

Storm Water Pollution Control Plan Pearl City 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	May 2012	Version 2.0 – Structural Changes and Formatting Revision	All
3	January 2014	Version 3.0 – Structural Changes and Formatting Revision	All
4	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
5	October 2016	Version 4.0	1.1.2 – Inspections; Figures 2-1 and 2-2; Figure 3-11; Appendix A – Inspection Checklist; Appendix B – Storm Water Monitoring Plan
6	June 2017	SWPCP Figure Updates	Figures 2-1 and 2-2; Appx. B – Figure 2-1
7	December 2017	Signature Page; SWPCP Figure Updates	Signature Page; Figures 2-1 and 2-2; Appx. B – Figure 2-1
8	June 2018	SWPCP Figure Updates	Figures 2-1 and 2-2; Appendix B – Figure 2-1
9	January 2019	SWPCP Figure Updates	Figures 2-1 and 2-2; Appendix B – Figure 2-1
10	June 2019	SWPCP Figure Updates; Appendix B	Figures 2-1 and 2-2; Appendix B – Figure 2-1; Appendix B – Table 3-1
11	October 2019	Version 5.0	All
12	January 2020	Version 5.1–Areas of responsibility updated	Sections 2.0 and 3.0; Figures 2-2 and 2-3
13	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
14	October 2020	Version 6.0	All
15	May 2021	SWPCP Figure Updates	Figures 2-1, 2-2, and 2-3

Revision No.	Revision Date	Description	Sections Affected
16	November 2021	SWPCP Figure Updates	Figures 2-1, 2-2, and 2-3
17	May 2022	SWPCP Figure Updates	Figures 2-1, 2-2, and 2-3
18	November 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

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

Nov 22, 2022

Date

SWPCP Responsible Party: Pearl City Baseyard Supervisor

TABLE OF CONTENTS

<u>Section</u>	<u>Page</u>
1.0 INTRODUCTION.....	1
1.1 SWPCP IMPLEMENTATION	1
1.1.1 Training.....	1
1.1.2 Inspections	1
1.2 SWPCP REVISIONS.....	1
2.0 SITE DESCRIPTION.....	2
2.1 SITE DRAINAGE	2
2.2 DRAINAGE AREAS.....	3
2.2.1 Drainage Area 1	3
2.2.2 Drainage Area 2	4
2.2.3 Drainage Area 3	5
2.2.4 Drainage Area 4	7
3.0 POLLUTION CONTROL STRATEGIES.....	11
3.1 GENERAL OPERATING CONDITIONS	11
3.2 BEST MANAGEMENT PRACTICES	21
4.0 SPILL PREVENTION AND RESPONSE	37
5.0 REFERENCES.....	43

LIST OF TABLES

TABLE 4-1: SPILL RESPONSE PROCEDURE.....	38
TABLE 4-2: EMERGENCY SPILL CONTACT INFORMATION	40
TABLE 4-3: SPILL RESPONSE DOCUMENTATION FORM	42

LIST OF FIGURES

FIGURE 2-1: SITE PLAN	8
FIGURE 2-2: AREAS OF RESPONSIBILITY	9
FIGURE 2-3: DRAINAGE PLAN	10
FIGURE 3-1: BASEYARD FUNCTIONAL AREAS – EQUIPMENT SERVICE & REPAIR UNIT SALVAGE EQUIPMENT STORAGE AREA	12
FIGURE 3-2: BASEYARD FUNCTIONAL AREAS – HIGHWAY ELECTRICAL UNIT STORAGE AREA.....	13
FIGURE 3-3: BASEYARD FUNCTIONAL AREAS – TRAFFIC SIGNS & MARKING SUBUNIT STORAGE AREA	14
FIGURE 3-4: BASEYARD FUNCTIONAL AREAS – LEEWARD CREW VEHICLE AND EQUIPMENT AND MATERIAL AND BULK STORAGE AREA	15
FIGURE 3-5: BASEYARD FUNCTIONAL AREAS – VEHICLE PARKING AND ADMINISTRATION BUILDING.....	16
FIGURE 3-6: BASEYARD FUNCTIONAL AREAS – VEHICLE AND EQUIPMENT WASH RACK.....	17

FIGURE 3-7: BASEYARD FUNCTIONAL AREAS – SPECIAL SERVICES SUBUNIT DEWATERING FACILITY	18
FIGURE 3-8: BASEYARD FUNCTIONAL AREAS – STRUCTURES SUBUNIT STORAGE AREA.....	19
FIGURE 3-9: BASEYARD FUNCTIONAL AREAS – GENERAL AND OVERSIZED MATERIAL STORAGE	20
FIGURE 3-10: GOOD HOUSEKEEPING	22
FIGURE 3-11: BASEYARD OPERATIONS.....	24
FIGURE 3-12: WASHING.....	26
FIGURE 3-13: FUELING.....	27
FIGURE 3-14: VEHICLE AND EQUIPMENT STORAGE	28
FIGURE 3-15: MATERIAL STORAGE.....	30
FIGURE 3-16: WASTE MANAGEMENT.....	32
FIGURE 3-17: STRUCTURAL BMPs	33

LIST OF APPENDICES

APPENDIX A BASEYARD SWPCP INSPECTION CHECKLIST	
--	--

LIST OF ACRONYMS

<u>Acronym</u>	<u>Meaning</u>
AMS	Asset Management System
BMP	Best Management Practice
CFR	Code of Federal Regulations
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
MSW	Multi-Skilled Workers
NPDES	National Pollutant Discharge Elimination System
NRC	National Response Center
PBMP Permit	Permanent Best Management Practice NPDES Individual Permit No. HI S000001
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 Pearl City 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 Pearl City Baseyard is located in the south central portion of Oahu, beneath the H-1 freeway in Pearl City at 820 2nd Street, Pearl City Hawaii 96782 (Figure 2-1). The baseyard is utilized as a staging area for maintenance operations and minor repair activities by multi-skilled workers (MSW) on HDOT roadways on the leeward portion of the island of Oahu. The MSW repairs may include masonry, carpentry, signs and markings, potholes, guardrails, crash attenuators, chain link fence, and graffiti removal.

