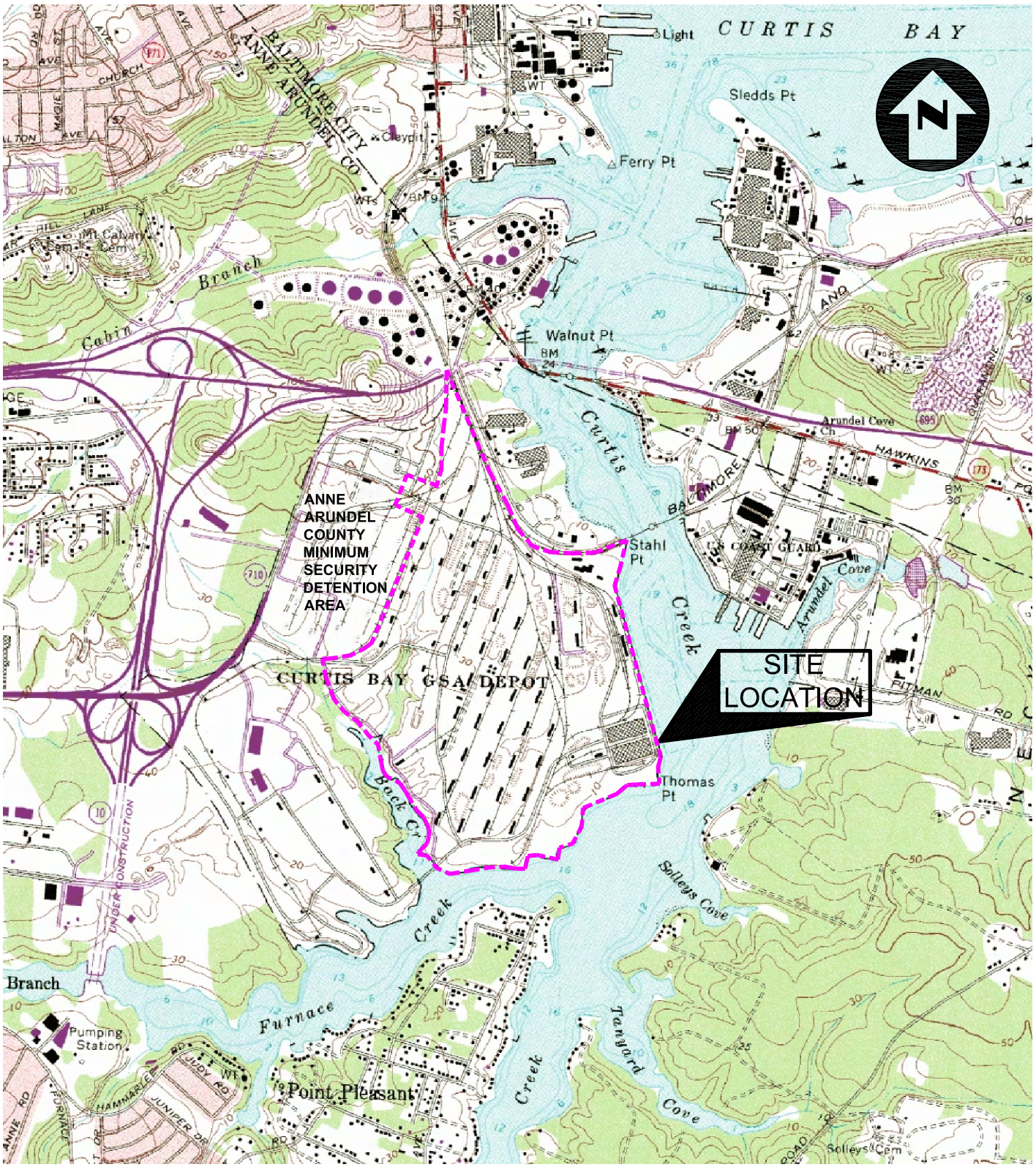
The depot has been in existence since 1918 and is now known as a DNSC, operated by the DLA of the United States government. The property is owned by the General Services Administration (GSA). Operations within the Curtis Bay Depot primarily include the storage and handling of metals, ores, and various other commodities, and the off-loading of these materials as they are divested to other parties. Many of the warehouses at the depot are largely vacant inside, and several are in a severely deteriorated condition.

This SWPPP applies to the DNSC property and the storm water drainage system located on the DNSC property. Those areas that were previously a part of the depot, which are no longer owned by the GSA or controlled by the DLA, are not covered under this SWPPP.

The following maps are included in this SWPPP and delineate the depot property and it’s storm water management system as well as other attributes:

- **Figure 3.1 – Site Location Map**. A topographic map of the site and surrounding vicinity taken from a quadrangle map, showing features including outfalls, waterways, roads and other features.
- **Figure 3.2 - Depot Map**. Displays the boundaries of the DNSC Curtis Bay Depot and the storm water drainage system. Featured are swales, the direction of surface flow, outfalls of the storm water drainage system, the locations of buildings and Areas of Concern (AOCs).

- **Figure 3.3 – Stockpile Area No. 1 Detail Map.** Shows a close-up of the I-Line Pad with commodity stockpiles and numbers. The drawing shows Area of Concern "C".
- **Figure 3.4 – Stockpile Area No. 3 Detail Map.** Shows a close-up of the pad south of A-Line Road with eight commodity stockpiles and numbers. The drawing shows Area of Concern "E".
- **Figure 3.5 – Vehicle Fueling Area Detail Map.** Shows the area surrounding the ASTs at AOC "A".



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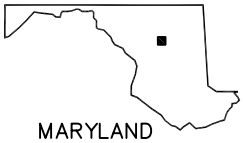
SCALE IN FEET

