

Final

WARREN DEPOT STORM WATER POLLUTION PREVENTION PLAN



YOU ARE THE KEY

**Defense Logistics Agency
Strategic Materials**

**Warren Depot
Warren, Ohio**

MARCH 2011

This Storm Water Pollution Prevention Plan was prepared for:

**Defense Logistics Agency
Strategic Materials**



MARCH 2011

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ACRONYMS

AOC	AREA OF CONCERN
BMP	BEST MANAGEMENT PRACTICE
CERCLA	COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION AND LIABILITY ACT
CSWMP	CONSTRUCTION STORM WATER MANAGEMENT PLAN
CWA	CLEAN WATER ACT
DFM	DISTRIBUTION FACILITIES MANAGER
DLA	DEFENSE LOGISTICS AGENCY
EPA	ENVIRONMENTAL PROTECTION AGENCY
ESOH	ENVIRONMENTAL, SAFETY AND OCCUPATIONAL HEALTH
ESOHMS	ENVIRONMENTAL, SAFETY AND OCCUPATIONAL HEALTH MANAGEMENT SYSTEM
GSA	GENERAL SERVICES ADMINISTRATION
HWMP	HAZARDOUS WASTE MANAGEMENT PLAN
ISCP	INSTALLATION SPILL CONTINGENCY PLAN
MEP	MAXIMUM EXTENT PRACTICABLE
MSDS	MATERIAL SAFETY DATA SHEET
MS4	MUNICIPAL SEPARATE STORM SEWER SYSTEM
NOI	NOTICE OF INTENT
NOT	NOTICE OF TERMINATION
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 COUNTERMEASURES
SPDES	STATE POLLUTANT DISCHARGE ELIMINATION SYSTEM
SWPPP	STORM WATER POLLUTION PREVENTION PLAN
USEPA	UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
USGS	UNITED STATES GEOLOGICAL SERVICE

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SECTION 1

INTRODUCTION

1.1 PURPOSE OF THIS STORM WATER POLLUTION PREVENTION PLAN

The purpose of this manual is to remind you, the Defense Logistics Agency's (DLA) Strategic Materials' employee, that *you* are the key to storm water pollution prevention. This manual will provide you with guidance on how to satisfy this storm Water Pollution Prevention Plan (SWPPP) for the Warren 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.
- The Spills and Leaks Form and Annual Site Compliance Report (Appendices A and B, respectively) will be submitted to Staff Environmental Officer 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.

This SWPPP is an update of the previous SWPPPs, issued in 1996 and in 2001 & 2009.

1.2 WHAT IS STORM WATER?

Storm water can be defined as precipitation runoff, snow melt runoff, and 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, resulting in the generation of runoff more quickly.
- **Rainfall intensity** – heavy rain will saturate the soil more quickly than a light rain. The result is the soil holds less water, creating surface runoff.

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- **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 sheet flow.
- **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 down slope 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.

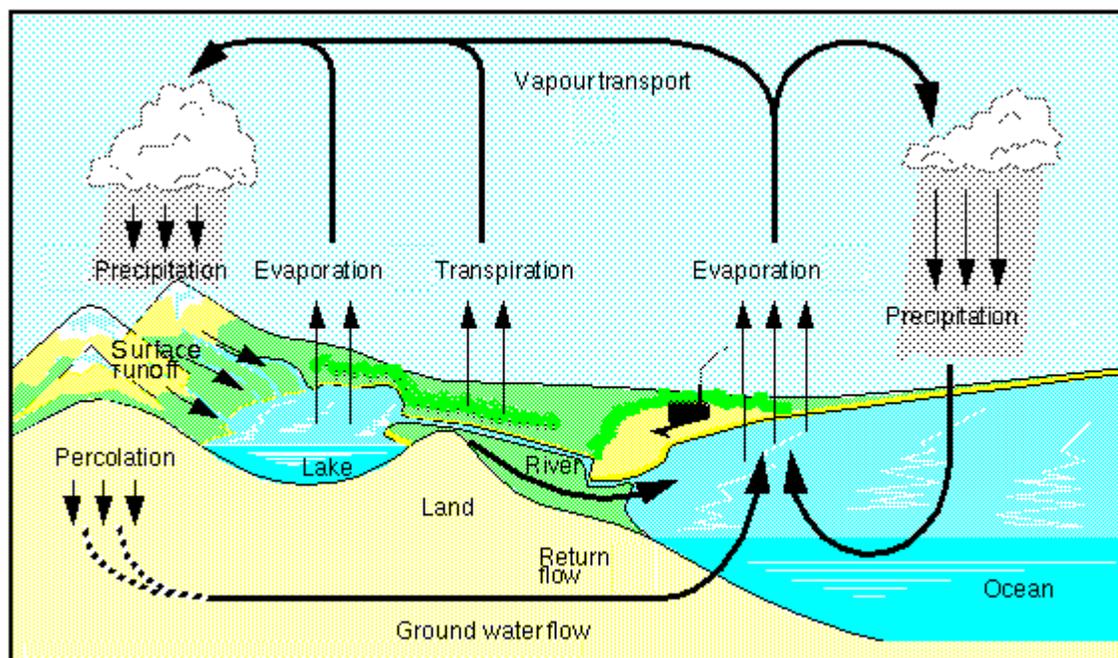


1.3 WATER (OR HYDROLOGIC) CYCLE

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.

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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 flowed into the underground systems, carrying with it whatever sediment, oil, grease, toxics, pathogens, and other pollutants that were 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.

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.

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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



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SECTION 2

STORM WATER REGULATION

2.1 REGULATORY REQUIREMENTS

Storm water regulations are covered in the following sections.

2.1.1 Phase I

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.

Storm water discharges from the Warren Depot property were previously covered under an Ohio Environmental Protection Agency (EPA) General Permit for Industrial Storm Water Discharges that expired in 1996. Although the Ohio EPA did not reissue the storm water general permit for industrial facilities until the year 2000, the depot did not apply for coverage under the new revised general permit. Storm water is not currently discharged from depot property, as will be discussed later in more detail; thus, the depot does not have storm water permit coverage. Based upon records on file at the depot, it does not appear that a Notice of Termination (NOT) to terminate permit coverage for the depot’s former storm water permit has been filed with the Ohio EPA.