The Leeward Crew uses the baseyard to park vehicles and landscape maintenance equipment (i.e. mowers, weed eaters, bobcat loader, etc.) and to store fuels and chemicals. A storage container is also used to store limited quantities of chemicals and supplies. The Highway Electrical Unit, Traffic Signs & Marking Subunit, and Structures Subunit use the baseyard, primarily for storing highway maintenance materials. The Special Services Subunit maintains a dewatering facility at the baseyard and the Equipment Service & Repair Unit stores inoperable vehicles and equipment in a salvage equipment storage area.

Access to the baseyard is available through an unnamed access road off of Lehua Avenue. The access road connects to the baseyard driveway, which forms the southern boundary of the facility. Highway pillars serve to divide the baseyard into different service areas. From west to east, these service areas include: Equipment Service & Repair Unit salvage equipment storage area; Highway Electrical Unit storage area; Traffic Signs & Marking Subunit storage area; Leeward Crew aggregate storage, employee parking, administration building, and wash rack; Special Services Subunit dewatering facility; and, Structures Subunit storage area (Figure 2-1).

The majority of the site is situated under the cover of the freeway viaduct and groundcover generally consists of asphalt with isolated areas of exposed soil. The paved areas are used for parking and storage of vehicles and supplies. The paved area is also used to store aggregate such as gravel, sand, and asphalt. An administration building is located in the central portion of the site, and two shipping containers are used to store equipment adjacent to the aggregate storage. The baseyard is outfitted with a wash rack that serves as a vehicle and equipment washing location for numerous landscape and roadway maintenance vehicles and small equipment. The baseyard dewatering facility serves as a pre-treatment location for storm water drainage system debris derived by roadway maintenance crews. The wash water from the wash rack and liquids from the dewatering facility are processed in oil/water separators prior to being discharged into the City and County's sanitary sewer system. No wash water flows offsite or into any storm drains or natural waterways. Areas of responsibility for the various Maintenance Crews at the Pearl City Baseyard are depicted on Figure 2-2.

2.1 Site Drainage

Most of the baseyard is situated under the cover of the freeway viaduct, and therefore, is not exposed to rainfall. However, storm water can flow through the property from areas located outside of the freeway viaduct overhang and from several freeway downspouts. There is one drainage headwall located outside of the baseyard area that drains all the water flowing from the baseyard to the south toward a field (Figure 2-3). Discharge to the field may percolate into the ground or be conveyed to the East Loch of Pearl Harbor.

The nearest water body is the Waiiau Stream, which empties into the East Loch of Pearl Harbor.

2.2 Drainage Areas

The Pearl City Baseyard is divided into four drainage areas (Figure 2-3), as follows:

- Drainage Area 1 (DA-1) is located in the northwestern corner of the baseyard and includes the Equipment Service & Repair Unit salvage equipment storage area;
- Drainage Area 2 (DA-2) includes the Highway Electrical Unit and Traffic Signs & Marking Subunit storage areas; and the Leeward Crew operational areas and Administration Building;
- Drainage Area 3 (DA-3) encompasses the vehicle and equipment wash rack, Special Services Subunit dewatering facility; and the Structures Subunit storage area; and,
- Drainage Area 4 (DA-4) contains mostly open, grassy and unpaved areas, with some general storage of oversized materials

2.2.1 Drainage Area 1

DA-1 is a centralized salvage equipment storage area where excess vehicles, trailers, and equipment from all HWY-O baseyards are stored while awaiting disposal. This area is unpaved and storm water enters the area from either the exposed north portion of this area or from two down spouts in the partially covered south portion. As indicated in Figure 2-2, combined storm water from open areas and down spouts either drains into the ground or flows to the southeast and discharges onto the government access road just south of the storage area.

Potential pollutants in this drainage area include:

- Metals and small quantities of petroleum products from vehicles, trailers, and equipment parking.

Routine Runoff

Generally, routine runoff from this drainage area may consist of dirt, silt, and vegetation that may be carried away in storm water. These components may affect water quality parameters such as total suspended solids and turbidity and may result in floatables in storm water runoff.

Non-Routine Runoff

Non-routine runoff may occur due to failure to properly implement BMPs (i.e., removal of fluids and batteries from salvage equipment). 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:

- Leaks from vehicles and equipment

2.2.2 Drainage Area 2

DA-2 encompasses the Highway Electrical Unit and Traffic Signs & Marking Subunit storage areas; and the Leeward Crew operational areas. DA-2 is a mostly paved with some a small portion of unpaved area in the Traffic Signs & Marking Subunit storage area. DA-2 is entirely covered by the freeway viaduct.

The Highway Electrical Unit storage area contains three enclosed material storage containers and outdoor bulk material storage (i.e. electrical lighting and posts). As indicated in Figure 2-2, storm water in the Highway Electrical Unit storage area in DA-2 flows from three downspouts and from the government access road just north of this storage area. Storm water from DA-1 potentially enters into DA-2 in the Highway Electrical Unit Storage Area.

The Traffic Signs & Marking Subunit storage area contains bulk material storage (i.e. galvanized sign posts; traffic markers). There are two downspouts in this portion of DA-2 (Figure 2-2) in addition to storm water run-on from the government access road located north of this area. There is also a permanent storm water settling basin in this area.