PROPERTY BOUNDARY



MARYLAND
QUADRANGLE LOCATION

DLA-DNSC

CURTIS BAY DEPOT
710 E. ORDNANCE RD.
BALTIMORE, MD 21226-1786

FIGURE 1

SITE LOCATION MAP

PARSONS
290 ELWOOD DAVIS ROAD, LIVERPOOL, NY 13088, PHONE: 315-451-9560

P:\742714\CURTIS BAY\CAD\SITEMAP.DWG; CLW; 1/29/04

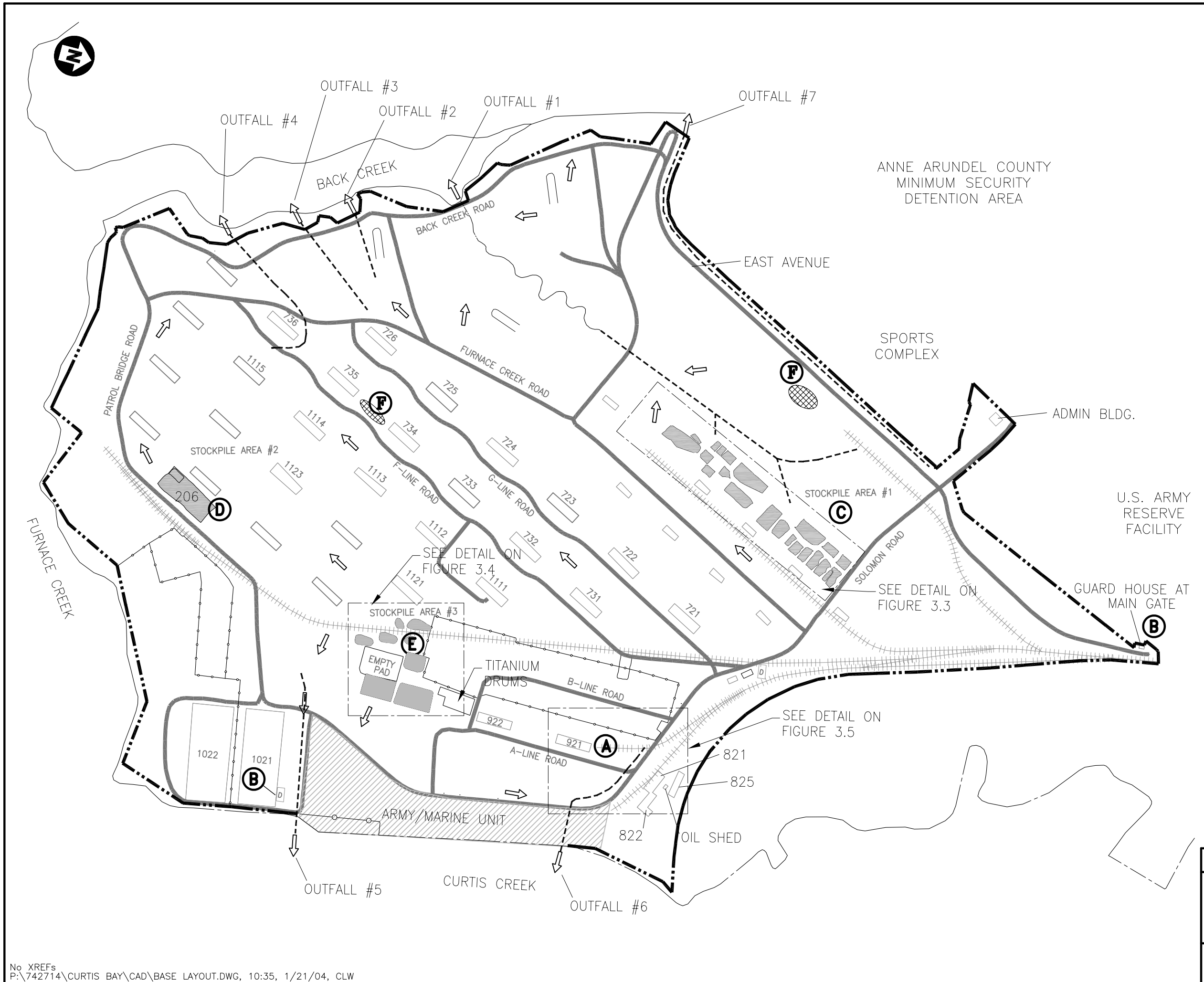


FIGURE 3.2

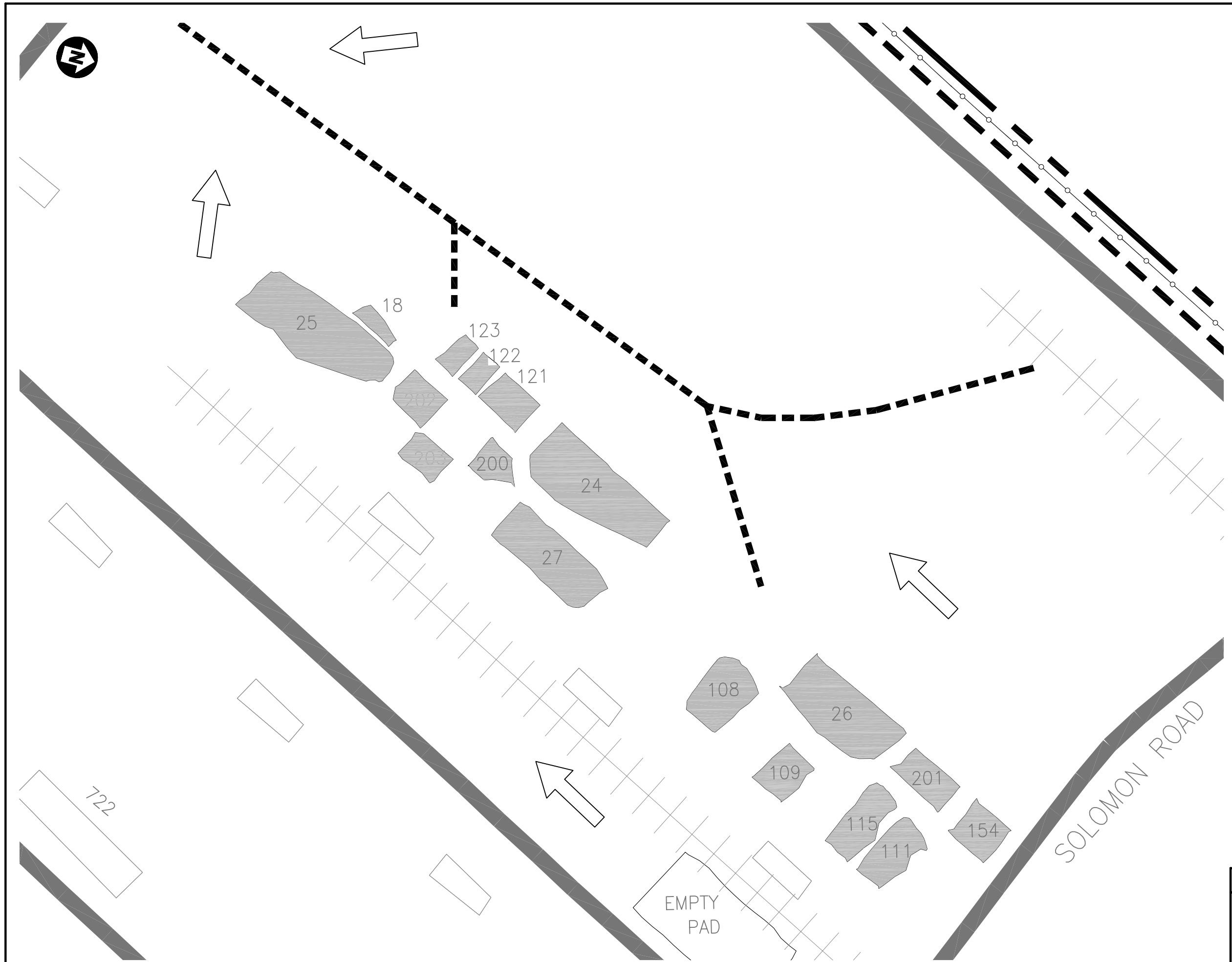
CURTIS BAY DEPOT
ANNE ARUNDEL COUNTY, MARYLAND

DEPOT MAP

PARSONS

290 ELWOOD DAVIS ROAD, SUITE 312, LIVERPOOL, N.Y. 13088, PHONE: 315-451-9560

No XREFs
P:\742714\CURTIS BAY\CAD\BASE LAYOUT.DWG, 10:35, 1/21/04, CLW



LEGEND:

- RAILROAD
- PROPERTY BOUNDARY
- STOCKPILES AND PILE NUMBERS
- ROADS
- SURFACE WATER FLOW DIRECTION
- FENCE
- DITCH

NOTE:

LOCATIONS ARE APPROXIMATE

150 0 150 300

APPROXIMATE SCALE IN FEET

FIGURE 3.3

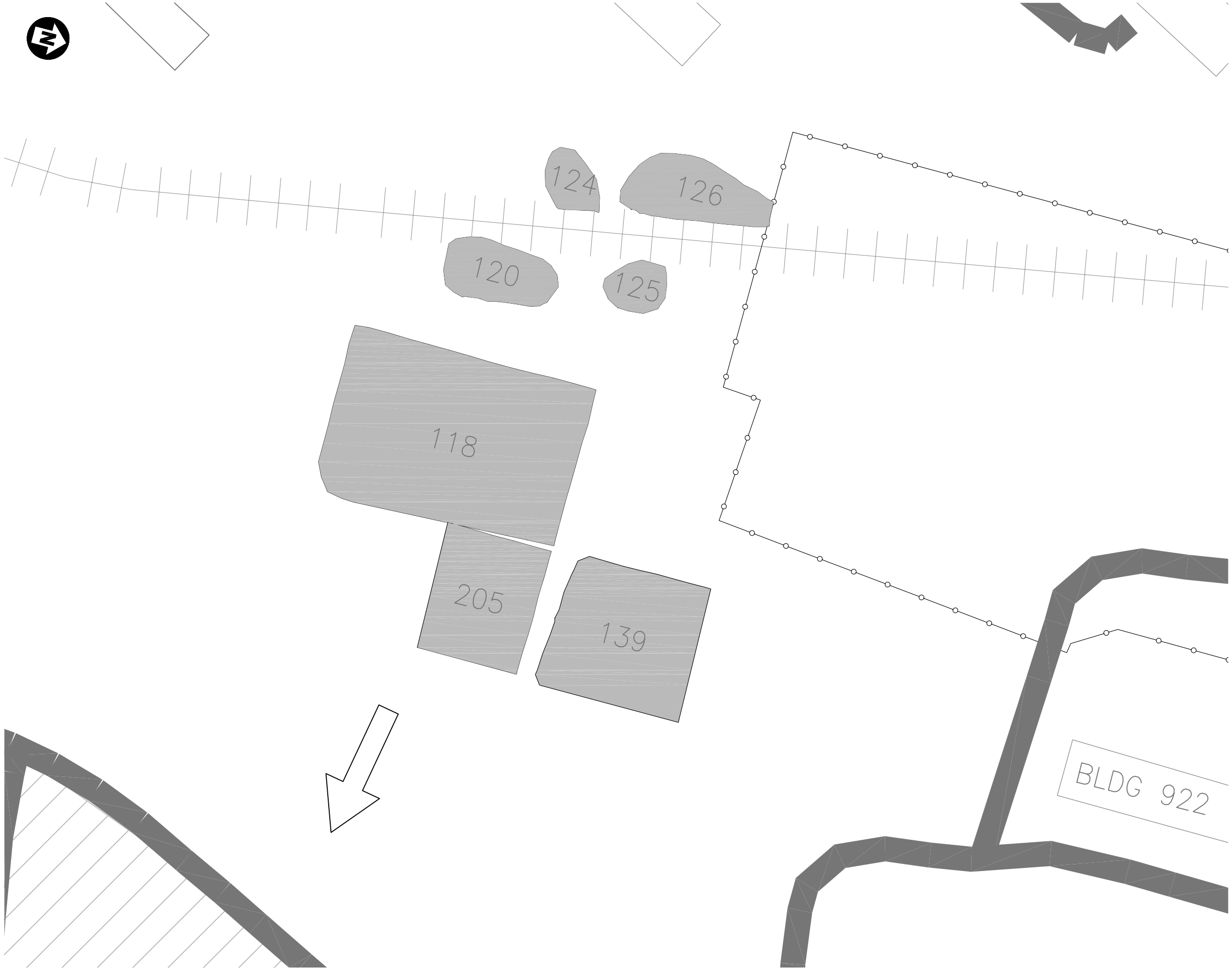
CURTIS BAY DEPOT
ANNE ARUNDEL COUNTY, MARYLAND