In accordance with our policy, this SWPPP has been developed and meets the requirements of the Ohio EPA general industrial storm water permit, and the Warren Depot will voluntarily comply with Phase I requirements of Ohio EPAs Storm Water general permit.

2.1.2 Phase II

Phase II of USEPA’s storm water program was promulgated in 1999, and expands the NPDES 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. The definition of “municipal” generally includes federal facilities, such as storage depots. However, these facilities are covered only if they have, among other criteria, a separate storm water system (rather than a combined storm water and sanitary wastewater sewer system) and are located in an “Urbanized Area”, which is defined as an area that includes a total population of at least 50,000 and a population density of at least 1,000 people per square mile.

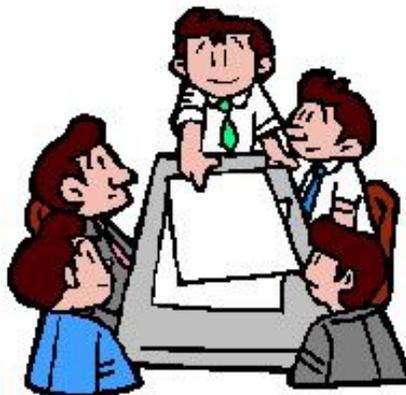
Implementation of USEPA storm water regulations relies on most individual states issuing general permits covering MS4s.

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The Warren Depot does not possess a SPDES or NPDES permit, as no storm water runoff leaves the depot property. However, this SWPPP has been prepared to voluntarily comply with Phase II and Ohio EPA requirements to the extent possible.

Specific procedures being implemented at Warren are noted:



- **Illicit discharge detection and elimination** – sometimes 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 with respect to the Warren 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 Warren 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 Warren 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 Warren Depot has implemented a series of best management practices (BMPs) designed to protect storm water quality (Section 4).

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

2.1.3 Warren Depot's SPDES Permit

The Warren Depot does not have general storm water permit coverage from the Ohio EPA; however, we will voluntarily comply with provisions of the Ohio EPA general permit.

2.1.4 SPDES Permit Regulations

To voluntarily comply with provisions of a general 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 Appendices A and B, respectively (the Spills and Leaks Form should be completed whenever there is a spill, not necessarily only once per year). Directions for completing the Annual Site Compliance Report are provided in Appendix B.
- Update this SWPPP whenever conditions change, (i.e., materials becoming exposed to or removed from exposure to storm water runoff) as noted during inspections or otherwise.

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 (or the effective date of this SWPPP) are to be documented in this SWPPP. This list must be updated, as appropriate, during the term of the permit.

No spills or leaks have been reported at the Warren Depot in the three years prior to the date of this SWPPP.

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 Warren 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.

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Table 2.1		
Reportable Quantities (RQ) for Hazardous Substances at Warren Depot		
Substance	Component(s)	RQ (gallons)
Gasoline ^a	Benzene ^a	43 ^b

^a Other substances with RQs are present in gasoline, but benzene has the lowest RQ and would trigger reporting requirements.

^b The quantity of benzene in the gasoline may range from 0.5 to 3.5%; this RQ is based on 3.5% volume.

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, the depot is 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 are considered 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 (DFM). In any event, immediate measures should be taken to stop or remove the source of the spill, and to stop or prevent further migration.

A Spill Prevention, Control and Countermeasures (SPCC) plan has been developed for the Warren Depot. Measures to prevent and respond to oil spills are contained in the SPCC Plan.

2.2.2 Other Spills and Leaks

Spills and leaks of toxic and hazardous pollutants not considered "significant spills" should be handled in accordance with precautions and procedures recommended on the product's MSDS, and should be reported immediately to the DFM. In any event, immediate measures should be taken to stop or remove the source of the spill, and to stop or prevent further migration of the spill.

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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 our activities. The plan is to address physical changes that could be made at our facilities to minimize or eliminate the potential for the contamination of storm water runoff. 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; and
- Develop a program of continuing inspection, maintenance and monitoring to facilitate reduction or elimination of storm water pollution.



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2.4 YOU ARE THE KEY

Our Environmental, Safety and Occupational Health (ESOH) Policy Statement provides the foundation for controlling the environmental impacts of our 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 our policies and procedures.
- Fostering a dialogue with employees and the public regarding the potential impact of our operations.
- Promoting environmental stewardship through the prevention of pollution.
- Supporting efforts to conserve and improve natural resources in the regions in which we operate.
- Continually improving our environmental, safety and occupational health performance through training, and integrating environmental, safety and occupational health considerations for our business planning processes.

We adopt the ESOH Policy Statement and will conduct its business activities and operations in a manner that is consistent with our policy statement.

2.4.1 The SWPPP Needs Your Help

You, the 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 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 yourself, or contact personnel who can.

Knowledge of any storm water contamination, including that from adjacent property that may share or contribute to the storm water drainage system servicing the depot, should be brought to the attention of the DFM or PPT member (see Section 3.2).

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It is the responsibility of every employee to remember that whatever goes into the storm water system will end up in our groundwater or 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 if 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.

2.5.2 Additional Training Required

- All members of the Storm Water PPT (Section 3.2) will meet annually to discuss the SWPPP. The Team Leader will coordinate the meetings and will update members on new developments regarding USEPA and Ohio EPA 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 our ESOH Policy Statement, are available at the “I Am The Key” Home Page located at: <https://www.dnsc.dla.mil/iamthekey/login.aspx>

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SECTION 3

WARREN DEPOT

3.1 WARREN DEPOT

We have voluntarily prepared this SWPPP in accordance with the Ohio EPA SPDES general permit requirements, even though a permit is not necessary for this facility.

3.1.1 Location and Site Description

The depot is located approximately one mile south of the City of Warren, on Pine Street Extension in Weathersfield Township, Trumbull County, Ohio. The depot was constructed in 1959, encompassing approximately 160 acres. The contour of the depot property is generally flat. The geographic coordinates of the southern most corner fence-post at the depot are 39° 17' 01.0342" north latitude and 84° 24' 58.1908" west longitude.

Overall, land uses in the vicinity of the Warren Depot are industrial and undeveloped land. The Warren Depot is bordered on the east by a railroad, on the north by WCI Steel, and on the northwest, west, and south by the Mahoning River.

