

Draft

Stormwater Management Plan

Kalaeloa Harbor, Hawaii



Prepared for

Hawaii Department of Transportation
Harbors Division

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"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, I certify that 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."

Signature

Date

Authorized Representative

RECORD OF REVISIONS

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LIST OF ACRONYMS AND ABBREVIATIONS

40 CFR	Title 40 of the Code of Federal Regulations
ACR	Annual Compliance Report
BMP	Best Management Practice
C&D	Construction and Demolition
CSRCP	Construction Site Runoff Control Program
DSP	Development Standards Plan
EMS	Environmental Management System Manual
HAR	Hawaii Administrative Rules
HDOH	Hawaii Department of Health
HDOT	Hawaii Department of Transportation
HRS	Hawaii Revised Statutes
IEP	Inspection and Enforcement Plan
IDDE	Illicit Discharge Detection and Elimination
MEP	Maximum Extent Practicable
MS4	Municipal Separate Storm Sewer System
NGPC	Notice of General Permit Coverage
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
NSWD	Non-Stormwater Discharge
ORI	Outfall Reconnaissance Inventory
SHOT	Stormwater Hotline Occurrence Tracking
SWMP	Stormwater Management Plan
SWPPP	Stormwater Pollution Prevention Plan
TMK	Tax Map Key
TRP	Tenant Revocable Permit
TSI	Tenant Self-Inspection
USEPA	U.S. Environmental Protection Agency

1.0 INTRODUCTION



The Hawaii Department of Transportation (HDOT), Harbors Division has developed this Stormwater Management Plan (SWMP) to accompany a Notice of Intent (NOI) for Hawaii Administrative Rules (HAR), Chapter 11-55, Appendix K – National Pollutant Discharge Elimination System (NPDES) General Permit Coverage Authorizing Discharges of Stormwater and Certain Non-Stormwater Discharges from Small Municipal Separate Storm Sewer Systems (MS4) for the storm drainage system at Kalaeloa Harbor, Oahu.

Prior Notice of General Permit Coverage (NGPC) for the storm drain system (File Number HI 03KB482) was granted by the Hawaii Department of Health (HDOH) in a letter dated May 19, 2003. The expiration date of that NGPC was November 19, 2007. However, in a letter dated October 19, 2007 HDOH provided for an administrative extension of the NGPC until a notice of renewed coverage under the applicable general permit is issued or until HDOH notification is received.

Activities conducted at Kalaeloa Harbor have the potential to generate pollutants which can degrade stormwater runoff quality. This includes activities associated with industrial traffic on paved roadways and piers, trash intentionally or inadvertently discarded by users and visitors, construction site runoff, and spills or leaks from petroleum or other cargo operations.

This SWMP serves to describe the MS4, document potential pollutant sources, housekeeping practices, and Best Management Practices (BMPs) used to reduce and prevent pollutants in stormwater discharged from the MS4. The SWMP describes the Harbors Division's program for implementation of the six minimum control measures established by the United States Environmental Protection Agency (USEPA) and as required by the HAR 11-55 Appendix K and the NGPC:

- ✓ Public outreach and education,
- ✓ Public involvement/participation,
- ✓ Illicit discharge detection and elimination,
- ✓ Construction site runoff control,
- ✓ Post-construction stormwater management in new development and redevelopment, and
- ✓ Pollution prevention/good housekeeping.



Harbors recognizes the importance of closing the loop with respect to an effective stormwater management program. Goals by which program effectiveness and compliance with the conditions of the NGPC will be assessed are established herein for each minimum control measure. This program also encourages the implementation of control measures to reduce exposure to stormwater and to eliminate non-stormwater discharges.

1.1 OBJECTIVES

This SWMP is intended to guide compliance with the USEPA and the Hawaii NPDES program as promulgated in HAR, Title 11, Chapter 55, Water Pollution Control, Appendix K, for areas administered by HDOT Harbors Division at Kalaeloa Harbor. A copy of this SWMP shall remain at the Kalaeloa Harbor Operations Supervisor's office at all times.

1.2 APPLICABILITY

The land areas of Kalaeloa Harbor are leased by a variety of tenants, over whose daily activities the Harbors Division has only indirect control. Tenant management of stormwater BMPs are stipulated under the tenant lease agreements and/or tenant revocable permits (TRP) acquired by each tenant. The Harbors Division has developed an Inspection and Enforcement Plan (IEP) as part of the Environmental Management System (EMS) to monitor tenant activities and hold them responsible for environmental compliance. This SWMP addresses areas directly administered by Harbors Division. Where tenant stormwater management practices overlap with practices described within the SWMP or other regulatory agency, the more stringent of them shall apply.

1.3 STORMWATER MANAGEMENT TEAM

The stormwater management team consists of five integrated levels of program involvement in the functional based organization provided in Figure 1-1. The program authority is maintained solely by the HDOT Director. The stormwater program funding and staffing is managed and distributed by the HDOT Harbors Administrator. Engineering management and program oversight is provided by the Oahu District and the HDOT Harbors Engineering Branch Head.

There are multiple stakeholders responsible for stormwater management, tracking and enforcement including the Harbor maintenance management personnel, Harbors Police, the Marine Cargo Specialists, the HDOT Harbors Construction Engineering section, and the HDOT Harbors Environmental Engineering section. Implementation of stormwater control measures is the responsibility of the Harbor maintenance personnel and each of the tenant managers.

The HDOT Harbors Environmental Engineering section consists of two full time positions. Funding for those positions in addition to funding for stormwater program detailed in this SWMP has been acquired through the 2011 fiscal year. Additional may be available during execution, if necessary, and funding beyond the 2011 fiscal year will be requested during the 2011 fiscal year.

1.4 REPORT ORGANIZATION

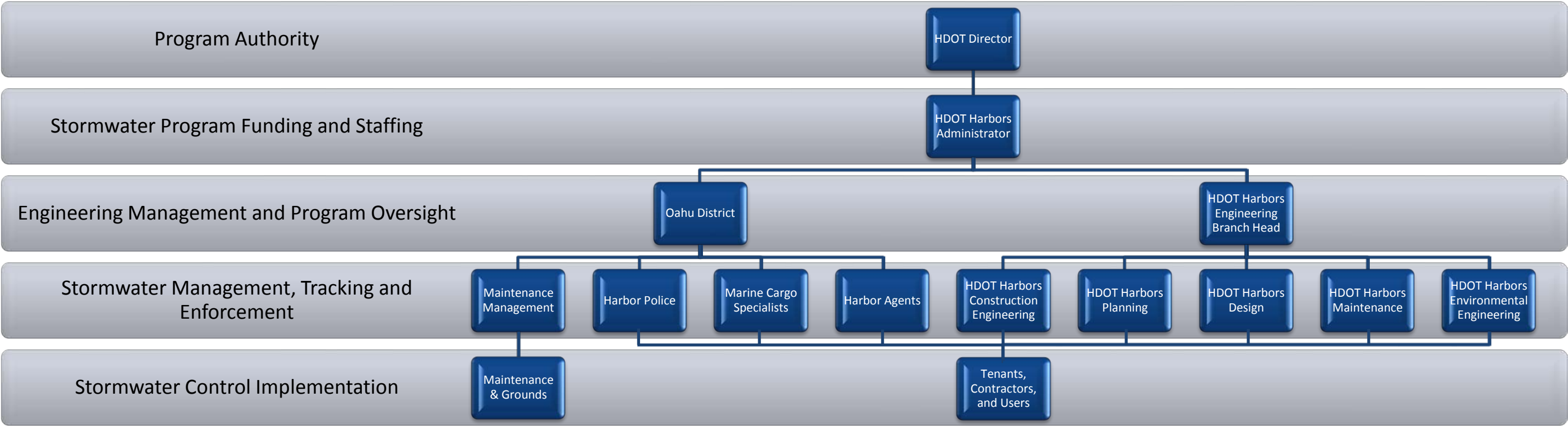
Each minimum control measure and the goals associated with it are discussed separately below. Relevant requirements of HAR, Title 19, Chapter 55, Appendix K are stated at the beginning of each section. The discussion identifies the minimum control measure, a rationale for each measure, a schedule for implementation including measurable goals, milestones, strategies, and expected expenditures for implementing relevant BMPs.

1.5 REPORTING

An annual compliance report (ACR) summarizing actions taken and progress toward the yearly goals of each minimum control measure shall be provided to the HDOH no later than January 28 of the following year for the duration of the permit term. ACRs will also include a summary of future and expended budget requirements.

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Figure 1-1 Hawaii Department of Transportation Harbors Division Management Team



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2.0 PUBLIC EDUCATION AND OUTREACH



2.1 PERMIT REQUIREMENTS

City and County of Honolulu Stormwater Stenciling, 2009

HAR, Chapter 11-55, Appendix K, Part 6(a)(1). Develop and implement a public education program to distribute educational materials to users of the small municipal separate storm sewer community or conduct equivalent outreach activities emphasizing each of the following:

- (A) Impacts of stormwater discharges on water bodies,*
- (B) Hazards associated with illicit discharges, and*
- (C) Measures the users of the permittee's small municipal separate storm sewer system can take to reduce pollutants in stormwater runoff, including, but not limited to, minimizing fertilizer application and practicing proper storage and disposal of chemicals and wastes.*

2.2 TENANT EDUCATION AND OUTREACH

Harbors Division requires tenants to reduce to the maximum extent practicable (MEP) pollution in stormwater discharges and effectively prohibit unauthorized non-stormwater discharges into the MS4 system through its tenant lease agreements and TRP. An example of the lease agreements and TRPs can be found in Appendix A. An inventory of tenants is kept on-file at the Harbors Division, Environmental Engineering section. This inventory shall identify a primary and alternate contact for each tenant. This inventory will be checked annually.

Harbors Division education and outreach activities include sending out annual mailings to MS4 users in order to educate them on stormwater quality issues. The mailings include a Tenant Self-Inspection (TSI) form provided in Appendix B. The TSI is a tool for tenants and Harbors to use to maintain an inventory of materials and processes occurring on site that may potentially affect stormwater.

The mailing also includes educational materials describing the responsibilities of harbor tenants and visitors toward maintaining water quality, and resources for obtaining additional information regarding stormwater pollution. The content of the educational materials will be updated yearly to target specific areas of concern. The 2009 mailing educational materials included:

- ✓ The "Dump No Waste, Protect Our Ocean and Waterways" Flier (provided in Appendix C). The flier distributes general information on stormwater pollution

prevention and the governing regulations. It also suggests 5 work related BMPs targeting typical tenant activities. This flier includes the USEPA Stormwater BMP website link: <http://cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfm>, contact information for the Harbors Environmental Engineering section for stormwater concern reporting and a web link to the Harbors NPDES General Permit.

- ✓ The “Keep The Storm Drains Clean” Flier (provided in Appendix C). This flier lists “The 3 Cs” of storm drain pollution prevention: Contain, Control and Capture. It also provides the Harbors Environmental Engineering section contact information for stormwater concerns.

The annual mailings seek to create awareness of stormwater runoff quality issues and encourage tenants to enforce water quality standards through self-examination of tenant’s operational practices and materials used, stored, or handled at tenant facilities. Harbors Division reviews TSI responses for completeness. The Harbors Environmental Engineering section will follow up with non-responsive tenants to ensure completion of the TSI form. The TSI form also contains a feedback section used to gauge the effectiveness of the form and to solicit additional education and outreach.

Over the next NGPC term, Harbors will continue annual form mailings and review TSI responses, which will be kept in the records. TSI responses will be used to assess the effectiveness of the annual mailing program. Additional educational materials will be added if it is determined that tenant education in specific areas is deficient. The TSI form may be revised based on responses gathered and discharge water quality issues that are identified or arise.

Harbors Division will establish a hotline for stormwater information and discharge reporting. Calls to the hotline, along with follow-up inspection dates and findings, enforcement actions taken (if any), and resolutions will be recorded on the Stormwater Hotline Occurrence Tracking (SHOT) Form provided in Appendix D. These forms will be maintained by the Harbors Environmental Engineering Section and will be included in the ACR.

BMP 2-2 Tenant Education and Outreach

Goals: 1) Generate tenant awareness of stormwater pollution. 2) Engage tenant interest in preventing stormwater pollution. 3) Promote positive tenant behavior changes that reduce pollution or opportunities for pollution.					
Activity	Evaluation Indicators (or Measurable Goals)	Milestones	Time Frame/Due Date	Responsible Party	Status/ Comments
Update mailing items as outreach and education problem areas are identified and recorded	Percentage of problem areas in education/outreach addressed by updated materials	100% of identified problem areas updated	Continuous	Harbors Environmental Engineering	
	Percentage of tenants' feedback about the updates that are positive	At least 50% of feedback positive	Annually	Harbors Environmental Engineering	
Review TSI responses from tenants	Percentage of tenants responsive to the TSI Form	Greater than 90% of tenants	Annually	Harbors Environmental Engineering	
Mail educational materials and reporting contacts to tenants	Number of educational materials distributed	100% of tenants received educational materials and reporting contacts	Annually	Harbors Environmental Engineering	
	Responses on TSI Form show improvement in stormwater awareness	Completeness of TSI forms increasing from previous year	Annually	Harbors Environmental Engineering	
Establish a reporting/complaint tracking system to log response & enforcement activity	Create a hotline system for reporting violations and answering questions	Create and maintain one hotline number	Once	Harbors Environmental Engineering	
	Number of informational inquiries received via hotline	Number of inquiries increased from previous year	Annually	Harbors Environmental Engineering	
	Number of hours to respond to complaint from time call is received.	Respond to all reporting/complaints within 24 hrs to minimize water quality impacts or recurrent dumping	Annually	Harbors Environmental Engineering	

2.3 GENERAL PUBLIC EDUCATION AND OUTREACH

Public education aims to create awareness and prompt behavioral changes. Equipped with information, the public will be less likely to contribute to water pollution as they will be able to make informed choices. Educating the public with this knowledge and contact information for appropriate authorities will increase the likelihood that a violation or accidental release will be reported.

Public education activities so far have included posting signs that advise against dumping or discarding inappropriate materials where they may be carried into Harbor waters at visible public locations, such as harbor entrances, comfort stations, meeting areas, and garbage collection stations. The responsibility for tenant public education falls under the HDOT Harbors Division Environmental Engineering Section, which consists of an Environmental Engineer and an Environmental Health Specialist.



Sign prohibiting dumping. Barbers Point, Hawaii.

Water quality issues will be conveyed to the public in part via the Harbors Division website. Currently, Harbors Division provides runoff water quality presentations on its website. This presentation will be updated annually to include new information. The website, currently under construction, will also contain information on NPDES requirements, BMPs, contacts for reporting stormwater violations at the County, State, and USEPA, information regarding public involvement (discussed in Section 3.0) and links to other useful websites such as the USEPA's stormwater website. This information will also be available at the Harbors Division Environmental Engineering Section office.

Alternative forms of conveying information regarding water quality include workshops, speaking opportunities, brochures, trade shows, expos, advertisement through various media, and volunteer opportunities. Harbors Division may participate in a multi-agency event, such as the Honolulu City and County Earth Month or Make a Difference Month. Harbors Environmental Engineering will organize a volunteer storm drain stenciling event and solicit participation from various agencies and organizations, such as the Hawaii Department of Land and Natural Resources, Hawaii Nature Center, Oahu Resource Conservation and Development, the Army Corps of Engineers, the military, youth organizations, church groups, and businesses in the Harbor area.

Harbors will also sponsor a yearly advertisement in the local newspaper or magazine on stormwater pollution control in order to help to establish general awareness amongst the public. This will help to create a situation where members of the community will be able to identify a potential stormwater problem and provide tools for proper reporting and mitigation of potential stormwater hazards.

BMP 2-3 General Public Education and Outreach

Goals: 1) Generate the public's awareness of stormwater pollution. 2) Engage the public's interest in preventing stormwater pollution. 3) Prompt the public behavior changes that reduce pollution or opportunities for pollution.					
Activity	Evaluation Indicators	Milestones	Time Frame/Due Date	Responsible Party	Status/ Comments
Post or construct signage at visible public locations	Visible areas covered by "No Dumping" signs	Signs are hung at additional visible public locations	Once, as needed	Harbors Environmental Engineering	
	Storm drains with "flows to ocean" stenciling	Number of drains stenciled	Increase Annually	Harbors Environmental Engineering	
	Track the amount of inappropriate materials dumped and correlate this data to the timing of public sign posting to gauge any change of public behaviors over time	The amount of polluting material generated by dumping or discarding has been reduced	Annually	Harbors Environmental Engineering	
Create/update runoff water quality presentations on Harbors Division website	Create/update presentation and post to website	Presentation is posted	Annually	Harbors Environmental Engineering; Harbors web master	
Measure dissemination and effectiveness of water quality presentation	Percentage increase in presentation viewing, measured by number of hits on presentation website	Increase viewing from previous year	Annually	Harbors Environmental Engineering; Harbors web master	
Set up and solicit a volunteer cleanup or storm drain stenciling activity	Participation in activities.	At least one of the listed activities	Annually	Harbors Environmental Engineering; Harbors Tenants	
	Number of employee and public	An increase in participation from previous year	Annually	Harbors Environmental Engineering;	

Goals: 1) Generate the public's awareness of stormwater pollution. 2) Engage the public's interest in preventing stormwater pollution. 3) Prompt the public behavior changes that reduce pollution or opportunities for pollution.					
Activity	Evaluation Indicators	Milestones	Time Frame/Due Date	Responsible Party	Status/ Comments
	participants			Harbors Tenants	
Post public awareness advertisement in local newspaper or magazine to educate the general public on stormwater pollution control	Number of advertisements sponsored	One per year	Annually	Harbors Environmental Engineering	

2.4 VESSEL OPERATOR EDUCATIONAL PROGRAM

Outreach will be conducted to vessel operators docking at Harbors Division facilities to ensure their awareness that the discharge of pollutants, including vessel equipment wash water and deck wash-down water, to receiving waters within the harbors is prohibited.

Currently, the Marine Cargo Specialists monitor loading and unloading procedures for the major vessels in the Harbor. Their duties include tracking compliance with various aspects of the process including stormwater pollution control compliance. Harbors Division Oahu district will receive input from the Marine Cargo Specialists with regards to ship cargo loading and unloading to prevent ship operators from discharging pollutants to receiving waters to the MEP. This information will be communicated to the Harbors Environmental Engineering section for tracking and enforcement follow up.

A ships agent is required for each vessel entering and docking at the Harbor. An inventory of the ships agent associated with each vessel in the harbor will be created and maintained. Stormwater pollution prevention educational material specific to vessel operators will be provided to the ships agents who will have the responsibility to distribute that information to the vessel operators for whom they are representing. A used oil educational flier is currently being distributed to vessel operators and is provided in Appendix C.

BMP 2-4 Expand the Educational Program to Vessel Operators

Goal: Minimize discharge of pollutants to receiving waters within the harbors					
Activity	Evaluation Indicators	Milestones	Time Frame/Due Date	Responsible Party	Status/Comments
Marine Cargo Specialists will Monitor ship cargo loading and unloading to prevent discharges of pollutants	Frequency of monitoring activity at loading/unloading zones	Increasing frequency	Annually	Harbors Oahu District; Marine Cargo Specialists; Harbor Agents	
	Number of Marine Cargo Specialist Attending Annual Stormwater Training	Increasing attendance	Annually	Harbors Oahu District; Marine Cargo Specialists; Harbor Agents	
	Number of actions taken as a result of loading and unloading monitoring	For informational purposes	N/A	Harbors Environmental Engineering; Marine Cargo Specialists; Harbor Agents	
Develop and maintain inventory of ships agents responsible for tracking vessel operators and provide educational materials	Percentage of ships agents in inventory	100% of vessel agents identified	Once, and then maintain	Harbors Environmental Engineering; Marine Cargo Specialists; Harbor Agents	
	Percentage of ships agents receiving educational materials	100% of vessel agents received materials	Annually	Harbors Environmental Engineering; Marine Cargo Specialists; Harbor Agents	

2.5 INSPECTION AND PROGRESSIVE ENFORCEMENT PROGRAM

A tenant and user inspection and enforcement program will be implemented to identify, track, inspect and ensure compliance with the Harbor Division's tenant lease agreements and TRPs. As part of the inspection and progressive enforcement program, an inventory of businesses and industries currently operating at the Harbor is provided in Appendix E. The inventory will be updated annually.

Harbors shall inspect and conduct outreach at commercial and industrial tenant facilities at least once per year beginning 1 January 2010. Inspection of and outreach to commercial and industrial tenants shall be designed and conducted to ensure the following:

- ✓ The facility operator has been made aware of stormwater pollution prevention requirements and the consequences of non-compliance;
- ✓ The facility operator is in compliance with its tenant lease agreement or TRPs;
- ✓ The potential for discharge of pollutants in stormwater is reduced to the MEP; sources to be inspected may include industrial processes; equipment and vehicle maintenance and storage; equipment, vehicle, and surface washing; raw material and product handling and storage; solid waste handling and storage; and hazardous waste handling and storage;
- ✓ Unauthorized non-stormwater discharges do not occur at the facility; and
- ✓ Illicit connections are not present at the facility.

Harbors Division will respond to violations observed during these inspections in accordance with Section 3.0 and the IEP (Appendix F). A checklist is provided in the IEP for the tenant and user inspection.

50 Tenants will be inspected in 2009 and all of the tenants will be inspected by 31 December 2010. All of the data collected from these inspections will be sorted and provided in the ACR.