AREA OF CONCERN C
STOCKPILE AREA NO. 1

PARSONS

290 ELWOOD DAVIS ROAD, SUITE 312, LIVERPOOL, N.Y. 13088, PHONE: 315-451-9560

No XREFs
P:\742714\CURTIS BAY\CAD\LAYOUT(1).DWG, 7/25/05, CLW



LEGEND:

RAILROAD

STOCKPILES AND NUMBERS

ROADS

SURFACE WATER FLOW DIRECTION

FENCE

NOTE:

LOCATIONS ARE APPROXIMATE

150 0 150 300

APPROXIMATE SCALE IN FEET

FIGURE 3.4

CURTIS BAY DEPOT
ANNE ARUNDEL COUNTY, MARYLAND

AREA OF CONCERN E
STOCKPILE AREA NO. 3

PARSONS

290 ELWOOD DAVIS ROAD, SUITE 312, LIVERPOOL, N.Y. 13088, PHONE: 315-451-9560

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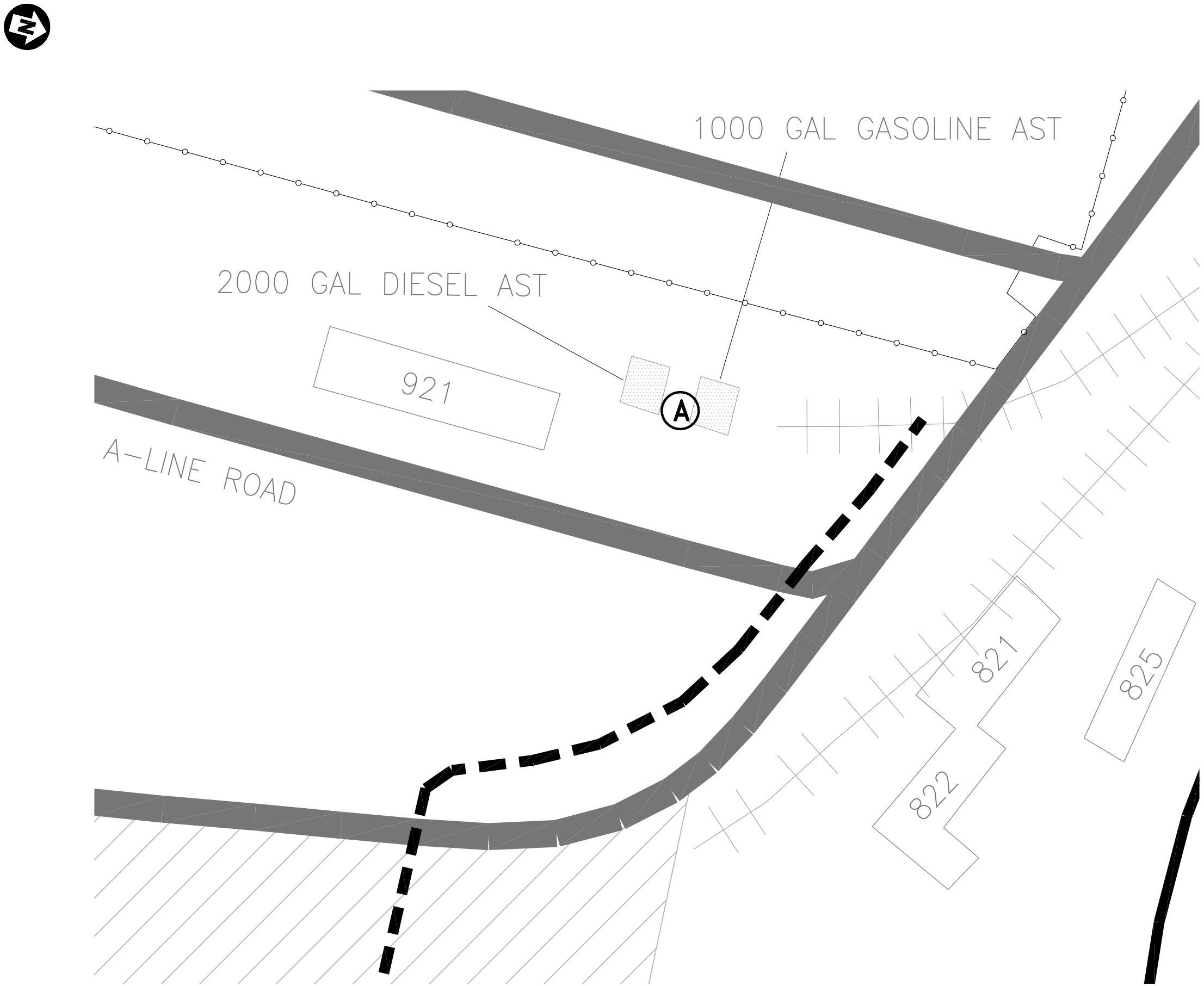

LEGEND:

- RAILROAD
- ROADS
- FENCE
- AST
- (A) AREA OF CONCERN
- DITCH

NOTE:

LOCATIONS ARE APPROXIMATE

150 0 150 300

APPROXIMATE SCALE IN FEET

FIGURE 3.5

CURTIS BAY DEPOT
ANNE ARUNDEL COUNTY, MARYLAND

AREA OF CONCERN A
VEHICLE FUELING AREA

PARSONS
290 ELWOOD DAVIS ROAD, SUITE 312, LIVERPOOL, N.Y. 13088, PHONE: 315-451-9560

No XREFs
P:\742714\CURTIS BAY\CAD\LAYOUT(3).DWG, 7/25/05, CLW

3.1.2 Storm Water Management System

The storm water drainage system at the Curtis Bay Depot consists of several grass-lined swales and ditches that flow into small streams, which in turn discharge through outfalls that empty into creeks bordering the depot. Areas in close proximity to the creeks will generally sheetflow directly into the creeks. Depending upon the amount of storm water runoff generated during a precipitation event, a certain portion of the runoff will infiltrate the soil. The drainage system takes in minor contributions from non-DNSC property adjacent to the site.

No underground storm water sewer system exists on the property, but several drain inlets are located onsite that drain to nearby ditches or streams on the property that eventually flow to one of the outfalls. The creeks bordering the depot property (Back Creek, Curtis Creek, and Furnace Creek) are hydrologically connected to Curtis Bay, which opens up into the Chesapeake Bay.

The property also contains a number of depressions and low-lying spots which accumulate runoff. Runoff captured in these depressions eventually infiltrates into the ground or evaporates. Storm water runoff from the roofs of warehouses and other buildings at the depot generally infiltrates into the soil, with heavier precipitation resulting in sheetflow towards swales and ditches on-site that discharge through the various outfalls.

Curtis Bay Outfalls

- Outfall 1 collects storm water runoff from land along the western portion of the depot, including from the I-line pad of commodity stockpiles. Grass-covered swales channel runoff into the unnamed stream that discharges through Outfall 1 into Back Creek.

- Outfall 2 is located south of Outfall 1 along Back Creek. Outfall 2 collects storm water runoff from areas along Furnace Creek Road and G-Line Road. The drainage ditch leading to Outfall 2 is connected to the drainage ditch leading to Outfall 3, just southwest of Furnace Creek Road and G-Line Road.