The area east of the Mahoning River in the immediate vicinity of the Warren Depot is unoccupied floodplain. An artificial lake used by a private fishing club is located east of the railroad along the northern half of the east property boundary. A small wetland and pond are located on private property near the central portion of the eastern border of the depot.

Since its inception the Warren Depot has been dedicated for the storage and stockpiling of raw materials. Prior to construction of the Depot, the property contained a large pile of slag, cinders, and waste materials generated at the adjacent WCI Steel facility. Based on previous reports, the piles of discarded materials, slag and cinders were graded and used to fill the floodplain along the Mahoning River. The Warren Depot was then constructed on the porous fill materials, reported to be between 10 and 35 feet thick.

This depot is operated by the Defense Logistics Agency (DLA) of the United States government. The property is owned by DiNapoli-Warren LLC 2. The warehouses are leased to DLA. Operations within the Warren Depot primarily include the storage and handling of drums and piles of metallic and other ores. These materials are stored inside warehouses and outside in open areas.

This SWPPP applies to the current property and the storm water drainage system located on the property.

Maps are included in this SWPPP depicting the depot, its storm water system and other attributes:

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- **Figure 3.1 – Site Location Map.** A topographic map of the site and surrounding vicinity taken from a USGS quadrangle map, showing nearby features including roads, developed areas, bodies of water and the approximate boundary of the depot.
- **Figure 3.2 – Site Map.** Shows the entire depot with current property boundaries, approximate location of stockpiles and buildings, surface flow direction, Areas of Concern (AOC), the storm water drainage system, and other features.
- **Figure 3.3 – Area Detail Map.** Indicates the area surrounding the vehicle maintenance building, the ASTs, and AOCs A, B, C and F.

3.1.2 Storm Water Management System

The storm water drainage system at the Warren Depot is comprised of a network of grass-lined and rock-lined surface swales and roadside ditches. The largest drainage ditch runs from east to west, beginning south of Warehouse 2 and ending near the western depot boundary fence, west of Warehouse 7. The depot has no underground storm water sewer system. All storm water conveyances are aboveground with the exception of culvert pipes beneath roadways and railroad beds.

Previously, before storm water runoff was contained within the depot property, runoff exited the depot property through three outfalls, two of which were referred to as Outfall 001. The western Outfall 001 was located at the western end of the large drainage ditch, and discharged into the Mahoning River; a second Outfall 001 was a culvert pipe located along the same drainage ditch near Building 11, and is believed to have emptied into the small pond between the depot property and the railroad tracks at the eastern boundary. Outfall 002 was at the fence line near the western corner, southwest of Stockpile 38, discharging into the Mahoning River.

In 1998, the two outfalls at the ditch (both previously referred to as Outfall 001) were each plugged with a concrete cap to eliminate any discharge from depot property into the river or pond. In addition, Outfall 002 was backfilled and capped to eliminate discharge through this conduit. Also at that time, a continuous berm, constructed of slag and/or limestone, was installed along the entire length of the depot's perimeter fence, inside the fence line. This berm varies from 12 to 24 inches in height, effectively preventing storm water runoff from leaving the depot property and to divert offsite runoff from entering the depot property. The berm around the depot is maintained and inspected on a regular basis, and a log of maintenance and inspections is kept on file at the depot office.