The Leeward Crew operational areas contain two enclosed material storage containers, aggregate and bulk material storage, vehicle, equipment, and employee parking, and the Administration Building. There are no downspouts in in this portion of DA-2 however storm water run-on from the government access road located north of these areas (Figure 2-2) enters into DA-2.

Storm water flows through DA-2 via various drainage ditches and sheet flow (Figure 2-2) travelling from the northwest to the southeast until it crosses the cement baseyard roadway. Storm water then travels by surface grade heading east to the center of the baseyard. Storm water then exits the baseyard at the lowest point of the property and enters into a headwall and drainpipe that leads to government property.

Potential pollutants in this drainage area include:

- Metals from material storage areas (i.e. electrical lighting components and light posts; galvanized sign posts; vehicle and equipment parking).
- Small quantities of petroleum (gasoline, motor oil, hydraulic oil) are secured within flammable storage lockers in the vehicle shed, or from equipment and vehicles in the parking lot.
- Small quantities of herbicides are secured within storage lockers.
- Gravel, dirt, concrete, and other aggregate materials stored in the outdoor bulk material storage area.
- Rubbish from trash receptacles

Routine Runoff

Generally, routine runoff from this drainage area may consist of dirt, silt, and vegetation that may be carried away in storm water. These components may affect water quality parameters such as total suspended solids and turbidity. As is expected from areas with vehicle traffic, the 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, storm water contact with materials, 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 storage of materials (i.e. container deterioration, exposure to rain, no secondary containment)
- Poor spill response management
- Spills and leaks from chemicals and equipment
- Fueling of equipment (i.e. topping off motor oil, fueling of weed eaters and mowers)
- Facility washing
- Improper disposal of chemicals
- Application and use of chemicals
- Major equipment leaks

2.2.3 Drainage Area 3

DA-3 includes the vehicle and equipment wash rack, which is utilized by multiple HWY-O maintenance crews, the storm water dewatering facility, which is operated and maintained by the Special Services Subunit, and the Structures Subunit storage area. All of these areas are paved. DA-3 is entirely covered by the freeway viaduct.

As indicated in Figure 2-3, DA-3 has two downspouts in the area between the wash rack and dewatering facility. The Structures Subunit storage area contains outdoor bulk material storage (i.e. guardrails, crash attenuators, sand barrels) and as indicated in Figure 2-3, there are two downspouts in this area.

Portions of DA-3 potentially receive storm water run-on from DA-4 (Figure 2-2). Storm water flows through DA-3 via various drainage ditches and sheet flow travelling from the northeast to the southwest until it crosses the cement baseyard roadway. Storm water then travels by surface

grade and drainage pipes heading east to the center of the baseyard. Storm water then exits the baseyard (with run-off from DA-2) at the lowest point of the property and enters into a headwall and drainpipe that leads to government property.

Potential pollutants in this drainage area include:

- Soaps, detergents, and wash waters associated with washing activities at the wash rack. Soaps and detergents are kept at the administration building. Wash waters are contained by the wash rack system, pass through an oil water separator, and exit into the sanitary sewer.
- Sediment and other materials being processed in the dewatering facility.
- Metals from material storage areas (i.e. guardrails, crash attenuators).

Routine Runoff

Generally, routine runoff from this drainage area may consist of dust and silt that may have been deposited from wind, or from vehicular traffic. These components may affect water quality parameters such as total suspended solids and turbidity and may result in floatables in storm water runoff. As is expected from areas with vehicle traffic, the 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 or dewatering facility, storm water contact with materials, or failure of BMPs. 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:

- Equipment washing resulting in overflow
- Facility washing
- Rubbish and litter
- Application and use of chemicals
- Poor spill response management
- Improper storage of materials (i.e. container deterioration, exposure to rain, no secondary containment)

2.2.4 Drainage Area 4

Drainage Area 4 (DA-4) includes the grassy areas along the northern fence line portion of the baseyard where no storage or operational activities occur. The remaining portion of DA-4 is mostly open, unpaved areas, with some general storage of oversized materials (i.e. metal plates, galvanized culvert pipe). This portion of DA-4 is entirely covered by the freeway viaduct.

As indicated in Figure 2-2, the grassy areas are directly exposed to storm water however there is no direct contact with storm water (no downspouts) in the covered and unpaved areas of DA-4. Potential run-on from the exposed grassy area of DA-4 is minimal. Minimal storm water that flows through DA-4 will sheet flow through the area (Figure 2-2) travelling from the northeast to the southwest until it crosses the cement baseyard roadway. Storm water then travels by surface grade and drainage pipes heading east to the center of the baseyard. Storm water then exits the baseyard (with run-off from DA-2) at the lowest point of the property and enters into a headwall and drainpipe that leads to government property.

Potential pollutants in this drainage area include:

- Sediment and other materials.
- Metals from material storage areas storage (i.e. metal plates, galvanized culvert pipe).