- Outfall 3 discharges into Back Creek between Outfalls 1 and 3. Outfall 2 collects storm water runoff from areas along Furnace Creek Road and G-Line Road.

- The southernmost outfall is Outfall 4, which also empties into Back Creek. This outfall accumulates storm water runoff from the southern and eastern portions of the depot, including the area between Patrol Bridge Road and F-Line Road.

- Outfall 5 collects storm water runoff from areas near Warehouses 1021 and 1022, Stockpile 131, Stockpile Area No. 3, and a portion of the Army Marine Unit facility. Outfall 4 discharges into Curtis Creek.

- A ditch along Solomon Road near A-Line and B-Line Roads collects storm water runoff from this area, and discharges into Curtis Creek at the north end of the Army Marine facility through Outfall 6. In addition, three connected storm drains, located

east of the A-Line and B-Line Roads, collect storm water runoff and discharges through Outfall 6.

- A grass-lined swale running along the west side of East Avenue discharges through Outfall 7, which empties into a wetland area connected to Back Creek, west of the intersection of East Avenue and Back Creek Road.

A certain percentage of storm water runoff does not reach the drainage swales or outfalls and naturally infiltrates into the ground, recharging groundwater. This groundwater may be hydrologically connected to the nearby creeks and bays. Any contamination entering the storm water drainage system can eventually end up in the groundwater, streams and bays, negatively affecting the quality of water which is a resource for both wildlife and humans.

3.2 POLLUTION PREVENTION TEAM

Each SWPPP must identify a specific individual or individuals within the facility organization as members of a storm water PPT that are responsible for developing the SWPPP and assisting the facility manager in its implementation, maintenance and revision. The SWPPP shall clearly identify the responsibilities of each team member. The activities and responsibilities of the team shall address all aspects of the facility's SWPPP.

When establishing a PPT, it is vital to identify the key people on-site who are most familiar with the facility and its operations, and to provide adequate structure and direction to the facility's entire storm water management program. The PPT concept is flexible and should be molded to conform to the resources and specific conditions of the facility. Specific activities of the team, the number of members, and their background and experience may vary from facility to facility.

3.2.1 PPT Organization

Effective organization of the PPT is important in order for the team to be able to accomplish the task of developing and implementing a comprehensive SWPPP. There are two important features in organizing a team of this nature:

- Selecting the right individuals to serve on the team
- Establishing good channels of communication.

The Curtis Bay Depot PPT is identified in Table 3.1.

In the event a member of the PPT leaves his/her position at the depot, a replacement will be named as soon as practical. The best-qualified person should be named as the replacement, and not necessarily the new individual in the former PPT member’s position.

3.3 FORMS

Appendicies A and C contain two forms that will be completed by the PPT:

- Annual Site Compliance Report (Appendix C - completed annually)
- Spills and Leaks Form (Appendix A - completed as required, and at least annually)

Directions for completing the Annual Site Compliance Report and conducting Routine Visual Inspections are located in Appendix C.

Table 3.1

POLLUTION PREVENTION TEAM

The following Team Members are responsible for developing, implementing, modifying, and proving required reports for the Storm Water Pollution Prevention Plan and related activities.

Member	Responsibilities
William Guiton, Team Leader, Distribution Facilities Manager (607) 773-2602	· Coordinates all stages of SWPPP development and implementation. · Coordinates employee training programs. · Completes annual site compliance reports. · Conducts or contracts annual inspection and certification of non-storm water discharges, as required. · Administers and oversees all team members' activities. · Coordinates SWPPP updates as needed. · Maintains all records and submits reports, as necessary. · Maintains updated spill records and updates the SWPPP to reflect any spills that occur on-site.
Mike Mastronardi, Member, Engineering Equipment Operator Supervisor (607) 773-2602	· Ensures good housekeeping practices. · Conducts on-site preventive maintenance inspections. · Updates material inventories. · Assists the Team Leader during annual site compliance reports.
Cliff Jones, Member, General Supply Specialist, (607) 773-2602	· Attends meetings and assists other team members as needed. · Provides input concerning commodity storage and removal that may affect the SWPPP.
Mary (Lori) Davidson, Member, Environmental Protection Specialist (W): (607) 773-2655 (C): (607)-343-3454	· Coordinates activities within DNSC- Environmental Field Activities Group (DNSC-EE). · Provides input and information on appropriate BMPs. · Provides annual Storm Water Training. · Assures that all necessary permits are in place and up to date. · Coordinates any changes in the SWPPP with cognizant contracting and depot personnel.

3.4 AREAS OF CONCERN

Any location at the depot where material is stored in an outdoor location, or where potentially exposed to precipitation and/or storm water runoff, is considered an AOC, if there is the potential to impact storm water quality.

Areas of Concern at the Curtis Bay Depot (indicated on Figures 3.2 to 3.5) include the following:

A. **Vehicle fueling area** – this area contains two aboveground storage tanks (ASTs) located northwest of Building 921 The two ASTs are double-walled steel tanks situated on a concrete pad without overhead cover. The ASTs include:

- one 2,000-gallon diesel fuel tank
- one 1,000-gallon gasoline tank

Storm water runoff generated in the area of these two ASTs flows onto the surrounding gravel driveway, and into a drainage ditch that discharges into Curtis Creek at Outfall 5, near the Army Marine facility.

- **Solid waste bins** (dumpsters) – One bin is located at the depot, next to the guard house at the main gate. The bin has a hinged cover that is kept closed, except when in use. Only non-hazardous refuse is allowed in the dumpster.

Additional dumpsters may be brought on site by contractors on a temporary basis. The contractor(s) responsible for the temporary solid waste bins must ensure that only non-hazardous refuse is allowed in the dumpsters, and that no chemicals or any hazardous substance are placed in the bins.

Commodity Storage - Areas of Concern C through E contain one or more stockpiles of materials. All piles are exposed to precipitation.

Commodities exposed to precipitation are stored on various surfaces, including concrete, gravel and grass. Runoff from these stockpiles may pick up precipitates from the commodity, and may leave a contaminated footprint on an impervious surface. Any runoff that infiltrates into the ground may carry with it precipitates from the commodity and potentially cause contamination of the groundwater; runoff containing precipitates into the outfalls may also carry these contaminants into the receiving body of water.

The following are the commodity stockpiles existing as of June 2005, as reported by the depot staff. All piles are exposed to precipitation, with storm water runoff infiltrating into the ground, or flowing into swales that empty into outfalls, as noted. Table 3.2 lists each stockpile, Open Area number, drainage outfall, stockpile number and material, approximate stockpile dimensions, and surrounding surfaces.

C. Stockpile Area No. 1 – Commodity stockpiles located at the I-Line Pad, south of Solomon Road. Storm water runoff from this area will flow towards drainage ditches that connect with an unnamed stream that discharges through Outfall 1.

D. Stockpile Area No. 2 – One manganese stockpile (Pile 206) located on the west side of Patrol Bridge Road, near Pad 1133. Storm water runoff from this area infiltrates the soil, with greater amounts entering swales that discharge through Outfall 3.

E. Stockpile Area No. 3 – Commodity stockpiles are located on both sides of a railroad spur, accessible from the south end of A-Line Road. A quantity of titanium sponge placed in metal drums is also stored in this area. Storm water runoff generated in this area will discharge through Outfall 4.

F. Miscellaneous Piles – several areas contain waste materials:

a. A rock pile lie east of East Avenue on a grass-covered surface. Storm water runoff flows along East Avenue to be discharged through Outfall 6.

b. Piles of scrap metal are situated between Buildings 734 and 735 north of F-Line Road on a grass-covered surface. Storm water runoff infiltrates into the soil, with heavier amounts flowing into swales that flow towards Outfalls 2 and 3.