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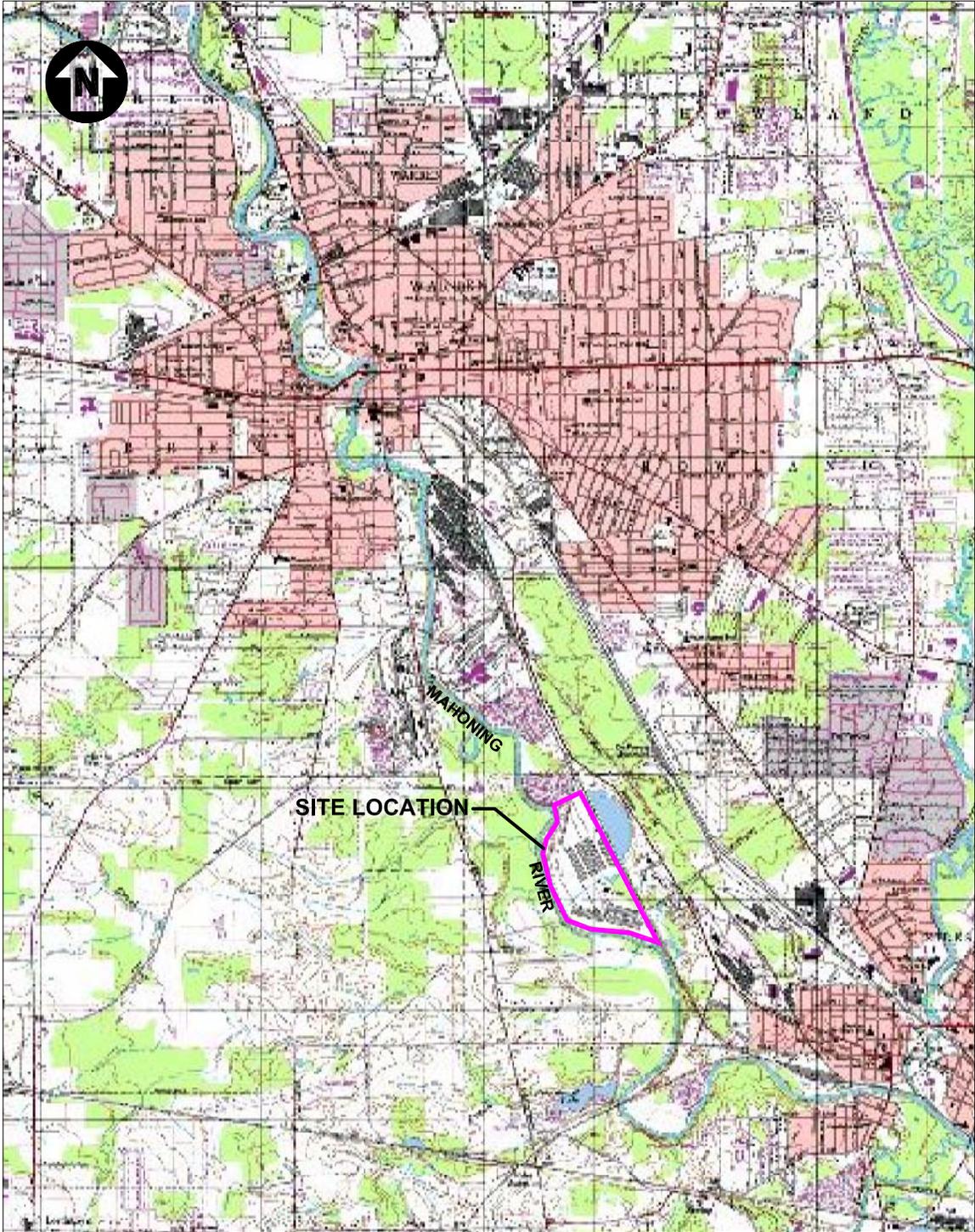
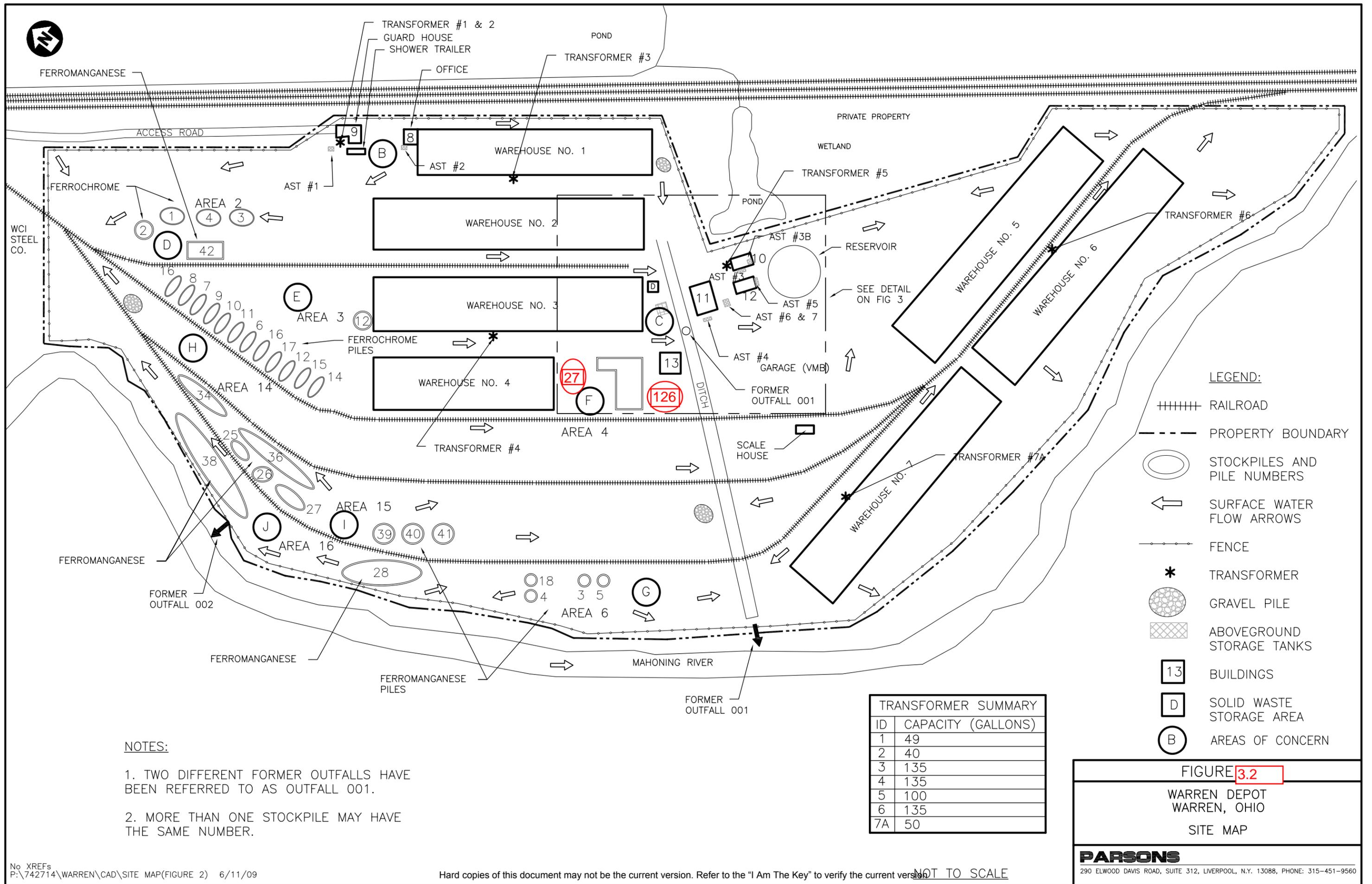
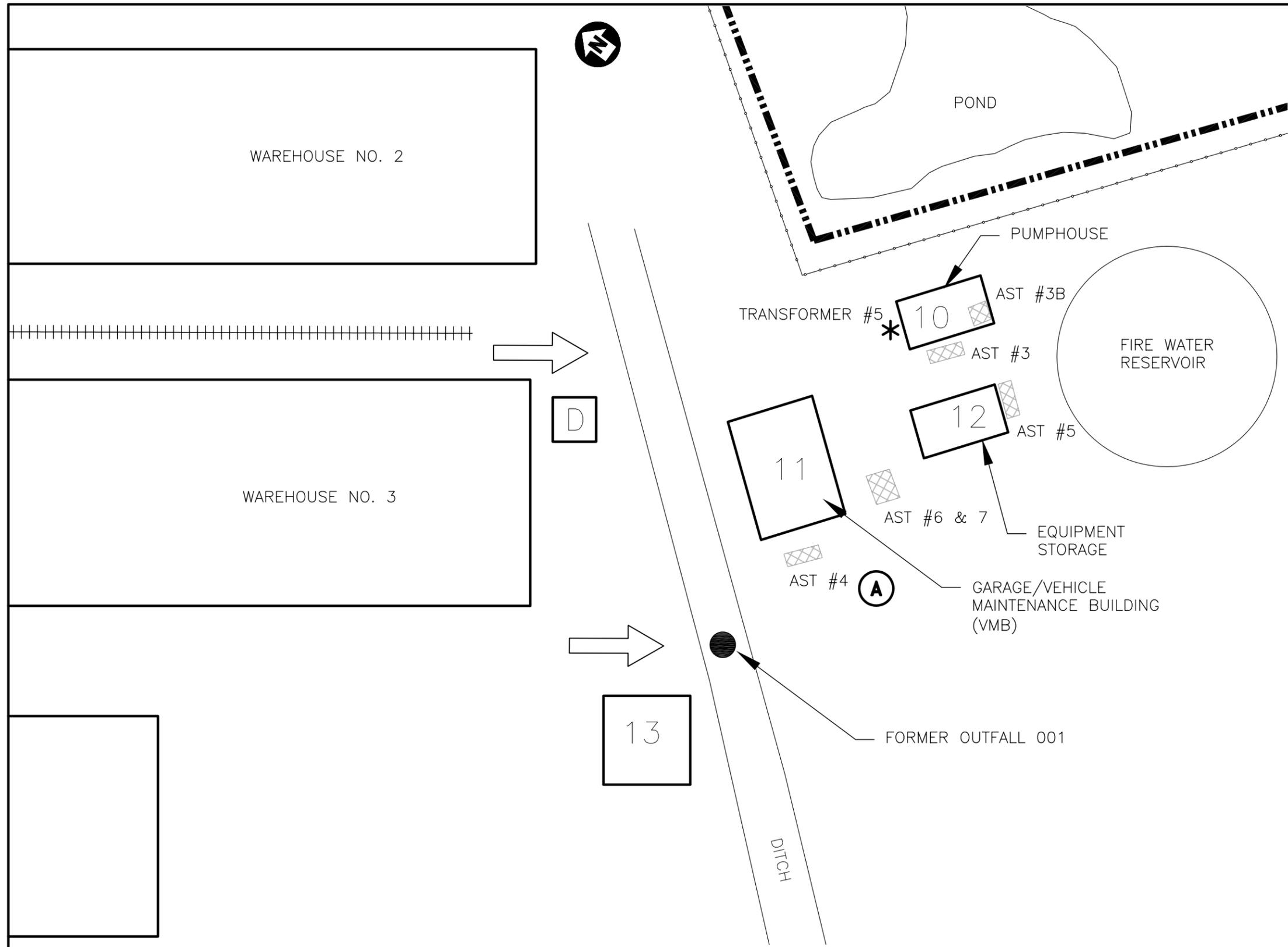


