


Storm Water Pollution Control Plan
Keehi Baseyard

PROTECT OUR WATER
MĀLAMA I KA WAI
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION
www.stormwaterhawaii.com

Hawaii State Department of Transportation
Highways Division, Oahu District
Storm Water Management Program
NPDES Permit No. HI S000001

RECORD OF REVISION

Revision No.	Revision Date	Description	Sections Affected
1	May 2006	Version 1.0 – Initial Release	All
2	October 2009	Revised to conform to updates at the Baseyard.	TOC, Sections 1 – 6, Fig 2-1, Appx. A - E
3	January 2010	Revised to conform with responses to HDOH Letter 01029PRM.10 dated January 14, 2010	TOC, Sections 2 – 5, Fig 2-1, Appx. A – C, E
4	June 2010	Revised to conform with responses to HDOH Letter 04043PRM.10 dated April 20, 2010	TOC, Section 5, Fig 2-1, Fig 5-1, App E
5	May 2011	Revised to address changes in the storm water monitoring plan and sampling locations	Section 5, Fig 5-1
6	January 2014	Version 3.0 – Structural Changes and Formatting Revision	All
7	September 2015	Version 3.1 –Sampling parameters updated	Appendix A: Checklist Questions; Appendix B: Table 3-1, Section 4.2, and Estimated Flow Rate Calculations and Field Parameters
8	October 2016	Version 4.0	1.1.2 – Inspections; 2.2.1 – Drainage Area 1; Figures 2-1 and 2-2; Figure 3-14; Appendix A – Inspection Checklist; Appendix B – Storm Water Monitoring Plan
9	June 2017	SWPCP Figure Updates	Figures 2-1 and 2-2; Appendix B – Figure 2-1
10	September 2017	SWPCP Figure Updates	Figures 2-1 and 2-2; Figures 3-9, 3-11, 3-13, 3-18,3-19; Appendix B–Figure 2-1
11	December 2017	Signature Page; SWPCP Figure Updates	Signature Page; Figures 2-1 and 2-

Revision No.	Revision Date	Description	Sections Affected
			2; Appendix B–Figure 2-1
12	June 2018	SWPCP Figure Updates	Figures 2-1 and 2-2; Appendix B – Figure 2-1
13	January 2019	SWPCP Figure Updates	Figures 2-1 and 2-2; Appendix B – Figure 2-1
14	June 2019	SWPCP Figure Updates; Appendix B	Figures 2-1 and 2-2; Appendix B – Figure 2-1; Appendix B – Table 3-1
15	October 2019	Version 5.0	All
16	May 2020	SWPCP Figure Updates; Appendix B	Figures 2-1, 2-2, and 2-3; Appendix B – Figure 2-1; Appendix B – Table 3-1
17	October 2020	Version 6.0	All
18	May 2021	SWPCP Figure Updates	Figures 2-1, 2-2, and 2-3
19	May 2022	SWPCP Figure Updates	Figures 2-1, 2-2, and 2-3

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 assure 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.

MK Medeiros

May 11, 2022

Michael K. Medeiros
Oahu District Engineer
State of Hawaii
Department of Transportation

Date

SWPCP Responsible Party: Maintenance Superintendent and Keehi Baseyard Supervisors (Electrical Crew, Roadway and Paving Crew, Special Services Crew, Bridge Crew, and Structures Crew)

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

LIST OF ACRONYMS

Acronym	Meaning
AMS	Asset Management System
BMP	Best Management Practice
CFR	Code of Federal Regulations
CMU	Concrete Masonry Unit
CWB	Clean Water Branch
DA	Drainage Area
DOH	State of Hawaii, Department of Health
EPA	U.S. Environmental Protection Agency
HDOT	State of Hawaii, Department of Transportation
HEER	Hazard Evaluation and Emergency Response
HWY-O	Highways Division, Oahu District
LEPC	Local Emergency Planning Committee
NPDES	National Pollutant Discharge Elimination System
NRC	National Response Center
Permit	NPDES Individual Permit No. HI S000001
SQG	Small Quantity Generator
SWPCP	Storm Water Pollution Control Plan

1.0 INTRODUCTION

Federal regulations administered by the State of Hawaii, Department of Health (DOH) through State of Hawaii, Department of Transportation (HDOT), Highways Division National Pollutant Discharge Elimination System (NPDES) Individual Permit No. HI S000001 (Permit) requires that the Keehi Baseyard implement its latest Storm Water Pollution Control Plan (SWPCP). The SWPCP is designed to protect water quality by minimizing the discharge of pollutants in storm water runoff from activities at the baseyard.

1.1 SWPCP Implementation

The storm water management controls described in this plan will be implemented by HDOT, Highways Division, Oahu District (HWY-O) as required by the Permit, effective September 1, 2020, Part E DOT-HWYS Baseyard Facilities and Part F.2 Storm Water Associated with Baseyards.

1.1.1 Training

Management, staff, and maintenance personnel will be provided with training on the SWPCP initially upon implementation and at least annually thereafter. Additionally, training will be conducted following any major revision to the SWPCP and will also be provided to new hires. This training will include, a discussion of potential pollutants, best management practices (BMPs), spill response procedures, and past spills. Training records will be documented and retained for five years. Baseyard personnel will be responsible for implementing controls detailed in the SWPCP and training courses.

1.1.2 Inspections

Baseyard inspections will be conducted at least semiannually to ensure the pollutant control strategies (Section 3.0) and spill prevention and response plan (Section 4.0) are being effectively carried out. All inspections will be documented on the Baseyard SWPCP Inspection Checklist (Appendix A) and retained in the Maximo Asset Management System (AMS) for five years. Corrective actions for deficiencies noted during inspections will be documented, tracked, and closed-out in the AMS.

1.2 SWPCP Revisions

The SWPCP will be reviewed as often as needed to comply with the conditions of the Permit. In the event the plan is modified, a copy of the updated SWPCP will be provided to the baseyard.

2.0 SITE DESCRIPTION

The Keehi Baseyard is located at the Keehi Viaduct, beneath the H-1 freeway in Honolulu (Figure 2-1). The baseyard has an elongated shape that is bordered on the north and south sides by the westbound lanes and eastbound lanes of Nimitz Highway, respectively. The baseyard is bordered on the east side by Moanalua Stream. An unnamed canal runs west to east through the middle of the site and drains into the Moanalua Stream. The Keehi Baseyard has the following Highways Maintenance Crews and Compounds:

- Electrical Crew
- Roadway/Paving Crew
- Special Services Crew
- Bridge Crew Compound
- Structures Crew Compound

The facility is used as a storage area for HDOT Highways maintenance supplies and equipment. Equipment and materials stored on-site include vehicles, street sweepers, vacuum trucks, trucks and trailers, and materials supplies.