Routine Runoff

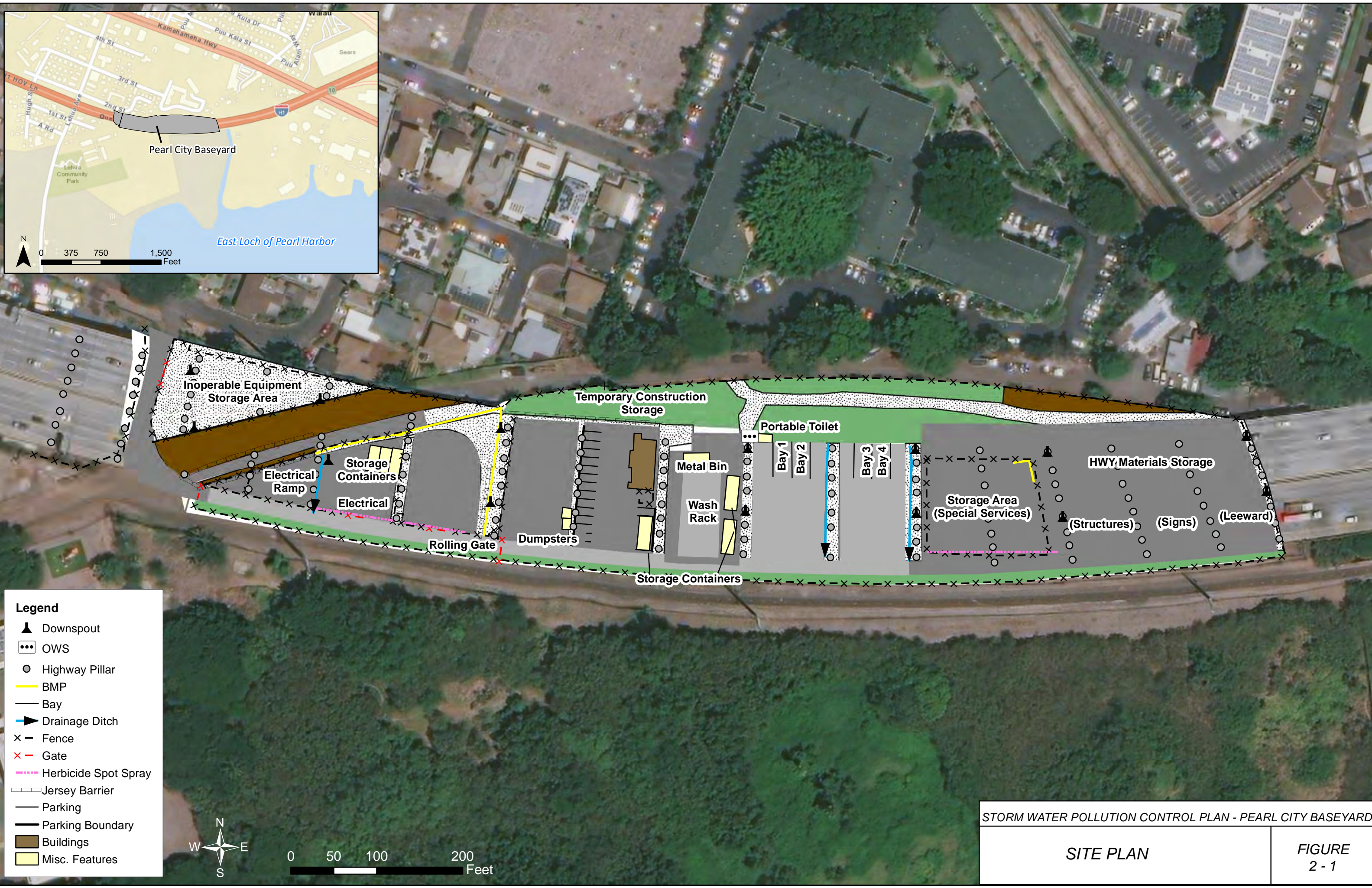
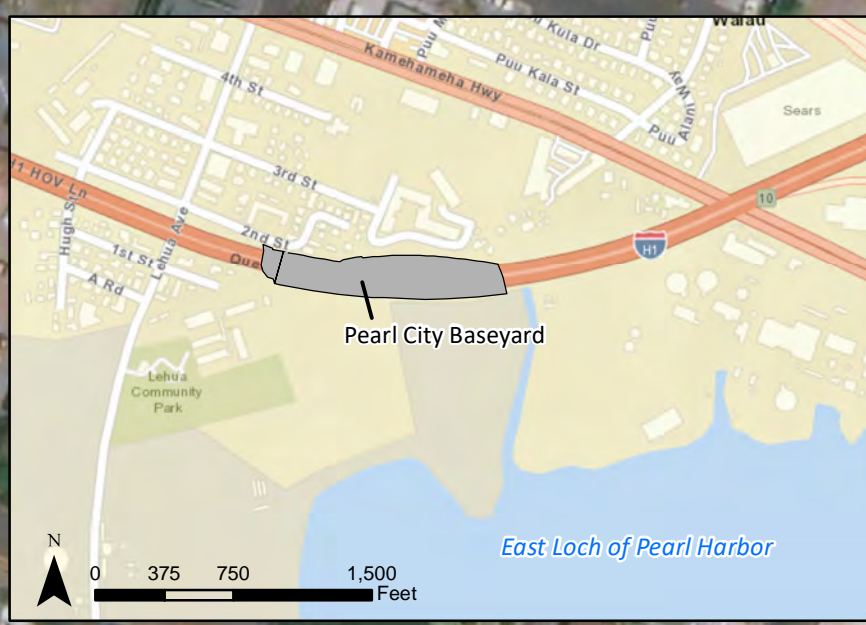
Generally, routine runoff from this drainage area may consist of dust and silt that may have been deposited from wind, or from vehicular traffic. These components may affect water quality parameters such as total suspended solids and turbidity and may result in floatables in storm water runoff. As is expected from areas with vehicle traffic, the potential for minor amounts of petroleum to enter runoff also exists.

Non-Routine Runoff

Non-routine runoff may be a result of storm water contact with materials, or failure of BMPs.