BMP 2-5 Inspection and Progressive Enforcement Program

Goal: Identify, track, inspect and ensure compliance with Harbor Division's tenant lease agreements & TRPs					
Activity	Evaluation Indicators	Milestones	Time Frame/Due Date	Responsible Party	Status/ Comments
Update inventory of businesses and industries currently operating at the Harbor	Frequency of inventory update	Once	Annually	Harbors Environmental Engineering	
Create/update database to record and track tenant inspection findings, enforcement actions, and resolutions.	Database is created and functional	100% of inspections are recorded in the database	Once	Harbors Environmental Engineering	
Conduct initial inspection and at all commercial and industrial tenant facilities (refer to BMP 4-2 for follow-up inspection)	Percentage of commercial and industrial tenant facilities inspected	50 tenants in 2009. 100% in 2010.	By December 31 2010	Harbors Environmental Engineering	

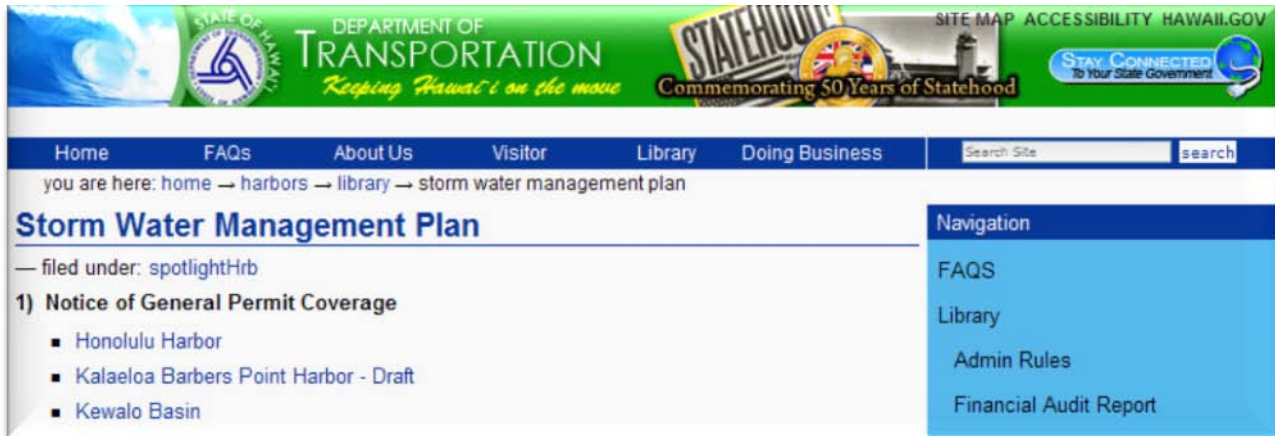
Goal: Identify, track, inspect and ensure compliance with Harbor Division's tenant lease agreements & TRPs					
Activity	Evaluation Indicators	Milestones	Time Frame/Due Date	Responsible Party	Status/Comments
Add inspection findings and enforcement taken to database	Number of sites for which inspection findings, enforcement actions, and resolutions are added to database	100% of sites	When inspection takes place or information pertaining to discharge from a tenant site is received	Harbors Environmental Engineering	

2.5.1 Exemptions from Inspections

Harbors will not perform inspections and outreach at commercial and industrial facilities that it has determined to have no pollution exposure to stormwater and no potential for unauthorized non-stormwater discharges. However, Harbors shall continue to track these facilities through the TSI form and corresponding tenant inventory where it will be noted that inspections and outreach have been discontinued. Harbors shall not halt inspections at any facilities covered under the Hawaii NPDES General Permit Authorizing Discharges of Stormwater Associated with Industrial Activity, HAR Chapter 11-55 Appendix B (the Hawaii Industrial General Permit).

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3.0 PUBLIC INVOLVEMENT/PARTICIPATION



3.1 PERMIT REQUIREMENTS

<http://hawaii.gov/dot/harbors>

HAR, Chapter 11-55, Appendix K, Part 6(a)(2). *Include users of the permittee's small municipal separate storm sewer system in developing, implementing and reviewing the stormwater management plan;*

3.2 RECEIVE PUBLIC FEEDBACK

Public participation is intended to raise public consciousness of water quality issues, to create a sense of responsibility for water quality, and to lessen the likelihood that members of the public will commit actions that may lead to water quality degradation.

Public awareness of stormwater quality issues is targeted to solicit comment by informed members, which may lead to a better and more effective plan and implementation. Harbors Division has invited public involvement and participation during the previous NGPC term by posting the SWMP to the Harbors Division website. In the next revision period, Harbors Division will solicit public comment by posting notices in the local newspaper, Oahu District Offices, and Harbors Division website. The tenant public is a crucial contributor to the SWMP comment process as the tenant public will be most affected by the plan. The tenant public will be informed of SWMP changes and solicited to participate in the review process through the annual TSI mailing and training sessions.

Comments received via email, phone, and mail will be presented in the ACR and considered for revision of the SWMP. A record of each comment and the change produced by the comment, if any, and the justification of the change / refusal of change will be kept. Received comments will be included as an appendix in the document's final version.

Over the next NGPC term, Harbors will again post the SWMP to the website and remain open and receptive to public comment. Any comments received will be considered for future revisions of the SWMP and to determine better means to invite public participation and involvement.

BMP 3-2 Receive Public Feedback on SWMP

Goal: To raise public consciousness of water quality issues, to create a sense of responsibility for water quality, and to lessen the likelihood that members of the public will commit actions that may lead to water quality degradation.					
Activity	Evaluation Indicators	Milestones	Time Frame/Due Date	Responsible Party	Status/Comments
Ensure notification to harbor tenants of SWMP development capability	Percentage of tenants notified	100% of tenants notified	Two weeks prior to every SWMP revision period	Harbors Environmental Engineering	
Post the Draft SWMP to the Harbors website during public comment window	Number of people who viewed the SWMP online	Increasing from previous year	Every SWMP revision period	Harbors Environmental Engineering; Harbors web master	
	Number comments received for SWMP revision	Increasing from previous year	Every SWMP revision period	Harbors Environmental Engineering; Harbors web master	
Develop system for tracking comments and change produced by comments	Percentage of comments tracked	100% of comments tracked	Every SWMP revision period	Harbors Environmental Engineering	

4.0 ILLICIT DISCHARGE DETECTION AND ELIMINATION



4.1 PERMIT REQUIREMENTS

Kaunakakai Harbor, Hawaii. February 2006.

HAR Chapter 11-55 Appendix K Part 6.(a)(3). Develop, implement and enforce a program to detect and eliminate illicit discharges that at a minimum includes the following:

- (A) Establishment of rules, ordinances or other regulatory mechanism, including enforcement procedures and actions, that prohibit non-stormwater discharges, except those listed in section 1 that do not cause or contribute to any violations of water quality standards, into the permittee's small municipal separate storm sewer system,*
- (B) Procedures to detect and eliminate illicit discharges (as defined in 40 CFR Section 122.26(b)(2)), and*
- (C) Compilation of a list of non-stormwater discharges or flows that are considered to be significant contributors of pollutants and the measures to be taken to prevent these discharges into the permittee's small municipal separate storm sewer system, or reduce the amount of pollutants in these discharges.*

4.2 REGULATORY MECHANISMS

Existing rules and ordinances that prohibit non-stormwater discharges are in place and include the following citation from HAR Title 19, Chapter 42, Section 127: no person shall “place, throw, deposit, or discharge, or cause to be placed, thrown, deposited, or discharged into the waters of any harbor, river or shore waters of the State any litter, or other gaseous, liquid or solid materials which render the water unsightly, noxious or otherwise unwholesome so as to be detrimental to the public health and welfare or a navigational hazard. No person shall discharge oil sludge, oil refuse, fuel oil or molasses either directly or indirectly, or pump bilges or ballast tanks containing other than clean water into the waters of any harbor, river or into any shore waters in the State.”

The rules are made enforceable by Title 19, Chapter 41 Section 12 which grants the HAR the full force and effect of law pursuant to sections 266-2, 266-3, 266- 4, and 266-25, Hawaii Revised Statutes (HRS). The enforcement of these rules shall also be pursuant to the provisions of section 26-14.6, HRS. The violation of these rules shall be subject to penalties as set forth in section 266-25, HRS, and the IEP in Appendix F.

Further, HAR Title 19 Chapter 42 Section 15 requires compliance with Federal, State, and County laws, ordinances and rules, and in particular rules of the HDOH pertaining to air and water pollution.

TRPs and tenant lease agreements incorporate language which requires compliance with all stormwater quality regulations. Copies of “Lease Agreement Addendum 1, Environmental Compliance - Lessee’s Duties” and an excerpt from the Standard Revocable Permit form, “Section 26. Special Terms and Conditions, Environmental Compliance - Permittee’s Duties” are provided in Appendix A.

4.3 ILLICIT DISCHARGE DETECTION AND ELIMINATION PLAN

A Non-Stormwater Discharge (NSWD) is defined generally as a discharge that is not composed entirely of stormwater, whereas an illicit discharge is a NSWD that poses a risk to the environment. In an effort to eliminate discharges that the established storm drainage system is not designed to accept, process, or discharge, the Harbors Division has developed this illicit discharge detection and elimination (IDDE) plan. The objective of this plan is for the Harbors Division to gain a thorough awareness of the storm drainage system. From this information, the types and sources of illicit discharges can be identified, and the appropriate legal, technical, and educational means can be identified to control, minimize, or eliminate these sources from the system.

Common sources of illicit discharges include: sewage inflows from leaking sewage collection and transmission lines; wash water from operations such as fleet car washings; commercial carwash wastewater; floor washing to shop drains and car wash; potable line flushing that runs across hardscapes; pumping of vaults; subcontractor activities; and liquid wastes containing oil, paint, and process water.

Certain NSWDs are allowed under the permit (section 2.b.i through 2.b.xvii), provided that Harbors Division ensures that these discharges do not contain pollutants in amounts that will cause or contribute to a violation of any water quality standard. Harbor Division will ensure that implementation of appropriate pollution prevention measures will be instituted for the non-stormwater components of the discharge. Some examples of potentially allowed NSWDs as listed in the permit include:

- ✓ Water line flushing;
- ✓ Landscape irrigation;
- ✓ Diverted stream flows;
- ✓ Rising ground waters;
- ✓ Uncontaminated ground water infiltration (as defined in Title 40, Code of Federal Regulations (40 CFR) 35.2005 (20));
- ✓ Uncontaminated pumped ground water;
- ✓ Discharges from potable water sources and foundation drains;
- ✓ Air conditioning condensate;
- ✓ Springs;

- ✓ Water from crawl space pumps and footing drains;
- ✓ Flows from riparian habitats and wetlands;
- ✓ Municipal street cleaning wash water; and
- ✓ Discharges or flows from fire fighting activities.

The following table provides useful information on activities that produce discharges, grouped by type of generating site and land use.

Table 4-1 Generating Sites and Activities that Produce Indirect Discharge

Land Use	Generating Site	Activity That Produces Discharge
Commercial	<ul style="list-style-type: none"> • Car Washes • Gas Stations/Auto Repair Shops • Marinas • Nurseries and Garden Centers • Oil Change Shops • Restaurants 	<ul style="list-style-type: none"> • Building Maintenance (power washing) • Dumping/Spills • Landscaping/Ground Care (irrigation) • Outdoor Fluid Storage • Parking Lot Maintenance (power washing) • Vehicle Fueling • Vehicle Maintenance/Repair • Vehicle Washing • Washdown of greasy equipment and grease traps
Industrial	<ul style="list-style-type: none"> • Auto recyclers • Beverages and brewing • Construction vehicle washouts • Distribution centers • Food processing • Garbage truck washouts • Marinas, boat building and repair • Metal plating operations • Paper and wood products • Petroleum storage and refining • Printing 	<ul style="list-style-type: none"> • All commercial activities • Industrial process water or rinse water • Loading and un-loading area washdowns • Outdoor material storage (fluids)
Municipal	<ul style="list-style-type: none"> • Municipal Fleet Storage Areas • Ports • Maintenance Yards • Streets and Highways 	<ul style="list-style-type: none"> • Building Maintenance (power washing) • Dumping/Spills • Landscaping/Grounds Care (irrigation) • Outdoor Fluid Storage • Parking Lot Maintenance (power washing) • Road Maintenance • Spill Prevention/Response • Vehicle Fueling • Vehicle Maintenance/Repair • Vehicle Washing
<i>Source: City and County of Honolulu Stormwater Management Plan, March 30, 2007</i>		

Harbors Division will create a comprehensive list of NSWs and flows that are or may be considered significant contributors of pollutants to the MS4s (including but not limited to wash waters, fuels, paints, solvents, dust suppressant waters, etc.) and measures to be taken to prevent these discharges.

Formal enforcement procedures will be followed to actively ensure compliance with the terms and conditions of the TRP and lease agreements regarding non-stormwater discharges. There are four main processes through which Harbors Division may identify NSWs:

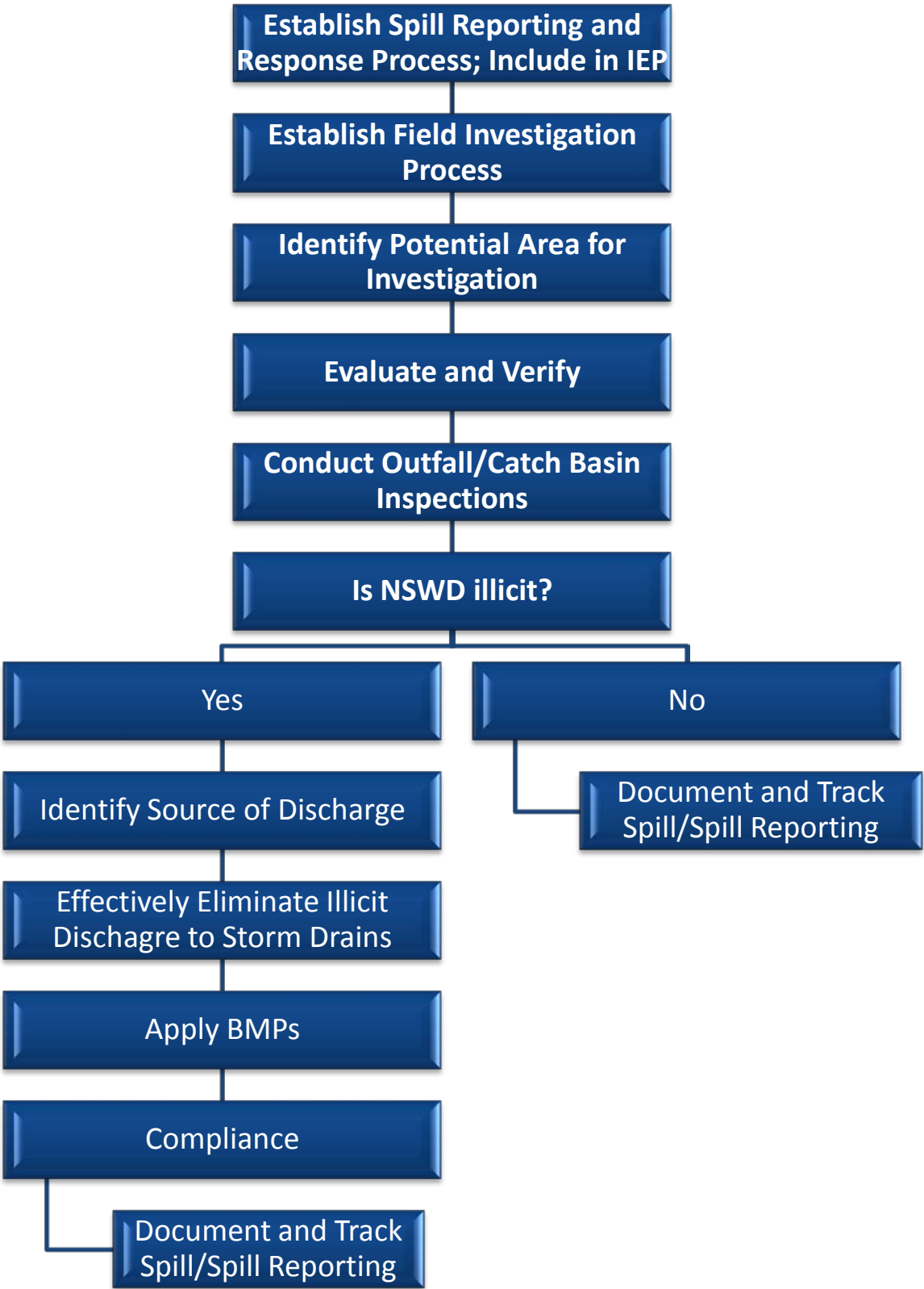
1. Tenant/User Inspection (Discussed in Section 2-5);
2. Tenant Self Inspection (Appendix B);
3. Field Screening (discussed in this section); and
4. Public Reporting (discussed in this section)

When Harbors Division identifies a violation through one of these channels, follow-up action such as additional inspection and enforcement will be taken. Specific inspection procedures and follow-up actions are explicitly detailed in Harbor Division's Inspection and Enforcement Plan. Harbors Division will ensure that at least the following are performed per USEPA regulations:

1. Systematic, on-going review of applicable dry weather analytical monitoring data;
2. Investigation/inspection and follow up procedures;
3. Elimination of discovered illicit discharges and connections;
4. Enforcement against parties responsible for illicit discharges;
5. Response, containment, and cleanup procedures for spills (including sewage spills from private laterals);
6. Disposal of used oil and toxic materials in accordance with applicable federal, state, and local requirements; and
7. Elimination of discovered incidents of infiltration from sanitary sewer to storm sewers.

In order to ensure these actions are performed, Harbors will use all of the actions detailed in this SWMP including those provided in the IDDE process provided in Figure 4-1. Reporting on each item will be provided in the ACR.

Figure 4-1 IDDE Process



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4.3.1 Update Storm Sewer System Map

The Kalaeloa Harbor drainage and outfall map is provided in Figure 4-2. Harbors Division will expand the outfall mapping to identify up-gradient sources within areas controlled and where the system is connected to offsite tributary storm drain systems under the control of the State Highways Division or City and County of Honolulu. Where practical, inlets will be included in the mapping, along with their size and conditions. Inlets should be labeled and cross-referenced with corresponding outfalls.

BMP 4-3-1 Update Storm Sewer System Map

Goal: Develop a comprehensive infrastructure map of the MS4 storm drain system					
Activity	Evaluation Indication	Milestones	Time Frame/Due Date	Responsible Party	Status/ Comments
Update outfall maps to identify sources of ORI discharges and outfall conditions	Percentage of outfalls that have sufficient, up-to-date information	100% of outfalls	Annually	Harbors Environmental Engineering	The MS4 outfall maps were developed by Harbors
	Sources of ORI discharges identified	100% of sources identified	Annually	Harbors Environmental Engineering	

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4.3.2 Outfall Reconnaissance Inventory

Illicit discharges into the drainage network are prohibited. Once an illegal connection is identified steps must be taken to eliminate the illegal connection as soon as possible. Harbors Division will implement the IDDE process shown in Figure 4-1. The IDDE program will identify those illicit discharges that are considered to be significant contributors to the deterioration of stormwater quality.

An outfall reconnaissance inventory (ORI) will be performed annually as dry weather visual inspection of outfalls. The ORI will be made at low tide and describe outfall conditions, flow characteristics, and descriptions of the surrounding area. Wet weather observations of sheet flow over the pier edge and from undeveloped areas will be conducted at least annually. Records of outfall inspections will be kept for inclusion with the ACR. Illicit runoff conditions will be reported and, where a violation is identified, a warning or citation will be issued, recorded, and included in the ACR.

The ORI will be conducted to detect illicit connections. Sources of NSWD will be tracked upstream and visually inspected to determine the flow source. Manholes, catch basins, drainage swales and other conveyance systems will be investigated. If the source is located and determined to be illicit, it will be disconnected or discontinued if applicable. Harbors Division will require tenants to rectify illicit discharges emanating from their areas as applicable. Follow up inspections and enforcement actions will be implemented per the IEP. All investigation results will be documented on the ORI form (Appendix G). If a source of NSWD cannot be determined during the initial investigation, a follow up inspection of the potential source facility will be conducted. Additional investigation techniques will be utilized should visual surveys fail at identifying the NSWD. Techniques include dye tests, smoke tests and/or pipe video inspections.

Permitted NSWDs will be inspected to verify that controls are in place as specified in the permit. If the permitted NSWD is found to be lacking the proper controls, action will be taken as specified in the IEP to mitigate the potential for pollutant discharge from the NSWD.

Harbors will also continue to conduct annual wet weather outfall inspections. During the wet weather inspection, outfall flows will be inspected for color, odor, clarity, solids, foam, oil sheen and other signs of NSWD. Harbors Division will continue to collect and analyze third party reports of apparent inappropriate discharges.

The Kalaeloa Harbor Storm Drain Outfall Listing and a copy of the ORI field form is provided as Appendix G.

BMP 4-3-2 Outfall Reconnaissance Inventory

Goal: Establish and carry out procedures to identify and remove illicit discharges					
Activity	Evaluation Indication	Milestones	Time Frame/Due Date	Responsible Party	Status/Comments
Dry weather visual inspection of outfalls	Percentage of outfalls inspected	100% of outfalls inspected on-time	Annually, no later than December 31, 2010	Harbors Environmental Engineering	
Wet weather inspections of outfalls	Percentage of outfalls inspected	20% of outfalls inspected on-time	Annually	Harbors Environmental Engineering	
Collect and analyze reports of illicit discharges.	Number of apparent illicit discharges reported.	100% of illicit discharges found	As needed	Harbors Environmental Engineering	
Input inspection findings into database.	Percentage of findings input into database	100% of findings	No later than December 31, 2010	Harbors Environmental Engineering	
Ensure proper measures and controls are implemented to mitigate pollutants in permitted NSWDS	Number of permitted NSWDS found that lack proper controls	Reduced from previous year	Continuous	Harbors Environmental Engineering	
Document these controls in a database with tenant information and TMK	Percentage of permitted NSWDS recorded in database	100% of identified permitted NSWDS	Continuous	Harbors Environmental Engineering	

4.3.3 Illicit Discharge Reporting

The Harbors Division Environmental Engineering section will collect reports of stormwater quality violations through its stormwater hotline, record on the SHOT form, and include the forms in the ACR. The Environmental Engineering section will organize the records in order to include discharge reporting that is relevant to stormwater.

Harbors maintenance and custodial personnel or Marine Cargo Specialists may complete a Pier Inspection Form to record observations of illegal discharge incidents. Pier Inspection Forms with complaints or observations of actions which require intervention are routed for action to the Harbors Environmental Engineering section office or Harbor Police. Facilities in violation will be inspected and enforcement actions described in Section 4.3.4 will be taken.

Other on-site personnel will keep watch to ensure that no illicit discharges are being made into Harbor waters. Harbors Division personnel are on duty during normal business hours Monday through Friday. Oahu District (Marine Traffic Control) and Harbor Police maintain 24 hour operation. Harbor Police are authorized to warn or cite violators. Marine Cargo Specialists or construction inspectors will also report violators.