The Electrical Crew occupies the western-most portion of the site. In addition, the Electrical Crew uses an area near the eastern boundary to store telephone and light poles. The Special Services Crew includes plumbers, street sweepers, and vacuum truck operators and utilizes the site primarily to store their trucks, vehicles, and parts. The Bridge Crew occupies the northwestern portion of the site (woodworking shop and storage compound) and the Structures Crew occupies the northeastern portion of the site (storage compound). There is an office building (three trailers) and vehicles stored at this baseyard are parked near the office and along the southern perimeter. The site also has a vehicle wash rack that is designed to contain, collect, treat, and recycle wash water for vehicle washing.

Berms have been placed on the land surface surrounding the unnamed canal to prevent storm water runoff or debris from flowing into the waterway. Most of the site is situated under the cover of the freeway, and therefore, is not exposed to rainfall. However, storm water can sheet flow through the site from areas located outside of the freeway viaduct overhang and from several freeway viaduct downspouts. Generally storm water on the site sheet flows to either the unnamed canal in the center of the site or the ditch located south of the site (Figure 2-1). There are no storm drain inlets located at the site and the majority of the area is impervious consisting of asphalt concrete. Areas of responsibility for the various Maintenance Crews at the Keehi Baseyard are depicted on Figure 2-2.

2.1 Site Drainage

There are no drainage inlets onsite. However, the drainage ditch along the southern boundary of the site is connected to the unnamed canal that runs through the center of the site via an underground pipeline that runs beneath the offices.

The majority of the site is under the cover of the freeway viaduct and therefore, is not exposed to rainfall. However, storm water can flow through the site from the entrance and exit to Nimitz Highway, the uncovered areas of the site, and from the freeway viaduct downspouts. Storm water runoff generally sheet flows either to the unnamed canal or the southern drainage ditch (Figure 2-1).

The storm water will enter the unnamed canal either directly or through the discharge pipe from the southern drainage ditch. The unnamed canal flows from west to east through the center of the site into the Moanalua Stream, which borders the eastern edge of the site, empties into Keehi Lagoon, that eventually empties into the Pacific Ocean.

2.2 Drainage Areas

The Keehi Baseyard is divided into three drainage areas (Figure 2-3). Drainage Area 1 (DA-1) is located in the southern and western portions of the baseyard and is bordered on the north by the unnamed canal and on the south by the eastbound lanes of Nimitz Highway. Drainage Area 2 (DA-2) is located in the southern and eastern portions of the baseyard and is bordered on the north by the unnamed canal that runs west to east through the middle of the site and drains into the Moanalua Stream. Drainage Area 3 (DA-3) is located in the northern portion of the baseyard and is bordered on the north by the westbound lanes of Nimitz Highway and on the south by the unnamed canal.

2.2.1 Drainage Area 1

The Electrical Crew, Roadway/Paving Crew, and Special Services Crew office trailers are joined together by a common deck/break area. Each individual office is used for general office duties, small handheld equipment storage, and employee washing areas (deep sinks).

Electrical Crew

The Electrical Crew occupies the western-most portion of DA-1 and includes three materials storage containers used to store limited quantities of chemicals and supplies. Various bulk electrical lighting and related components are also stored in the Electrical Crew storage area. Additionally, the Electrical Crew parks multiple vehicles and equipment (utility trucks and vans and bucket trucks) in parking areas of DA-1 (Figure 2-1).

Roadway/Paving Crew

The Roadway/Paving Crew storage area includes a single material storage container used to store limited quantities of chemicals and supplies (Figure 2-1). DA-1 also contains various parking for vehicles and equipment (utility trucks and thermal layer/asphalt application trucks) used by the Roadway/Paving Crew.

Special Services Crew

The Special Services Crew storage area contains four materials storage containers; three for the Plumbing subunit and one for the rest of the crew (Figure 2-1). Additionally, the Special Services

Crew parks multiple vehicles and equipment (utility trucks, street sweepers, vacuum trucks, herbicide application trailer) in the parking areas of DA-1.

As indicated in Figure 2-1, a hazardous waste storage area is designated at the entrance of the baseyard, and is also located in DA-1, close to the guard shack. The hazardous waste storage area is enclosed with a concrete masonry unit (CMU) wall and a chain link gate with lock. Spill pallets have been supplied for the hazardous liquid storage and proper signage is provided. Keehi Baseyard is considered a Small Quantity Generator (SQG) for hazardous wastes. Hazardous wastes stored include but are not limited to used oil, paints, and batteries. Most of the wastes stored in the hazardous waste storage area are wastes that have been abandoned along the State highways and removed by various maintenance crews.

DA-1 is situated under the cover of the freeway, and therefore, is not exposed to rainfall. However, storm water from six freeway viaduct downspouts sheet flows from southwest to northeast on the western portion of the DA and from southeast to northwest on the eastern portion of the DA. As indicated in Figure 2-3, all storm water from DA-1 generally sheet flows either into the unnamed canal or percolates into the ground.

Potential pollutants in this drainage area include:

- Small quantities of petroleum (gasoline, motor oil, hydraulic oil) are secured within flammable storage lockers or truck-mounted dispensing tanks.
- Small quantities of herbicides are secured within storage lockers and on containment pallets.
- Minor leaks (drips) of oils and lubricants associated with vehicular traffic.
- Miscellaneous hazardous waste and/or hazardous materials.

Routine Runoff

Generally, routine runoff from the facility may consist of dust and silt that may have been deposited either by the wind or from vehicular traffic. Dust and silt may affect water quality parameters such as total suspended solids and turbidity. As is expected from areas with vehicular activity, potential for minor amounts of petroleum to enter runoff also exists.

Non-Routine Runoff

Non-routine runoff may be a result of spillage, leaks, fuel dispensing, routine maintenance operations, overflow from the wash rack, failure of BMPs, or other emergency conditions (i.e., major equipment leaks).

Non-routine runoff may be a result of spillage, leaks, failure of BMPs, or other emergency conditions (i.e., major equipment leaks). Such incidents will be addressed immediately as described in the Spill Prevention and Response Plan (see Section 4.0). The grade of DA-1 is such that spills in the operational portions would migrate towards the center of the parking lot.