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

- Rubbish and litter
- Improper storage of materials (i.e. container deterioration, exposure to rain, no secondary containment)



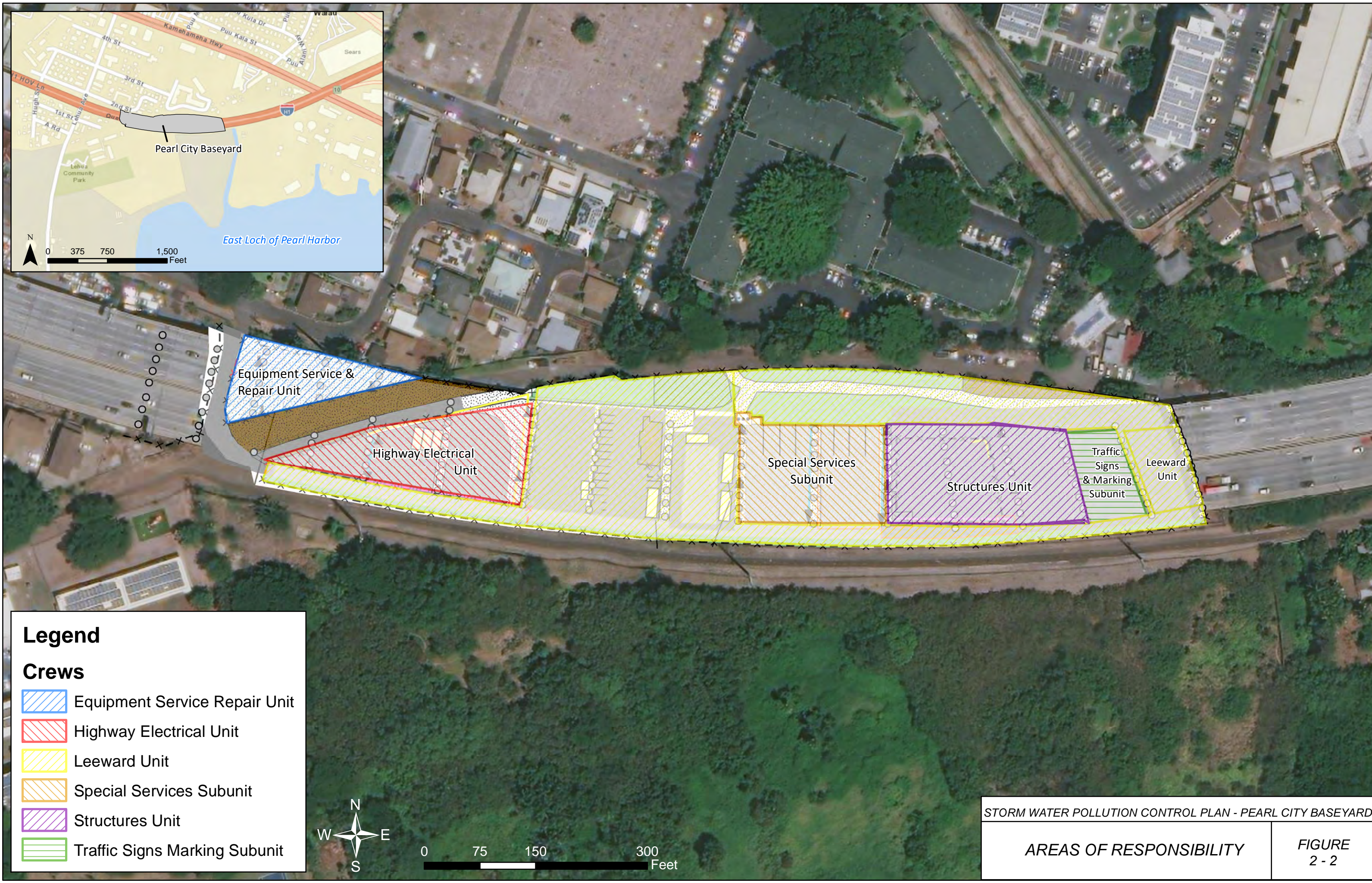
- Legend**
- ▲ Downspout
 - OWS
 - Highway Pillar
 - BMP
 - Bay
 - ▶ Drainage Ditch
 - × Fence
 - × Gate
 - Herbicide Spot Spray
 - ▭ Jersey Barrier
 - Parking
 - Parking Boundary
 - Buildings
 - Misc. Features