FIGURE 3.1
 WARREN DEPOT
 WARREN, OHIO
 SITE LOCATION MAP



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





LEGEND:

- +++++ RAILROAD
- - - - PROPERTY BOUNDARY
- ← SURFACE WATER FLOW ARROWS
- - - - FENCE
- ▨ ABOVEGROUND STORAGE TANKS
- * TRANSFORMER
- 13 BUILDINGS
- D SOLID WASTE AREA
- STOCKPILES
- Ⓐ AREA OF CONCERN

ABOVEGROUND STORAGE TANK SUMMARY		
AST ID NO.	CAPACITY	CONTENTS
1	1,000 GALLONS	FUEL OIL
2	1,000 GALLONS	FUEL OIL
3	1,000 GALLONS	FUEL OIL
3B	160 GALLONS	FUEL OIL
4	1,000 GALLONS	FUEL OIL
5	1,000 GALLONS	FUEL OIL
6	1,000 GALLONS	DIESEL FUEL
7	1,000 GALLONS	GASOLINE

NOT TO SCALE

FIGURE 3.3

WARREN DEPOT
WARREN, OHIO
AREA DETAIL MAP

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

The plugged outfalls and perimeter berm are in good condition and are performing as intended to contain storm water runoff within the depot property. Storm water runoff on the depot property infiltrates into the ground, settles into low-lying areas, or flows into swales and ditches where it remains until infiltrating the subsurface. The slag material upon which the depot is constructed is a porous material, and thus promoting the infiltration of storm water into the subsurface. According to depot personnel, the large drainage ditch has not filled completely with runoff at any point in time, nor has it overflowed following any precipitation event since the outlets were capped.

3.1.3 Storm Water Sampling

One storm water sampling event was conducted in June 1996, involving the collection of grab samples from Outfalls 001 and 002, and a composite sample from Outfall 001. Analytical results identified the presence of elevated levels of the following parameters: chemical oxygen demand, total suspended solids, aluminum, copper, iron, lead, manganese and zinc. Levels of lead, copper and zinc reportedly exceeded water quality criteria. The explanation provided was that these contaminants were derived from the slag base upon which the depot was constructed. Storm water sampling is not required at the depot.

3.1.4 Storm Water Runoff Contamination

Storm water runoff gradually infiltrates into the soil, recharging shallow groundwater. Any contamination entering the shallow groundwater may eventually end up in nearby streams, rivers and lakes, affecting the quality of water which is a resource for both wildlife and humans. Pollutants entering the groundwater can have a negative effect on human health. No groundwater wells are known to exist in the immediate vicinity of the depot other than sampling wells installed in 2009-2010, and surface runoff at the depot is not known to be contaminated by depot operations.

3.2 POLLUTION PREVENTION TEAM

Each SWPPP must identify a specific individual or individuals within the facility organization as members of a storm water Pollution Prevention Team (PPT) that are responsible for developing the SWPPP and assisting the DFM 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 one depot facility to another.

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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, and
- Establishing good channels of communication.

The Warren Depot PPT is identified in Table 3.1.

In the event that a member of the PPT leaves his/her position at the depot, a replacement must 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

Appendices A and B contain two forms that will be completed by the PPT:

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

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

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 Area of Concern (AOC), if there is the potential for storm water quality to be impacted. AOCs at the Warren Depot are shown on Figures 3.2 and 3.3, and include the following:

A. Vehicle Fueling Area, Garage, Pump House and Equipment Storage Building

Vehicle Fueling Area / Garage (Vehicle Maintenance Building) – (Building 11) one gasoline AST (# 7) and one diesel AST (# 6) are located off the south corner of the structure. One fuel oil AST (# 4) is located on the west side of Building 11. AST capacities are:

- one 1,000-gallon diesel fuel tank (# 6)
- one 1,000-gallon gasoline tank (# 7)
- one 1,000-gallon fuel oil tank (# 4)