Potential non-routine runoff may result from the following sources:

- Spills and leaks from chemicals and equipment
- Fueling of equipment (e.g. topping off motor oil)
- Storage of vehicles and equipment
- Rubbish and litter
- Improper disposal of chemicals
- Chemical storage container failure
- Improper storage of chemicals (i.e. container deterioration, exposure to rain, no secondary containment)
- Improper storage of miscellaneous hazardous materials and solid waste debris
- Major equipment leaks
- Inadequate use of berms around unnamed canal
- Poor spill response management

2.2.2 Drainage Area 2

DA-2 includes a vehicle wash rack (Figure 2-1) that is designed to contain, collect, treat, and recycle wash water for vehicle washing. Various vehicles and equipment from HWY-O are washed by a Service Contractor that operates the wash rack. The Special Services and Roadway/Paving Crew parks multiple vehicles and equipment in the parking areas of DA-2 including water tankers, lowboys, loaders, backhoes, excavators, and dump trucks. Additionally, the Electrical Crew stores creosote-treated wooden telephone poles in DA-2.

Roadway/Paving Crew

The baseyard is also used to temporarily store solid wastes picked up from HDOT Highways' right-of-ways throughout Oahu, prior to transport and disposal at an appropriate facility. The Roadway/Paving Crew is responsible for maintaining the solid waste storage area located in the southeastern corner of DA-2. As indicated in Figure 2-1, the waste storage area contains green wastes, street sweeping debris, solid waste debris, tires, mattresses, and scrap metal that were anonymously abandoned and collected from HDOT right-of-ways. Raw materials such as cold asphalt mix, gravel and sand are stored in bins along the eastern border of the baseyard. These waste and raw material storage areas are situated in CMU and/or jersey barrier bins.

For the most part, DA-2 is situated directly under the cover of the freeway, with only a small portion of the active roadway in this area exposed to rainfall. Additionally, storm water from seven

freeway viaduct downspouts sheet flows from the perimeter of DA-2 to the center if this area where storm water generally percolates into the ground (Figure 2-3).

Potential pollutants in this drainage area include:

- Soaps, detergents, and wash waters associated with washing activities at the wash rack. Wash waters are normally contained by the wash rack system.
- Small quantities of petroleum products from equipment and vehicles in the parking lot.
- Street sweepings.
- Green waste and miscellaneous solid waste debris stored in the waste storage area.
- Raw materials, such as sand and gravel stored on-site.

Routine Runoff

Generally, routine runoff from the facility may consist of dust and silt that may have been deposited either by the wind or from vehicular traffic. Dust and silt may affect water quality parameters such as total suspended solids and turbidity. As is expected from areas with vehicular activity, potential for minor amounts of petroleum to enter runoff also exists.

Non-Routine Runoff

Non-routine runoff may be a result of overflow from the wash rack, failure of BMPs, or other emergency conditions (i.e., major equipment leaks). Such incidents will be addressed immediately as described in the Spill Prevention and Response Plan (see Section 4.0).

Potential non-routine runoff may result from the following sources:

- Vehicle and equipment washing
- Wash rack overflows
- Rubbish and litter
- Improper disposal of chemicals
- Improper storage of solid waste (i.e. exposure to rain, no BMPs)
- Improper storage of raw materials
- Major equipment leaks
- Poor spill response management
- Storage of vehicles and equipment

- Street sweeping storage
- Inadequate use of berms around unnamed canal and Moanalua Stream

2.2.3 Drainage Area 3

Bridge Crew

The Bridge Crew occupies the northwestern portion of DA-3 and utilizes this area primarily to store dry goods associated with bridge maintenance and repair. This area includes four materials storage containers used to store limited quantities of chemicals and supplies. The Bridge Crew also utilizes a woodworking shop located in this area (Figure 2-1).

Structures Crew

The Structures Crew occupies the northeastern portion of DA-3 (Figure 2-1) and utilizes this area primarily to store dry goods associated with structures maintenance and repair (guardrails, sand barrels, crash attenuators). This area also includes raw materials such as gravel and sand for cement mixing operations stored in jersey barrier bins.

Electrical Crew

As indicated on Figure 2-1, the Electrical Crew uses an area near the central portion of DA-3 to store galvanized light poles.

All of DA-3 is situated under the cover of the freeway, and therefore, is not exposed to rainfall. Storm water from six freeway viaduct downspouts sheet flows from northeast to the southwest in the western portion of the DA and from the north to south on the eastern portion of the DA. As indicated in Figure 2-3, all storm water from DA-3 generally sheet flows either into the unnamed canal or percolates into the ground.

Potential pollutants in this drainage area include:

- Raw materials, such as sand and gravel stored on-site.
- Minor leaks (drips) of oils and lubricants associated with vehicular traffic
- On-site storage of hazardous materials for all crews.

Routine Runoff

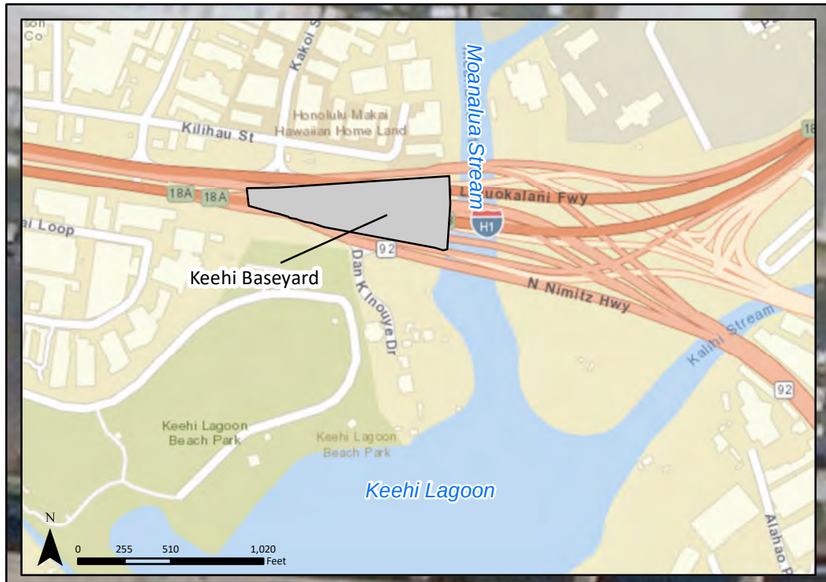
Generally, routine runoff from the facility may consist of dust and silt that may have been deposited either by the wind or from vehicular traffic. Dust and silt may affect water quality parameters such as total suspended solids and turbidity. As is expected from areas with vehicular activity, potential for minor amounts of petroleum to enter runoff also exists.