STORM WATER POLLUTION CONTROL PLAN - PEARL CITY BASEYARD







SITE PLAN

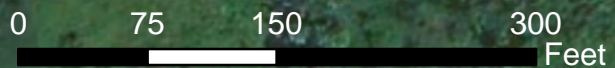
FIGURE 2-1



Legend

Crews

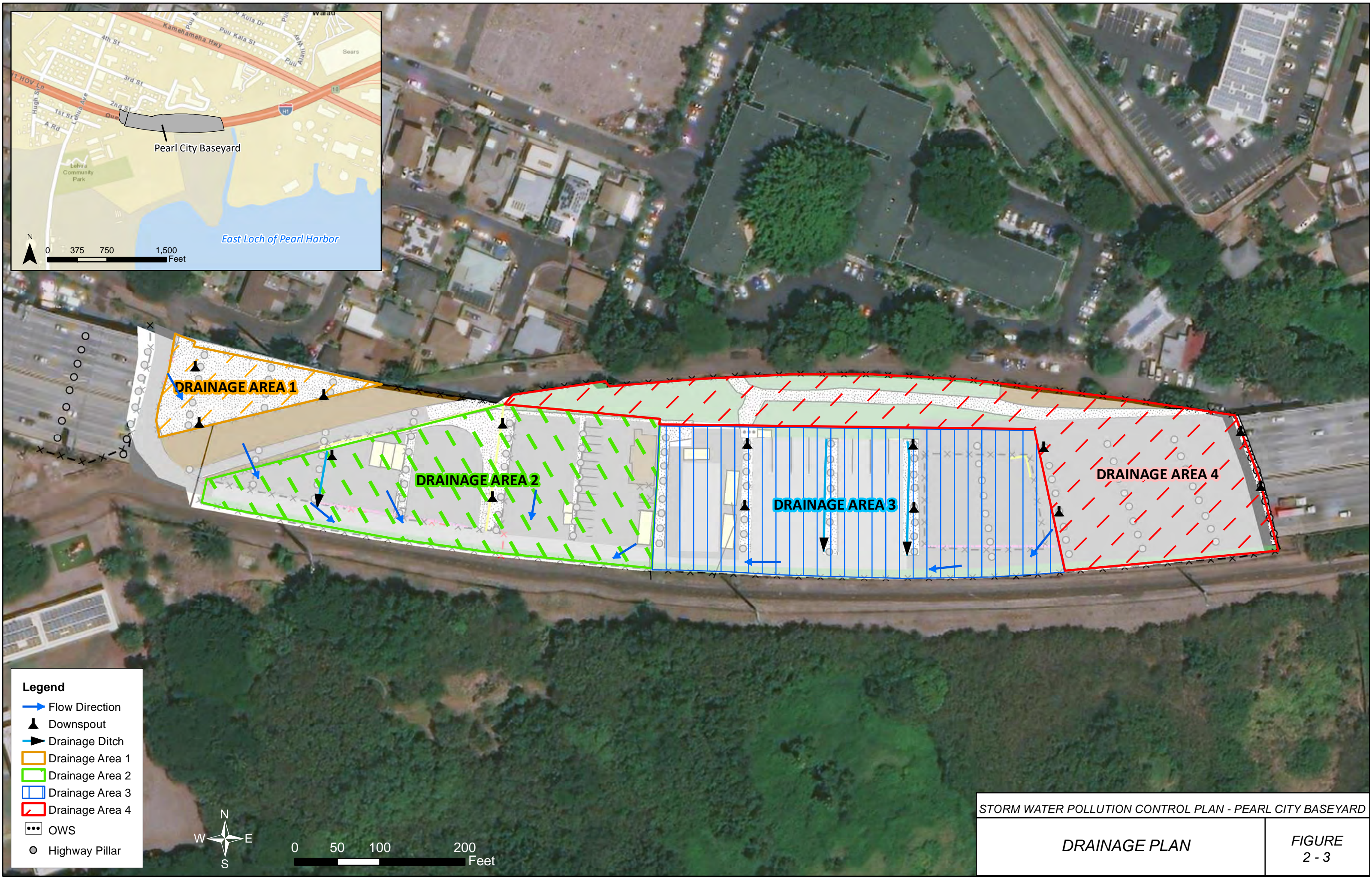
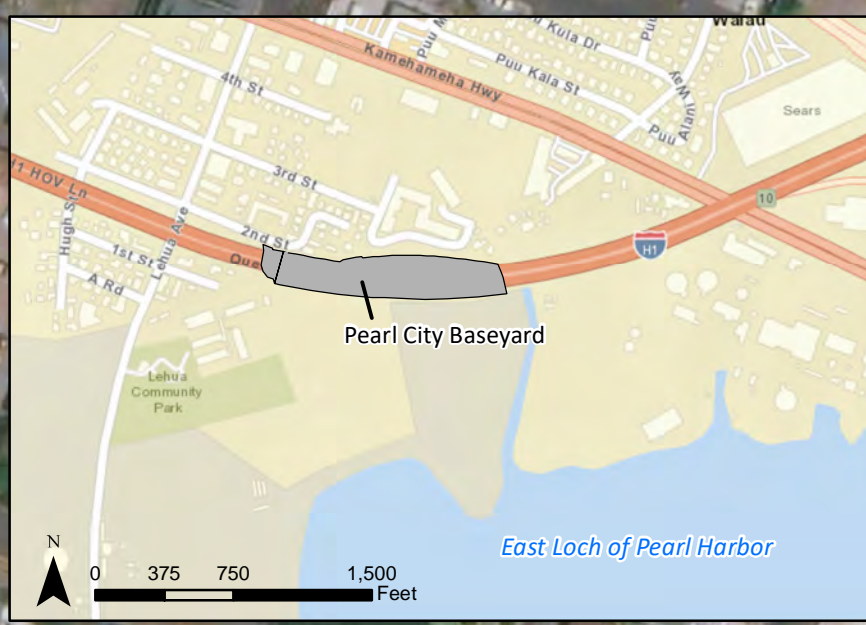
-  Equipment Service Repair Unit
-  Highway Electrical Unit
-  Leeward Unit
-  Special Services Subunit
-  Structures Unit
-  Traffic Signs Marking Subunit



STORM WATER POLLUTION CONTROL PLAN - PEARL CITY BASEYARD

AREAS OF RESPONSIBILITY

FIGURE 2 - 2



- Legend**
- Flow Direction
 - Downspout
 - Drainage Ditch
 - Drainage Area 1
 - Drainage Area 2
 - Drainage Area 3
 - Drainage Area 4
 - OWS
 - Highway Pillar

STORM WATER POLLUTION CONTROL PLAN - PEARL CITY BASEYARD

DRAINAGE PLAN

FIGURE 2 - 3

3.0 POLLUTION CONTROL STRATEGIES

3.1 General Operating Conditions

The Pearl City Baseyard has been divided into nine functional areas:

- Equipment Service & Repair Unit Salvage Equipment Storage Area
- Highway Electrical Unit Storage Area
- Traffic Signs & Marking Subunit Storage Area
- Leeward Crew Vehicle and Equipment and Material and Bulk Storage Area
- Vehicle Parking and Administration Building
- Vehicle and Equipment Wash Rack
- Special Services Subunit Dewatering Facility
- Structures Subunit Storage Area
- General and Oversized Material Storage

Figures 3-1 to 3-9 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 – EQUIPMENT SERVICE & REPAIR UNIT
SALVAGE EQUIPMENT STORAGE AREA**