Table 3.2
Commodity Stockpiles and Storage at Curtis Bay Depot

Location or Stockpile Area	Pile No.	Material	Width (feet)	Length (feet)	Height (feet)	Surrounding Surface	Outfall No.
1	18	Ferromanganese	n/a	n/a	n/a	Gravel	1
1	24	Ferromanganese	n/a	n/a	n/a	Gravel	1
1	25	Ferromanganese	n/a	n/a	n/a	Gravel	1
1	26	Ferromanganese	n/a	n/a	n/a	Gravel	1
1	27	Ferromanganese	n/a	n/a	n/a	Gravel	1
1	108	Ferrochrome	n/a	n/a	n/a	Gravel	1
1	109	Ferrochrome	n/a	n/a	n/a	Gravel	1
1	111	Ferrochrome	n/a	n/a	n/a	Gravel	1
1	115	Ferrochrome	n/a	n/a	n/a	Gravel	1
3	118	Ferrochrome	40	80	40	Grass/gravel	5
3	120	Ferrochrome	45	40	20	Grass/gravel	5
1	121	Ferrochrome	n/a	n/a	n/a	Gravel	1
1	122	Ferrochrome	n/a	n/a	n/a	Gravel	1
1	123	Ferrochrome	n/a	n/a	n/a	Gravel	1
3	124	Ferrochrome	55	35	20	Grass/gravel	5
3	125	Ferrochrome	55	65	20	Grass/gravel	5
3	126	Ferrochrome	90	30	20	Grass/gravel	5
3	139	Manganese (partially covered)	180	160	40	Gravel	5
1	154	Ferromanganese	n/a	n/a	n/a	Concrete	1
1	200	Ferrochrome	n/a	n/a	n/a	Gravel	1
1	201	Ferrochrome	n/a	n/a	n/a	Gravel	1
1	202	Ferrochrome	n/a	n/a	n/a	Gravel	1
1	203	Ferrochrome	n/a	n/a	n/a	Gravel	1
3	205	Fluorspar (covered)	120	200	40	Blacktop	5
2	206	Manganese	90	35	20	Gravel	4

Note: Dimensions of all stockpiles are not available, but pile locations shown on Figures 3.2 to 3.5 were accurately plotted using GIS instrumentation (except Pile 118).
n/a = not available.

3.4.1 BMPs at Areas of Concern

Best management practices are discussed in Section 4. BMPs utilized for the above-mentioned AOCs are detailed on the annual site compliance reports, presented in Appendix C. Briefly, the following BMPs are in effect at each Curtis Bay Depot AOC:

- **Good Housekeeping** – Materials are stored in clean, well-maintained areas.
- **Spill Prevention and Proper Fluid Disposal** - No spills from the AOCs into the storm water drainage system have occurred; waste fluids are not disposed in the storm water system.
- **Commodity Outloading** - Storm drains and surface water flow pathways in the vicinity of the work area must be blocked using materials such as hay bales.
- **Storm Drain Inlet Marking or Stenciling -** Storm drains are clearly marked, or are planned to be marked.
- **Proper Herbicide and Pesticide Use** - Applications are in compliance with DNSC Pest Management Plan.
- **Illicit Discharge Connections** - There are no illicit discharge connections to the storm sewer system.
- **Street and Parking Lot Sweeping** – Areas are kept swept and free of debris.
- **Catch Basin and Ditch Cleaning -** Catch basins and ditches are free of debris and proper flow is maintained in ditches.
- **Road Salting and Sanding** - Use of salt or alternative deicing products around storm water drainage pathways is minimized. Areas of sand application are kept clear of major accumulations. Salt is stored indoors where it is not exposed to storm water.
- **Snow Removal** – Snow from around the vicinity of AOCs should be removed to an area where it can melt and infiltrate into the ground.

3.5 RECORDKEEPING AND REPORTING

The SPDES permit requires that records of all preventative maintenance inspections, records of employee training sessions and the annual site compliance report be retained for a minimum of three years after the expiration date of the SPDES permit. These records should be maintained at the depot office.

SECTION 4

BEST MANAGEMENT PRACTICES

Operators of regulated MS4s (including the Curtis Bay Depot) are required by the terms of the SPDES permit to develop and implement a SWPPP in order to:

- Reduce the discharge of pollutants to the "MEP"
- Protect water quality
- Satisfy the appropriate water quality requirements of the Clean Water Act.

Implementation of the MEP standard will typically require the development and implementation of BMPs and the achievement of measurable goals to satisfy minimum control measures.

Storm water BMPs help to manage the quantity and improve the quality of storm water runoff. The following USEPA-recommended BMPs are applicable at most DNSC facilities with storm water drainage systems.

4.1 EXISTING SOURCE CONTROLS

Keeping contaminants from entering the storm water drainage system is one method of reducing storm water runoff pollution. Curtis Bay Depot employs the following source control BMPs:

- **Good Housekeeping** –A clean and orderly work area reduces the possibility of accidental spills caused by mishandling of chemicals and equipment, and can reduce safety hazards to everyone. Well-maintained material and chemical storage areas will reduce the possibility of storm water mixing with pollutants. Some simple procedures applicable to promote good housekeeping include:

.

  - Prompt clean up of spills and debris including clean up of commodity from punctured or spilled drums and containers
  - Reducing discharge of wash water (i.e., from vehicles and buildings)
  - Scheduled maintenance of machinery
  - Proper material storage practices and inventory controls
  - Routine and regular clean up schedules
  - Maintaining well-organized work areas
  - Minimizing the exposure of materials to rainfall

- **Spill Prevention and Proper Fluid Disposal** – Conscientious attention to detail can reduce the impact of vehicle maintenance activities on storm water discharge, as listed below:
  - Appropriate and timely vehicle maintenance to prevent leaks
  - Prompt repair of fluid leaks
  - Proper disposal or recycling of used fluids
  - Use of biodegradable cleaners
  - Appropriate clean up of spills and leaks
  - Using commercial vehicle washing facilities rather than on-site washing.

- **Commodity Stockpile Maintenance and Outloading** – Commodity stockpiles present significant potential for impacting storm water quality. Covered or contained materials (i.e., sealed piles or drums) generally contain commodities that are a greater environmental threat than uncovered, open materials. These enclosures must be kept intact and regularly inspected for tears, cuts, rust holes or other damage that could result in a leakage of the commodity and pollution of storm water runoff. Any such damage must be promptly rectified.

  Whenever commodities are moved, or when containers are found to be broken or damaged, certain measures must be in place to prevent contaminants from entering the storm water runoff. Prior to beginning outloading operations, or when damaged containers are discovered:
  - Workers must identify and locate all storm drains and surface water flow pathways in the vicinity of the work area.
  - Appropriate materials, such as hay bales, silt fence, or railroad ties, should be readily available and placed as a barrier between the outloading area and the storm

drainage system, to help reduce the amount of any loose commodity material that could get washed into the drainage system by runoff from the outloading area.

- Surface runoff that flows towards nearby drainage ditches, swales, streams, etc., should also be similarly blocked.
- These activities should be performed not only while storm water runoff is actively occurring, but also to plan ahead for any rainfall, snowfall, snowmelt, etc. that may occur during the outloading/repackaging operations.
- The intent is to minimize the amount of commodity material that could leave the site by way of storm water runoff.

- **Storm drain inlet marking or stenciling -** Applying a painted notice at storm drain inlets can increase awareness that the storm drainage system flows to a body of water, and not to a treatment facility. Lettering (i.e., "Dump No Waste, Drains to River" or "Only Rain in the Drain") or graphics placed at the curb or pavement adjacent to storm drains can lead people to refrain from dumping wastes into the storm drainage system by informing the community of the outfall site.
- **Proper Herbicide and Pesticide Use** – runoff from lawns following maintenance and the improper use (i.e., over-application, spills) of fertilizers, pesticides and herbicides contribute to the pollution of storm water runoff. Use of native plants can reduce the need for fertilizers, and keeping grass at a height of at least four inches will decrease the amount of runoff by promoting infiltration. DNSC's Pest Management Plan is available at the "I Am The Key" link on the DNSC's Home Page located https://www.dnsc.dla.mil/iamthekey/
- **Illicit discharge connections** – detection and elimination of illegitimate connections and discharges into storm water drainage systems is necessary. There are not believed to be any illicit discharge connections at the Curtis Bay depot.
- **Street and parking lot sweeping** – runoff from impervious streets and parking lots can contribute significant amounts of pollutants in storm water runoff. Sweeping paved areas that drain into the storm drainage system can remove a portion of this contribution.
- **Catch basin and roadside ditch cleaning** – Catch basins and ditches accumulate sediment and debris, so periodic cleaning is needed to ensure their continued effectiveness.
- **Road salting and sanding** – Runoff from paved areas that have salt, sand and ash applied as ice-prevention can carry large amounts of these materials into the drainage system. Minimizing the application of salt and sand (including alternative deicing products) can help reduce this form of pollution.
- **Snow Removal -** Accumulated snow that is removed from roadways and parking lots should be placed in an area where the snowmelt will infiltrate into the ground, such as grass-covered areas, and not in an area draining into the storm water system.

4.2 OTHER POTENTIAL BMP'S

Many additional types of BMPs exist to help reduce storm water runoff pollution.