Non-Routine Runoff

Non-routine runoff may be a result of failure of BMPs, or other emergency conditions (i.e., major equipment leaks). Such incidents will be addressed immediately as described in the Spill Prevention and Response Plan (see Section 4.0).

Potential non-routine runoff may result from the following sources:

- Rubbish and litter
- Improper disposal of chemicals
- Chemical storage container failure
- Improper storage of chemicals (i.e. container deterioration, exposure to rain, no secondary containment)
- Improper storage of raw materials
- Inadequate use of berms around unnamed canal
- Poor spill response management



Moanalua Stream

Pipe Storage Rack
Flammable Locker
Bridge Maintenance Building
Storage Locker
Storage Containers
Galvanized Poles
HECO Utility Vault
Concrete Slabs
Galvanized Poles
Raw Materials Storage
Structures Storage Area
Equipment Storage
Storage
Spill Kit
Air Compressor Trailer
HECO Utility Vault
HECO
Canal
Electrical Supply Storage
HECO Power Box
Material Storage
Wooden Poles
Vehicle and Materials Storage
Wood Storage
Electrical Unit Storage Area
Lumber Storage
Police Shack
Guard Shack
Ice Machine
Office Trailers
Storage Containers
Wash Rack
Flammable Locker
Parking
Storage Container
Spill Kit
Main Gate
Portable Toilet
Storage Containers
Flammable Locker
Spill Kit
Equipment Parking
Moanalua Stream
Hazardous Waste Storage Area
Vehicle Parking Area
Mattress Recycling
Spill Pallet
Tires
Green Waste
Green Waste
Sweeper Trash
Tires
Metal Recycling
Jersey Storage
Materials and BMP Storage

Legend

- Downspout
- Concrete Columns
- Entrance
- Parking
- BMP
- Fence
- Gate
- Jersey Barrier
- Concrete
- AC Pavement
- Canal
- Uncovered
- Buildings
- Misc. Features

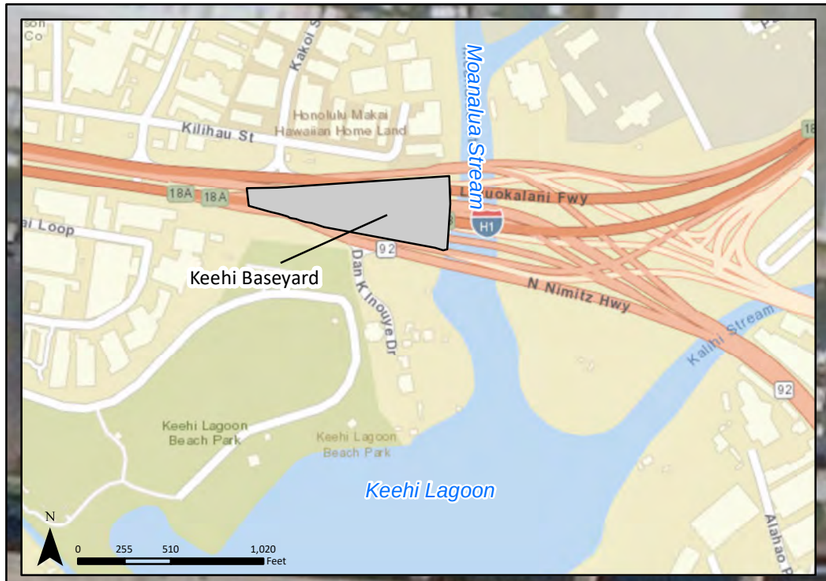
N W E S

0 500 1,000 2,000 Feet

STORM WATER POLLUTION CONTROL PLAN - KEEHI BASEYARD

SITE PLAN

FIGURE 2 - 1



Moanalua Stream

Bridge Maintenance Subunit

HWY Electrical Unit

Canal

Structures Subunit

HWY Electrical Unit

Special Services

Roadway/Paving

Moanalua Stream

Roadway/Paving Maintenance Subunit

HWY Electrical Unit

Legend

Crews

- Bridge Maintenance Subunit
- HWY Electrical Unit
- Roadway/Paving Maintenance Subunit
- Special Services Subunit
- Structures Subunit

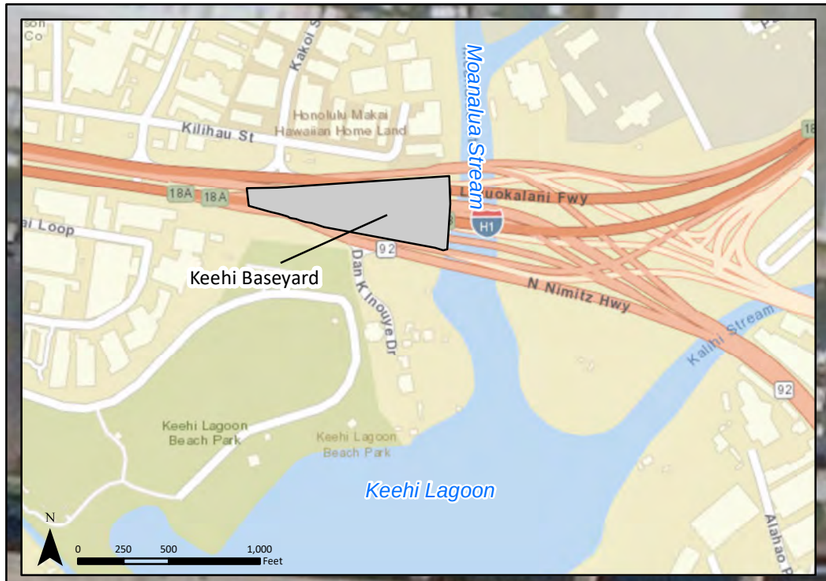
N
W E
S

0 500 1,000 2,000 Feet

STORM WATER POLLUTION CONTROL PLAN - KEEHI BASEYARD

AREAS OF RESPONSIBILITY

FIGURE 2 - 2



Moanalua Stream

DRAINAGE AREA 3

Canal

DRAINAGE AREA 1

DRAINAGE AREA 2

Moanalua Stream

Legend

- Flow
- Drainage Area 1
- Drainage Area 2
- Drainage Area 3

N
W E
S

0 500 1,000 2,000 Feet

STORM WATER POLLUTION CONTROL PLAN - KEEHI BASEYARD

DRAINAGE PLAN | *FIGURE 2 - 3*

3.0 POLLUTION CONTROL STRATEGIES

3.1 General Operating Conditions

The Keehi Baseyard has been divided into 12 functional areas:

- Office Buildings
- Vehicle and equipment driveways
- Vehicle and equipment parking areas
- Electrical Crew Storage Areas
- Roadway Crew Storage Areas
- Special Services Crew Storage Areas
- Bridge Crew Storage Areas
- Structures Crew Storage Areas
- Hazardous Waste Storage Area
- Vehicle and Equipment Wash Rack
- Solid Waste and Raw Material Storage
- Unnamed Canal and Moanalua Stream

Figures 3-1 to 3-12 present photographs of each functional area of the baseyard taken in their ideal operating condition. These photographs can be used for baseyard crews and inspection teams as a quick reference of how each functional area of the baseyard should appear. Deficiencies identified in the field should be corrected immediately to minimize the potential for pollution of storm water runoff.

FIGURE 3-1: BASEYARD FUNCTIONAL AREAS – OFFICE BUILDINGS

FIGURE 3-2: BASEYARD FUNCTIONAL AREAS – VEHICLE AND EQUIPMENT DRIVEWAYS

FIGURE 3-3: BASEYARD FUNCTIONAL AREAS – VEHICLE AND EQUIPMENT PARKING AREAS

FIGURE 3-4: BASEYARD FUNCTIONAL AREAS – ELECTRICAL CREW STORAGE AREAS

FIGURE 3-5: BASEYARD FUNCTIONAL AREAS – ROADWAY CREW STORAGE AREAS

FIGURE 3-6: BASEYARD FUNCTIONAL AREAS – SPECIAL SERVICES CREW STORAGE AREAS

FIGURE 3-7: BASEYARD FUNCTIONAL AREAS – BRIDGE CREW STORAGE AREAS

FIGURE 3-8: BASEYARD FUNCTIONAL AREAS – STRUCTURES CREW STORAGE AREAS

FIGURE 3-9: BASEYARD FUNCTIONAL AREAS – HAZARDOUS WASTE STORAGE AREA

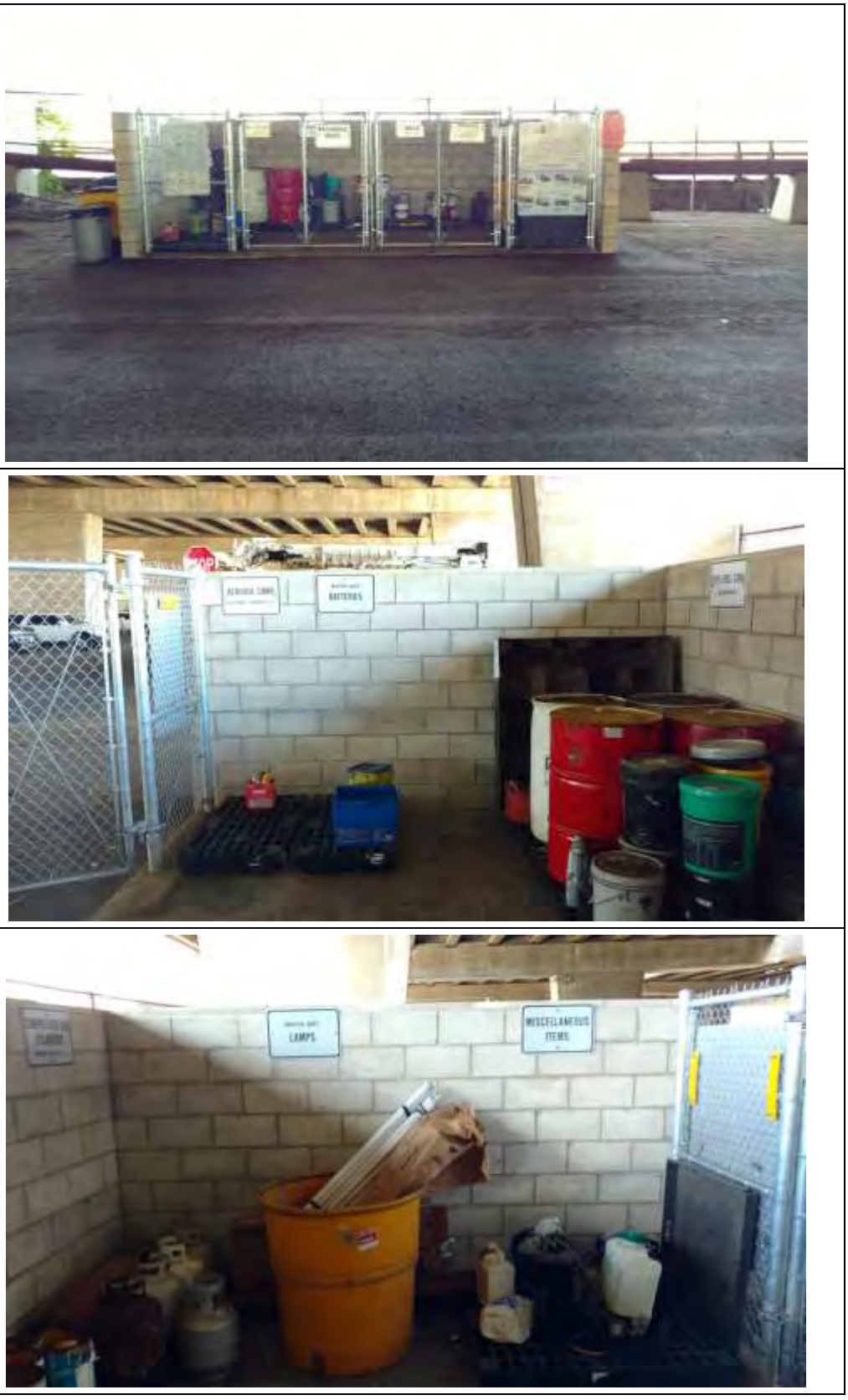


FIGURE 3-10: BASEYARD FUNCTIONAL AREAS – VEHICLE AND EQUIPMENT WASH RACK

FIGURE 3-11: BASEYARD FUNCTIONAL AREAS – SOLID WASTE AND RAW MATERIAL STORAGE

FIGURE 3-12: BASEYARD FUNCTIONAL AREAS – UNNAMED CANAL AND MOANALUA STREAM

3.2 Best Management Practices

BMPs will be utilized at the baseyard to minimize and control potential pollutants from baseyard activities. Figures 3-13 to 3-20 include a list of activities associated with the baseyard and photos of BMPs that may be implemented at the Keehi Baseyard; this list may not include all specific activities that are conducted.