Harbors Division will include illicit discharge reporting capability in its hotline (discussed previously in Section 2.0). The hotline will allow the user the ability to report the violation directly to Harbors Division and provide a recorded version of alternate numbers to call during after business hours. The hotline will be advertised in TSI mailings and on all stormwater signage.

The process for the Harbors Division hotline will be the following:

1. **Record complaint.** Collect information including discharge location, description of discharge, amount of discharge, persons or companies involved, and any reoccurrence. Enter information in a SHOT form (Appendix D).
2. **Perform inspection.** Determine the source of discharge and parties responsible. Determine if deployment of controls or notification to authorities is required. Record findings on the SHOT form (Appendix D).
3. **Take enforcement** actions according to Section 4.3.4 and the IEP. Follow appropriate notification and recording process provided in the IEP.
4. **Perform follow-up inspection.** Record findings as detailed in the IEP.
5. **Repeat steps 2-4 if required.**

The following numbers are those that are currently provided to tenants and can be utilized for reporting potential illicit discharges or stormwater compliance violations:

Discharges:

- ✓ Stormwater Compliance Hotline at (808) 587-1962
- ✓ Marine Traffic Control Unit at 808-587-2076
- ✓ Kalaeloa Harbor Agent at 808-682-6428
- ✓ Harbor Police at 808-587-2006

Serious Offenses may be reported to:

- ✓ Hawaii Department of Health Clean Water Branch at 808-586-4309
- ✓ U.S. Coast Guard at 1-800-424-8802
- ✓ USEPA at 808-541-2721

Harbors Division will investigate and report illicit discharges originating from off-site sources (i.e. outfalls connected to the City & County MS4 or HDOT Highways MS4). Investigation results will be reported to:

- ✓ City and County of Honolulu
- ✓ General Compliance Hotline at 808-523-4381, or

- ✓ General Compliance Website at:
- ✓ http://www.co.honolulu.hi.us/menu/online_services/cityhall_online/problemreport.htm
- ✓ Department of Environmental Services
- ✓ Stormwater Quality Office at 808-692-5207

BMP 4-3-3 Illicit Discharge Reporting

Goal: Encourage public education and involvement in eliminating illicit discharges					
Activity	Evaluation Indication	Milestones	Time Frame/Due Date	Responsible Party	Status/Comments
Collect violation reports from the Marine Traffic Control Center	Percentage of violations reported	100% of violation reports collected	Annually	Harbors Environmental Engineering	
Record report of illegal discharge incidents	Keep Marine Cargo Specialist inspection reports on-file.	100% of Pier inspection reports are kept	Always	Harbors Environmental Engineering	
Establish the illicit discharge/illegal dumping hotline	A hotline for citizens to report illegal dumping and suspicious discharges will be established in the first year. (See BMP 2-1)	Establish one hotline	Once	Harbors Environmental Engineering	
Determine effectiveness of hotline	Number of illicit discharge/illegal dumps reported by citizens	Increasing from previous year	Annually	Harbors Environmental Engineering	
	Number of illicit discharges prevented or stopped due to call to hotline	Increasing from previous year	Annually	Harbors Environmental Engineering	
Advertise hotline	The hotline will be advertised on an insert in each TSI mailing and on all stormwater pollution prevention signage	One TSI mailing insert per year and all signage	Annually	Harbors Environmental Engineering	

4.3.4 Inspection and Enforcement

When an illicit discharge is determined to have taken place, appropriate action will be taken against the responsible parties according to the IEP. The official version of the IEP can be found in the *Environmental Management System Manual, State of Hawaii Department of Transportation Harbors Division, November 2009* and a copy is provided in Appendix F of this document. This document establishes specific inspection procedures, enforcement tools, and the progressive escalation of the tools with regard to the seriousness of the illicit discharge and the recalcitrance of the dischargers.

Harbors will rank each tenant based on the tenant's potential to contribute pollutants to the environment. The results of the tenant risk rankings will be reevaluated for accuracy each calendar year. The tenant's ranking determines the frequency of inspection. High risk tenants will be inspected twice per year, medium ranking tenants will be inspected annually, and low ranking tenants will be inspected biannually.

The enforcement tools include the following:

- ✓ Verbal warnings
- ✓ Written notices
- ✓ Citation with monetary fines
- ✓ Stop work orders
- ✓ Abatement by Harbors Division with reimbursement by the responsible party
- ✓ Lease/ TRP termination
- ✓ Referral to HDOH or other appropriate regulatory agency

The IEP will be applied in response to violations of stormwater-related requirements of tenant lease agreements and/or tariffs that may result in the discharge of unauthorized non-stormwater discharges and/or contaminated stormwater to either Harbors Division's Small MS4s or directly to the waters of the United States. Figure 4-3 shows the inspection and enforcement process.

Upon discovery or upon receiving a report of a suspected illicit connection, Harbors Division will initiate an investigation to determine the source of the connection, the nature and volume of discharge through the connection and the responsible party for the connection.

Harbors Division will take enforcement action pursuant to the IEP to eliminate illicit discharges. For such discharges that are known or suspected to contain hazardous substances, Harbors Division shall respond within one business day of discovery or report of a suspected illicit discharge, with actions to abate, contain, and clean up such illicit discharges. This response shall be in addition to any other requirement of state or federal law for such substances.

A follow-up inspection will be performed after the enforcement action. In the event that, after a follow-up inspection, Harbors Division determines that a facility operator has failed to adequately control sources of pollution discharges to the MS4, Harbors Division will take further enforcement action as established through authority in its TRPs and tenant lease agreements and as described in the IEP.

Harbors Division will initiate, within two business days, an investigation of complaints transmitted by HDOH regarding facilities within its jurisdiction. The initial investigation will include, at a

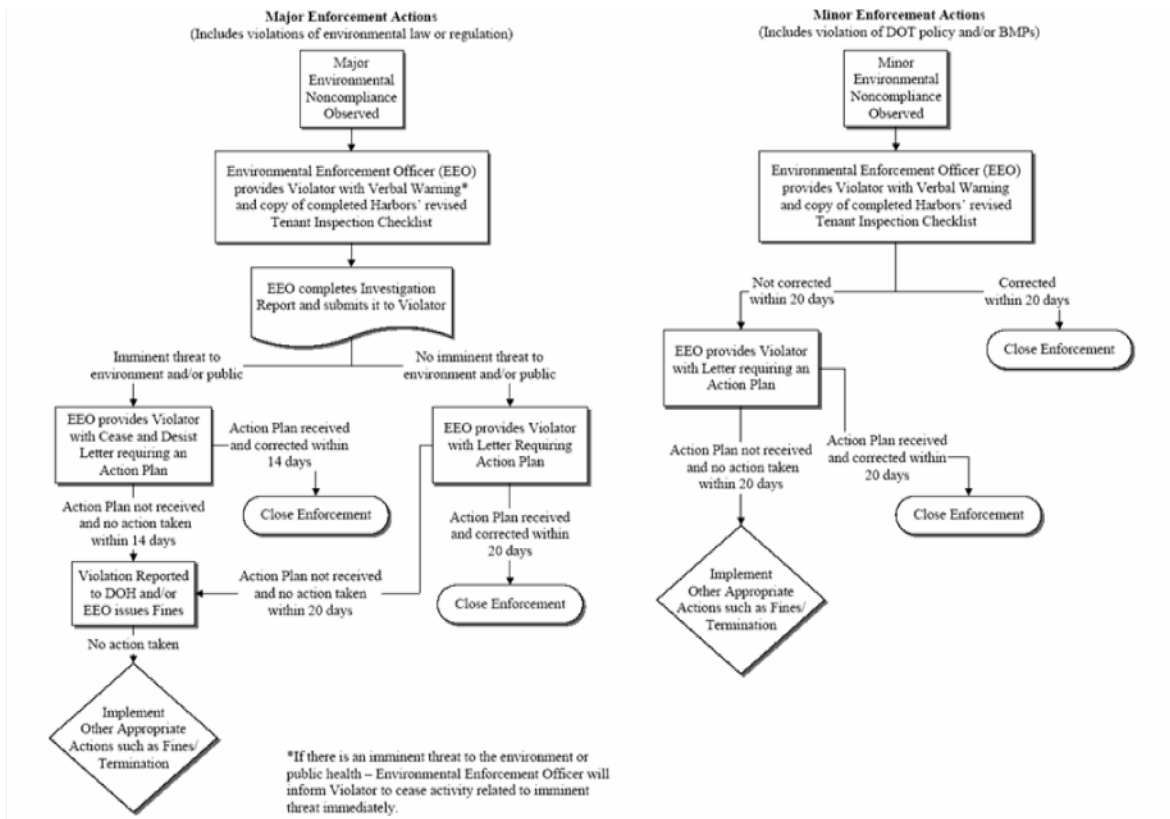
minimum, to determine if the facility is out of compliance with Harbors Division's tenant lease agreement and this plan.

Harbors Division will maintain records, including inspection reports, warning letters, notices of violation, resolutions, and other enforcement records, demonstrating its good faith effort to bring tenant facilities into compliance with applicable requirements. These reports and correspondence will be provided in the ACR.

BMP 4-3-4 Inspection and Enforcement Plan

Goal: Eliminate illicit discharges through inspection and enforcement.					
Activity	Evaluation Indicators	Milestones	Time Frame/Due Date	Responsible Party	Status/Comments
Establish/update ranking of tenants according to Inspection and Enforcement Manual	Percentage of tenants ranked	100% of tenants ranked	Annually	Harbors Environmental Engineering	
Perform initial investigation upon discovery or notification of a suspected illicit discharge or connection.	Percentage of reports investigated	100% investigated	As soon as possible and within two weeks	Harbors Environmental Engineering	
Follow up investigation of illicit discharge	Percentage of investigations followed up	100% Follow up	Within two weeks or one day for suspected hazardous discharges	Harbors Environmental Engineering	
If enforcement action has taken place, perform follow up inspection within two weeks of initial inspection	Save as above	Same as above	Within two weeks, as needed	Harbors Environmental Engineering	
Initiate investigation of complaints transmitted by HDOH regarding facilities within its jurisdiction	Percentage of reports investigated	100%	Within 2 business days	Harbors Environmental Engineering	

Figure 4-3 Harbors Division Inspection and Enforcement Process



Source: HDOT Harbors EMS Inspection and Enforcement Manual

4.3.5 Employee Training

Harbors Division annually provides initial and refresher NPDES training to key personnel to instruct personnel at all levels of responsibility concerning the components and goals of the MS4 SWMP. The instruction addresses the following areas:

- ✓ Regulatory requirements,
- ✓ Materials management practices including proper storage, handling, and use of materials,
- ✓ Good housekeeping and criteria for clean working environment,
- ✓ Recognizing conditions that could lead to degraded runoff water quality,
- ✓ Identifying and notifying responsible parties,
- ✓ Taking action to correct conditions that could result in stormwater pollution,
- ✓ Warning and enforcement procedures, and
- ✓ Recording incidents.

A record of attendees at each NPDES training session is kept for inclusion in the ACR.

By no later than March 1, 2010 and annually thereafter, Harbors Division will train all employees who are responsible for identification, investigation, elimination, cleanup and reporting of illicit connections and other illicit discharges.

BMP 4-3-5 Employee Training

Goal: Eliminate illicit discharges through training of essential personnel.					
Activity	Evaluation Indicators	Milestones	Time Frame/Due Date	Responsible Party	Status/Comments
Develop stormwater IDDE training materials	Training materials address all relevant IDDE aspects and are up to date	IDDE is addressed	Annually	Harbors Environmental Engineering	
Train all employees who are responsible for identification, investigation, elimination, clean-up, and reporting of illicit connections/discharges	Frequency of employee training Number of employees trained	Once per year Train all applicable employees	By March 31, 2010, then annually	Harbors Environmental Engineering	

5.0 CONSTRUCTION SITE STORMWATER RUNOFF CONTROL



Drain Inlet Control, Barbers Point. January 2006.

5.1 PERMIT REQUIREMENTS

HAR Chapter 11-55 Appendix K Part 6.(a)(4). Develop, implement and enforce a program to reduce storm runoff pollutants entering the permittee's small municipal separate storm sewer system from construction activities disturbing one acre or more, including construction activities less than one acre that are part of a larger common plan of development or sale that would disturb one acre or more, that, at a minimum, includes the following:

- (A) Establishment of rules, ordinances and other regulatory mechanism, including enforcement procedures and actions, that require erosion and sediment controls,*
- (B) Requirements for construction site operators to implement appropriate erosion and sediment control best management practices,*
- (C) Requirements for construction site operators to control waste such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste at the construction site that may cause adverse impacts on water quality,*
- (D) Procedures for site plan review of construction plans which incorporate consideration of potential water quality impacts,*
- (E) Procedures for receipt and consideration of information submitted by the public,*
- (F) Procedures for site inspection and enforcement of control measures.*

5.2 CONSTRUCTION SITE RUNOFF CONTROL PROGRAM

A Construction Site Runoff Control Program (CSRCP) has been written as part of this SWMP in order to establish rules, ordinances, and other regulatory mechanisms in order to:

- ✓ Require stockpiling or immediate access to materials for erosion prevention and sediment control.
- ✓ Require erosion prevention and sediment controls at all construction projects;
- ✓ Require construction site operators to implement appropriate erosion prevention and sediment control BMPs; and

- ✓ Require construction site operators to implement BMPs appropriate for the control of waste and other potential pollutant sources.

The CSRCP includes the following:

- ✓ Construction site plan reviews;
- ✓ Pollution prevention;
- ✓ Source identification;
- ✓ BMP implementation;
- ✓ Construction site inspections;
- ✓ Enforcement measures;
- ✓ Report of non-compliant sites; and
- ✓ Education outreach for construction site operators

5.2.1 Required Document Review

Harbor Division's CSRCP applies to all construction projects existing within its jurisdiction, regardless of size or ownership of the construction site or activity.

Each Section of the HDOT Engineering Branch, including Planning, Design, Construction, Maintenance, and Environmental, reviews construction plans for potential impacts in its operational area. The Harbors Division Engineering Branch will review construction plans for potential stormwater quality impacts, and drainage connection and discharge permit applications (Appendix H). This review process will be tracked and included in the ACR.

Harbors Division will ensure that construction site operators have submitted a Stormwater Pollution Prevention Plan (SWPPP) and a NOI under the Hawaii NPDES General Permit Authorizing Discharges of Stormwater Associated with Construction Activity, HAR Chapter 11-55 Appendix C (the Hawaii Construction General Permit) for projects greater than 1 acre prior to approval. Harbors Division will also ensure that plans reflect the actual site conditions and are updated accordingly. The HDOH Clean Water Branch implements NPDES requirements in Hawaii and administers review and granting of Individual and General Permit Coverage, however NOI requests and for discharge of stormwater from industrial sites and SWPPPs have been routed to Harbors Division for review and comment.

TRPs and tenant lease agreements require compliance with all environmental laws and limit possession, usage and storage of hazardous wastes without lessor knowledge and consent.

Harbors Division requires that prior to new connections or discharge to the regulated drainage system, an application for a permit (Appendix H) to connect and/or discharge must be made. Upon review and acceptance of the application, Harbors will return a permit for connection (Appendix I), a permit for discharge (Appendix J) or comments explaining a denied connection or discharge.

Harbors Division will again review construction plans and procedures during post-construction phases for stormwater considerations according to the Post-Construction Stormwater Management Program described in Section 6.0.

Best Management Practices are reviewed by HDOH Clean Water Branch during NPDES NOI review, and may be reviewed by the City and County of Honolulu if plans are routed through them. Harbors Division personnel including Marine Cargo Specialists, the Harbor agent, and Construction Inspectors may note implementation of BMPs and contractor waste management practices, and have authority to take action in the event of noncompliance.

BMP 5-2-1 Required Document Review

Goal: Prevent sediment and erosion runoff from construction sites during the planning phase.					
Activity	Evaluation Indicators	Milestones	Time Frame/Due Date	Responsible Party	Status/Comments
Review construction plans for potential impacts in respective areas	Percentage of construction plans reviewed	100% of plans reviewed	Pre-Construction	All HDOT Engineering Branch Sections	
Review plans for stormwater considerations during pre- and post-construction phases	Percentage of construction plans reviewed	100% of plans reviewed	Pre- and Post-Construction	Harbors Design, Maintenance and Environmental Engineering	
Review SWPPP, NOI, and discharge permit applications for construction projects	Percentage of documents reviewed	100% of documents reviewed	Pre-construction, during construction, and Post-Construction	Harbors Design, Maintenance and Environmental Engineering	
Review erosion and sediment BMPs and waste management practices	Percentage of sediment BMPs and waste management practices reviewed	100% of BMPs and waste management practices reviewed	Pre-Construction	HDOH Clean Water Branch, City and County of Honolulu, or Harbors Division	

5.2.2 Construction Site Best Management Practices

Construction site BMPs serve the purpose of preventing sediment and other pollutants created from construction activities from reaching waters. In many cases BMPs prevent sediment and pollutants from being dislodged from their original locations. There are ample sources for construction site BMPs, some of which are listed below:

- ✓ Department of Environmental Services, City and County of Honolulu, Stormwater Management Plan, March 30, 2007

- ✓ Department of Environmental Services, City and County of Honolulu, Best Management Practices Manual for Construction Sites, in Honolulu, May 1999.
- ✓ State of California Department of Transportation (Caltrans), Stormwater Quality Handbooks, Construction Site Best Management Practices Manual, March 2003.
- ✓ California Stormwater Best Management Practice Handbook, Construction, January 2003.
- ✓ Stormwater Menu of BMPs, USEPA Website. October 1, 2009.

The following table is a compilation of BMPs and their descriptions. Harbors Division will require that construction site operators implement appropriate erosion and sediment control BMPs as well as any other BMPs that will reduce the flow of pollutant off-site to the MEP. Selected BMPs must demonstrate an understanding of the soil texture and sediment size such that the BMP chosen provides the maximum benefit to runoff control.

Table 5-1 is a compilation of construction BMPs from the above sources, including those relating to erosion and sediment control, NSWD control BMPs, and waste management and materials pollution control BMPs. Harbors Division will require construction site operators to prevent pollutants from sediment, erosion, and waste from entering the storm system by use of structural controls and BMPs.

Table 5-1 Example Construction Site BMPs

BMP Name	Description
Scheduling	Sequence the construction project to reduce the amount and duration of soil exposed to erosion by wind, rain, runoff, and vehicular tracking.
Preservation of Existing Vegetation	Carefully plan preservation of existing vegetation in order to minimize the potential of removing or injuring existing trees, vines, shrubs, and grasses that serve as erosion controls,
Mulch	Mulching stabilizes cleared or freshly seeded areas. Mulches can include organic materials, straw, wood chips, bark, or other wood fibers, decomposed granite, and gravel.
Hydroseeding	Seed grasses and plant trees, shrubs, vines, and ground covers to provide longer stabilization of soil.
Geotextiles, Plastic Covers & Erosion Control Blankets/Mats	Mats made of natural or synthetic material can temporarily or permanently stabilize soil.
Earth Dikes/Drainage Swales & Lined Ditches	The temporary earth dike is a temporary berm or ridge of compacted soil, used to divert runoff or channel water to a desired location..
Outlet Protection/Velocity Dissipation Devices	Rock outlet protection is a physical device composed of rock, grouted riprap, or concrete rubble which is placed at the outlet of a pipe to prevent scour of the soil caused by high pipe flow velocities, and to absorb flow energy to produce non-erosive velocities
Slope Terracing	Slope roughening/terracing creates microclimates for establishing vegetation, reduces runoff velocity, increases infiltration, and provides small depressions for trapping sediment.
Location of Potential Sources of Sediment	Locate potential sources of sediment properly to reduce the generation of erosion and sediment from construction sites
Dust Controls	Utilize dust control measures to stabilize soil from wind erosion, and reduce dust generated by construction activities
Construction Road Stabilization	Access roads, subdivision roads, parking areas, and other on-site vehicle transportation routes should be stabilized immediately after grading and frequently maintained to prevent erosion and control dust.
Protection of Stockpiles	Stockpiles can be a significant source of erosion and sediment, and measures should be take to mitigate the potential for nonpoint source pollution
Silt Fence	A silt fence is made of a filter fabric which has been entrenched, attached to supporting poles, and sometimes backed by a wire fence for support. The silt fence detains sediment laden water, promoting sedimentation behind the fence.
Sediment Trap	A sediment trap is a small, excavated or bermed area where runoff from small drainage areas is detained and sediment can settle.
Check Dam	Small temporary dams constructed across a swale or drainage ditch. Check dams reduce the velocity of concentrated stormwater flows, thereby reducing erosion of the swale or ditch, and promoting sedimentation behind the dam. If properly anchored, brush or rock filter berms may be used for check dams.
Rock Filter	A rock filter berm is made of rock 3/4 to 3 inches in diameter and placed along a level contour where sheet flow may be detained and ponded, promoting sedimentation. A brush barrier is composed of brush (usually obtained during the site clearing) wrapped in filter cloth and anchored to the toe of the slope. If properly anchored brush or rock filters may be used for sediment trapping and velocity reduction.