FIGURE 3-2: BASEYARD FUNCTIONAL AREAS – HIGHWAY ELECTRICAL UNIT STORAGE AREA



**FIGURE 3-3: BASEYARD FUNCTIONAL AREAS – TRAFFIC SIGNS & MARKING SUBUNIT
STORAGE AREA**



FIGURE 3-4: BASEYARD FUNCTIONAL AREAS – LEeward CREW VEHICLE AND EQUIPMENT AND MATERIAL AND BULK STORAGE AREA



FIGURE 3-5: BASEYARD FUNCTIONAL AREAS – VEHICLE PARKING AND ADMINISTRATION BUILDING



FIGURE 3-6: BASEYARD FUNCTIONAL AREAS – VEHICLE AND EQUIPMENT WASH RACK



FIGURE 3-7: BASEYARD FUNCTIONAL AREAS – SPECIAL SERVICES SUBUNIT DEWATERING FACILITY



FIGURE 3-8: BASEYARD FUNCTIONAL AREAS – STRUCTURES SUBUNIT STORAGE AREA



FIGURE 3-9: BASEYARD FUNCTIONAL AREAS – GENERAL AND OVERSIZED MATERIAL STORAGE



3.2 Best Management Practices

BMPs will be utilized at the baseyard to minimize and control potential pollutants from baseyard activities. Figures 3-10 to 3-18 include a list of activities associated with the baseyard and photos of BMPs that may be implemented at the Pearl City Baseyard; this list may not include all specific activities that are conducted.

FIGURE 3-10: GOOD HOUSEKEEPING




<p>1. Baseyard Sweeping</p> 	<p>Sweep baseyard areas at least once per week and additionally as needed to remove accumulated sediment and debris and to prevent tracking.</p> <p>Potential Pollutant– Sediment, Metals, Rubbish</p>
<p>2. Rubbish Disposal</p> 	<p>Keep rubbish in a covered container. Close at the end of business day.</p> <p>Do not overfill waste containers.</p> <p>If waste bins are not feasible for bulk items, ensure that waste is maintained to avoid mobilization in storm water (i.e. tarpaulin, filter devices, etc.).</p> <p>Potential Pollutant– Sediment, Metals, Rubbish</p>
<p>3. Storm Drainage Area Maintenance</p> 	<p>Visually inspect the culvert inlets for accumulation of rubbish, vegetation, and sediment. Clean the culvert inlet and areas around storm water drainage as needed and at least semi-annually.</p> <p>Remove and properly dispose of accumulated rubbish, vegetation, and sediment.</p> <p>Potential Pollutant– Sediment, Metals, Rubbish</p>

FIGURE 3-10: GOOD HOUSEKEEPING



<p>4. Parking Lot Maintenance</p> 	<p>Clean any parking area oil stains that produce a sheen when wet.</p> <p>Potential Pollutant– Petroleum, Oil, Lubricants</p>
<p>5. Spill Kits</p> 	<p>Ensure that spill kits are located in easily accessible locations (i.e. main office) so that personnel can respond to spills.</p> <p>Replenish spill kits when used, or as needed.</p> <p>Ensure that spill materials are cleaned up following use and properly disposed.</p> <p>Potential Pollutant– Various used absorbents</p>

FIGURE 3-11: BASEYARD OPERATIONS




1. Motor Vehicle Servicing	
	<p>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.).</p> <p>Potential Pollutant– Vehicle fluids</p>
2. Herbicide Usage	
	<p>Ensure that herbicides are mixed and managed to minimize contact with storm water.</p> <p>Store herbicide in covered storage and/or secondary containment.</p> <p>Follow the HDOT Chemical Application Plan for herbicide usage guidelines.</p> <p>Potential Pollutant– Herbicides</p>
3. Painting	
	<p>Do not paint in the rain or when rainfall is anticipated.</p> <p>Ensure that wet paints are not mobilized to drainage areas or storm drains.</p> <p>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.</p> <p>Potential Pollutant– Paints, Solvents</p>

FIGURE 3-11: 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 3-12: WASHING




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

FIGURE 3-13: 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 3-14: VEHICLE AND EQUIPMENT STORAGE

1. Storing Inoperable Equipment for Disposal	
	<p>Remove fluids.</p> <p>Potential Pollutant– Vehicle Fluids</p>
	<p>Remove batteries.</p> <p>Potential Pollutant– Lead, Sulfuric Acid</p>
2. Parking (HDOT and Employee Vehicles)	
	<p>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.</p> <p>Potential Pollutant– Oil, Gasoline, Diesel, Coolant, Hydraulic Fluid, Metals, Sediment</p>

FIGURE 3-14: VEHICLE AND EQUIPMENT STORAGE



3. Handheld Equipment Storage	
	<p>Ensure that handheld equipment is managed to minimize contact with storm water.</p> <p>Store handheld equipment within drip pans or on absorbent pads when not in use.</p> <p>Potential Pollutant– Oil, Gasoline</p>
4. Salvage Equipment Storage	
	<p>Store undercover in the designated area at the western end of the baseyard.</p> <p>Potential Pollutant– Metals</p>

FIGURE 3-15: 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.

Store materials neatly in a covered area, away from drainage ways and downspouts.

Potential Pollutant–

Various hazardous materials (i.e., Petroleum, Oil, and Lubricants; Herbicides; Paint)

FIGURE 3-15: MATERIAL STORAGE

2. Metal Storage	
	<p>Ensure that metals are managed to minimize contact with falling rain and storm water flowing on the ground.</p> <p>Store metals in a covered area or with a tarpaulin, if metals are rusting.</p> <p>Place metals on pallets or wood blocks to elevate materials off the ground.</p> <p>Potential Pollutant– Rusting Metal</p>
3. Stockpile Storage	
	<p>Ensure that stockpile contact with storm water is minimized.</p> <p>Contact may be prevented with berms, jersey barriers, walls, tarpaulins, or another effective method.</p> <p>Ensure that stockpiled material does not have the potential to wash away and enter baseyard storm water drainageways.</p> <p>Potential Pollutant– Sand, Dirt, Gravel, Sweeper Waste, Green Waste, Asphalt</p>

FIGURE 3-16: 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.