FIGURE 3-13: GOOD HOUSEKEEPING

1. Baseyard Sweeping	
 	Sweep baseyard areas at least once per week and additionally as needed to remove accumulated sediment and debris and to prevent tracking. **Potential Pollutant–** Sediment, Metals, Rubbish
2. Solid Waste Disposal	
	Properly dispose of rubbish on a regular basis and before storage areas are overfilled. Ensure that waste stockpiles are covered and wastes are contained to prevent contact with storm water. **Potential Pollutant–** Sediment, Metals, Rubbish

FIGURE 3-13: GOOD HOUSEKEEPING

3. Parking Lot Maintenance	
	Clean any parking area oil stains that produce a sheen when wet. **Potential Pollutant–** Petroleum, Oil, Lubricants
4. Spill Kits	
	Ensure that spill kits are located in easily accessible locations (i.e. main office) so that personnel can respond to spills. Replenish spill kits when used, or as needed. Ensure that spill materials are cleaned up following use and properly disposed. **Potential Pollutant–** Various used absorbents

FIGURE 3-14: BASEYARD OPERATIONS

1. Motor Vehicle Servicing	
	Utilize spill containment materials whenever there is the potential for fluid leaks or spills (i.e., topping off fluids, long term storage of vehicles, etc.). **Potential Pollutant–** Vehicle fluids
2. Herbicide Usage	
	Ensure that herbicides are mixed and managed to minimize contact with storm water. Store herbicide in covered storage and/or secondary containment. Follow the HDOT Chemical Application Plan for herbicide usage guidelines. **Potential Pollutant–** Herbicides
3. Painting	
	Do not paint in the rain or when rainfall is anticipated. Ensure that wet paints are not mobilized to drainage areas. Clean brushes and dispose of paint waste in accordance with product label. Ensure that paint is not cleaned out in the dirt, street, or other drainage way. **Potential Pollutant–** Paints, Solvents

FIGURE 3-14: BASEYARD OPERATIONS

4. Carpentry	
	Sweep sawdust following carpentry operations or at the end of each work day and dispose in a covered solid waste container. **Potential Pollutant–** Sawdust

FIGURE 3-15: WASHING

1. Motor Vehicle Washing	
	Wash all vehicles and equipment in the designated wash rack. Ensure that containers and materials utilized for washing activities are properly stored according to the product label or disposed following washing. **Potential Pollutant–** Surfactants, Sediment, Fuel, Oils, Metals
	
2. Facility/Other Washing	
	Ensure that all water utilized for washing activities is contained. Containment can include connecting to the sanitary sewer. Do not discharge wash-water into drainage areas or onto the ground. **Potential Pollutant–** Surfactants and other pollutants that may be on hands and other surfaces

FIGURE 3-16: FUELING

1. Equipment Fueling	
	Visually inspect portable fuel transfer tanks and hoses for cracks and leaks. Store fuel containers within secondary containment (i.e. flammable storage lockers). Ensure that hand-held equipment fueling activities are conducted within secondary containment. Cleanup spilled fuels immediately. Ensure that fuels are not mobilized to drainage areas. **Potential Pollutant–** Gasoline, Diesel

FIGURE 3-17: VEHICLE AND EQUIPMENT STORAGE

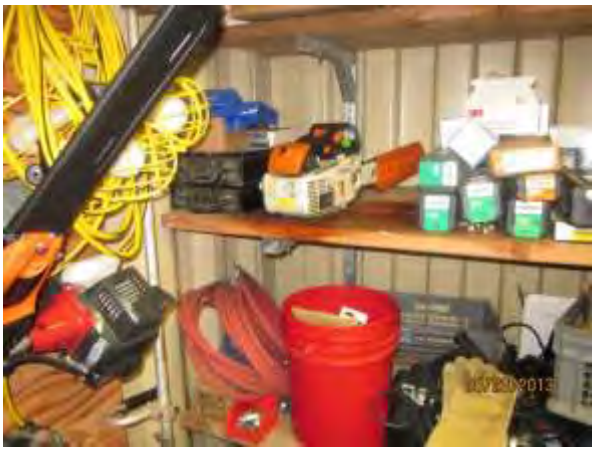
1. Parking (HDOT and Employee Vehicles)	
	Visually inspect vehicles for leaks and use drip pans or pads where necessary. Ensure that drip pan is not overfilled with leaking materials or storm water. **Potential Pollutant–** Oil, Gasoline, Diesel, Coolant, Hydraulic Fluid, Metals, Sediment
2. Handheld Equipment Storage	
	Ensure that handheld equipment is managed to minimize contact with storm water. Store handheld equipment within drip pans or on absorbent pads when not in use. **Potential Pollutant–** Oil, Gasoline

FIGURE 3-18: MATERIAL STORAGE

1. Material Storage	
 	Store materials in compatible containers that are in good condition (i.e. not rusting, leaking, or deteriorating) and closed when not in use. Store liquid materials under cover. **Potential Pollutant–** Various hazardous materials (i.e., Petroleum, Oil, and Lubricants; Herbicides; Paint)
2. Metal Storage	
	Ensure that metals are managed to minimize contact with falling rain and storm water flowing on the ground. Store metals in a covered area or with a tarpaulin, if metals are rusting. Place metals on pallets or wood blocks to elevate materials off the ground. **Potential Pollutant–** Rusting Metal

FIGURE 3-18: MATERIAL STORAGE

3. Stockpile Storage	
 	Ensure that stockpile contact with storm water is minimized. Contact may be prevented with berms, jersey barriers, walls, tarpaulins, or another effective method. Ensure that stockpiled material does not have the potential to wash away and enter baseyard drainage areas. **Potential Pollutant–** Sand, Dirt, Gravel, Sweeper Waste, Green Waste, Asphalt