BMP Name	Description
Sandbag Barrier	Stacking sand bags along a level contour creates a barrier which detains sediment-laden water, ponding water upstream of the barrier and promoting sedimentation.
Storm Drain Inlet Protection	Devices of various designs which detain sediment-laden runoff and allow the sediment it to settle prior to discharge into a storm drain inlet or catch basin.
Sediment Basin	A pond created by excavation or constructing and embankment, and designed to retain or detain runoff sufficiently to allow excessive sediment to settle.
Dewatering Operations	Prevent or reduce the discharge of pollutants to stormwater from dewatering operations by using sediment controls and by testing the groundwater for pollution.
Paving and Grinding Operations	Prevent or reduce the discharge of pollutants from paving operations, using measures to prevent runoff and runoff pollution, properly disposing of wastes, and training employees and subcontractors.
Temporary Stream Crossing	A temporary culvert, ford, or bridge placed across a waterway to provide access for construction purposes for a period of less than one year.
Material Delivery and Storage	Prevent or reduce the discharge of pollutants to stormwater from material delivery and storage by minimizing the storage of hazardous materials on-site, storing materials in a designated area, installing secondary containment, conducting regular inspections, and training employees and subcontractors.
Material Use	Prevent or reduce the discharge of pollutants to stormwater from material use by using alternative products, minimizing hazardous material use on-site, and training employees and subcontractors.
Spill Prevention and Control	Prevent or reduce the discharge of pollutants to stormwater from leaks and spills by reducing the chance for spills, stopping the source of spills, containing and cleaning up spills, properly disposing of spill materials, and training employees.
Solid Waste Management	Prevent or reduce discharge of pollutants to the land, groundwater, in stormwater from solid waste or construction demolition waste by providing designated waste collection areas, separate containers for recyclable waste materials, timing collection of waste and recyclable materials with each stage of the construction or demolition project, and properly training subcontractors and employees.
Hazardous Waste Management	Prevent or reduce the discharge of pollutants to stormwater and to the land from hazardous waste through proper material use, waste disposal, and training of employees and subcontractors.
Contaminated Soil Management	Prevent or reduce the discharge of pollutants to stormwater and to the land from contaminated soil and highly acidic or alkaline soils by conducting pre-construction surveys, inspecting excavations regularly, and remediating contaminated soil promptly.
Concrete Waste Management	Prevent or reduce the discharge of pollutants to stormwater from concrete waste by conducting washout off-site, performing on-site washout in a designated area, and training employees and subcontractors.
Sanitary/Septic Waste Management	Prevent or reduce the discharge of pollutants to stormwater from sanitary/septic waste by providing convenient, well-maintained facilities, and arranging for regular service and disposal.
Vehicle and Equipment Maintenance	Prevent fuel spills and leaks, and reduce their impacts to stormwater by using off-site facilities, fueling in designated areas only, enclosing or covering stored fuel, implementing spill controls, and training employees and subcontractors.
<i>Adapted from: Department of Environmental Services, City and County of Honolulu, Stormwater Management Plan, March 30, 2007. State of California Department of Transportation (Caltrans), Stormwater Quality Handbooks, Construction Site Best Management Practices Manual, March 2003. California Stormwater Best Management Practice Handbook, Construction, January 2003.</i>	

5.2.3 Site Inspection and Enforcement

Construction sites will be inspected for compliance with the stormwater-related requirements until construction is terminated, the site has been stabilized, and the site's NPDES construction permit has been closed. Inspections will be at least once every two weeks during the months of October through April, then at least bi-monthly during the remaining months. Inspections will ensure the following:

- ✓ Sediments generated at the project site are retained using adequate source control and structural BMPs;
- ✓ Construction-related materials and wastes are retained at the project site to avoid discharge to the storm sewer and waters of the United States;
- ✓ Unauthorized non-stormwater runoff is contained at the project site; and
- ✓ Erosion from slopes and channels are controlled by implementing an effective combination of erosion and sediment control BMPs, such as limiting grading during the wet season; inspecting graded areas during rain events; planting and maintenance of vegetation on slopes; and covering slopes susceptible to erosion.

Enforcement will be executed according to the IEP located in Harbor Division's EMS Manual.

Annual reports will include a list of all construction projects, inspection dates, and resolution of any violations of stormwater-related requirements.

BMP 5-2-3 Site Inspection and Enforcement

Goal: Ensure implementation of BMPs and controls by construction site operators through inspection and enforcement.					
Activity	Evaluation Indicators	Milestones	Time Frame/Due Date	Responsible Party	Status/Comments
Perform inspections of permitted construction sites for implementation of construction site BMPs	Frequency of inspection	At least once every two weeks during the months of October thru April, then at least bi-monthly during the remaining months	Continuous	Harbors Division, Site Inspectors	
	Number of construction sites inspected	100% of construction sites	Continuous	Harbors Division, Site Inspectors	
Incorporate inspection of stormwater components into inspection program	Construction site stormwater deficiencies are reduced	Deficiencies are reduced from previous year	Annually	Harbors Division, Site Inspectors	
Keep a list of all construction projects, inspection dates, and resolution of any violations for the annual reports	Completeness of inventory	100% of construction sites, inspections, resolutions, and violations recorded	Annually	Harbors Construction and Environmental Engineering	

5.2.4 Receipt of Public Input

Harbors Division will remain open to public comment and illicit/NSWD reporting. The public will be able to contact Harbors Division via hotline, email, website, or mail. The communication will be logged and appropriate responses shall be made. If a violation is reported, an inspection will be made following receipt of the report and appropriate enforcement actions will be taken. All hotline reporting will be recorded on a SHOT form (Appendix D).

BMP 5-2-4 Receipt of Public Input

Goal: To remain receptive public to opinion and involvement					
Activity	Evaluation Indicators	Milestones	Time Frame/Due Date	Responsible Party	Status/ Comments
Accept and follow up on public reporting and record outcome	Track number of public reports	Increase from previous year	Continuous	Harbors Environmental Engineering	

5.2.5 Training and Outreach

Harbors Division employees who are responsible for construction plan review and site inspections will be trained annually in the requirements of the MS4 SWMP and Hawaii General Permits

Internal training procedures and materials for construction plan and BMP review staff and inspectors will be developed. The training program provides for informed review and inspection so as to prevent pollution discharges and improve the overall quality of BMPs during the early stages of construction planning.

Education and outreach will be provided for stakeholders. Harbors Engineering Branch will develop educational materials to include in an educational package to be given to each construction site as applicable to be distributed during the pre-construction meeting. Educational materials will include construction stormwater BMPs and will be available electronically on the website or in hard copy upon request. The intent of these educational materials is to make certain that the site manager or onsite coordinator is aware of the proper installation and maintenance procedures for construction stormwater BMPs.

BMP 5-2-5 Training and Outreach

Goal: Foster widespread knowledge of construction BMPs					
Activity	Evaluation Indicators	Milestones	Time Frame/Due Date	Responsible Party	Status/Comments
Develop internal training materials for plan review staff and inspectors	N/A	N/A	One time	Harbors Environmental Engineering	
Conduct training for employees who are responsible for construction site inspections	Educate construction inspectors about BMP selection, installation, inspection, & maintenance	100% of construction site inspectors received education	Annually	Harbors Environmental Engineering	
Provide educational materials for plan reviewers	Percent of plan reviewers receiving educational materials	100% of plan reviewers received educational materials	Ongoing	Harbors Construction and Environmental Engineering	
Provide educational package to construction sites	Percentage of construction sites covered	100%	One time	Harbors Engineering Branch	
Post educational materials on Harbors website	Increase views to website	Increased views from previous year	Ongoing	Harbors Web Master	

5.2.6 Dredge Spoil Stockpile Management Plan

Harbors has developed a dredged spoil stockpile management plan for implementation of erosion and sediment control BMPs (Appendix N). The plan will also be applied at future dredge spoil stockpiles, if any. The purpose of the plan is to prevent both wind-and water-caused erosion of the stockpiled materials.

The dredge spoil stockpile management plan is an integrated process that begins with an investigation of the existing stockpiles and inspection and maintenance of the existing BMPs. The stockpile investigation will allow for proper design of additional BMPs. It will also provide characterization of the stockpiles to aid in beneficial reuse of the material.

Prior to any stockpile construction, a separate construction stormwater pollution prevention plan will be developed to manage erosion and sediment, good housekeeping, inspections, maintenance,

record keeping and other concerns associated directly with the construction activity of removing or adding to the dredge spoil stockpiles.

The BMPs designated in the dredge spoil stockpile plan are based upon estimates and projections of stockpile material, slope, condition of existing BMPs, and size of stockpile areas. BMP sizing, location and type may change once initial inspections are conducted and data has been reviewed.

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6.0 POST-CONSTRUCTION STORMWATER MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT



6.1 PERMIT REQUIREMENTS

Vegetated Swale, Kahului, Hawaii

HAR Chapter 11-55 Appendix K Part 6.(a)(4). Develop, implement and enforce a program to reduce pollutants in storm runoff entering the permittee's small municipal separate stormwater sewer system from new development and redevelopment projects which disturb greater than or equal to one acre, including construction sites less than one acre that are part of a large common plan or development or site that would disturb one acre or more, that, at a minimum, includes the following:

- (A) Establishment of rules, ordinances, and other regulatory mechanism, including enforcement procedures and actions, that address post-construction runoff from new development and redevelopment projects,*
- (B) Structural or non-structural best management practices to minimize water quality impacts and attempt to maintain pre-development runoff conditions, and*
- (C) Procedures for long-term operation and maintenance of best management practices.*

6.2 POST-CONSTRUCTION STORMWATER MANAGEMENT PROGRAM

Harbors Division has developed a Post-Construction Stormwater Management Program as part of the SWMP for polluted stormwater discharges from areas of new development and significant redevelopment. This program includes project reviews based on the post-construction erosion control NPDES permit regulations and the Development Standards requirements. The purpose of the post-construction program is to provide a mechanism by which ongoing protection of stormwater quality can be addressed and attained.

The project approval process for the post-construction control program will follow the outline provided in Figure 6-1, Construction Project Approval and Post-Construction Follow-Up. Improvements to the current inspection will include the use of a final inspection to verify and document that post construction controls were implemented as approved during the plan review process.

Post-construction stormwater management is also addressed in part by the preceding minimum control measures: public education and outreach, public involvement and participation, and illicit discharge detection and elimination.

6.2.1 Construction Permit Review Process

As part of the NPDES program, HDOH Clean Water Branch administers review of projects that are equal to or greater than one acre in size. Applicants for coverage under the Nationwide General Permit or Individual Stormwater Discharge Permits submit applications including descriptions of the project scope and schedule, contractor, past land use history, existing conditions and potential pollution sources, construction and post-construction site-specific BMPs.

Harbors Division's review process has the goal of maintaining or improving pre-development runoff conditions. As such, Harbors requires construction applicants to perform a pre- and post-development hydrological analysis to protect natural channels from erosion, to size storm drainage infrastructure, and to address flooding.

Harbors Division will identify controls that provide treatment and reduce stormwater volume and velocity. These controls may need to be installed where site design and source controls are not adequate to minimize stormwater pollutants. Treatment controls should be designed and sized to control runoff from a specific storm size appropriate for the area. Treatment controls can include bio-filters, detention basins, infiltration basins, wet ponds or wetlands, drainage inserts, filtration, and hydrodynamic separation devices.

On-going maintenance must be ensured as BMPs are not effective unless properly maintained. The plan must address who will be responsible for on-going maintenance.

BMP 6-2-1 Review NPDES Permit Application

Goal: To ensure that long-term controls are in place to prevent degradation of stormwater					
Activity	Evaluation Indicators	Milestones	Time Frame/Due Date	Responsible Party	Status/ Comments
Review NPDES Permit and LIDS compliance applications	Percentage of applications reviewed	100% of applications	Continuous	Harbors Division Environmental, Design and Maintenance Sections	

6.2.2 Low Impact Development Standards Plan

Harbors Division has developed a low impact development standard (LIDS, see Appendix K) that requires measures to reduce pollution discharges to the MEP from all new development and significant redevelopment projects. The LIDS requirements apply to all new development and significant redevelopment projects. The term "significant redevelopment" is defined as the creation or addition of at least 5,000 square feet of impervious surfaces on an already developed site. Significant redevelopment includes, but is not limited to expansion of a building footprint, or

replacement of a structure; replacement of impervious surface that is not part of a routine maintenance activity; and land-disturbing activities related to structural or impervious surfaces. Where significant redevelopment will result in an increase of less than 50 percent of the impervious surfaces of a previously existing development, and the existing development was not subject to LIDS, the BMP design standards discussed in Section 6.2.3 apply only to the addition, and need not be applied to the entire development.

All new development and significant redevelopment projects will be reviewed and conditioned for compliance with the low impact development standard. Proposed tenant project plans will be reviewed by Harbors Division to determine what measures are required to ensure that all development is in compliance with the tenant lease agreements, TRPs, and other applicable requirements.

Listed below are criteria covered in the LIDS:

- ✓ LIDS includes a list of recommended source reduction and structural treatment control BMPs for all new development and significant redevelopment.
- ✓ LIDS considered activities of concern typical for Harbor areas governed by the document with a strong emphasis on managing additional non-pervious construction.

In selecting BMPs, the following were considered:

- ✓ Pollutants of concern including sediment and trace quantities of oil, grease and metals anticipated from large paved and non-vegetated areas;
- ✓ Changes in flow rates and volumes resulting from the development project and sensitivity of receiving waters to changes in flow rates and volumes.
- ✓ LIDS requires the utilization of Low Impact Design (LID) applications and approaches with the goal of maintaining or improving pre-development runoff conditions.
- ✓ The LIDS describes procedures Harbors Division will use to implement the development standard. The procedures include identification of the roles and responsibilities of various Harbors Division engineering sections in implementing the LIDS, as well as any other measures necessary to ensure its implementation.

The LIDS suggests existing technologies coupled with emerging low impact design technologies are critical in meeting the objective of maintaining or improving pre-development runoff conditions. The site's hydrology after construction should mimic the natural hydrology by following better site design principles including minimizing the projects impervious footprint, conserving natural areas, and minimizing directly connected impervious areas. These types of practices encourage and reduce the volume of stormwater discharged from the site.

Future tenant construction will require implementation of LIDS. Tenants that do not comply with the LIDS requirements will require lease and/or TRP amendments. If the amendments are not successful in promoting compliance, further action will be enacted within the authority of Harbors contractual agreements with the tenant.

BMP 6-2-2 Low Impact Development Standards Plan

Goal: Reduce pollution discharges to the MEP from all new development and significant redevelopment projects					
Activity	Evaluation Indicators	Milestones	Time Frame/Due Date	Responsible Party	Status/Comments
Implement LIDS and amend tenant lease agreements and TRPs as necessary	Percentage of necessary lease agreement and TRP amendments conducted	100%	Within three months of approval	Harbors Environmental Engineering, Design and Maintenance	

6.2.3 Structural and Non-Structural BMPs

Post-construction stormwater quality efforts are currently addressed by Harbors Division through the following BMPs or integration of the following BMPs:

- ✓ Preserve undeveloped areas where such areas are not required by operations to be paved.
- ✓ Consider surface treatments for improved areas which retain rainfall and allow percolation rather than impervious surfacing which generates runoff, such as paver tiles in lieu of asphalt or concrete pavement,
- ✓ Preserve naturally occurring flat to low slopes in all areas, which minimize runoff concentration, quantity, velocity and erosive capability,
- ✓ Where runoff flows are concentrated, provide durable drainage systems sized to convey peak flows,
- ✓ Review construction plans to provide and maintain grading which limits the area of the drainage basin discharging into the harbor,
- ✓ Continuously monitor operations to ensure that major tenants using pier aprons adequately clean the aprons upon completion of loading/offloading activities.
- ✓ Implement structural BMPs that reduce the quantity of storm runoff at Kalaeloa Harbor including:
- ✓ Operational areas will be paved with reinforced concrete or asphalt concrete, to prevent erosion. These surfaces will also allow spills of materials to be cleaned up.
- ✓ Maintain minimal to low slopes throughout improved areas (access roadways, piers and aprons) where surfaced with asphalt or reinforced concrete, which reduces runoff peak flow quantities and velocity.

The USEPA Phase II Final Rule Fact Sheet breaks post-construction BMPs into the following categories identified in Table 6-1.

Table 6-1 Post-Construction BMP Types

Category	BMP Type	Description
Non-Structural BMPs	Outreach	Outreach and education efforts toward contractors can minimize runoff proactively. By educating contractors and giving them the resources/vendors through which to achieve runoff prevention, water quality can greatly be improved.
	Planning Procedures BMPs	Runoff problems can be addressed efficiently with sound planning procedures. Local master plans, comprehensive plans, and zoning ordinances can promote improved water quality by guiding growth away from sensitive areas.
	Site-Based BMPs	These BMPs can include buffer strip and riparian zone preservation, minimization of disturbance and imperviousness, and maximization of open space.
Structural BMPs	Stormwater Retention/Detention BMPs	Retention or detention BMPs control stormwater by gathering runoff in wet ponds, dry basins, or multi-chamber catch basins and slowly releasing it to receiving waters or drainage systems. These practices can be designed to both control stormwater volume and settle out particulates for pollutant removal.
	Infiltrative BMPs	Infiltrative BMPs are designed to facility the percolation of runoff through the soil to ground water, and, thereby result in reduced stormwater runoff quantity and reduced mobilization of pollutants. Examples include infiltration basins/trenches, dry wells, and porous pavement.
	Vegetative BMPs	Vegetative BMPs are landscaping features that, with optimal design and good soil conditions, remove pollutants, and facilitate percolation of runoff, thereby maintaining natural site hydrology, promoting healthier habitats, and increasing aesthetic appeal. Examples include grassy swales, filter strips, artificial wetlands, and rain gardens.

Harbors Division will evaluate current BMPs to determine if they sufficiently meet the requirements of the NPDES permit and, if they are lacking, Harbors Division will require tenants and contractors to implement the appropriate BMPs.

BMP 6-2-3 Structural and Non-Structural BMPs

Goal: Implementation of LID BMPs					
Activity	Evaluation Indicators	Milestones	Time Frame/Due Date	Responsible Party	Status/Comments
Evaluate current BMPs	Percentage of BMPs evaluated	100%	Annually	Harbors Construction and Environmental Engineering, Design and Maintenance	
Enforce development & implementation of new post-construction BMPs	Percentage of site potential pollutants are prevented	100%	Annually	Harbors Construction and Environmental Engineering, Design and Maintenance	

6.2.4 Operation, Maintenance, and Inspections

Structural or non-structural BMPs are not considered effective, nor are MEP criteria met, unless a long-term operation and maintenance procedure is put into place and carried out. Upon completion of construction, assurance is required for the long-term operation and maintenance of structural and non-structural BMPs. This assurance will be performed by Harbors Division by implementing the following processes.

Proof of maintenance should be established by a maintenance agreement that is implemented for the property. The maintenance agreement should contain the following information:

- ✓ A description of the routine maintenance that will need to be performed
- ✓ Schedules for maintenance
- ✓ Inspection requirements
- ✓ Provisions for maintenance staff to access the control or BMP
- ✓ Penalties for failure to maintain the control or BMP

Harbors Division will create a database of post-construction BMPs. The database will include BMP names, geographic location (in latitude and longitude), photographs of controls, operation and maintenance requirements, and frequency of control inspections.

The database will also include standard information about the construction site, such as project name, project description, owner, location, municipal grading or building permit number, construction start and end dates, and comments.

Inspection of post-construction BMPs and controls will be performed annually. This inspection will determine if controls and BMPs are in place, working properly, and if appropriate operation and maintenance practices have been performed according to the schedule.

BMP 6-2-4 Operations, Maintenance, and Inspections

Goal: To maintain effectiveness of BMPs through operations and maintenance plans					
Activity	Evaluation Indicators	Milestones	Time Frame/Due Date	Responsible Party	Status/ Comments
Create database to track operation and maintenance practices	Create a database	Database has been created	Once	Harbors Environmental Engineering	
Perform scheduled operation and maintenance practices	On-time completion of maintenance practices	100% of O&M has been confirmed conducted	As scheduled	Oahu District	
Inspect project for post-construction controls	Percentage of potential pollutants mitigated	Equal to maximum standard operating capacity	Upon completion of construction, then annually	Harbors Construction Inspectors and Environmental Engineering	

6.2.5 Stakeholder Education and Outreach, Employee Training

Tenants are notified annually through the TSI form mailing that their TRPs and tenant leases require maintenance of post-construction runoff control measures in their premises. An educational packet will be sent to all stakeholders during the TSI mailing that includes:

- ✓ Post-construction BMP Guidance Information
- ✓ Questions relating to post-construction stormwater management on the TSI

The packet will be utilized to inform all construction operators about follow-up BMP requirements for post-construction, and the importance of continuing site inspections after construction has been completed. Outreach information will be made available within the Harbors Division Stormwater Management web site pages and/or in hard copy format.

The effectiveness of this BMP will be measured by the number of plans reviewed and the number of inspections conducted.

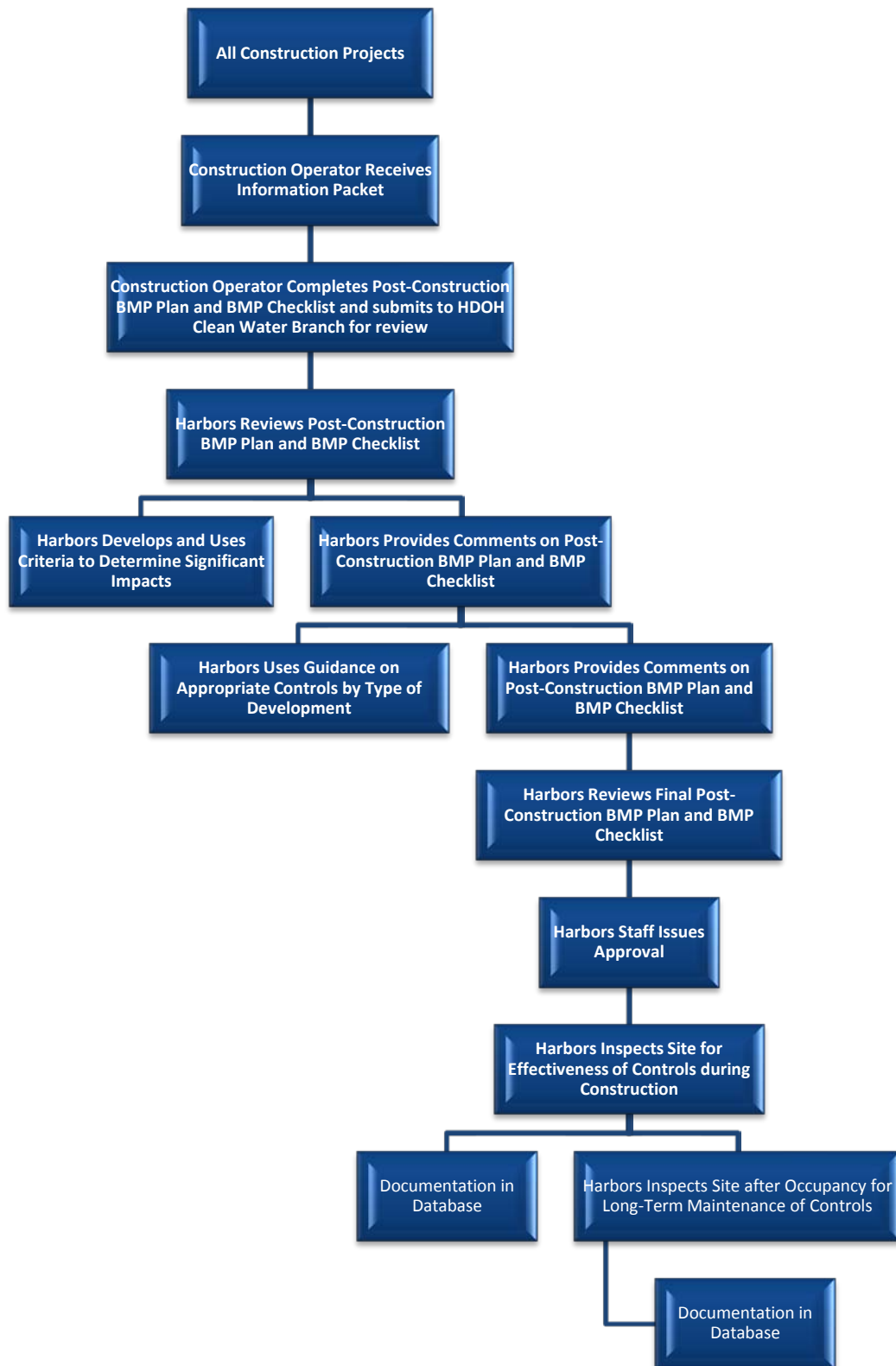
Harbors internal training will include guidance on the inspection of post-construction BMPs. Inspection training will include proper operations and maintenance of typical post construction BMPs, indicators of BMP failure, and inspection techniques. During preparation of the annual

report, onsite Harbors personnel will be queried as to the effectiveness of structural and non-structural BMPs.