Ensure that wastes are transported to Keehi Baseyard for disposal as soon as possible.

Potential Pollutant–

Rubbish, Green Waste, Miscellaneous Waste



FIGURE 3-17: 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



FIGURE 3-17: STRUCTURAL BMPs



2. Retention Basin



Ensure that berms are in good condition and that accumulated sediments are removed when they fill 2/3 of the containment area.

Potential Pollutant–
Sediment

FIGURE 3-17: STRUCTURAL BMPs




3. Storm Water Diversion Drainage Way	
	<p>Ensure that erosion is not occurring around the constructed drainage way and that fiber rolls are in good condition. Remove accumulated sediment.</p>
	<p>Potential Pollutant– Sediment</p>

FIGURE 3-17: STRUCTURAL BMPs

4. Dewatering Facility	
	<p>Follow the Pearl City Dewatering Facility Operations and Maintenance Manual to ensure proper operation.</p> <p>Ensure that all discharges are contained within the Dewatering Facility.</p> <p>Potential Pollutant– Sediment</p>

4.0 SPILL PREVENTION AND RESPONSE

Spills of materials used and stored at the Pearl City Baseyard can discharge to storm drains and 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	Pearl City Baseyard Supervisor
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	<p>Assess the situation:</p> <ul style="list-style-type: none"> ▪ Source of Release (Stop the source of the spill, if it can be done safely) ▪ Notify Others. <ul style="list-style-type: none"> ▪ Call 911 if an emergency situation occurs. ▪ Inform the Baseyard Supervisor of all spills. ▪ Type of Material Spilled and Associated Hazards. <ul style="list-style-type: none"> ▪ If the material is flammable, ensure that all sources of ignition are removed (i.e. turn off vehicles, prohibit smoking, evacuate unnecessary personnel) ▪ Evacuate unnecessary personnel if there is potential for fire, explosion, or other ▪ Location of Release (i.e. HDOT right of way? pavement vs. soil?). ▪ Total Amount and Rate of Release. ▪ Potential for Surface Water Impacts. <ul style="list-style-type: none"> ▪ 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 – <i>continue to Step 4</i> . If no – <i>skip to Step 10</i> .	
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. <i>Skip to Step 13.</i>	
10	Evacuate all personnel from the spill vicinity and move to the evacuation assembly area near the Pearl City Baseyard sign on 2 nd Street. 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
<p>Emergency (Medical Assistance, Fire Department, Police Department) If there is an emergency or life-threatening situation, 911 should be called first.</p>	911
<p>Baseyard Supervisor The Baseyard Supervisor or designee should be notified of all spills so that they can contact the EC.</p>	(808) 456-3655 or (808) 258-1598
<p>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.</p>	(808) 837-8058 or (808) 258-3269
<p>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.</p>	(808) 545-4599
<p>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.]</p>	(800) 424-8802
<p>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: <u>Reportable quantity for oil and fuel products is a spill of 25 gallons or more, a spill not cleaned within 72</u>]</p>	(808) 586-4249 (808) 247-2191 (after hours)

<p>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.</p>	
<p>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.</p>	(808) 586-4309
<p>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.</p>	(808) 522-8260
<p>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.</p>	(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 Pearl City 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*.
- State of Hawaii, Department of Transportation, Highways Division. March 2012. *Pearl City Dewatering Bed Facility Operations and Maintenance Manual*.

APPENDIX A

BASEYARD SWPCP INSPECTION CHECKLIST

BASEYARD SWPCP INSPECTION CHECKLIST

Facility Name:	Pearl City Baseyard, Highways Division, Department of Transportation
Inspector's Name & Title:	
Date & Time of Inspection:	
Weather:	<input type="checkbox"/> Raining <input type="checkbox"/> Cloudy <input type="checkbox"/> Sunny Rain in 24 hrs? <input type="checkbox"/> Yes <input type="checkbox"/> No

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

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

ISSUE BEING EVALUATED	YES	NO	N/A	COMMENTS
Are fuel containers managed to minimize contact with storm water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are fuel spills present that are exposed to storm water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Other:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
VEHICLE AND EQUIPMENT STORAGE				
Are salvage equipment leaking fluids and if so, managed to minimize contact with storm water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If necessary, are drip pans utilized and in good condition and placed properly under equipment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are drip pans filled or overflowing with rainwater and/or petroleum products (oil and grease, etc.)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is handheld and/or portable equipment (i.e. chainsaw, weed whacker, generator, tamper, etc.) managed to minimize contact with storm water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Other:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
MATERIAL STORAGE				
Are materials managed to minimize contact with storm water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are rusting metal pieces managed to minimize contact with storm water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are highway construction and maintenance related items managed to minimize contact with storm water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are green wastes, gravel, sand stockpiles managed to minimize contact with storm water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are BMPs that are utilized for material containment in good condition and working effectively?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Other:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does waste need to be transferred to the Keehi Baseyard for final disposal?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Other:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
STRUCTURAL BMPs				
Is the wash rack properly maintained (per posted standard operating procedures and signage)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the retention basin have accumulated sediments that need to be removed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the storm water diversion drainage ways require maintenance (i.e. replacement of BMPs, removal of accumulated sediment, etc.)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the dewatering facility properly maintained per the Operations and Maintenance Manual?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Other:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	