FIGURE 3-19: WASTE MANAGEMENT

1. Managing Wastes Generated On-Site and Obtained from Highways Right-of-Ways	
 	Separate wastes into categories and do not mix: • Solid waste (i.e. general rubbish) • Green waste • Bulk items (i.e. mattresses, tires, etc.) • Hazardous waste • Universal waste Ensure that wastes are managed to minimize contact with storm water. Dispose as soon as possible. **Potential Pollutant–** Rubbish, Green Waste, Miscellaneous Waste
2. Hazardous Waste and Universal Waste	
	Ensure that hazardous wastes and universal wastes are managed to minimize contact with storm water and in compliance with SQG requirements. Place wastes in designated locations. **Potential Pollutant–** Miscellaneous Hazardous Waste, Miscellaneous Universal Waste

FIGURE 3-20: STRUCTURAL BMPS

1. Vehicle Wash Rack	
 	Perform routine maintenance of wash rack system, including oil water separator, to ensure proper functioning. Visually inspect the wash rack sump and oil water separator filtration system. Remove and dispose of accumulated sediment and debris from the sump properly. **Potential Pollutant–** Surfactants, Sediment, Petroleum, Oils, Lubricants, Metals
2. Downspout Berms	
	Berms are placed to minimize the discharge of pollutants from the highway onto the baseyard. Ensure that accumulated debris is cleared out and berms are in good condition. **Potential Pollutant–** Sediment, Cigarette butts, Metals, Oils, Fuels, Rubbish, and Vegetation

4.0 SPILL PREVENTION AND RESPONSE

Spills of materials used and stored at the Keehi Baseyard can discharge to State waters and contaminate storm water runoff. A Spill Prevention Response Plan is provided here to address that risk.

Spill Prevention and Response Plan

Purpose	Provide procedures to follow in the event a spill occurs
Personnel-In-Charge of Implementation	Maintenance Superintendent with support of Keehi Baseyard Supervisors
Resources	Table 4-1: Checklist of Procedures Table 4-2: Pertinent Contact Numbers Table 4-3: Spill Response Documentation Form (spills in excess of 25 gallons or more)
Documents to Maintain	Spill Response Documentation Forms (kept by HWY-O)
Recent (within 5 years) spills of toxic or hazardous pollutants	None
Discharges of storm water resulting in reportable quantity triggering notification under 40 Code of Federal Regulations (CFR) 110.6 since 11-16-1987	None

TABLE 4-1: SPILL RESPONSE PROCEDURE

	SPILL RESPONSE PROCEDURE	✓
1	Stop work.	
2	Assess the situation: ▪ Source of Release (Stop the source of the spill, if it can be done safely) ▪ Notify Others. ▪ Call 911 if an emergency situation occurs. ▪ Inform the Baseyard Supervisors of all spills. ▪ Type of Material Spilled and Associated Hazards. ▪ If the material is flammable, ensure that all sources of ignition are removed (i.e. turn off vehicles, prohibit smoking, evacuate unnecessary personnel) ▪ Location of Release (i.e. HDOT right of way? pavement vs. soil?). ▪ Total Amount and Rate of Release. ▪ Potential for Surface Water Impacts. ▪ Deploy BMPs to protect storm drains and other surface water bodies.	
3	Can the spill be cleaned up with baseyard staff and supplies? If yes – *continue to Step 4.* If no – *skip to Step 10.*	
4	Assign personnel to clean the spill and don appropriate personal protective equipment.	
5	Remove any incompatible materials from the area. This may include prohibiting smoking and the starting of vehicle engines.	
6	Begin spill clean-up efforts by ensuring that the source of the spill has been stopped. This may include closing valves, repairing equipment, or plugging holes.	
7	Confine the spill perimeter using absorbent material such as clay granules, sand, and/or soil. Ensure that drainage ways are blocked.	
8	Clean the remainder of the spill using absorbent material and a broom or vacuum. ***Important: Never use a water source for cleaning unless the water is contained.**	
9	Dispose of cleaning materials and personal protective equipment properly. *Skip to Step 13.*	
10	Evacuate all personnel from the spill vicinity and move to the evacuation assembly area near the entrance gate on the outside of the facility fence-line. See Figure 2-1 for location.	
11	Call the Emergency Coordinator who will notify or designate someone to notify the Spill Response Contractor from Table 4-2.	
12	Take note of spill clean-up actions performed by the baseyard personnel and/or Spill Response Contractor.	

	SPILL RESPONSE PROCEDURE	✓
13	The Emergency Coordinator or designee will notify the appropriate authorities from Table 4-2, if required.	
14	The Emergency Coordinator or designee completes Table 4-3, Spill Response Documentation Form.	

TABLE 4-2: EMERGENCY SPILL CONTACT INFORMATION

Note: The reportable quantity for oil and fuel products is a spill of 25 gallons or more, a spill not cleaned within 72 hours, or a spill that threatens ground or surface waters. Notification of the National Response Center (NRC) is NOT required for releases of oil – only notification of State and County agencies are required for these substances.

Contact	Telephone Number
Emergency (Medical Assistance, Fire Department, Police Department) If there is an emergency or life-threatening situation, 911 should be called first.	911
Supervisor The Supervisor should be notified of all spills so that they can contact the Emergency Coordinator.	Varies
Maintenance Superintendent, Emergency Coordinator The Maintenance Superintendent or designee should be notified of all spills so that they can act as the Emergency Coordinator for response efforts, which includes coordinating clean-up response, notifying the appropriate parties, and completing relevant forms.	(808) 837-8058 or (808) 258-3269
Spill Response Contractor The current spill response contractor (**Pacific Commercial Services**) should be notified by the Emergency Coordinator or designee for assistance when a spill is beyond the baseyard's capacity for removal or to dispose of spent absorbents.	(808) 545-4599
National Response Center (NRC) The Emergency Coordinator or designee should call the NRC to report any spill of hazardous materials of a reportable quantity. The NRC will notify the appropriate Federal On-Scene Coordinator (Environmental Protection Agency - EPA) and various state agencies. [Note: **Notification of the NRC is NOT required for releases of oil– only notification of State/County agencies are required for these substances.**]	(800) 424-8802
DOH Hazard Evaluation and Emergency Response (HEER) Office (Oahu) The Emergency Coordinator or designee should notify the HEER office of any chemical spill of a reportable quantity. [Note: **Reportable quantity for oil and fuel products is a spill of 25 gallons or more, a spill not cleaned within 72**	(808) 586-4249 (808) 247-2191 (after hours)

hours, or a spill that threatens ground or surface waters.] A written notification must also be submitted no later than thirty (30) days after the initial release.	
DOH Clean Water Branch (CWB) (Oahu) The Emergency Coordinator or designee should notify the CWB of any spills of any chemical of a reportable quantity immediately by telephone. A written notification must also be submitted no later than thirty (30) days after the initial release.	(808) 586-4309
U.S. Coast Guard Marine Safety Office (Oahu) The Emergency Coordinator or designee should notify the U.S. Coast Guard of any quantity spill that reaches the ocean.	(808) 522-8260
Local Emergency Planning Committee (LEPC) The Emergency Coordinator or designee should notify the LEPC of any reportable quantity spill. After business hours, leave a message including name, phone number, time of spill, what was spilled, and quantity of spill.	(808) 723-8960