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Table 3.1	
POLLUTION PREVENTION TEAM	
<p>The following Team Members are responsible for developing, implementing, modifying, and providing the required reports for the SWPPP and related activities.</p>	
Member	Responsibilities
<p>John Eller, Team Leader, Distribution Facilities Manager (W): (330) 652-1456</p>	<ul style="list-style-type: none"> · 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. · Conducts on-site preventative maintenance inspections, including perimeter berm inspections. · Maintains updated spill records and updates the SWPPP to reflect any spills that occur on-site.
<p>Rob Skruck Member, Environmental Protection Specialist (W): (330) 652-1456</p>	<ul style="list-style-type: none"> · Ensures good housekeeping practices. · Updates material inventories. · Assists the Team Leader during annual site compliance reports. · Attends meetings and assists other team members as needed. · Provides input concerning commodity storage and removal that may affect the SWPPP.
<p>Clyde Logsten General Supply Specialist (W): (330) 652-1456</p>	<ul style="list-style-type: none"> · Provides input and information on appropriate BMPs. · Assists the Team Leader during annual site compliance reports. · Attends meetings and assists other team members as needed. · Assures that all necessary permits are in place and up to date. · Coordinates any changes in the SWPPP with cognizant contracting and depot personnel.

Pump House (Building 10) – one AST (# 3B) is located inside the Pump House, one AST (#3) is situated outside, on the west side of the building. ASTs capacities are:

- one 1,000-gallon fuel oil tank (# 3)
- one 160-gallon diesel tank (# 3B - inside Bldg. 10)

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QBS / Equipment Building (Building 12) – one AST (# 5) is located on the east side of Building 12:

- one 1,000-gallon fuel oil tank (# 5)

Storm water runoff from these areas would discharge to gravel and nearby grass-covered areas. The discharge would likely pond on the ground, or could enter the large drainage ditch were a heavy rainfall event to occur.

B. Guard House / Office Area – One AST (# 1) is located on the northwest side of the Guard House, and one AST (# 2) is located on the northwest side of the Administration/Main Office:

- two 1,000-gallon fuel oil tanks (# 1 and # 2)

Storm water runoff from this area would discharge to gravel and nearby grass-covered areas and infiltrate into the subsurface.

C. Used Solvents Storage / Solid Waste Bin Area – The used solvents storage area and one solid waste bin (dumpster) are located on a gravel-covered area near the east end of Warehouse 3. A few containers of solvents, usually paint thinners, are periodically stored in drums at the storage area, inside a closed plastic container or flammable storage cabinet. The containers are empty and not used during much of the year. The waste bin has a hinged cover that is kept closed, except when in use. Only common office and kitchen-type refuse is allowed in the dumpster.

Storm water runoff from this area drains to nearby surfaces and infiltrates into the ground, or runoff may flow into the ditch. Additional dumpsters placed in locations throughout the depot may be brought on-site by contractors on a temporary basis.

Commodity Storage - The following AOCs are open areas containing one or more stockpiles of materials. All piles are exposed to precipitation.

Commodities exposed to precipitation are stored on various surfaces, including concrete and gravel. 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.

AOCs D through L each contain commodity storage. All stockpiles are exposed to precipitation, with storm water runoff infiltrating into the ground. Table 3.2 lists each stockpile, material, AOC, Area Number, approximate stockpile dimensions, and surrounding surfaces. Note that more than one stockpile may share the same number. Table 3.3 lists other stored materials, Area Number and surrounding surfaces. Quantities of each material are provided where available, and all materials are subject to removal from the depot property.

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Table 3.2 Outdoor Commodity Stockpiles Warren Depot, Warren, OH							
Area of Concern	Area No.	Pile No.	Material	Width (feet)	Length (feet)	Height (feet)	Surrounding Surface
D	2	2A	FerroChrome	20	15	10	
		1	FerroChrome	50	100	12	
		3	FerroChrome	50	100	12	
		4	FerroChrome	50	100	12	
		42	Ferromanganese	55	10	20	
		6	Ferrochrome	115 Circ.		9	Gravel
		7	Ferrochrome	50 Circ.		5	Gravel
		8	Ferrochrome	90 Circ.		8	Gravel
		9	Ferrochrome	104 Circ.		12	Gravel
		10	Ferrochrome	93 Circ.		9	Gravel
		11	Ferrochrome	93 Circ.		9	Gravel
		12	Ferrochrome	120 Circ.		12	Gravel
		13	Ferrochrome	60 Circ.		4	Gravel
		14	Ferrochrome	132 Circ.		12	Gravel
		15	Ferrochrome	120 Circ.		10	Gravel
		16	Ferrochrome	270 Circ.		12	Gravel
17	Ferrochrome	165 Circ.		14	Gravel		
F	4	27	Ferromanganese	60	40	8	Concrete
		126	Ferrochrome	40	60	8	Concrete
G	6	3	Ferrochrome	100	80	25	Paved
		4	Ferrochrome	30 Dia.		12	Paved
		5	Ferrochrome	85	75	20	Paved
		18	Ferrochrome	25 Dia.		15	Paved
I	15	25	Ferromanganese	50	60	20	Gravel
		26	Ferromanganese	36	57	15	Gravel
		27	Ferromanganese	48	168	22	Gravel
		34	Ferromanganese	70	270	20	Gravel
		36	Ferromanganese	70	265	20	Gravel
		39	Ferromanganese	24	35	8	Gravel
		40	Ferromanganese	24	35	8	Gravel
41	Ferromanganese	24	35	8	Gravel		
J	16	28	Ferromanganese	53	408	27	Gravel
		38	Ferromanganese	55	200	20	Paved

Pile dimensions are approximations provided by depot, except for Area No. 6 piles which were estimated during site visit May 2004. **Circ.** indicates circumference in feet; **Dia.** indicates diameter in feet.

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Table 3.3			
Other Commodities / Materials Stored Outdoors			
Warren Depot, Warren, OH			
Area No.	Material	Approximate Quantity (units)	Surrounding Surface
14	Gravel	NA	Gravel
15	Gravel	NA	Gravel
South of Warehouse 1	Gravel	NA	Gravel

NA - indicates Not Available

- D. Area 2, Five stockpiles:** Pile Nos. 1, 2A, 3 and 4 – Ferrochrome on a gravel surface and ferromanganese (Pile 42) on a paved surface.
- E. Area 3, 13 stockpiles:** Pile Nos. 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16 and 17 (ferrochrome) on gravel surfaces.
- F. Area 4, Pile No 1** – this manganese pile has been removed.
- G. Area 6, Four stockpiles:** Pile Nos. 3, 4, 5 and 18 – Ferrochrome stockpiles on a paved surface.
- H. Area 14, These piles have been removed from the site.**
- I. Area 15, Eight stockpiles:** Pile Nos. 25, 26, 27, 34, 36, 39, 40 and 41 – Ferromanganese stockpiles on gravel surfaces. Also includes one gravel pile east of Pile 41, near the drainage ditch.
- J. Area 16, Two stockpiles:** Pile Nos. 28 (on gravel) and 38 (on paved surface) – Ferromanganese stockpiles.