4.2.1 Materials Management

The handling of oil products should be done in accordance with the DNSC SPCC plan. The methods by which all hazardous materials and chemicals are stored, handled and used at the facility can contribute to storm water contamination. Recommendations for the proper management of hazardous materials and chemicals include the following:

- Use alternative less-toxic cleaning supplies, such as baking soda
- Employing mechanical means of cleaning rather than chemical (removing materials physically rather than with chemicals)
- Recycling of oil and anti-freeze
- Storage of hazardous materials away from heavily-trafficked areas and any floor or storm drains
- Storing hazardous material containers on spill pallets
- Storage of road salt indoors or within covered areas
- Maintaining adequate spill control equipment and supplies on-site
- Training facility personnel in materials management and spill control and response
- Reduce, reuse and recycle all materials whenever possible

4.2.2 Structural BMPs

In addition to the non-structural BMPs listed above, structural BMPs can be implemented when new or completely rebuilt systems are installed. Structural BMPs such as the ones listed below are designed to allow runoff to gradually infiltrate into the ground instead of being released into a body of water. A partial list of structural BMPs includes the following:

- Porous pavement
- Infiltration basins
- Underground vaults
- Constructed wetlands
- Vegetated channels

Minimizing directly connected impervious surfaces (i.e., paved parking lots, streets, roofs) also limits the amount of runoff into a drainage system. For example, roof downspouts can be disconnected from the drainage system, or curbs and gutters can be eliminated from paved areas, with the runoff allowed to run into vegetated areas before flowing into the drainage system.

4.2.3 Construction Activities

Although no construction is foreseen at the depot, future construction projects may require the implementation of runoff controls. Construction site storm water management and erosion controls must be implemented to minimize soil erosion during construction activities that disturb one or more acres of land. To comply with Phase II regulations, a construction site ordinance must be developed.

Construction site storm water management and erosion controls include:

- Use silt fences or other perimeter controls
- Installing temporary diversion dikes or channels
- Maintaining grass-lined channels for storm water conveyance
- Preserving natural vegetation, and seeding, mulching and/or sodding exposed soils
- Using geotextile fabrics on exposed surfaces
- Controlling dust during construction through the minimal wetting of surfaces.

SECTION 5

NON-STORM WATER ASSESSMENT

5.1 NON-STORM WATER DISCHARGES

Non-storm water discharge is water unrelated to precipitation or storm water runoff that is discharged to a storm water drainage system. The following are examples of non-storm water discharges that may be authorized by the SPDES permit:

- Fire Hydrant Flushings
- Potable Water Sources Including Waterline Flushings
- Irrigation Drainage
- Lawn Watering
- Routine External Building Washdown (not with use of detergents)
- Pavement Wash Waters (where spills or leaks of toxic or hazardous materials have not occurred, unless all spilled material has been removed; and where detergents are not used.)
- Air Conditioning Condensate
- Springs
- Uncontaminated Ground Water
- Foundation or Footing Drains (with uncontaminated water)

Appropriate pollution prevention measures are required to reduce any sources of pollutants in non-storm water discharges.

5.2 AUTHORIZED NON-STORM WATER DISCHARGES AT CURTIS BAY DEPOT

The following non-storm water discharges are present at the Curtis Bay Depot and are authorized for discharge into the storm water drainage system:

- Air conditioning condensate
- Fire hydrant flushing
- Sprinkler system discharge (when accidentally tripped)

5.3 INSPECTION OF STORM WATER DRAIN INLETS

According to information obtained from the depot during a site visit in December 2003, a review of facility drawings, and discussions with depot personnel, there do not appear to be any illicit connections to the storm water drain inlets.

APPENDIX A

SPILLS AND LEAKS FORM

SPILLS AND LEAKS FORM

DLA/DNSC Curtis Bay Depot

Directions: **Record below all significant spills and significant leaks of toxic or hazardous pollutants that have occurred since the last Site Compliance Report was prepared.** Copies must also be furnished to Chief Environmental Management Division.

Definitions: Significant spills include, but are not limited to, the release of oil or hazardous substances in excess of reportable quantities (see Section 2.2).

	DESCRIPTION			**RESPONSE PROCEDURES**	
Date	**Location**	**Type of Material**	**Quantity**	**Amount Recovered**	**Material is no longer exposed to Storm Water** (yes or no)

Evaluator: _____

Date: _____

APPENDIX B

SPDES GENERAL PERMIT AND

NOI FORM

MARYLAND DEPARTMENT OF THE ENVIRONMENT
1800 Washington Boulevard • Baltimore, Maryland 21230
410-537-3000 • 1-800-633-6101

Robert L. Ehrlich, Jr.
Governor

Lynn Y. Buck
Secretary Designate

Michael S. Steele
Lt. Governor

MAR 10 2003

KEVIN REILLY
DEFENSE LOGISTICS AGENCY/DNSC
8725 JOHN J. KINGMAN ROAD; STE 3229
FORT BELVOIR VA 220606223

DEAR MR. REILLY:

The Maryland Department of the Environment has received your Notice of Intent (NOI) and $550 NOI fee to register your facility under the General Discharge Permit for Storm Water Associated with Industrial Activities, Permit No. 02-SW. This letter will serve as notification that your NOI has been accepted.

In signing the NOI and submitting the fee, you have certified your company's agreement to comply with the terms of this permit for its facility located at **710 EAST ORDNANCE ROAD, BALTIMORE, MD**. Your facility's permit coverage shall be identified by registration number **02SW0692** and extends until November 30, 2007 or as specified in Part I.H of the permit.

If you have any questions, please do not hesitate to call me at 410-537-3323.

Sincerely,

Edward Gertler

Edward Gertler, Technical Advisor
Industrial Discharge Permits Division
Wastewater Permits Program

EG/ba

cc: Paul Stoner, Compliance Program, MDE (ANNE ARUNDEL)
Bob Daniel, MDE, EPSC

MARYLAND DEPARTMENT OF THE ENVIRONMENT

[P.O. Box 2057, Baltimore, MD 21203]
410-537-3000 • 1-800-633-6101 • http://www.mde.state.md.us

WASTEWATER PERMITS PROGRAM

GENERAL PERMIT FOR STORM WATER DISCHARGES

GENERAL PERMIT NO. 02-SW

Submission of this Notice of Intent (NOI) constitutes notice that the party identified in Section I of this form intends to be authorized by a State/NPDES permit issued for storm water discharges from the facility identified in Section II of this form. Authorization to discharge begins upon notification of acceptance of this NOI by Maryland Department of the Environment (MDE). Complete all sections of this form and mail to MDE, P.O. Box 2057, Baltimore, MD 21203. Phone (410) 537-3634. ***The NOI is not complete without fee payment (State and local government exempt), a map, and this form. An original signature is required on page 3.***

SECTION I. FACILITY OPERATOR

Name (Legal name of entity): Defense Logistics Agency/Defense National Stockpile Center

Mailing Address: 8725 John J. Kingman Road, STE 4616

City: Ft. Belvoir *State:* VA *ZIP:* 22060-6223

Contact Person: Kevin Reilly *Telephone* (703) 767-6522

Type of Operator: Private _____ *Federal* X *State/local* _____

Federal Tax Identification Number: 31-1420396

Worker's Compensation Insurance Policy or binder number: N/A

Insurance Company Self-insured

If facility was registered under 97SW, enter registration number _____

Is this facility currently covered under other NPDES permits? X *Yes* _____ *No*

If yes, provide the permit number or registration number for other permits.

General Stormwater Permit (No. 97-SW);NPDES Permit (No. MDR000001)

7X4555.5145 001 P923.21 25.42 EE P083303MDEE025 S33150 HEEDIRENV2003 $550.00

I certify that the services Have been received and were Accepted on 2/11/03

I certify that this voucher invoice is correct and ready For payment. 12/17/02

12/18/02
I CERTIFY THAT FUNDS ARE AVAILABLE FOR PAUL W. PERRY

SECTION II. FACILITY LOCATION INFORMATION

Facility Name: Curtis Bay Depot

Facility Address: 710 East Ordnance Road

City: Curtis Bay *County:* Anne Arundel *State:* MD *ZIP:* 21226

The approximate center of the facility to the nearest 15 seconds:

Latitude: N391140 *Longitude:* W763524

Name of Receiving Water(s): Curtis Creek & Back Creek & Furnace Creek

If the discharge is to a municipal separate storm sewer, give the name of the municipal operator of the storm sewer and the ultimate receiving water(s): _____

Concurrent submission of a signed copy of the NOI to the above entity is required. Please see the end of this form for mailing addresses.

Estimated area of industrial activity at facility in acres: 483

Give one four-digit SIC code that best represents the principal products or activities provided by the facility: 9711

Written description of industrial activity taking place strategic and critical storage of defense raw materials (raw material: ores and metals).