TABLE 4-3: SPILL RESPONSE DOCUMENTATION FORM

Date of Incident:	**Time:**
Reported by:	
Location of Incident:	
Description of Incident:	
Nature of Release (Paint, herbicide, oil/grease, concrete, etc.):	
Cause/Source of Release:	
Quantity of Release:	
Immediate response measures taken:	
Regulatory Agency Notifications:	

Copies of the completed Spill Response Documentation Form shall be kept in the Keehi Baseyard SWPCP binder and with the Environmental Management Section Head

5.0 REFERENCES

- State of Hawaii, Department of Transportation, Highways Division. February 2013. *Environmental Management System Manual.*
- State of Hawaii, Department of Transportation, Highways Division. September 1, 2020. *National Pollutant Discharge Elimination System, Permit Number HI S000001,* expires August 31, 2025.
- State of Hawaii, Department of Transportation, Highways Division. April 2015. *Storm Water Management Program Plan.*

APPENDIX A

BASEYARD SWPCP INSPECTION CHECKLIST

BASEYARD SWPCP INSPECTION CHECKLIST

Facility Name:	Keehi Baseyard, Highways Division, Department of Transportation
Inspector's Name & Title:	
Date & Time of Inspection:	
Weather:	☐ Raining ☐ Cloudy ☐ Sunny Rain in 24 hrs? ☐ Yes ☐ No

ISSUE BEING EVALUATED	YES	NO	N/A	COMMENTS
SWPCP AND DOCUMENTATION				
Is the SWPCP onsite?	☐	☐	☐	
Has the SWPCP map been updated to reflect current baseyard conditions?	☐	☐	☐	
Are there any changes needed to the SWPCP based on the current observed baseyard conditions?	☐	☐	☐	
Are the inspection reports onsite?	☐	☐	☐	
Is the National Pollutant Discharge Elimination System NPDES permit onsite?	☐	☐	☐	
Is the employee training current and documented?	☐	☐	☐	
Have any spills of a reportable quantity (25-gallons or more) been reported and/or documented since last inspection?	☐	☐	☐	
GOOD HOUSEKEEPING				
Are paved areas that are potentially exposed to storm water generally free and clear of accumulated sediment and debris?	☐	☐	☐	
Are the rubbish bins covered?	☐	☐	☐	
Is rubbish managed to prevent overflowing of waste storage containers and/or prevention of contact with storm water, if necessary?	☐	☐	☐	

ISSUE BEING EVALUATED	YES	NO	N/A	COMMENTS
Are the drainage areas (culvert, diversion channel, downspouts) clear of debris?	☐	☐	☐	
Are there any oil stains present that produce a sheen when wet?	☐	☐	☐	
Are spill kits available and stocked?	☐	☐	☐	
Are spent spill cleanup materials properly disposed of?	☐	☐	☐	
Other:	☐	☐	☐	
BASEYARD OPERATIONS				
Are drip pans or hydrocarbon absorbing pads utilized whenever there is the potential for fluid leaks or spills?	☐	☐	☐	
Are saw dust or metal shavings swept at completion of the job or at end of the shift?	☐	☐	☐	
Are herbicides mixed and managed to minimize contact with storm water?	☐	☐	☐	
Are painting activities and cleanup conducted to minimize contact with storm water?	☐	☐	☐	
Other:	☐	☐	☐	
WASHING				
Are all vehicles and equipment washed at the wash rack?	☐	☐	☐	
Are containers and materials utilized for washing activities properly stored according to the product label or disposed following washing?	☐	☐	☐	
Is the wash area (including trench drain and sump, if applicable) free of rubbish, sediment, oils and grease, etc.?	☐	☐	☐	
Other:	☐	☐	☐	
FUELING				
Are portable fuel transfer containers and hoses cracked or leaking?	☐	☐	☐	

ISSUE BEING EVALUATED	YES	NO	N/A	COMMENTS
Are fuel containers managed to minimize contact with storm water?	☐	☐	☐	
Are fuel spills present that are exposed to storm water?	☐	☐	☐	
Other:	☐	☐	☐	
VEHICLE AND EQUIPMENT STORAGE				
Are salvage equipment leaking fluids and if so, managed to minimize contact with storm water?	☐	☐	☐	
If necessary, are drip pans utilized and in good condition and placed properly under equipment?	☐	☐	☐	
Are drip pans filled or overflowing with rainwater and/or petroleum products (oil and grease, etc.)?	☐	☐	☐	
Is handheld and/or portable equipment (i.e. chainsaw, weed whacker, generator, tamper, etc.) managed to minimize contact with storm water?	☐	☐	☐	
Other:	☐	☐	☐	
MATERIAL STORAGE				
Are materials managed to minimize contact with storm water?	☐	☐	☐	
Are rusting metal pieces managed to minimize contact with storm water?	☐	☐	☐	
Are highway construction and maintenance related items managed to minimize contact with storm water?	☐	☐	☐	
Are green wastes, gravel, sand stockpiles managed to minimize contact with storm water?	☐	☐	☐	
Are BMPs that are utilized for material containment in good condition and working effectively?	☐	☐	☐	
Other:	☐	☐	☐	
WASTE MANAGEMENT				

ISSUE BEING EVALUATED	YES	NO	N/A	COMMENTS
Are wastes appropriately separated according to operational disposal requirements and managed to minimize contact with storm water?	☐	☐	☐	
Does waste need to be transferred offsite for final disposal?	☐	☐	☐	
Have all hazardous and universal wastes been stored properly and managed to minimize contact with storm water?	☐	☐	☐	
Other:	☐	☐	☐	
STRUCTURAL BMPS				
Is the wash rack properly maintained (per posted standard operating procedures and signage)?	☐	☐	☐	
Other:	☐	☐	☐	