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 B. Briefly, the following BMPs are in effect at each Warren 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.

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- **Illicit Discharge Connections** - There are no illicit discharge connections to the storm water drainage system.
- **Street and Parking Lot Sweeping** – Areas are kept swept and free of debris.
- **Ditch Cleaning** - Ditches are free of debris and proper flow is maintained.
- **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.
- **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

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 from the date of record or inspection. These records should be maintained at the depot office.



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SECTION 4

BEST MANAGEMENT PRACTICES

Operators of regulated MS4s are required to develop and implement a SWPPP in order to:

- Reduce the discharge of pollutants to the “maximum extent practicable” (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 of our 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. The Warren 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

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- **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 cleanup 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

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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** – (Not applicable to Warren Depot.)
 - **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.
 - **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 Warren 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.
 - **Roadside ditch cleaning** – 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 Spill Prevention, Control and Countermeasure (SPCC) plan currently being developed for the depot. The methods by which all hazardous materials and chemicals are stored, handled and used at the facility can

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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 ice-melting 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

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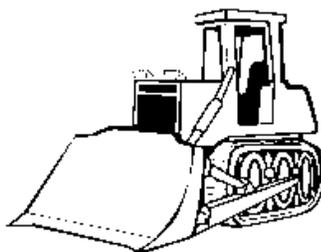
Minimizing directly connected impervious surfaces (i.e., paved parking lots, streets, roofs) also limits the amount of runoff into a drainage system. For example, roof downspouts can be disconnected from the drainage system, or curbs and gutters can be eliminated from paved areas, with the runoff allowed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



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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 typically authorized by a 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.



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5.2 AUTHORIZED NON-STORM WATER DISCHARGES AT WARREN DEPOT

The following non-storm water discharges are present at the Warren 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

Not applicable at the Warren Depot.

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APPENDIX A

SPILLS AND LEAKS FORM

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SPILLS AND LEAKS FORM

DLA Warren Depot

Directions: Record below all significant spills and significant leaks of toxic or hazardous pollutants that have occurred at the site since the last annual compliance report was prepared.

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: _____

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APPENDIX B

ANNUAL SITE COMPLIANCE REPORT

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DIRECTIONS FOR COMPLETION OF ANNUAL SITE COMPLIANCE REPORT

WARREN DEPOT

There are two elements you must consider to fulfill the annual reporting requirement:

1. Routine visual inspection of your 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. Inspections during extended dry periods, such as when there has been no precipitation, snowmelt or runoff for more than three days, are also of value in confirming the absence of non-storm water discharges at the depot. These visual inspections are meant to complement the annual site compliance report and inspection.

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 Staff Environmental Officer by June 30 each year.

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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. Materials stored outdoors that have been moved or eliminated must be noted.
3. List any incident that may have affected the quality of storm water runoff. Include issues from neighboring properties that may influence the storm water drainage system, if known.
4. Complete an inspection form covering each Area of Concern (AOC). The intent is to document that the existing conditions and best management practices are still in place, and to document any changes over the past year. More than one AOC may be included on an inspection form.
5. Mention any other issue or recommendation relating to storm water runoff. Include knowledge of any issues relating to contamination of storm water runoff from adjacent property that may affect the depot's drainage system.

CAUTION

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ANNUAL SITE COMPLIANCE REPORT

DLA WARREN DEPOT

Due annually by June 30. Use additional sheets if necessary. 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 Staff Environmental Officer.

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.

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.

4. ADEQUACY OF BEST MANAGEMENT PRACTICES Evaluate measures to reduce storm water runoff pollution and determine if measures are adequately and properly implemented. Are additional controls needed? Use the Evaluation Forms included for each Area of Concern.

5. OTHER ISSUES AND RECOMMENDATIONS:

EVALUATION FORM FOR THE ANNUAL SITE COMPLIANCE REPORT

Areas of Concern A and B

ASTs at Vehicle Maintenance Building (VMB), Pump House, Equipment Storage Building, Guard House and Office areas; drums in VMB

Warren 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. *Page 1 of 2*

<i>Physical Characteristics</i>	<i>Existing Status</i>	<i>Current Status the Same?</i>	If "No", Add Comments, Explanations (additional space on page 2)
Pollutants of Concern	Fuel oil, gasoline, diesel fuel (in AST's); anti-freeze, oil and hydraulic fluid (drums).	<input type="checkbox"/> Yes <input type="checkbox"/> No	_____
Storage Type and Location	Seven 1,000-gallon ASTs at Buildings 10, 11, 12, Guard House and Office; one 160-gallon AST inside Bldg. 10. Three 55-gallon drums (VMB).	<input type="checkbox"/> Yes <input type="checkbox"/> No	_____
Existing Storm Water Management Controls	ASTs & drums have secondary containment, 1,000-gallon ASTs have interstitial monitoring; spill kit is inside nearest building.	<input type="checkbox"/> Yes <input type="checkbox"/> No	_____
Material Exposed to Storm Water Runoff?	Potentially	<input type="checkbox"/> Yes <input type="checkbox"/> No	_____
Visual Observations of Site Drainage	Runoff infiltrates into the ground directly or through storm water drainage ditches.	<input type="checkbox"/> Yes <input type="checkbox"/> No	_____
Contamination Potential	Low to Medium	<input type="checkbox"/> Yes <input type="checkbox"/> No	_____
<i>Best Management Practices In Place</i>			
Housekeeping	Clean, well-maintained area.	<input type="checkbox"/> Yes <input type="checkbox"/> 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.	<input type="checkbox"/> Yes <input type="checkbox"/> No	_____