Is storm water quality data available? _____ *Yes* X *No* *If yes, attach a summary of data.*

SECTION III. REQUIRED NOI FEE

Required NOI fee - Check one:

A. *Standard Fee: $550 single fee payable in advance or annual $120 payments beginning with the submission of the NOI application and every July 1 thereafter beginning 2003 (total fee of $600).*

X *Enclosed is the full payment of $550.*

___ *Enclosed is the first payment of $ 120.*

B. *Check if State or local government* _____ *(no fee).*

C. *Fee for facilities beginning operation after December, 2002:*

1. *Month and year facility began operating:* _____

2. *Number of months between 12-1-02 and above date:* _____

3. *Enclosed is*

___ *Full payment of the prorated fee of $* _____, *calculated as follows (to the nearest dollar):*

$550 - [($9) x (no. of months listed above)] = fee.

___ *First payment of $120. (Your next annual payment will be prorated by MDE.)*

SECTION IV. CERTIFICATION

certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate he information submitted. Based on my inquiry of the person or persons who manage the system, or those persons lirectly responsible for gathering the information, the information submitted is, to the best of my knowledge and elief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, ncluding the possibility of fine and imprisonment for knowing violations.

Print Name: Kevin Reilly

Title: Director of Environmental Management and Quality Assurance

Signature: _____ *Date:* 12/16/08

SIGNATURE, FEE, and MAP REQUIRED

For proper credit, do not return application fee without this form completed.

Mail to Maryland Department of the Environment, P.O. Box 2057, Baltimore, MD 21203-2057

For MDE use:

Facility # _____ ***Receipt #*** _____ ***Date*** _____

PCA 13710 Object 5707 Suffix 406

Facilities which discharge storm water associated with industrial activity to the municipal separate storm sewer system of the Anne Arundel County, Baltimore City, Baltimore County, Carroll County, Charles County, Frederick County, Harford County, Howard County, Montgomery County, Prince George's County, or the State Highways Administration shall, in addition to filing copies of this NOI, submit, concurrently, signed copies of the NOI to the operator of the municipal separate storm sewer to which they discharge. NOIs shall be submitted to the attention of the "storm water coordinator" at the following addresses.

Anne Arundel County – Richard Olson, Department of Public Works, Bureau of Highways, Infrastructure Management Division, MS#3223, 1 Harry S. Truman Parkway, Annapolis, MD 21401 (410-222-7973)

Baltimore City – William Stack, Water Quality Management, City of Baltimore, 3001 Druid Park Drive, Baltimore, MD 21215 (410-396-0732)

Baltimore County – Steve Stewart, NPDES Storm Water Program, Department of Environmental Protection and Resource Management, 401 Bosley Avenue, Suite 416, Towson, MD 21204 (410-887-4488)

Carroll County – Jim Slater, Department of Public Works, 225 North Center Street, Westminster, MD 21157-5194 (410-386-2035)

Charles County – Karen Wiggen, Planning & Growth Management, Development Services, Post Office Box 2150, La Plata, MD 20646 (301-645-0683)

Frederick County – Shannon Moore, Department of Public Works, 118 N. Market Street, Frederick, MD 21701 (410-694-1413)

Harford County – Christine Buckley, Bureau of Water Resources Engineering, Department of Public Works, 220 South Main Street, Bel Air, MD 21014 (410-638-3545)

Howard County – Howard Saltzman, Department of Public Works, Stormwater Management Division, 6751 Columbia Gateway Drive #514, Columbia, MD 21046 (410-313-6416)

Montgomery County – Cameron Wiegand, Department of Environmental Protection, Watershed Management Division, 255 Rockville Pike, Suite 120, Rockville, MD 20850 (240-777-7736)

Prince George's County – Larry Coffman, Programs and Planning Division, Department of Environmental Resources,9400 Peppercorn Place, Sixth Floor, Largo, MD 20774 (301-883-5836)

State Highway Administration – Sonal Sanghavi, Highway Hydraulics Division, Maryland State Highway Administration, 707 North Calvert Street, Baltimore, MD 21202 (410-545-8414)

APPENDIX C

ANNUAL SITE COMPLIANCE REPORT

DIRECTIONS FOR COMPLETION OF ANNUAL SITE COMPLIANCE REPORT

There are two elements to the DNSC's annual reporting requirement:

1. Routine visual inspection of the storm water system and all areas of the depot where potential exposure of AOCs exists

2. Completion of the Annual Site Compliance Report.

1. ROUTINE VISUAL INSPECTIONS

The routine visual inspections are not meant to be a comprehensive evaluation of the entire storm water pollution prevention program. Rather, they are meant to be a regular visual assessment of the site to identify conditions that may contribute to contamination of storm water runoff with pollutants from the facility.

The visual inspection is a simple way to confirm that the chosen pollution control measures are in place and working properly. Inspections should periodically take place during storm events, in order to assess the system under adverse conditions, and also under dry weather conditions where no precipitation (rain, snow or snowmelt) has occurred for at least 3 days to verify the absence of non-storm water discharges. These visual inspections are meant to complement the annual site compliance report and inspection. Inspections during extended dry periods, such as when there has been no precipitation, snowmelt or runoff for more than 3 days, are also of value in confirming the absence of non-storm water discharges at the depot.

The frequency of inspections is at your discretion, based on the types and amounts of materials handled at the facility, existing BMPs at the facility, degree of pollutant exposure to storm water, and any other factors that may be relevant (i.e., the age of the facility, etc.). However, a good practice is to always look at the general condition of the storm water system as part of a daily routine, such as while driving or walking around the depot.

Remember, you are the key!

If you notice a potential problem, take the steps to fix it! Keep the lines of communication open. At your monthly safety meetings address any concerns you may have about the current status of your SWPPP. If you see a situation that requires immediate action, act responsibly. Fix the problem or contact personnel who can.

2. COMPLETION OF THE ANNUAL SITE COMPLIANCE REPORT

Information for the report should be collected during the third quarter of each year (April through June). The completed form should be submitted to Chief Environmental Management Division (currently Steve Surface) by June 30 each year.

The following items are keyed to the numbers listed on the Annual Site Compliance Report Form:

1. The evaluator should be the Pollution Prevention Team leader (see Table 3-1)

2. Describe any significant changes in depot commodity storage or operations that may have occurred during the past year or since the last Annual Site Compliance inspection.

3. List any incident that may have affected the quality of storm water runoff. Include issues from neighboring properties influencing the storm water drainage system, if known.

4. Complete a form for each Area of Concern (AOC). The intent is to document that the existing conditions and best management practices are still in place, or to document any changes over the past year.

5. Mention any other issues or recommendations relating to storm water runoff.

ANNUAL SITE COMPLIANCE REPORT

DLA / DNSC CURTIS BAY DEPOT

Due annually by June 30. Use additional sheets if necessary.

Copies must also be furnished to Chief Environmental Management Division.

1. EVALUATOR: _____ **Date:** _____

2. SITE CHANGES: Summary of changes in materials, storm water management, personnel, spills, etc. Note changes in the amount of pollutants discharged into storm water system from activities such as: outdoor storage activities, significant dust or particulate generating processes, loading/unloading operations, on-site waste disposal practices, vehicle and building maintenance, new construction and land disturbances, roadway and other maintenance.

_____

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3. INCIDENTS: Address compliance with the SWPPP, including normally allowed non-storm water discharges into the storm water system, such as water line flushing or air conditioning condensation; and any non-compliance issues, such as any spills, illicit connections or pollutants entering the system.

_____

_____

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4. ADEQUACY OF BEST MANAGEMENT PRACTICES Evaluate measures to reduce storm water runoff pollution and determine if measures are adequately and properly implemented, or if additional measures are deemed necessary. Are additional controls needed? Use a separate Evaluation Form for each Area of Concern to document adequacy of BMPs.

5. OTHER ISSUES AND RECOMMENDATIONS:

_____

_____

_____

Completed copies of this report, the evaluation form for each area of concern and the Spills and Leaks Form must be kept with the SWPPP. Copies must also be furnished to Chief Environmental Management Division.

EVALUATION FORM FOR THE ANNUAL SITE COMPLIANCE REPORT

Area of Concern A

Vehicle Fueling Area

DNSC Curtis Bay Depot

The purpose of this form is to document annually the pre-existing conditions at this area of concern and to document whether or not those conditions have changed.