BMP 6-2-5 Stakeholder Education and Outreach

Goal: Create awareness with stakeholders and employees to reduce post-construction run-off.					
Activity	Evaluation Indicators	Milestones	Time Frame/Due Date	Responsible Party	Status/ Comments
Develop post-construction educational package	N/A	N/A	Once	Harbors Environmental Engineering	
Distribute educational packet in TSI Mailing	Percentage of tenants in receipt of mailing	100%	Annually	Harbors Environmental Engineering	
Post information on Harbors Division website	Track number of views	Greater than previous year	Once	Harbors Web Master	
Conduct training	Percentage of employees and tenants trained	Greater than previous year	Annually	Harbors Environmental Engineering	

Figure 6-1 Construction Project Approval and Post-Construction Follow-up



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7.0 POLLUTION PREVENTION/GOOD HOUSEKEEPING



Hawaii Harbor (left) and Sand Island (right), January 2006

7.1 PERMIT REQUIREMENTS

HAR Chapter 11-55 Appendix K Part 6.(a)(4). *Develop, implement and enforce an operation and maintenance program to prevent and reduce stormwater pollution from activities, including but not limited to, park and open space maintenance, fleet and building maintenance, new construction and land disturbances, and stormwater system maintenance that, at a minimum, includes the following:*

- (A) *Good housekeeping and other control measures, and*
- (B) *Employee and contractor training on good housekeeping practices, to ensure that good housekeeping measures and best management practices are properly implemented.*

7.2 POLLUTION PREVENTION/GOOD HOUSEKEEPING PROGRAM

A Pollution Prevention/Good Housekeeping Program has been written as part of this SWMP to designate procedures for scheduled inspections and preventative debris removal from Harbor Division's MS4s with the ultimate goal of preventing or reducing pollutant runoff. The program includes an internal record-keeping system to schedule and document the maintenance activities performed on the storm drainage system, which may include catch basins, storm drain inlets, open channels, and any structural controls.

7.2.1 Maintenance and Housekeeping Practices

Maintenance is ongoing at tenant and Harbors facilities. The following maintenance activities are conducted:

- ✓ Emptying dumpsters and remove and dispose of discarded objects, machinery or equipment.
- ✓ Prompt repair/replacement of malfunctioning dumpsters

- ✓ General maintenance and repair of public facilities is conducted in-house, while a contractor is selected for most large projects.
- ✓ Grounds maintenance personnel-use fertilizer or herbicides in accordance with the manufacturer's instructions and in a manner that eliminates potential for runoff into the gutters, or storm drain system.
- ✓ Pier and apron cleanliness is assessed for debris and staining, and responsible parties notified to conduct cleaning as needed. Operators with leaking vehicles are required to park vehicles and equipment indoors/under cover, provide drip pans and repair leaks.
- ✓ Vehicle and equipment washing on Harbors property is prohibited unless performed in an approved wash facility.
- ✓ Clean up stains, spills, oil spots using dry cleanup methods.

Harbors Division will expand its maintenance program to include preventative maintenance of the storm drainage system, internal record keeping and scheduling, and appropriate training of employees.

Sweeping of streets, material handling and storage areas, parking lots, and docks will be performed by Harbors Division. Sweeping prevents microscopic pollutants from entering the ocean by removing them before they flow into the storm sewer. In addition to sweeping potential pollutants, trash, leaves and other debris will be collected, which will prevent debris from blocking storm drains and causing localized flooding. Wash water from sweeping will be collected to prevent its flow into the storm sewer system. Sweeping will be scheduled frequently and regularly according to an assessment of past sweeping activities.

Where Harbors Division cannot perform regular maintenance due to tenant operations, Harbors Division will require tenants to conduct their own regular maintenance. Tenants will be required to submit a schedule of maintenance to Harbors Division to ensure that it is being performed. Harbors Division will audit maintenance records during tenant inspections.

Adequate maintenance, such as sweeping, ensures that structural controls can operate properly. Harbors Division will clean and maintain storm drainage system catch basins, storm drain inlets, open channels, and any other structural controls. These structural controls will be inspected regularly.

Harbors Division will ensure that appropriate BMPs will be implemented by tenants to prevent or minimize the direct discharge of materials associated with shipping, receiving, and storage activities at its wharves. Example BMPs are listed in Table 7-1. An inventory of all materials that could contribute to stormwater pollution will be kept up-to-date by tenants and will be checked for accuracy during inspections.

Table 7-1 is a compilation of example BMPs and their descriptions taken from the following sources. Harbors Division will require implementation of appropriate BMPs for shipping, receiving, and storage activities as well as any other BMPs that will reduce the flow of pollutants off-site to the MEP.

- ✓ Department of Environmental Services, City and County of Honolulu, Stormwater Management Plan, March 30, 2007

- ✓ State of California Department of Transportation (Caltrans), Stormwater Quality Handbooks, Construction Site Best Management Practices Manual, March 2003.
- ✓ California Stormwater Best Management Practice Handbook, Construction, January 2003.

Environmentally preferred products are products that are manufactured with sustainability and environmental protection in mind. Figure 7-1 presents ten categories of environmentally preferred products and the specifications used by the EPA to designate them as such. Harbors will use these guidelines when making purchases related to these categories to the MEP.

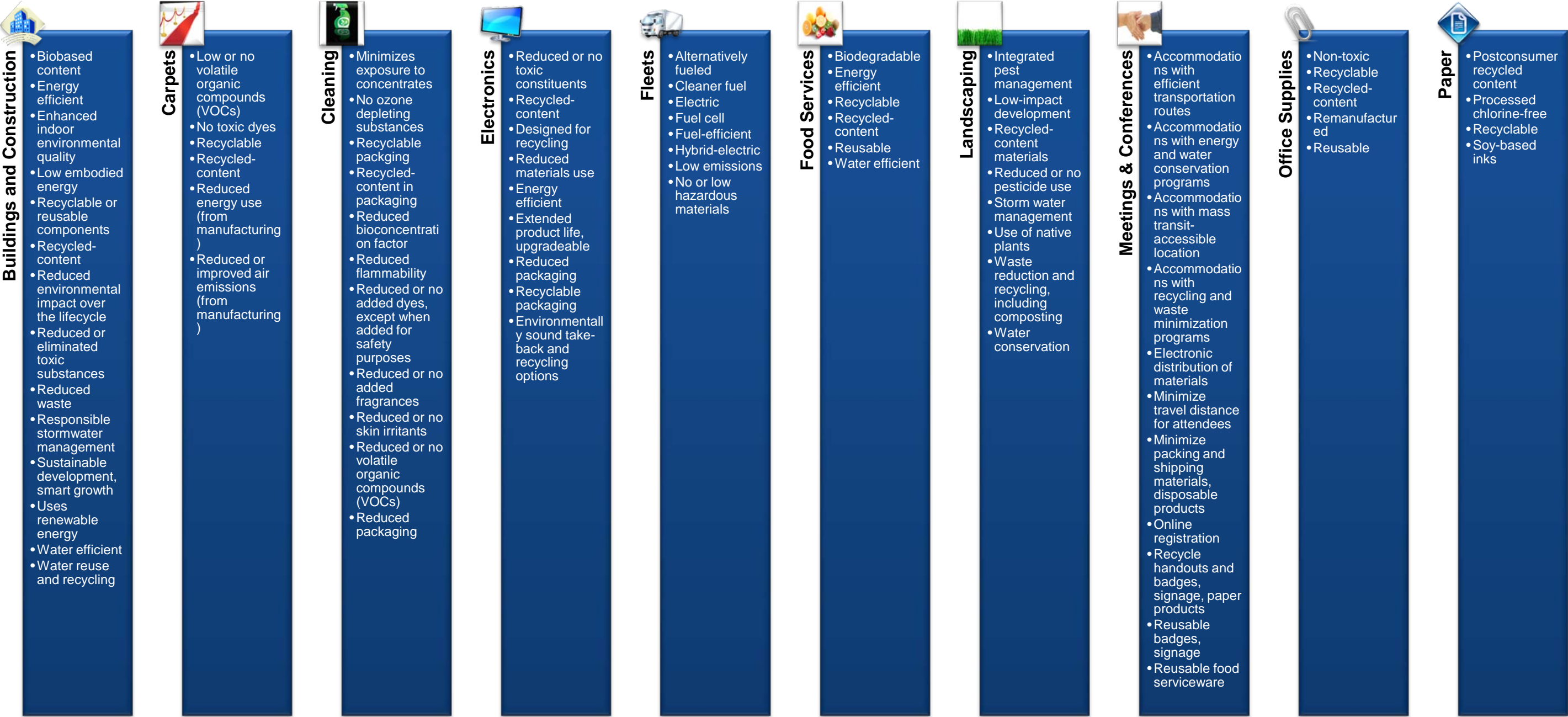
The best solution for rainwater that has been captured in hazardous material secondary containment is evaporation. Should the secondary containment need to be drained for any reason, the existence of residual hazardous materials should be investigated first. The guidelines in the site Spill Prevention and Control Countermeasure (SPCC) Plan will provide a process for inspecting, recording and authorizing rainwater releases from secondary containment. The site SPCC will take into consideration the nature of the stored material and the authority matrix for that individual facility. A secondary containment release without proper SPCC inspection and documentation could be considered an illicit discharge.

All materials stored outside of a building that may cause a threat to stormwater or the stormwater control and conveyance system should be covered when not in current use. Materials should also be elevated to prevent ponding or flowing water to come in contact with the material. The SPCC plan for each facility will provide further details on the typical site materials and designated material storage areas.

Washing of vehicles of any type is not allowed unless in a designated and properly operated and maintained vehicle washing facility. Unprotected vehicle washing can cause sediment, oil, grease, and heavy metals to enter the storm drain system. Alternatively, vehicles can be dry or wet wiped or swept down to remove dirt, oil and grease. All removed dirt, oil and grease should be collected and disposed of along with any rags used in the process.

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Figure 7-1 Environmentally Preferred Products



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Table 7-1 Example BMPs for Shipping, Receiving, and Storage Activities

BMP Name	Description
Material Delivery and Storage	Prevent or reduce the discharge of pollutants to stormwater from material delivery and storage by minimizing the storage of hazardous materials on-site, storing materials in a designated area, installing secondary containment, conducting regular inspections, and training employees and subcontractors.
Material Use	Prevent or reduce the discharge of pollutants to from material use by using alternative products, minimizing hazardous material use on-site, and training employees and subcontractors.
Spill Prevention and Control	Prevent or reduce the discharge of pollutants to stormwater from leaks and spills by reducing the chance for spills, stopping the source of spills, containing and cleaning up spills, properly disposing of spill materials, and training employees.
Solid Waste Management	Prevent or reduce discharge of pollutants to the land, groundwater, in stormwater from solid waste or construction demolition (C&D) waste by providing designated waste collection areas, separate containers for recyclable waste materials, timing collection of waste and recyclable materials with each stage of the construction or demolition project, and properly training subcontractors and employees.
Hazardous Waste Management	Prevent or reduce the discharge of pollutants to stormwater and to the land from hazardous waste through proper material use, waste disposal, and training of employees and subcontractors.
Contaminated Soil Management	Prevent or reduce the discharge of pollutants to stormwater and to the land from contaminated soil and highly acidic or alkaline soils by conducting pre-construction surveys, inspecting excavations regularly, and remediating contaminated soil promptly.
Sanitary/Septic Waste Management	Prevent or reduce the discharge of pollutants to stormwater from sanitary/septic waste by providing convenient, well-maintained facilities, and arranging for regular service and disposal.
Adapted from: Department of Environmental Services, City and County of Honolulu, Stormwater Management Plan, March 30, 2007. State of California Department of Transportation (Caltrans), Stormwater Quality Handbooks, Construction Site Best Management Practices Manual, March 2003. California Stormwater Best Management Practice Handbook, Construction, January 2003.	

BMP 7-1 Maintenance and Housekeeping Practices

Goal: To prevent pollutants from reaching the storm sewer system by using preventative maintenance practices and BMPs.					
Activity	Evaluation Indicators	Milestones	Time Frame/Due Date	Responsible Party	Status/Comments
Designate appropriate sweeping frequencies and perform sweeping	Percentage of facilities for which a written schedule is made and sweeping performed	100% of facilities	Designate frequencies immediately, perform as designated	Harbors Maintenance Management and Personnel; tenants	
Designate appropriate drainage system maintenance and perform maintenance according to priority	Percentage of drainage systems that have been designated as urgent that have been cleaned	100% of urgent drainage systems	Prioritize immediately, perform maintenance according to schedule	Harbors Maintenance Management and Personnel; tenants	
Provide general instructions for identification, storage, use, collection and treatment of drainage and housekeeping educational materials to tenants	Percentage of tenants to which educational materials have been provided	100% of tenants	Annually	Harbors Environmental Engineering	
Provide training to employees	Percentage of employees to whom training has been provided	100% of employees	Annually	Harbors Environmental Engineering	

7.2.2 Tenant Education and Employee Training

Tenants will be provided with instructions for identification, storage, use, collection and treatment of drainage from usage areas prior to discharge to storm or sanitary sewers and disposal of potential storm runoff pollutants. Educational materials based on those developed by the USEPA, City and County of Honolulu, and others will also be provided to tenants. These materials include instructions for refuse collection and disposal, comfort station maintenance, spill record keeping, advisories prohibiting disposal of regulated wastes, and inspection results

Harbors Division employees and tenants will be trained during annual workshops on the purposes and procedures pertaining to housekeeping and maintenance practices.

BMP 7-2 Tenant Education, Employee and Contractor Education

Goal: To prevent pollutants from reaching the storm sewer system by using preventative maintenance practices and BMPs.					
Activity	Evaluation Indicators	Milestones	Time Frame/Due Date	Responsible Party	Status/ Comments
Develop educational materials and distribute to tenants	Percentage of tenants in receipt of educational materials	100% of tenants	Annually	Harbors Environmental Engineering	
Hold training sessions for employees tasked with maintenance activities	100% of employees trained	100% of employees	Annually	Harbors Environmental Engineering	

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8.0 ANNUAL REPORT AND EFFECTIVENESS EVALUATION

8.1 REQUIREMENTS

HAR Chapter 11-55 Appendix K Part 9.(a). Annual Report. The submittal of the annual report by the permittee shall be postmarked or received by the department by the twenty-eighth day of January of the following year. The annual report shall cover each calendar year during the term of this permit and include the following:

- (A) Status of compliance with conditions of this permit;*
- (B) Assessment of the stormwater management plan, including progress towards implementing each minimum control measure;*
- (C) Modifications made to the stormwater management plan and implementation schedule during that calendar year, including justification;*
- (D) Summary of the stormwater activities planned to be undertaken during the next calendar year; and*
- (E) Major modifications made to the permittee's small municipal separate storm sewer system, including, but not limited to, addition and removal of outfalls, drainage lines, and treatment facilities*

8.2 ANNUAL REPORT AND EFFECTIVENESS EVALUATION FORMAT

In accordance with the permit regulations, an annual report will be postmarked or received by HDOH by January 28th of the following year. The annual report will describe the above components of SWMP activities accomplished during the previous year.

The annual report will include descriptions of each SWMP program component. Program components to be included in the reporting are in the checklist provided in Appendix L.

The assessment of control measures will include quantitative evaluations in order to assess their effectiveness. Such evaluations will include measurements or estimates of pollutant load reductions or increases. This assessment will also include funds expended or staff hours used. A budget summary for allocation of resources for 2010 is provided in Appendix M.

All reports submitted will be signed by a principal executive officer, ranking elected official, or duly authorized representative of Harbors division and shall include the following statement:

"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, I certify that 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."

BMP 8-2 Annual Report and Effectiveness Evaluation

Goal: 1) Ensure SWMP implementation. 2) Track long-term progress of SWMPs.					
Activity	Evaluation Indicators	Milestones	Time Frame/Due Date	Responsible Party	Status/ Comments
Write an Annual Report	Fulfill the Annual Report requirements of the permit and the Annual Performance and Effectiveness Evaluation requirements of the USEPA Administrative Order	Write one report	January 28, 2010, then annually	Harbors Environmental Engineering	

APPENDIX A

LEASE AGREEMENTS AND REVOCABLE PERMITS

Lease Agreement Addendum 1

Environmental Compliance - Lessee's Duties

ADDENDUM 1

ENVIRONMENTAL COMPLIANCE – LESSEE'S DUTIES

A. Definitions.

For purposes of this Lease, Lessee agrees and understands that the following terms shall have the following meanings:

“Environmental Laws” shall mean all federal, state and local laws of every nature including statutes, ordinances, rules, regulations, codes, notices, standards, directives of every kind, guidelines, permits, licenses, authorizations, approvals, interpretations of the foregoing by any court, legislative body, agency or official, judicial decisions, orders, rulings or judgments, or rules of common law which currently are in effect or which may come into effect through enactment, issuance, promulgation, adoption or otherwise, which in any way pertain to, relate to, or have any relevance to the environment, health or safety. These environmental laws include, but are not limited to, regulations and orders of the federal Environmental Protection Agency and of the State of Hawaii Department of Health.

“Hazardous Substance” shall mean and include any chemical, substance, organic or inorganic material, controlled substance, object, condition, waste, living organism, or combination thereof which is, may be, or has been determined by proper state or federal authority under any environmental law to be, hazardous to human health or safety or detrimental to the environment. This term shall include, but not be limited to, petroleum hydrocarbons, asbestos, radon, polychlorinated biphenyls (PCBs), methane, and other materials or substances that are regulated by state or federal authorities.

B. Lessee's Activities and Duties.

1. Compliance with Environmental Laws. Lessee agrees, at its sole expense and cost, to comply with all environmental laws that apply to the leased premises during the term of this lease, and Lessee's occupancy of, and activities on, the leased premises. This duty shall survive the expiration or termination of this lease which means that the Lessee's duty to comply with environmental laws shall include complying with all environmental laws, regulations and orders that may apply, or be determined to apply, to the occupancy and activities of the Lessee on the leased premises after the expiration or termination of this lease. Failure of the Lessee to comply with any environmental laws shall constitute a breach of this lease for which the Lessor shall be entitled, in its discretion, to terminate this lease and take any other action at law or in equity it deems appropriate. Lessee shall conform its operations with 49 CFR, Part 195 (Pipeline Safety), and shall install Time Domain Reflectivity (TDR) cable leak detection and monitoring equipment, which meet or exceed industry standards, adjacent to the fuel pipelines and related facilities, to provide an indication of any leak occurrence from any fuel pipeline or containment

device. In addition, the Lessee shall install a secondary containment wall/vaulting to prevent releases into the environment. The Lessee shall also develop, implement, and follow a written integrity management program that addresses the risks of each pipeline, and provides for periodic assessment of the integrity of each pipeline through internal inspection, pressure testing, or other equally effective assessment means, on a regular basis.

2. Hazardous Substances. Lessee shall not use, store, treat, dispose, discharge, release, generate, create, or otherwise handle any Hazardous Substance, or allow the same by any third person, on the leased premises (with the exception of the intended routine management of the petroleum products within the proposed pipeline) without first obtaining the written consent of the Lessor and complying with all environmental laws, including giving all required notices, reporting to, and obtaining permits from, all appropriate authorities, and complying with all provisions of this lease.

3. Notice to Lessor. Lessee shall keep Lessor fully informed at all times regarding all environmental law related matters affecting the Lessee or the leased premises. This duty shall include, without limited the foregoing duty, providing the Lessor with a current and complete list and accounting of all hazardous substances of every kind which are present on or about the leased premises and with evidence that the Lessee has in effect all required and appropriate permits, licenses, registrations, approvals and other consents that may be required of or by federal and state authorities under all environmental laws. This duty shall also include providing immediate written notice of any investigation, enforcement action, remediation, or other regulatory action, order of any type, or any legal action, initiated, issued, or any indication of an intent to do so, communicated in anyway to the Lessee by any federal or state authority, or individual, which relates in any way to any environmental law, or any hazardous substance, and the Lessee or the leased premises. As part of this written notice to the Lessor, the Lessee shall also immediately provide the Lessor with copies of all written communications from individuals, or state and federal authorities, including copies of all correspondence, claims, complaints, warnings, reports, technical data and any other documents received or obtained by the Lessee. At least thirty days prior to termination of this lease, or termination of the possession of the leased premises by Lessee, Lessee shall provide the Lessor with written evidence satisfactory to the Lessor that Lessee has fully complied with all environmental laws, including any orders issued by any governmental authority to the Lessee that relate to the leased premises.

4. Notice to Authorities. Lessee shall provide written notice to the Environmental Protection Agency and the State of Hawaii Department of Health at least sixty days prior to the termination of this lease, or sixty days prior to Lessee's termination of possession of the leased premises, whichever occurs first, that Lessee intends to vacate the leased premises and terminate its operations on those leased premises. Lessee shall allow the agents or representatives of said authorities access to the leased premises at any and all reasonable times for the purpose of inspecting the leased premises, and taking samples of any material for inspection or testing for compliance with any environmental laws. Lessee shall provide copies of said written notices to Lessor at the time said notices are provided to said authorities.