EVALUATION FORM FOR THE ANNUAL SITE COMPLIANCE REPORT			
Areas of Concern A and B - Warren Depot.			<i>Page 2 of 2</i>
<i>Physical Characteristics</i>	<i>Existing Status</i>	<i>Current Status the Same?</i>	If "No", Add Comments, Explanations (additional space at bottom)
Proper Herbicide and Pesticide Use	Applications are in compliance with Pest Management Plan.	<input type="checkbox"/> Yes <input type="checkbox"/> No	_____
Illicit Discharge Connections	There are no illicit discharge connections to the storm water system.	<input type="checkbox"/> Yes <input type="checkbox"/> No	_____
Street and Parking Lot Sweeping	Area is kept swept and free of debris.	<input type="checkbox"/> Yes <input type="checkbox"/> No	_____
Ditch Cleaning	Ditches are free of debris and proper flow is maintained in ditches.	<input type="checkbox"/> Yes <input type="checkbox"/> 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.	<input type="checkbox"/> Yes <input type="checkbox"/> No	_____
Snow Removal	Snow from around the vicinity should be removed to an area where it can melt and infiltrate into the ground.	<input type="checkbox"/> Yes <input type="checkbox"/> 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 Staff Environmental Officer.

EVALUATION FORM FOR THE ANNUAL SITE COMPLIANCE REPORT

Area of Concern C

Used Solvents Storage and Solid Waste Bins (Dumpsters)

Warren 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. *Page 1 of 2*

<i>Physical Characteristics</i>	<i>Existing Status</i>	<i>Current Status the Same?</i>	If “No”, Add Comments, Explanations (additional space on page 2)
Pollutants of Concern	Solid waste (standard office and kitchen refuse only); used solvents.	<input type="checkbox"/> Yes <input type="checkbox"/> No	_____
Storage Type and Location	Solid waste bin near Warehouse 3. Solvent containers in plastic bin or flammables cabinet.	<input type="checkbox"/> Yes <input type="checkbox"/> No	_____
Existing Storm Water Management Controls	No haz. waste or chemicals placed in dumpsters, lids to be closed at all times. Solvents kept sealed & within 2 nd -ary containment.	<input type="checkbox"/> Yes <input type="checkbox"/> No	_____
Material Exposed to Storm Water Runoff?	Yes	<input type="checkbox"/> Yes <input type="checkbox"/> No	_____
Visual Observations of Site Drainage	Area is kept clean. Runoff infiltrates into the ground, or flows into storm water drainage ditches.	<input type="checkbox"/> Yes <input type="checkbox"/> No	_____
Contamination Potential	Low	<input type="checkbox"/> Yes <input type="checkbox"/> No	_____
<i>Best Management Practices In Place</i>			
Good Housekeeping	Stored in a clean, well-maintained area.	<input type="checkbox"/> Yes <input type="checkbox"/> 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.	<input type="checkbox"/> Yes <input type="checkbox"/> No	_____
Proper Herbicide and Pesticide Use	Applications are in compliance with Pest Management Plan.	<input type="checkbox"/> Yes <input type="checkbox"/> No	_____

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

Additional Comments: _____

This form completed by: _____

Signature: _____ Date: _____

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EVALUATION FORM FOR THE ANNUAL SITE COMPLIANCE REPORT

Areas of Concern D – J

Commodity Stockpiles and Storage Locations - Warren Depot

The purpose of this form is to document annually the pre-existing conditions at these AOCs, and to document whether or not the conditions have changed. Compare the data for each stockpile listed on Table 3.2, and note any changes or discrepancies on this form. Note any new potential pollutant source (i.e., portable ASTs, dumpsters, etc.)

Page 1 of 2

<i>Physical Characteristics</i>	<i>Existing Status</i>	<i>Current Status the Same?</i>	If “No”, Add Comments, Explanations (use page 2 or extra sheet if needed)
Pollutants of Concern	Ferrochrome and ferromanganese stockpiles.	<input type="checkbox"/> Yes <input type="checkbox"/> No	_____
Storage Type and Location	31 stockpiles & two concrete storage locations in designated Open Areas, as detailed on Tables 3.2 & 3.3.	<input type="checkbox"/> Yes <input type="checkbox"/> No	_____
Existing Storm Water Management Controls	Stored materials are uncovered. Facility surrounded by earth berm.	<input type="checkbox"/> Yes <input type="checkbox"/> No	_____
Material Exposed to Storm Water Runoff?	Yes	<input type="checkbox"/> Yes <input type="checkbox"/> No	_____
Visual Observations of Site Drainage	Runoff infiltrates into the ground directly or through storm water drainage ditches.	<input type="checkbox"/> Yes <input type="checkbox"/> No	_____
Contamination Potential	Medium	<input type="checkbox"/> Yes <input type="checkbox"/> No	_____
<i>Best Management Practices In Place</i>			
Good Housekeeping	Stored in a clean, well-maintained area.	<input type="checkbox"/> Yes <input type="checkbox"/> 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.	<input type="checkbox"/> Yes <input type="checkbox"/> No	_____
Storm Drain Inlet Marking or Stenciling	(Not applicable to Warren Depot)	<input type="checkbox"/> Yes <input type="checkbox"/> No	_____
Proper Herbicide and Pesticide Use	Use complies with Pest Management Plan.	<input type="checkbox"/> Yes <input type="checkbox"/> No	_____

EVALUATION FORM FOR THE ANNUAL SITE COMPLIANCE REPORT			
Areas of Concern D - J - Commodity Storage - Warren Depot. Page 2 of 2			
<i>Physical Characteristics</i>	<i>Existing Status</i>	<i>Current Status the Same?</i>	If "No", Add Comments, Explanations (additional space at bottom)
Illicit Discharge Connections	There are no illicit discharge connections to the storm water system.	<input type="checkbox"/> Yes <input type="checkbox"/> No	_____
Street and Parking Lot Sweeping	Area is kept swept and free of debris.	<input type="checkbox"/> Yes <input type="checkbox"/> No	_____
Ditch Cleaning	Ditches are free of debris and proper flow is maintained in ditches.	<input type="checkbox"/> Yes <input type="checkbox"/> 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.	<input type="checkbox"/> Yes <input type="checkbox"/> No	_____
Snow Removal	Snow near commodities should be removed to an area where it can melt and infiltrate into the ground.	<input type="checkbox"/> Yes <input type="checkbox"/> No	_____

Additional Comments: _____

This form completed by: _____

Signature: _____ Date: _____

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