Physical Characteristics	***Existing Status***	***Current Status the Same?***	**If "No", Add Comments, Explanations** (additional space on page 2)
Pollutants of Concern	Fuel products (gasoline, diesel fuel)	❑ Yes ❑ No	
Storage Type and Location	Two (2) aboveground storage tanks (ASTs) north of Building 921.	❑ Yes ❑ No	
Existing Storm Water Management Controls	All ASTs have secondary containment and interstitial monitoring; spill kit is located outside, adjacent to ASTs.	❑ Yes ❑ No	
Material Exposed to Storm Water Runoff?	Yes	❑ Yes ❑ No	
Visual Observations of Site Drainage	Runoff flows into storm water drainage ditch with discharge to Curtis Creek.	❑ Yes ❑ No	
Contamination Potential	Low to Medium	❑ Yes ❑ No	
Best Management Practices In Place			
Good Housekeeping	A clean, well-maintained area.	❑ Yes ❑ No	
Spill Prevention and Proper Fluid Disposal	No spills to the storm water system have occurred, and waste fluids are not disposed in the storm water system.	❑ Yes ❑ No	
Storm Drain Inlet Marking or Stenciling	Storm drains are clearly marked	❑ Yes ❑ No	

EVALUATION FORM FOR THE ANNUAL SITE COMPLIANCE REPORT

Area of Concern A - Vehicle Fueling Area - DNSC Curtis Bay Depot.

Physical Characteristics	***Existing Status***	***Current Status the Same?***	**If "No", Add Comments, Explanations** (additional space at bottom)
Proper Herbicide and Pesticide Use	Applications are in compliance with DNSC Pest Management Plan.	❑ Yes ❑ No	_____ _____
Illicit Discharge Connections	There are no illicit discharge connections to the storm water system.	❑ Yes ❑ No	_____ _____
Street and Parking Lot Sweeping	Area is kept swept and free of debris.	❑ Yes ❑ No	_____ _____
Catch basin and Ditch Cleaning	Catch basins and ditches are free of debris and proper flow is maintained in ditches.	❑ Yes ❑ No	_____ _____ _____
Road Salting and Sanding	Use of salt around storm water drainage pathways is minimized. Areas of sand application are kept clear of major accumulations.	❑ Yes ❑ No	_____ _____ _____ _____
Snow Removal	Snow from around the vicinity should be removed to an area where it can melt and infiltrate into the ground.	❑ Yes ❑ No	_____ _____ _____ _____

Additional Comments:_____

_____

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_____

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This form completed by: _____

Signature: _____ Date: _____

Completed copies of this report, the Annual Site Compliance Report and the evaluation form for each area of concern must be kept with the SWPPP. Copies must also be furnished to Chief Environmental Management Division.

EVALUATION FORM FOR THE ANNUAL SITE COMPLIANCE REPORT

Area of Concern B

Solid Waste Bins (Dumpsters)

DNSC Curtis Bay Depot

The purpose of this form is to document annually the pre-existing conditions at this area of concern and to document whether or not those conditions have changed.

Physical Characteristics	***Existing Status***	***Current Status the Same?***	**If "No", Add Comments, Explanations** (additional space on page 2)
Pollutants of Concern	Solid waste (standard office and kitchen refuse)	❑ Yes ❑ No	
Storage Type and Location	One dumpster at guard house at main entrance gate..	❑ Yes ❑ No	
Existing Storm Water Management Controls	No hazardous waste or chemicals of any kind to be placed in bins; lids are closed at all times.	❑ Yes ❑ No	
Material Exposed to Storm Water Runoff?	Yes	❑ Yes ❑ No	
Visual Observations of Site Drainage	Area around dumpsters is kept clean. Runoff flows into ditch with discharge to the Curtis Creek.	❑ Yes ❑ No	
Contamination Potential	Low	❑ Yes ❑ No	
Best Management Practices In Place			
Good Housekeeping	Stored in a clean, well-maintained area.	❑ Yes ❑ No	
Spill Prevention and Proper Fluid Disposal	No spills to the storm water system have occurred, and waste fluids are not disposed in the storm water system.	❑ Yes ❑ No	
Storm Drain Inlet Marking or Stenciling	Storm drains are clearly marked	❑ Yes ❑ No	
Proper Herbicide and Pesticide Use	Applications are in compliance with DNSC Pest Management Plan.	❑ Yes ❑ No	

EVALUATION FORM FOR THE ANNUAL SITE COMPLIANCE REPORT **Area of Concern B -** Solid Waste Bins- DNSC Curtis Bay Depot. Page 2 of 2			
Physical Characteristics	***Existing Status***	***Current Status the Same?***	**If "No", Add Comments, Explanations** (additional space at bottom)
Illicit Discharge Connections	There are no illicit discharge connections to the storm water system.	❑ Yes ❑ No	
Street and Parking Lot Sweeping	Area is kept swept and free of debris.	❑ Yes ❑ No	
Catch basin and Ditch Cleaning	Catch basins and ditches are free of debris and proper flow is maintained in ditches.	❑ Yes ❑ No	
Road Salting and Sanding	Use of salt around storm water drainage pathways is minimized. Areas of sand application are kept clear of major accumulations.	❑ Yes ❑ No	
Snow Removal	Snow from around the vicinity should be removed to an area where it can melt and infiltrate into the ground.	❑ Yes ❑ No	

Additional Comments:_____

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This form completed by: _____

Signature: _____ Date: _____

Completed copies of this report, the Annual Site Compliance Report and the evaluation form for each area of concern must be kept with the SWPPP. Copies must also be furnished to Chief Environmental Management Division.

EVALUATION FORM FOR THE ANNUAL SITE COMPLIANCE REPORT

Areas of Concern C through F

Commodity Stockpiles - DNSC Curtis Bay Depot

The purpose of this form is to document annually the pre-existing conditions at these AOCs, and to document whether or not conditions have changed. Compare the data for each stockpile listed on Table 3.2, and note any changes or discrepancies on this form.

Physical Characteristics	***Existing Status***	***Current Status the Same?***	**If "No", Add Comments, Explanations** (use page 2 or extra sheet if needed)
Pollutants of Concern	Chromite, ferrochrome, ferromanganese, manganese, fluorspar, beryl ore.	❑ Yes ❑ No	_____ _____
Storage Type and Location	25 stockpiles stored on various surfaces, as detailed on Table 3.1.	❑ Yes ❑ No	_____ _____
Existing Storm Water Management Controls	2 stockpiles are covered or partially-covered, 23 are uncovered.	❑ Yes ❑ No	_____ _____ _____
Material Exposed to Storm Water Runoff?	Yes (except covered stockpiles)	❑ Yes ❑ No	_____ _____
Visual Observations of Site Drainage	Runoff infiltrates into the ground, or flows into storm water drainage ditches.	❑ Yes ❑ No	_____ _____ _____
Contamination Potential	Medium to High	❑ Yes ❑ No	_____ _____
Best Management Practices In Place			
Good Housekeeping	Stored in a clean, well-maintained area.	❑ Yes ❑ No	_____ _____
Spill Prevention and Proper Fluid Disposal	No spills to the storm water system have occurred, and waste fluids are not disposed in the storm water system.	❑ Yes ❑ No	_____ _____ _____
Storm Drain Inlet Marking or Stenciling	Storm drains are clearly marked	❑ Yes ❑ No	_____ _____
Proper Herbicide and Pesticide Use	Applications are in compliance with DNSC Pest Management Plan.	❑ Yes ❑ No	_____ _____

EVALUATION FORM FOR THE ANNUAL SITE COMPLIANCE REPORT

Area of Concern C - F - Commodity Stockpiles - DNSC Curtis Bay Depot. Page 2 of 2

Physical Characteristics	***Existing Status***	***Current Status the Same?***	**If "No", Add Comments, Explanations** (additional space at bottom)
Illicit Discharge Connections	There are no illicit discharge connections to the storm water system.	❑ Yes ❑ No	
Street and Parking Lot Sweeping	Area is kept swept and free of debris.	❑ Yes ❑ No	
Catch Basin and Ditch Cleaning	Catch basins and ditches are free of debris and proper flow is maintained in ditches.	❑ Yes ❑ No	
Road Salting and Sanding	Use of salt around storm water drainage pathways is minimized. Areas of sand application are kept clear of major accumulations.	❑ Yes ❑ No	
Snow Removal	Snow from around the commodities should be removed to an area where it can melt and infiltrate into the ground.	❑ Yes ❑ No	

Additional Comments:_____

This form completed by: _____

Signature: _____ Date: _____

Completed copies of this report, the Annual Site Compliance Report and the evaluation form for each area of concern must be kept with the SWPPP. Copies must also be furnished to Chief Environmental Management Division.