5. Disposal/Removal. Except for materials that are lawfully sold in the ordinary course of the Lessee's business, Lessee shall cause any hazardous substances to be removed from the leased premises for disposal, and to be transported from the leased premises solely by duly licensed hazardous substances transporters, to duly licensed facilities for final disposal as

required by all applicable environmental laws. Lessee shall provide Lessor with copies of documentary proof, including manifests, receipts, or bills of lading, which reflect that said hazardous substances have been properly removed and disposed of in accordance with all environmental laws.

6. Environmental Investigations and Assessments. The Lessee, at its sole cost and expense, shall cause to be conducted such investigations and assessments of the leased premises to determine the presence of any hazardous substance on, in, or under the leased premises as may be directed from time to time by the Lessor, in its sole discretion, or by any federal or state authority. The extent and number of any environmental investigations and assessments shall be determined by the Lessor or the federal or state authority directing said investigations and assessments to be conducted. Lessee shall retain a competent and qualified person or entity that is satisfactory to the Lessor or governmental authority, as the case may be, to conduct said investigations and assessments. Lessee shall direct said person or entity to provide the Lessor or governmental authority, if so requested, with testable portions of all samples of any soils, water, ground water, or other material that may be obtained for testing, and provide to the Lessor and the governmental authority written results of all tests on said samples upon completion of said testing.

7. Remediation. In the event that any hazardous substance is used, stored, treated, disposed on the premises, handled, discharged, released, or determined to be present on the leased premises, Lessee shall, at its sole expense and cost, remediate the leased premises of any hazardous substances, and dispose/remove said hazardous substance in accordance with paragraph 4. This duty to remediate includes strictly complying with all environmental laws and directives to the Lessee to remediate said hazardous substance from the Lessor. This duty to remediate shall include replacement of any materials, such as soils, so removed with material that is satisfactory to the Lessor and governmental authority, as the case may be. In the event Lessee does not remediate the leased premises to the same condition as it existed at the commencement of the lease, as determined by the Lessor, Lessee understands and agrees that Lessor may exercise its rights under the paragraph entitled Lessor's Right to Act, and until such time as the remediation is complete to the satisfaction of the Lessor, Lessee shall be liable for lease rent in the same manner and amount as if the lease had continued in effect during the period of remediation.

8. Restoration and Surrender of Premises. The Lessee hereby agrees to restore the leased premises, at its sole cost and expense, including the soil, water and structures on, in, or under the leased premises to the same condition as the premises existed at the commencement of this lease, fair wear and tear to the structures excepted. In the event Lessee does not restore the leased premises to the same condition as it existed at the commencement of the lease, as determined by the Lessor, Lessee understands and agrees that Lessor may exercise its rights under the paragraph entitled Lessor's Right to Act, and until such time as the restoration is complete to the satisfaction of the Lessor, Lessee shall be liable for lease rent in the same manner and amount as if the lease had continued in effect during the period of restoration.

9. Lessor's Right to Act. In the event Lessee fails for any reason to comply with any of its duties under this lease or under any environmental laws within the time set for doing so, or within a reasonable time as determined by the Lessor, Lessor shall have the right, but not the obligation, in its sole discretion, to perform those duties, or cause them to be performed. Lessee

hereby grants access to the leased premises at all reasonable hours to the Lessor, its agents, and anyone designated by the Lessor in order to perform said acts and duties. Any cost, expense, or liability of any type that may be incurred by the Lessor in performing said acts or duties shall be the sole responsibility of the Lessee, and Lessee hereby agrees to pay for those costs and expenses, and indemnify the Lessor for any liability incurred. This obligation shall extend to any costs and expenses incident to enforcement of Lessor's right to act, including litigation costs, attorneys fees, and the costs and fees for collection of said cost, expense or liability.

10. Release and Indemnity. Lessee hereby agrees to release the Lessor, its officers, agents, successors, and assigns from any liability of any kind, including, but not limited to, any liability for any damages, penalties, fines, judgments, or assessments that may be imposed or obtained by any person, agency, or governmental authority against the Lessee by reason of any hazardous substance that may be present by whatever means on, in or under the leased premises. The Lessee hereby agrees to indemnify, defend with counsel suitable to the Lessor, and hold harmless the Lessor from any liability that may arise in connection with, or by reason of, any occurrence involving any hazardous substance that may be alleged to be connected or related in any way with the leased premises, the Lessor's ownership of the premises, or this lease, including the presence of any hazardous substance on the leased premises.

11. Surety/Performance Bond for Cleanup/Restoration. At its sole cost and expense, Lessee shall provide the Lessor with a Bond, or other security satisfactory to Lessor, in the amount of \$100,000.00 to assure removal of any hazardous substances, and the remediation and restoration of the leased premises during the term of, and at the conclusion of the lease so as to comply with the terms of this lease to the satisfaction of the Lessor, and in order to comply with environmental laws. Lessee shall provide written evidence that said Bond or security has been secured by the Lessee, which evidence shall indicate the term during which said Bond or other security shall irrevocably remain in effect.

12. Insurance. Effective at the commencement of this lease, Lessee shall obtain and keep in force a comprehensive liability and property damage policy of insurance issued by an insurer licensed to do business in the State of Hawaii, with limits of indemnity coverage no less than \$1,000,000. Said policy of insurance shall provide coverage for personal injury or damage to property caused by hazardous substances or any occurrence that may constitute a violation of any environmental law by the Lessee. Said policy of insurance shall name the Lessor as an additional insured. Lessee shall provide proof of said insurance satisfactory to the Lessor which shall include, at a minimum, the coverage provided, and the term during which said policy shall be effective.

Excerpt from Standard Revocable Permit

Environmental Compliance - Permittee's Duties

26. SPECIAL TERMS AND CONDITIONS.

ENVIRONMENTAL COMPLIANCE – PERMITTEE’S DUTIES

A. Definitions.

For purposes of this Revocable Permit, Permittee agrees and understands that the following terms shall have the following meanings:

“Environmental Laws” shall mean all federal, state and local laws of every nature including statutes, ordinances, rules, regulations, codes, notices, standards, directives of every kind, guidelines, permits, licenses, authorizations, approvals, interpretations of the foregoing by any court, legislative body, agency or official, judicial decisions, orders, rulings or judgments, or rules of common law which currently are in effect or which may come into effect through enactment, issuance, promulgation, adoption or otherwise, which in any way pertain to, relate to, or have any relevance to the environment, health or safety. These environmental laws include, but are not limited to, regulations and orders of the federal Environmental Protection Agency and of the State of Hawaii Department of Health.

“Hazardous Substance” shall mean and include any chemical, substance, organic or inorganic material, controlled substance, object, condition, waste, living organism, or combination thereof which is, may be, or has been determined by proper state or federal authority under any environmental law to be, hazardous to human health or safety or detrimental to the environment. This term shall include, but not be limited to, petroleum hydrocarbons, asbestos, radon, polychlorinated biphenyls (PCBs), methane, and other materials or substances that are regulated by state or federal authorities.

B. Permittee’s Activities and Duties.

30 Compliance with Environmental Laws. Permittee agrees, at its sole expense and cost, to comply with all environmental laws that apply to the premises during the term of this Revocable Permit, and Permittee’s occupancy of, and activities on, the premises. This duty shall survive the expiration or termination of this Revocable Permit which means that the Permittee’s duty to comply with environmental laws shall include complying with all environmental laws, regulations and orders that may apply, or be determined to apply, to the occupancy and activities of the Permittee on the premises after the expiration or termination of this Revocable Permit. Failure of the Permittee to comply with any environmental laws shall constitute a breach of this Revocable Permit for which the State shall be entitled, in its discretion, to terminate this Revocable Permit and take any other action at law or in equity it deems appropriate.

40 Hazardous Substances. Permittee shall not use, store, treat, dispose, discharge, release, generate, create, or otherwise handle any Hazardous Substance, or allow the same by any third

person, on the premises without first obtaining the written consent of the State and complying with all environmental laws, including giving all required notices, reporting to, and obtaining permits from, all appropriate authorities, and complying with all provisions of this Revocable Permit.

3. Notice to the State. Permittee shall keep the State fully informed at all times regarding all Environmental law related matters affecting the Permittee or the premises. This duty shall include, without limit to the foregoing duty, providing the State with a current and complete list and accounting of all hazardous substances of every kind which are present on or about the premises and with evidence that the Permittee has in effect all required and appropriate permits, licenses, registrations, approvals and other consents that may be required of or by federal and state authorities under all environmental laws. This duty shall also include providing immediate written notice of any investigation, enforcement action, remediation or other regulatory action, order of any type, or any legal action, initiated, issued, or any indication of an intent to do so, communicated in anyway to the Permittee by any federal or state authority or individual which relates in any way to any environmental law or any hazardous substance and the Permittee or the premises. This written notice to the State shall include the Permittee immediately providing the State with copies of all written communications from individuals or state and federal authorities, including copies of all correspondence, claims, complaints, warnings, reports, technical data and any other documents received or obtained by the Permittee. At least thirty (30) days prior to termination of this Revocable Permit, or termination of the possession of the premises by Permittee, which ever shall first occur, Permittee shall provide the State with written evidence satisfactory to the State that Permittee has fully complied with all environmental laws, including any orders issued by any governmental authority to the Permittee that relate to the premises.

4. Notice to Authorities. Permittee shall provide written notice to the Environmental Protection Agency and the State of Hawaii Department of Health at least sixty (60) days prior to the termination of this Revocable Permit, or sixty (60) days prior to Permittee's termination of possession of the premises, whichever occurs first, the fact that Permittee intends to vacate the premises and terminate its operations on those premises. Permittee shall allow the agents or representatives of said authorities access to the premises at any and all reasonable times for the purpose of inspecting the premises and taking samples of any material for inspection or testing for compliance with any environmental laws. Permittee shall provide copies of said written notices to the State at the time said notices are provided to said authorities.

70 Disposal/Removal. Except for materials that are lawfully sold in the ordinary course of the Permittee's business and for which the Permittee has obtained all required authorizations from appropriate authorities including the prior written permission of the State to have said substance on the premises, Permittee shall cause any hazardous substances to be removed from the premises for disposal. This duty shall include the transportation of said hazardous substance from the premises solely by duly licensed hazardous substance transporters to duly licensed facilities for final disposal as required by all applicable environmental laws. Permittee shall provide the State with copies of documentary proof, including manifests, receipts or bills of lading, which reflect that said hazardous substances have been properly removed and disposed of in accordance with all environmental laws.

80 Environmental Investigations and Assessments. The Permittee, at its sole cost and expense, shall cause to be conducted such investigations and assessments of the premises to determine the presence of any hazardous substance on, in, or under the premises as may be directed from time to time by the State, in its sole discretion, or by any federal or state authority. The extent

and number of any environmental investigations and assessments shall be determined by the State or the federal or state authority directing said investigations and assessments to be conducted. Permittee shall retain a competent and qualified person or entity that is satisfactory to the State or governmental authority, as the case may be, to conduct said investigations and assessments. Permittee shall direct said person or entity to provide the State or governmental authority, if so requested, with testable portions of all samples of any soils, water, ground water or other material that may be obtained for testing and provide directly to the State and the governmental authority at the sole expense of the Permittee written results of all tests on said samples upon completion of said testing.

90 Remediation. In the event that any hazardous substance is used, stored, treated, disposed on the premises, handled, discharged, released, or determined to be present on the premises, or to have migrated from the premises, Permittee shall, at its sole expense and cost, remediate the premises, or any location off the premises to which it is determined that the hazardous substance has migrated, of any hazardous substances. Said duty to remediate includes the removal and disposal of said hazardous substances in accordance with paragraph 5. This duty to remediate includes strictly complying with all environmental laws and directives to remediate said hazardous substance issued from the State or any federal or State governmental authority charged with enforcing the Environmental laws. This duty to remediate shall include replacement of any materials, such as soils, removed with material that is satisfactory to the State and governmental authority, as the case may be.

:0 Restoration and Surrender of Premises. The Permittee hereby agrees to restore the premises, at its sole cost and expense, including the soil, water and structures on, in, or under the premises, to the same condition as the premises existed at the commencement of this Revocable Permit, fair wear and tear to the structures excepted. In the event Permittee does not restore the premises to the same condition as it existed at the commencement of the Revocable Permit, as determined by the State, the Permittee understands and agrees that the State may exercise its rights under the paragraph entitled State's Right to Act, and until such time as the restoration is complete to the satisfaction of the State, Permittee shall be liable for Revocable Permit rent in the same manner and amount as if the Revocable Permit had continued in effect during the period of restoration.

;0 State's Right to Act. In the event the Permittee fails for any reason to comply with any of its duties under this Revocable Permit or under any environmental laws within the time set for doing so, or within a reasonable time as determined by the State, the State shall have the right, but not the obligation, in its sole discretion, to perform those duties, or cause them to be performed. Permittee hereby grants access to the premises at all reasonable hours to the State, its agents and anyone designated by the State in order to perform said acts and duties. Any cost, expense or liability of any type that may be incurred by the State in performing said acts or duties shall be the sole responsibility of the Permittee and Permittee hereby agrees to pay for those costs and expenses and indemnify the State for any liability incurred. This obligation shall extend to any costs and expenses incident to enforcement of State's right to act, including litigation costs, attorneys fees and the costs and fees for collection of said cost, expense or liability.

10. Release and Indemnity. Permittee hereby agrees to release the State, its officers, agents, successors and assigns from any liability of any kind, including, but not limited to, any liability for any damages, penalties, fines, judgments or assessments that may be imposed or

obtained by any person, agency or governmental authority against the State and/or the Permittee by reason of any hazardous substance that may be present by whatever means on, in or under the premises. The Permittee hereby agrees to indemnify, defend with counsel suitable to the State, and hold harmless the State from any liability that may arise in connection with, or by reason of, any occurrence involving any hazardous substance that may be alleged to be connected or related in any way with the premises, the State's ownership of the premises, or this Revocable Permit, including the presence of any hazardous substance on the premises. Permittee understands and agrees that any assessments, fines or penalties that may be assessed against the Permittee or the State by reason of any environmental law violation concerning the premises shall be paid, complied with, and in every way satisfied by the Permittee and not the State.

11. Surety/Performance Bond for Cleanup/Restoration. At its sole cost and expense, Permittee shall provide the State with a Bond, or other security satisfactory to State, in the amount of \$ N/A to assure removal of any hazardous substances and the remediation and restoration of the premises during the term of, and at the conclusion of the Revocable Permit so as to comply with the terms of this Revocable Permit to the satisfaction of the State and in order to comply with environmental laws. Permittee shall provide written evidence that said Bond or security has been secured by the Permittee which evidence shall indicate the term during which said Bond or other security shall irrevocably remain in effect.

340 Insurance. Effective at the commencement of this Revocable Permit, Permittee shall obtain and keep in force a comprehensive liability and property damage policy of insurance issued by an insurer licensed to do business in the State of Hawaii with limits of indemnity coverage no less than \$500,000.00. Said policy of insurance shall provide coverage for personal injury and damage to property caused by hazardous substances or any occurrence that may constitute a violation of any environmental law by the Permittee or the State. Said policy of insurance shall name the State as an additional insured. Permittee shall provide proof of said insurance satisfactory to the State which shall include, at a minimum, the coverage provided and the term during which said policy shall be effective.

APPENDIX B

TENANT SELF-INSPECTION

**Tenant Stormwater Compliance Self Inspection Form**

LINE ITEM	FORM FIELD		
Company Information			
Business Name			
Street Address 1			
Street Address 2			
City, State			
Zip Code			
Business Owner / Operator			
Telephone Number			
Email Address			
Fax Number			
Tenant Since (month/year)			
Alternate Contact Name			
Tenant Information			
List Sub-tenants (if applicable)			
EPCRA Section 313 SIC Code			
Lease Number			
Permit Number			
Business Activity Description			
Pollution Prevention Info			
Do you use or store any oil products over 1,320 gallons total (over 24 55-gallon drums or bulk storage. Note: Count only containers over 55 gallons)?		YES	NO
Does your site have a SPCC Plan (Spill Prevention Control and Countermeasures) (Regulation-Title 40 CFR, Part 112)? If yes, please attach your current SPCC Plan, approved and certified by a registered Professional Engineer, if you did not submit it previously.		YES	NO
Do you have a National Pollutant Discharge Elimination System Permit (NPDES) or Notice of General Permit Coverage (NGPC), if so what is the number? _____		YES	NO
Do you generate any Hazardous Waste? If so identify the waste and provide your EPA Generator Identification Number. _____		YES	NO
What chemicals, which could pollute storm water runoff if released, are presently being stored on-site? (Attach additional sheets as necessary)			
Chemical Name	Quantity	Method of Storage	Outdoor / Indoor

LINE ITEM	FORM FIELD			
Pollution Prevention Info (Continued)				
Check possible pollutants in storm water from your facility/site. This should include any chemicals that are used, stored, or disposed of in the areas where potential pollutants may come into contact with rainwater and/or water runoff. Also include lubrication oil leaks from service equipment and vehicles.				
Acid Waste	Non-halogenated Solvents*	Alkaline Waste	Oils and Grease	Arsenic
Pesticides	Cadmium	Petroleum Hydrocarbons	Chromium	PCB's
Copper	Phenols	Cyanide	Selenium	Halogenated Solvents
Silver	Herbicides	Thallium	Mercury	Zinc
Nickel	Lubrication oil leaks	*(see 40 CFR 261.30 for a listing of non-halogenated solvents)		
Are there any other possible pollutants at your facility/site: (Identify them) _____				
Does your facility operate under a Department of Army Permit (Section 401 WQC)?				YES NO
Are there any other Federal Permits that you are required to submit? If so identify the permits. _____				
Where does your storm water discharge? _____				
Do you have any floors/decks located in chemical storage areas				YES NO
Do you have to submit SARA III reporting?				YES NO
Please provide a copy of your facility plans/drawing.				
Attach copies of any storm water studies conducted at your facility.				

LINE ITEM	FORM FIELD	
<p>Non-storm water discharges can be activity-based (subtle) or overt (pipe connections). Activities based non-storm water discharges include, but are not limited to: wash water, diluted solvents/chemicals, floor/dock-apron sweeper waste, and spillage. Typical overt discharges include, but are not limited to: process wastewater, cooling water, and sanitary wastewater.</p> <p>Any post-construction runoff control measures (such as detention basins and vegetated swales) on tenant premises must be maintained by the occupant as per the tenant lease agreement. These post-construction runoff controls will be identified during annual on site tenant inspections.</p>		
Pollution Prevention Info (Continued)		
<p>Are you aware of any non-storm water discharges or unauthorized connections to storm drains or groundwater surfaces at your facility?</p> <p>If yes, please describe location and nature of discharge.</p> <hr/>	YES	NO
<p>Are floor drains or deck drains located in the areas of chemical storage or chemical use, present at your facility?</p> <p>If yes, where is the discharge point?</p> <p>Sanitary sewer Ground surface Unknown</p>	YES	NO
Points of Contact for Water Pollution Reporting		
<p>The responsibility to maintain the cleanliness of Hawaii's coastal water lies with all Harbor tenants and users, and Hawaii residents. We all need to pitch in to anticipate, prevent and report inappropriate discharges. Reports of inappropriate discharges may be made to:</p>		
Point of Contact	Telephone Number	
Marine Traffic Control Center	808-587-2076	
Marine Cargo Specialist	808-587-2053	
City and County of Honolulu Environmental Concern Hotline	808-768-3300	
Department of Health, Clean Water Branch	808-586-4309	
Coast Guard	1-800-424-8802	
Feedback		
<p>We want to hear from you on how we can improve this program. Please fill out the comments section below to provide feedback on the information provided and the content of this form.</p>		
Did you find the information in this mailing useful?	YES	NO
<p>Comments:</p> 		

APPENDIX C

EDUCATIONAL MATERIALS



Only Rain goes in the Storm Drain!



Dump No Waste, Protect Our Ocean and Waterways

Did You Know...

The primary purpose of storm drains is to carry rain water away from developed areas to prevent flooding. Storm drains are **not** connected to sanitary sewer systems and treatment plants. Untreated storm water and the pollutants it carries flow directly to streams and the ocean.

Storm water pollution comes from a variety of sources including:

- Oil, fuel and fluids from vehicles and heavy equipment
- Lawn clippings, pesticide and fertilizer runoff from landscaping
- Sediment and concrete from construction and landscaping activities
- Bacteria from human and animal waste
- Litter



The Hawaii Department of Transportation Harbors Division (Harbors) is committed to improving water quality and reducing the amount of pollutants that enter our precious waterways.

Why do we need a clean environment?

Having a clean environment is of primary importance for our health and economy. Clean waterways provide commercial opportunities, recreation, fish habitat and add beauty to our landscape. All of us benefit from clean water – and all of us have a role in making and keeping our streams and ocean clean.



EVERYONE is responsible for protecting storm water!

Storm Water pollution prevention is a shared duty between the Harbors and the Community. Everyone has a part to play in keeping our storm drains free of pollutants. Methods used to prevent storm water pollution are called Best Management Practices (BMPs).

Help keep our streams and ocean clean! Below are some BMPs you can use at work.

Sweep or Rake

- Sweep up debris and put it in a trash Can. Do not use a hose to wash off sidewalks, parking areas and garages. Rake up yard waste and start a compost pile.



Reduce Use of Landscape Chemicals

- Minimize the use of lawn and garden care products such as pesticides, insecticides, weed killers, fertilizers, herbicides and other chemicals. Avoid over-irrigation which washes chemicals into the gutter and storm drains.

Use Soap Sparingly

- When washing your car at home, use soap sparingly, divert wash water to landscaped areas and pour your bucket of soapy water down the sink.

Clean up After Your Pets

- Take a bag when you walk your pets and be sure to always clean up after them. Flush pet waste down the toilet or dispose of it in a sealed plastic bag in the trash.

Buy Non-Toxic Products

- When possible, use non-toxic products for household cleaning. If you must use a toxic cleaning product, buy small quantities, Use it sparingly and properly dispose of unused portions.



What is the Storm Water Program?

Harbors is regulated by a municipal storm water permit that was issued by the State Department of Health. Harbors' Storm Water Program helps to ensure compliance with the permit by:



- Inspecting Harbors businesses and requiring BMPs to prevent pollution

- Investigating and eliminating illegal discharges to the storm water system



- Investigating stormwater outfalls to eliminate dry weather flows.

- Educating the public about ways to prevent storm water pollution



Are all discharges to the storm drain illegal?

In the strictest definition, only rain water can legally enter the storm drain. However, the permit currently allows some types of discharges into storm drains when BMPs are used to reduce pollutants. Some examples include:

- Landscape irrigation and lawn watering runoff
- Dechlorinated pool water
- Potable water sources
- Foundation drains
- Water line flushing



How do I report a storm water violation?

The Harbors Environmental Engineering division is prepared to receive referrals about storm water pollution and illegal discharges and to answer questions about storm water pollution prevention.

If you see someone dumping or washing waste or pollutants to the street or storm drain, please call **587-1962** or send an email to randal.leong@hawaii.gov. This information is then routed to the appropriate person for response.

Where can I get more information?

- Visit the EPA's storm water website at: <http://cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfm> to view brochures, documents or link to other water quality websites.
- Call **587-1962** to have information sent to you.

- To view a copy of the Permit, please go to <http://www.state.hi.us/dot/harbors/oahu/storm.htm>

What is Harbors doing to keep our waterways clean?

Significant efforts are being made by Harbors to help keep our waterways clean. A few program activities are listed below:

- Educating Harbors Tenants about storm water pollution prevention through our website, brochures, publications, workshops and public events.
- Inspecting construction sites to ensure that developers are implementing Best Management Practices.
- Implementing Best Management Practices at Harbors facilities.
- Conducting inspections of Harbors tenants to ensure businesses are aware of and complying with the storm water program requirements.
- Addressing storm water requirements for new development and significant redevelopment.
- Investigating reports of illegal discharges.
- Perform interagency SWMP coordination, including coordination and cooperation with City and County of Honolulu's Storm Water Quality Branch and State of Hawaii, Department of Transportation, Highways Division's Drainage Discharge Unit.

Be Part of the Pollution Solution
Storm Water Concerns: 808-587-1962



KEEP THE STORM DRAINS CLEAN

Storm water pollution is a problem that affects all of us. When it rains, water flows over our streets and yards and carries the pollutants it picks up into the storm drains. The problem is that storm drains are not connected to the wastewater treatment plant. So, what's in the streets flows directly into the ocean, *untreated*.

But you can make a difference. By maintaining the storm drains, you can help make our beaches free of pollution. Each company takes personal responsibility for their storm drains, making sure that debris is cleaned up and not going into our ocean. Contact Hawaii Department of Transportation Harbors Division for more information at 808-587-1962.

When you're at home, share your knowledge with neighbors and family. As you drive to work, be aware of any illegal discharges. And, if you do see an illegal discharge, report it.

Whether at home or at work, by adopting some simple Best Management Practices (BMPs), you can stop pollutants from being generated and entering our storm drain system.

- Use dry clean-up methods for spills and outdoor cleaning. Vacuum, sweep, and use rags or dry absorbents.
- Properly label, store and dispose of hazardous wastes.
- Rake, sweep-up, and place all debris (dust, litter, sediment, etc.) from your yard or near your property into a trash can.
- Use a mop where water is needed.

As you perform your daily activities be proactive. Assess the activity from a storm water pollution point-of-view and ask yourself; "does this activity, directly or indirectly, generate pollution?" And, "how can I get the job done and prevent debris from entering into the storm drain collection system?" Here are some general guidelines you can use at home or on the job:

The 3 Cs

Contain: Isolate your work area, to prevent any potential flow or discharge from leaving the area.



Control: Locate the nearest storm drain(s) and take measures to ensure nothing will enter or discharge into them. This may require you to sweep-up and place debris & sediment in a trash can prior to beginning the work activity.

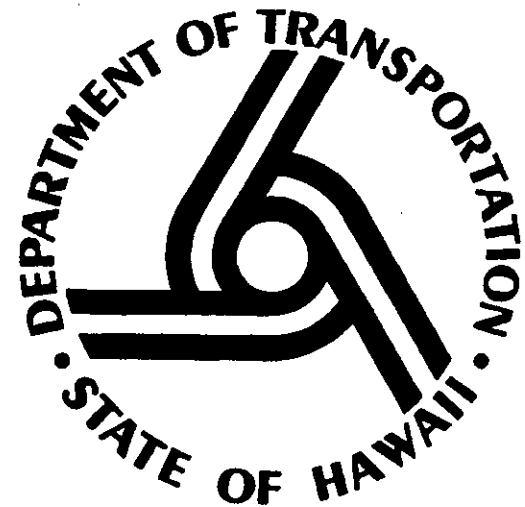
Capture: Once you have completed a job, be sure to clean-up the area. If there is sediment, sweep it up. If there are liquids, absorb it or vacuum it up with a wet-vac.



Remember, what you leave behind can potentially be discharged into the storm drain.

Be Part of the Pollution Solution
Storm Water Concerns: 808-587-1962

**STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS DIVISION**



USED OIL

사용유

DAÀU CUỖ

**CAÙC QUY TAÉC ÑIEÀU HAØNH HAÏ UY DI (HAWAII
ADMINISTRATIVE RULES, hay HAR)**

**HAR §19-42-126 Nghieâm caám vòút boù chaát thaùi bởa baõi hay
gaây oà nhieãm caùc vuøng ñaát.**

(b) Khoàng ñổõic xaù boù daàu, chaát pheá thaùi coù laãn daàu, caẽn
hoùa chaát hay caùc hỏip chaát hyñrocabon khaùc trong vuøng ñaát
thuoắc Tieáu Bang ngoaỉ trởø ðủ nhổõng nỏi thu hoài ñổõic thieát keá
ñieẽc bieát. Khoàng ñổõic boù nhổõng thờu naỷ vạo hoaẽc ñeỏ caĩnh
thuøng raùc tieáu chuaãn hoaẽc ðủ baát cồu choỏ naỷo khaùc trong
vuøng ñaát thuoắc haừi caùng. Hình phaiít, bao goàm nhỏng khoảng
haỉn cheá vieắc thu hoài giaáy pheùp neo ñaầu vạo quyẻn sủ ñuởng
caùc cô sủ.

**HAR §19-42-127 Nghieâm caám vòút boù chaát thaùi bởa baõi hay
gaây oà nhieãm nõõuc.** Khoàng ñổõic ñaết, neừm, boù hoaẽc xaù, hay
laøm cho ngổõõi khaùc ñaết, neừm, boù hoaẽc xaù baát kyø chaát
thaùi naỷo, hoaẽc chaát khí, chaát loùng hay vaắt lieủ raẻn khaùc
laøm cho vuøng nõõuc bỏ maắt veủ myổ quan, ñoắc haỉi hoaẽc taùc
haỉi khaùc nhỏ gaỷ baát lỏỉ cho sủc khoủe coảng ñoảng hay taỷo ra
moái nguy hieãm haỷng haừi xuoảng vuøng nõõuc cuủa baát cồu haừi
caùng naỷo, vuøng nõõuc soảng ngoaỉ hay treãn bởø thuoắc Tieáu
Bang. Khoàng ñổõic xaù caẻn buẻn daàu, chaát pheá thaùi coù laãn

daàu, daàu nhieãn lieủ hay maắt mía hoaẽc trởíc tieáp hoaẽc giaừn
tieáp, hay bỏm keừt nõõuc lỏõn taỷu hoaẽc nõõuc daẻn taỷu coù laãn
nõõuc saỉch khaùc xuoảng vuøng nõõuc cuủa baát cồu haừi caùng,
soảng ngoaỉ naỷo hay vạo baát kyø vuøng nõõuc treãn bởø naỷo
trong Tieáu Bang.

IV. THỎIC THI LUAẮT

Caùc vi phaỉm seỏ do Ñaỉ Lyủ Caùng vạo Ñỏn Vò Caủnh Saừt Haừi
Caùng ñieủu tra vạo ngổõõi vi phaỉm seỏ bỏ thờa ra toỷa. Caùc thieát
bỏ theo ðỏĩ thỉ ñuỉ nhỏ maỷu quay phim video cuỡng coù theỏ ñổõic
duởng ñeỏ nhaẻn ñieẻn ngổõõi vi phaỉm.

- Boû laïi phin loïc daàu hoaëc raüc trong traïm thu hoài daàu. Phin loïc daàu cuõng coù theá ñoïc xaù caïn baêng söùc noùng (ñaët ôû tö theá thaúng ñoùng vaø choïc thuúng loã ôû phía treân ñaénh, treân 60°F) trong 24 giôø, boû vaøo trong bao ny-loàng bòt kín, vaø boû vaøo thuøng raüc.

- Ñoá laãn daàu cuõ, nöôùc coù laãn daàu hay nhieân lieäu vôùi söûn, chaát pha söûn, chaát choáng ñoàng, xaø boàng hoaëc baát coù chaát thaùi nguy hieám naøo khaùc.

- Ñeá chaát thaùi nguy hieám ôû beân trong hay beân ngoaøi traïm thu hoài daàu hoaëc thuøng raüc. Chuû taøu phaûi chòu traùch nhieäm boû caùc chaát thaùi nhô vaây. Neáu quyù vò muoán bieát chaát thaùi naøo laø nguy hieám, xin lieân laïc vôùi Naï Lyù Haùï Caùng Kewalo Basin taï 594-0849.

- Ñoá chaát loùng vaøo trong giaù keá ôû trong traïm thu hoài daàu.

- Laáy caùc thuøng phuy 55 gallon roäng ra khoûi traïm thu hoài daàu ñeá böm daàu nhôùt, nöôùc coù laãn daàu hay nhieân lieäu diesel vaøo. Chuû taøu phaûi chòu traùch nhieäm cung caáp ñiù soá thuøng phuy ñeá chòu heát caùc chaát thaùi naøy.

- Ñeá thuøng phuy hay thuøng daàu nhôùt, nöôùc löôøn taøu hoaëc nhieân lieäu ôû beân ngoaøi traïm thu hoài daàu hay ôû gaøn thuøng raüc.

III. ÑIEÀU LUAÁT, LUAÁT LEÁ VAØ QUY ÑÒNH

Quy Cheá Duyeät Laï Haï Uy Di (Hawaii Revised Statutes, hay HRS)

HRS §342J Tieâu chuaán ñoái vôùi ngöôøi boû daàu cuõ hoaëc daàu nhôùt cuõ.

Khoäng ñoïc xaù hoaëc laøm cho ngöôøi khaùc xaù hoaëc cho pheùp xaù daàu saïch, daàu cuõ hay daàu taùi cheá vaøo ñoùng oáng coáng, heá thoáng thoát nöôùc, nöôùc maët hay nöôùc ngaàm, döng nöôùc töï nhieân, nöôùc bieán hay treân maët ñaát.

HRS §342D Hình phạt dân số quy ñònh phạt tối đa \$25,000.00 cho từng vi phạm riêng biệt.

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I. LỖI MÔU NÀU

Daàu cuõ laø nguon gaây oâ nhieãm nguy hieãm neáu khoâng ñoõïc quaûn lyù toát. Moät lít daàu cuõ coù theå gaây oâ nhieãm 250, 000 gallon nöôùc vaø coù theå laøm thoõng toản caù, chìm choùc vaø ñoõï soáng thuỷ sinh khaùc. Ngoaøi ra, daàu cuõ coøn chõua caùc thaønh phaàn ñoác toá coù theå gaây ung thõ vaø beãnh taät khaùc cho con ngöõï. Neáu trong daàu cuõ coù laãn chaát thaûi nguy hieãm nhõ dung môi, sôn, chaát pha sôn, chaát choáng ñoàng hay nhieân lieäu, thì toaøn boả hoãn hõp seõ trôù thaønh chaát thaûi nguy hieãm.

Daàu cuõ coù theå ñoõïc taùi cheá. Phaân Ban Haûi Caûng ñaõ thieát laäp ba traïm thu hoài daàu taï Caàu Taøu 18 vaø 36 trong Haûi Caûng Honolulu vaø ôù Kewalo Basin. Ba traïm naøy phuïc vuï mieãn phí cho taøu nhoû vaø taøu thoõng maïi côõ nhoû. Nhaø thaàu phuï seõ thu hoài vaø saép xeáp cho vieäc taùi cheá nhieân lieäu diesel, nöôùc löõøn taøu (nöôùc coù laãn daàu) vaø daàu cuõ.

II. CAÙCH SÖÙ DUÏNG TRAÏM THU HOÀI DAÀU

THÖÏC HIEÄN

- Ñoả thuøng côõ nhoû daàu nhöùt, nöôùc löõøn taøu vaø nhieân lieäu diesel vaøo trong thuøng phuy 55 gallon ñaõ chuaån bò saün. Khoâng ñoả laãn vôùi nhau caùc loaïi chaát löõng khaùc nhau.

- Phaûi chaéc raêng thuøng chõua ñoõïc trùt caïn hoøen toaøn vaø ñaët vaøo trong bao ny-loàng bòt kín tröôùc khi boû vaøo thuøng raùc.

- Lau doãn caùc chaát löõng laøm ñoả.

- Neáu thuøng phuy 55 gallon ñaõ ñaày, coù theå ñoả vaøo caùc thuøng chõua khaùc coù saün ñoõïc ñaët treân giaù kê ôù beãn trong traïm thu hoài daàu neáu chuùng vaãn coøn trong tình traïng toát vaø coù ghi nhaõn veà dung tích. Tình traïng toát coù nghóa laø kín khí, khoâng bò möùp meùo, ræ seùt, nöùt hay rò ræ.

- Ñaët thuøng phuy chaát löõng lên giaù kê ôù beãn trong traïm thu hoài daàu.

NGHIEÄM CAÁM

- Ñoả laãn nöôùc coù daàu (nöôùc löõøn taøu) hay nhieân lieäu vôùi daàu cuõ.

I. INTRODUCTION

Used oil is a dangerous pollutant if improperly managed. One quart of used oil can contaminate 250, 000 gallons of water and can injure fish, birds and other aquatic life. In addition, used oil contains toxic components that can cause cancer and other disease in humans. If used oil is contaminated with a hazardous waste such as solvents, paint, paint thinner, anti-freeze or fuel, the whole mixture becomes a hazardous waste.

Used oil can be recycled. Harbors Division has provided three oil collection stations at Pier 18 and 36 in Honolulu Harbor and at Kewalo Basin. These stations are provided at no cost to small craft and smaller commercial vessel users. A private contractor collects and arranges for recycling of diesel fuel, bilge water (oily water) and used oil.

II. Use of Oil Collection Stations

DO

- Pour smaller containers of oil, bilge water and diesel fuel into the 55-gallon drums provided. Do not mix different types of liquids.
- Ensure that containers are completely drained and placed in a closed plastic bag before disposal in the trash bins.
- Clean up spills from transfer of liquids.
- If 55-gallon drums are full, other containers may be left on the spill pallets inside the oil collection stations provided that the containers are in good condition and labeled with the contents. Good condition means tightly closed, not dented, rusted, cracked or leaking.
- Place drums of liquids on the spill pallets inside the oil collection station.

DO NOT

- Mix oily water (bilge water) or fuel with used oil.
- Leave oil filters or trash in the oil collection stations. Oil filters may be hot drained (placed in a vertical position with the top punctured, above 60 degrees Fahrenheit) for 24 hours, placed in a closed plastic bag, and disposed of in the trash bins.
- Contaminate used oil, oily water or diesel fuel with paint, paint thinner, anti-freeze, soap or any other hazardous waste.
- Leave hazardous waste in or outside the oil collection stations or trash bins. It is the responsibility of the vessel owner to dispose of such materials. If you have questions regarding whether a substance is hazardous, contact the Kewalo Basin Harbor Agent at 594-0849.
- Pour liquids into the spill pallets in the oil collection stations.
- Remove empty 55-gallon drums from the oil collection stations for pumping oil, oily water or diesel fuel into. It is the responsibility of the vessel owner to provide drums for larger quantities of these substances.
- Leave drums or containers of oil, bilge water or fuel outside the oil collection stations or in the vicinity of trash bins.

III. LAWS, RULES AND REGULATIONS

Hawaii Revised Statutes (HRS)

HRS §342J Standards for persons who deal with used oil or used oil fuel.

No new oil, used oil or recycled oil shall be discharged or caused or allowed to enter into the sewers, drainage systems, surface or ground water, watercourse, marine waters or onto the ground.

TIEAU BANG HÃI UY DI BAN GIAO THOANG PHAÂN BAN HAÛI CAÛNG

DAÀU CUÕ

MUÏC LUÏC

- I. LÕØI MÔU ÑÀÀU
- II. CAÛCH SÕU DUÏNG TRAÏM THU HOÀI DAÀU
- III. ÑIEÀU LUAÄT, LUAÄT LEÃ VAØ QUY ÑÒNH
- IV. THÕÏC THI LUAÄT

IV. 시행

위반하는 경우 항만 기관 및 항만 경찰서의 조사를 받게 되며, 위반자는 소환됩니다. 위반자의 식별을 위해 감시 기구가 사용될 수 있습니다.

HRS §342D Civil penalties provides for a maximum of \$25,000.00 for each separate offense.

HAWAII ADMINISTRATIVE RULES (HAR)

HAR §19-42-126 Littering or polluting land areas prohibited.

(b) No person shall deposit oil, oily refuse, sludge chemicals or other hydrocarbons on State property except in specially designated collection points. These items may not be left in or near standard refuse containers or anywhere else on harbors

property. Penalties, including but not limited to the revocation of mooring permits and the right to use the facilities may be invoked.

HAR §19-42-127 Littering or polluting of water prohibited. No person shall place, throw, deposit or discharge, or cause to be placed, thrown, deposited or discharged into the waters of any harbor, river or shore waters of the State any litter, or other gaseous, liquid or solid materials which render the waters unsightly, noxious or otherwise unwholesome so as to be detrimental to the public health and welfare or a navigational hazard. No person shall discharge oil sludge, oil refuse, fuel oil or molasses either directly or indirectly, or pump bilges or ballast tanks containing other than clean water into the waters of any harbor, river or into any shore waters in the State.

IV. ENFORCEMENT

Violations will be investigated by Harbor Agents and Harbor Police Units and violators will be cited. Surveillance devices such as video cameras may be used to identify violators.

III. 법률, 규정, 규칙

하와이주 개정법률 (HRS)

HRS §342J 사용유 또는 사용유 연료 취급자의 기준

신유, 사용유 또는 재생유는 하수관, 배수 장치, 표면수 또는 지면수, 수로, 해수 또는 지면으로 배출되거나 들어오도록 야기되거나 허용되어서는 안된다.

HRS §342D 각 별개의 위반에 대해 최고 \$25,000.00 의 민사 처벌이 주어진다.

하와이 행정규칙 (HAR)

HAR §19-42-126 지면에 쓰레기를 버리는 행위나 지면 오염은 금지된다.

(b) 특정 수집 장소 이외에는 주정부 재산에 어느 누구도 기름, 기름 찌꺼기, 슬러지 화학물 또는 기타 탄화수소물을 넣어서는 안된다. 이러한 품목들을 항구 소유지의 구역 쓰레기 용기 안이나 주변 또는 기타 장소에 두어서는 안된다. 계류 허가 및 시설사용권의 취소 등의 처벌이 결과될 수 있다.

HAR §19-42-127 물에 쓰레기를 버리거나 물을 오염시키는 행위는 금지된다. 어느 누구도 주 항구, 강 또는 해안의 물에 보기 흉하거나 유해하거나 기타 건강에 나쁜 쓰레기나 기타 기체, 액체 또는 고체 물질을 두거나, 던지거나, 놓거나 배출시키거나, 두거나 던지거나 놓거나 배출되도록 하여 공중의 건강과 복지 또는 해운의 유해를 초래해서는 안된다. 어느 누구도 기름 슬러지, 기름 찌꺼기, 연료 기름 또는 덩어리를 직접 또는 간접적으로 배출시키거나, 정수 이외의 물질이 함유된 감수나 밸러스트 탱크를 펌프로 퍼올려 주 항구, 강 또는 해안의 물에 유출해서는 안된다.

-액체 드럼들을 사용유 수집 장소 안의 스펠 팔레트에
놓으십시오.

금지 사항

-기름진 물(감수)이나 연료를 사용유와 섞지 마십시오.

-오일 필터나 쓰레기를 사용유 수집 장소에 두지 마십시오.
오일 필터의 기름은 24 시간 동안 뜨거운 상태로 빼 (화씨
60 도 이상의 온도에서 맨 위에 구멍을 낸 수직 상태로 놓아)
비닐백에 넣어 밀봉한 후 쓰레기 통에 버리면 됩니다.

-사용유, 기름진 물 또는 디젤 원료를 페인트, 페인트 시너,
부동액, 비누 또는 기타 위험 폐기물과 혼합시켜 오염시키지
마십시오.

-위험 폐기물을 사용유 수집 장소나 쓰레기 통의 안이나 밖에
두지 마십시오. 이러한 물질을 처분하는 것은 선박 소유주의
책임입니다. 특정 물질의 위험물질 여부에 관해 의문이
있으시면 594-0849 의 케알로 만 항만 기관에 연락하십시오.

-액체를 사용유 수집 장소의 스펠 팔레트에 붓지 마십시오.

-기름, 기름진 물 또는 디젤 원료를 채워 넣기 위해 사용유
수집 장소에서 빈 55 갤런 드럼을 치우지 마십시오. 이러한
물질들을 더 많이 담을 수 있는 드럼을 제공하는 것은 선박
소유주의 책임입니다.

-기름, 감수 또는 연료가 들어있는 드럼이나 용기를 사용유
수집 장소 바깥이나 쓰레기통 근처에 두지 마십시오.

하와이주
교통부
항만국

사용유

목차

- I. 서론
- II. 사용유 수집장소의 이용
- III. 법률, 규정 및 규칙
- IV. 시행

I. 서론

사용유는 부적절하게 관리되는 경우 위험을 초래하는 오염물질입니다. 1 쿼터의 사용유는 250, 000 갤런의 물을 오염시킬 수 있으며, 어류, 조류 및 기타 수중 생물을 해칠 수 있습니다. 또한 사용유에는 인간의 암과 기타 질병의 원인이 되는 유독 성분이 포함되어 있습니다. 사용유가 솔벤트, 페인트, 페인트 시너, 부동액이나 연료 등의 위험 폐기물과 혼합되어 불순하게 되는 경우, 모든 혼합물이 위험 폐기물이 됩니다.

사용유는 재활용될 수 있습니다. 항만국(Harbors Division)은 호놀룰루항의 제 18 부두와 제 36 부두 및 케알로 만에 3 개의 사용유 수집 장소를 마련했습니다. 이 장소들은 소형 선박과 소형 상선 사용자들에게 무료로 제공됩니다. 개인 계약회사들은 디젤 원료, 감수 (기름기 있는 물) 및 사용유를 수집하고 재생 준비를 합니다.

II. 사용유 수집장소의 이용

권장 사항

- 제공된 55 갤런 드럼들에 그보다 작은 용기에 들어 있는 기름, 감수 및 디젤 원료를 부으십시오. 서로 다른 종류의 액체들은 섞지 마십시오.
- 용기를 완전히 비워 비닐백에 넣어 밀봉한 후 쓰레기 통에 버리십시오.
- 용기를 바꾸어 넣을 때 엇질러진 액체를 씻으십시오.
- 55 갤런 드럼이 꽉 차면, 용기의 상태가 좋고 내용물이 표시된 경우, 사용유 수집 장소 안의 스펠 팔레트 위에 다른 용기들을 놓아도 됩니다. 좋은 상태란 단단히 잠기고, 움푹하게 들어가거나 녹이 나거나 금이 가거나 새는 곳이 없다는 것을 의미합니다.

APPENDIX D

STORMWATER HOTLINE OCCURRENCE TRACKING FORM

**Stormwater Hotline Occurrence Tracking (SHOT) Form**

LINE ITEM	FORM FIELD		
Caller Information			
Caller Name			
Caller Company			
Telephone Number			
Email Address			
Date/Time Received			
Occurrence Information			
Information Request	Discharge Reporting	Complaint	Commendation
Information Request			
Information Requested			
Actions Taken			
Additional Information			
Discharge Reporting			
Address or Location of Discharge			
Time/Date of Discharge			
Substance/Amount Discharged (if known)			
Media into which the discharge occurred: Air Water Natural Ground Concrete/Asphalt Stream Ocean Other: _____			
Responsible Party (if known)			
Cause of Discharge (if known)			
Clean-up Actions Taken (if applicable)			
Notifications Made/Actions Taken by Harbors Division			
Follow Information			

LINE ITEM	FORM FIELD
Complaint	
Nature of Complaint	
Complaint Details	
Notifications Made/Actions Taken by Harbors Division	
Commendation	
Commendation Details	
Notifications Made/Actions Taken by Harbors Division	
Points of Contact for Immediate Response	
In the event of an emergency needing immediate response, call the numbers listed below:	
Point of Contact	Telephone Number
Marine Traffic Control Center	808-587-2076
Marine Cargo Specialist	808-587-2053
City and County of Honolulu Environmental Concern Hotline	808-768-3300
Department of Health, Clean Water Branch	808-586-4309
Coast Guard	1-800-424-8802

APPENDIX E

TENANT INVENTORY

Date Responded (Letter)	Date Return Receipt Signed	Date Receipt Sent	Tenant	Address	POC	Telephone Address (Phone Book 2005-2006)	E-mail	Fax	Tenant Since Month/Yr	Sub Tenants	SIC	Lease Number	Permit Number	Primary Use and Activity of Facility	Oil Products Yes/N/A	NPEDE S Permit	Hazardous Waste Generator Yes/N/A	SARA III Yes/N/A	Other Federal Permits	Activities Conducted	Storm Water Discharged to	Identification of Potential Pollutant Sources	Chemicals Used on Site	Floors/Decks located in Chemical Storage Areas	Run-off during Dry Weather Yes/No	Non-Storm Water Discharges	Facility Plans Drawings Yes/N/A	Certification Date/Person
3-Nov-08	03-Oct-08	3-Nov-08	AALA Produce, INC. dba AALA SHIP SERVICE	869 North Nimitz Highway,	Rodney Tamamoto	(808) 576-0566	sales@aalaship.com	(808) 526-0102	Jan-01	N/A	N/A	H-98-2		Ship Chandler	No	N/A	N/A	No	N/A	Ship Chandler	Sewer Drain	N/A	N/A	N/A	No	No	No	
19-Nov-08	18-Nov-08		AES KALAELOA VENTURE LLC	91-086 Kaomi Loop	Robert Shampoe	(808) 682-4113	robert.shampoe@aes.com	(808) 682-5894	Jun-01	N/A	No	H-89-14		Marine Cargo Handling	No	No	No	No	Non-covered source permit (NSP) No. 0289-01-N	Marine Cargo Handling	Pier Run-off into harbor	Lubrication oil leaks, Unitek 146 Solvent, (Parafinic Napthenic Solvent)	Dust Treat DZ9117- 330 gallons (Berm Containment) [Outdoors]; Diesel- 55 gallons (Berm Containment)	No	No	No	Yes (Attached)	
6-Nov-08	03-Nov-08	6-Nov-08	AIRCRAFT SERVICE INTERNATIONAL GROUP / HAWAII FUELING FACILITIES CORPORATION	3201 Aolele Street	Ronald W. Barringer	(808) 833-3291 Ext. 24	ron.barringer@asig.com	(808) 833-3295	1969	N/A	424710		H-81-953	Releive, Test, Store, Distribute Jet Fuel	Yes SPCC Submitted Previously	Not for this facility	Yes Tank Bottom Sludges EPA Number-HID 984466805	Yes	No	Relieve, Test, Store, Distribute Jet Fuel	N/A Discharges	Oils and Grease, Herbicides, Petroleum Hydrocarbons (Jet Fuel), Lubrication oil Leaks	Jet Fuel Above Ground Storage (44,083,200 gallon) (Total of 16 tanks) Outside	Yes. There is N/A discharge point. Drains are locked in the closed position and never opened. All water is impounded until evaporated.	No	Rest room in Dispatch Office-Sanitary Waste Water	Yes (Attached)	See SPCC
12/16/2008	03-Nov-08		ALOHA AGRICULTURAL CONSULTANTS, INC. dba NIU NURSERY	P.O. Box 17220	Sidney Goo	845-5991/ 50B Sand Island Access Road	sidgoo@msn.com	808-845-3721	Feb-80	N/A	No		H-00-2233 H-97-1985	Distribution of Garden Supplies	No	No	No	No	N/A	Wholesale Garden Supplies	road, drain		Motor oil 2 qt; paint .5 gal	N/A	No	No	Yes (Attached)	
16-Dec-08	31-Oct-08		ALOHA CARGO AGENCY, INC.	677 Ala Moana Blvd., Suite 917	Thomas Crescenzi	(808) 536-7033	tom@acthi.com	(808) 531-3004	1-Jan-90	N/A	483111		H-02-2321 H-93-1822	Deck Barge Discharge and Loading	No	No	No	No	PHMSA Haz Mat Cert. Of Registration #050306 600 0080Q	Deck Barge Discharge and Loading	To open water	Oil and Grease; Potential lubricant oil leaks from vehicles and equipment as cargo in transit, liquids in cargo tanks in transit, containers in transit.	N/A	N/A	No	No	No	
17-Dec-08	31-Oct-08		ALOHA CONTAINER SALES & RENTAL, INC.	966 Robello Lane,	Richard D. Preston II (Rick Preston)	(808) 843-8600	alohacontainersales.rental@hawaiiintel.net	(808) 843-1805	Nov-02	N/A	4222		H-02-2344	Repair & Maintenance storage & modification of ocean cargo containers	No	No	N/A	No	No	Sale and Rental of Ocean Cargo Containers	Natural Runoff	None	N/A	No	No	Yes, Cesspool behind bathroom (toilet) facility	Yes (Attached)	
11-Dec-08	03-Nov-08		ALOHA PETROLEUM, LTD.	91-119 Hanua Street	Richard Conner	808-673-4296	rconner@alohagas.com	808-673-2069	Mar-99	N/A	5171	H-96-1 H-89-11		Bulk Fuel Storage	Yes	HIR80A998	Tank Bottoms; HID000062 6333	No	Clean Air Permit 0220-01-C 0220-04-N	Bulk Fuel Storage	Into ground and into drain inlet to Harbor	Oil and Grease; Petroleum Hydrocarbons; Lubrication Oil Leaks	Gasoline- 257,000 bbl (Outdoors); Diesel- 67,000 bbl (Outdoors); ethanol-	No	No	No	Yes (Attached)	
13-Jan-09	31-Oct-08		ALOHA TOOL & RENTAL, INC. dba Honolulu RECOVERY SYSTEMS CO.	207 Puuhale Road	Craid Matsuo	(808) 841-3179/ 207 Puuhale Road		808-842-0979	1992	None	N/A	H-97-1992	H-97-1999 H-97-1998, H-07-2591	Recycling-Cardboard, Newsprint, containers, etc.	No	HIR60C056	N/A	No	No	Recycling-Cardboard, Newsprint, containers, etc.	Keehi Lagoon	Oil and Grease	Diesel (only when delivered for fueling)	N/A	No	No	Yes (Attached)	
Late	10-Nov-08		ALOHA TOWER DEVELOPMENT CORPORATION	600 Fort Street,	Sandra Pfund	808-586-2530	spfund@alohatower.org	808-586-3046	1992		No		H-95-1892	Development Office	No	No	No	No	No	Waterfront Development	N/A		None	No	No	No	No	
31-Dec-08	31-Oct-08		AMAZON CONSTRUCTION COMPANY, INC.	5 Sand Island Access Road, Box 139,	Duston K. Onaga	(808) 841-6595	donaga@hawaiiintel.net	(808) 847-6846	Jun-96	N/A	N/A		H-98-2104 DOT-96-136	Specialty Contractor	No	No	None	No	No	Specialty Contractor	Storm Drain	Oils and Grease	Oil- 55 Gallon Drums (Outdoors); Fuel- (Storage Tank	No	No	No	Yes (Attached)	

Date Responded (Letter)	Date Return Receipt Signed	Date Receipt Sent	Tenant	Address	POC	Telephone Address (Phone Book 2005-2006)	E-mail	Fax	Tenant Since Month/Yr	Sub Tenants	SIC	Lease Number	Permit Number	Primary Use and Activity of Facility	Oil Products Yes/N/A	NPEDE S Permit	Hazardous Waste Generator Yes/N/A	SARA III Yes/N/A	Other Federal Permits	Activities Conducted	Storm Water Discharged to	Identification of Potential Pollutant Sources	Chemicals Used on Site	Floors/Decks located in Chemical Storage Areas	Run-off during Dry Weather Yes/No	Non-Storm Water Discharges	Facility Plans Drawings Yes/N/A	Certification Date/Person
	31-Oct-08		AMERICAN DIVERS, INC.	65 North Nimitz Highway, Pier 14,	Roger Nall	808-545-5190 c: (808) 479-5195	rusty@amsgqh.com	(808) 538-1703	Apr-85		No		H-89-1596	Commercial Diving Operations	No	No	EPA ID# HIR000069575	No	No	Commercial Diving Operations	Honolulu Harbor		Paint 50gal indoor	No	No	No	No	
12/5/2008	04-Nov-08		AMERICAN GUARD SERVICES, INC.	677 ALA MOANA BLVD., SUITE 725	Carla O'Bannan	(310) 645-6200	carla@mercanguardservices.com	(310) 645-6233	Jun-06					Security Guard Services	No	N/A	N/A	No	No	Security Guard Services	N/A		N/A	No	No	No	No	
	31-Oct-08		AMERICAN MARINE CORPORATION/AMERICAN WORKBOATS, INC.	65 North Nimitz Highway, Pier 14,	Roger Nall	808-545-5190 c: (808) 479-5195	rusty@amsgqh.com	(808) 538-1703	May-85		No		H-01-2277 H-01-2256 H-86-1384 H-86-1386	Marine Construction Operations	No	No	EPA ID# HIR000069575	No	No	Marine Construction Operations	Honolulu Harbor		Paint 50gal indoor, Oil 100gal indoor	No	No	No	No	
	31-Oct-08		AMERICAN WORKBOATS, INC.	65 North Nimitz Highway, Pier 14,	Roger Nall	808-545-5190 c: (808) 479-5195	rusty@amsgqh.com	(808) 538-1703	May-85	None	No		H-01-2277 H-01-2256 H-86-1384 H-86-1386	Tug Boart and Barge Operations	No	No	EPA ID# HIR000069575	No	No	Tug Boart and Barge Operations	Honolulu Harbor		Paint 50gal indoor, Oil 100gal indoor	No	No	No	No	
12/31/2008	31-Oct-08		AMERON INTERNATIONAL CORPORATION dba AMERON HAWAII	P.O. Box 29968,	Linda F. Goldstein	(808) 266-2672	lgoldstein@ameronhawaii.com	(808) 266-2669	1959		3273		H-97-1978 H-87-1453	Produce ready mix concrete	No	Yes, Sand Island HI0021075, Pier 60 HIR10C759	HID 980370191	No	No	Produce ready mix concrete	Keehi Lagoon	Particulates from stockpile (rock dust)	None	No	No	No	No	
14-Nov-08	05-Nov-08	14-Nov-08	ANUENUE REFUSE, INC.	P.O. Box 29114,	Naomi T. Arakaki	(808) 845-4235	anuenuer.com	(808) 848-0904	Sep-98	N/A			H-98-2093	Refuse Hauling	N/A	DOH File # R60C056	No	No	No	Refuse Hauling	Keehi Lagoon	None	None	No	No	No	No	
17-Nov-08	31-Oct-08	17-Nov-08	ATLANTIS CRUISES / ATLANTIS SUBMARINE HAWAII	1600 Kapiolani Blvd, Suite 1630,	Jon Chapman	808-832-6603	jchpman@atlantisadventures.com	808-832-6601	Feb-93	N/A	4489	4489	H-99-2	Submersible and Surface Vessel Maintenance	No	HI R80B138	No	No	No	Submersible and Surface Vessel Maintenance	Kapalma Basin	Waste Oil- 500 gallons (Steel Tank) [Outdoor with secondary containment and covered]; Paint- 60 gallons (Paint Locker) [Indoors]; Solvents- 20 gallons (Metal Container) [Indoors]	Acid waste, Lubrication oil leaks	No	No	Yes, rinse vessels during pre and post operational checks	Yes (Attached)	
17-Nov-08	31-Oct-08	17-Nov-08	ATLANTIS SUBMARINE HAWAII	1600 Kapiolani Blvd, Suite 1630,	Jon Chapman	(808) 832-6603	jchapman@atlantisadventures.com	(808) 832-6601	Feb-93	N/A	4489	H-99-2	H-00-2211	Submersible and surface vessel maintenance	No	NGPC File No. R80B138	No	No	No	Submarine Tours	Kapalma Basin	Waste Oil- 500 gallons (Steel Tank) [Outdoor with secondary containment and covered]; Paint- 60 gallons (Paint Locker) [Indoors]; Solvents- 20 gallons (Metal Container) [Indoors]	Acid waste, Lubrication oil leaks	No	No	Yes, rinse vessels during pre and post operational checks	Yes (Attached)	
12-Jan-09	03-Nov-08		BERING SEA ECCOTECH, INC.	91-343 Kaihola Street	James Directo (Operations Manager)	808-330-8991	jamesdirecto@bseak.com	(808) 682-1701	Feb-03	N/A	N/A		H-02-2372	Environmental Cleaning	No	No	N/A	No	N/A	Industrial Cleaning	On the Ground	Oil and Grease	N/A	N/A	No	No	No	

Date Responded (Letter)	Date Return Receipt Signed	Date Receipt Sent	Tenant	Address	POC	Telephone Address (Phone Book 2005-2006)	E-mail	Fax	Tenant Since Month/Yr	Sub Tenants	SIC	Lease Number	Permit Number	Primary Use and Activity of Facility	Oil Products Yes/N/A	NPEDE S Permit	Hazardous Waste Generator Yes/N/A	SARA III Yes/N/A	Other Federal Permits	Activities Conducted	Storm Water Discharged to	Identification of Potential Pollutant Sources	Chemicals Used on Site	Floors/Decks located in Chemical Storage Areas	Run-off during Dry Weather Yes/No	Non-Storm Water Discharges	Facility Plans Drawings Yes/N/A	Certification Date/Person
12/16/2008(Chevron does not have any discharges to the waters including Kewalo Basin, Honolulu Harbor, and Kalaeloa Barbers Point Harbor.)	03-Nov-08		CHEVRON U.S.A., INC. Honolulu Transportati on terminal	933 North Nimitz Highway	Dennis Morgan	527-2755/ 91-480 Malakole	dekm@chevron.com	(808) 545-1649	Jan-51		5171		H-00-2230 H-93-1812 H-92-1769 H-92-1765 H-90-1676 H-77-4	Terminal manager	Yes	No	HIT000615260	No	No		South corner of facility	oil and grease, petroleum hydrocarbons, lubrication oil leaks	Petroleum products 16000 gal outdoor above ground	No	No	No	Yes	
(Chevron does not have any discharges to the waters including Kewalo Basin, Honolulu Harbor, and Kalaeloa Barbers Point Harbor.)	03-Nov-08		CHEVRON U.S.A., INC.Honolulu Marine Terminal	777 North Nimitz Highway	Dennis Morgan	(808) 527-2755/ 91-480 Malakole	dekm@chevron.com	(808) 545-1049	Jan-10		5171		H-00-2230 H-93-1812 H-92-1769 H-92-1765 H-90-1676 H-77-4	Terminal Manager	Yes	No	HIT 000615203	No	No		South side of facility at Harbor wall	Oil and Grease, petroleum Hydrocarbons, lubrication oil leaks	Petroleum products 14,494,779 gallons above ground outdoor	No	No	No	Yes	
16-Dec-08	03-Nov-08		City & County of Honolulu, DEPT. OF ENVIRONMENTAL SERVICES	1000 Uloohia Street, suite 308	Allen Young	(808) 223-9613	ayoung@honolulu.gov	(808) 848-6532	1949	N/A	No		H-69-7: Non-Exclusive Easement for the Ala Moana Force Main Sewer Line H-95-1873: Storage of Construction Equipment and Supplies in Connection with Nimitz Hwy Relief Sewer (Terminated October 31,	Wastewater Pumping Station	Yes	HIR90A411	No	No	No	Wastewater Pumping Station	Into ground and into drain inlet to Harbor	Oils and Greases; Petroleum Hydrocarbons	N/A	No	No	No	No	
	31-Oct-08		City and County of Honolulu, dept. of Transportation Services	650 S. king Street, 3rd Floor	Darin Mar	808-768-8353	dmar@honolulu.gov	808-768-6987	Sep-07	None	No		H-07-2596	Park-N-Ride, bus Loading/Unloading for TheBoat passenger Ferry Services	No	No	No	No	No	Park-N-Ride, bus Loading/Unloading for TheBoat passenger Ferry Services	Kalaeloa Harbor	None	N/A	No	No	No	No	

Date Responded (Letter)	Date Return Receipt Signed	Date Receipt Sent	Tenant	Address	POC	Telephone Address (Phone Book 2005-2006)	E-mail	Fax	Tenant Since Month/Yr	Sub Tenants	SIC	Lease Number	Permit Number	Primary Use and Activity of Facility	Oil Products Yes/N/A	NPEDE S Permit	Hazardous Waste Generator Yes/N/A	SARA III Yes/N/A	Other Federal Permits	Activities Conducted	Storm Water Discharged to	Identification of Potential Pollutant Sources	Chemicals Used on Site	Floors/Decks located in Chemical Storage Areas	Run-off during Dry Weather Yes/No	Non-Storm Water Discharges	Facility Plans Drawings Yes/N/A	Certification Date/Person
1/13/2009	06-Nov-08		City & County of Honolulu, Honolulu FIRE DEPARTME NT (PIER 15)	111 North Nimitz Highway, Pier 15	Captain Lance Orillo or Mr. Mark Saizon	808-523-4957	msaizon@honolulu.gov	808-524-9032	1950	N/A			H-91-22	Fireboat Operations	No	No	No	No	No	Fireboat Operations	Into harbors storm drain	Oil and Grease	Engine Oil 110 gallons indoor	No	No	No	No	
12-Nov-08	31-Oct-08	12-Nov-08	CLEAN ISLANDS COUNCIL	179 Sand Island Access Road,	Kim Beasley	(808) 845-8465	kimb@cleanislands.org	(808) 845-8457	1991	N/A	N/A Not required to report-SIC Code; 4959		H-93-1815 H-90-1689 H-94-1842	Emergency Oil Spill Response	No	None	No	Yes	None	Emergency Oil Spill Response	Over the bulkhead to Harbors water	N/A	Gasoline (Less than 20 gallons in cans); Paint (Less than 50 gallons in cans)	Yes	No	No	Yes (Attached)	
14-Nov-08	31-Oct-08	14-Nov-08	CONCRETE CORING CO. OC HAWAII, INC.	99-1026 IWAENA STREET	Nathan Sabey	(808) 330-7516	Nsabey@penhall.com	(808) 487-6679		None	N/A		H-02-2355 / H-00-2235	Construction base yard	No	No	No	No	No	Constructi on base yard		lubrication oil leaks, possible	None	No	No	No	No	
			D & K PETROLE UM, INC.	P.O. BOX 5499																		N/A						
Japan Foods is their tenant			DAVENPORT HAWAII PARTNERS, LP	1400 QUAIL ST., STE. 195	Angela Brand	949.640.5100	abrand@divenportpartners.com	949.640.5141	Jul-02	Japan Foods		H-85-1		Office and Warehouse	No	No	No	No	No	Office and Warehous e		None	None	No	No	No	No	
24-Nov-08	31-Oct-08	24-Nov-08	DD-M LEASING, INC.	65 North Nimitz Highway, Pier 14,	Tiare Ohelo	(808) 791-0067 (office) (808) 772-9124 (Cell)	theoheolos@gmail.com	(808) 944-4835	2004	N/A	N/A	H-300138	H-04-2467	Office Space Only	No	N/A	N/A	No		Office Space Only			N/A					
26-Feb-09	31-Oct-08		DEDRICK, DEWAIN A.	701 North Nimitz Highway,	Dewain Andrew Dedrick	(808) 587-7779	andrew@bellapietra.com	(888) 251-4569	Jun-03	None	No	H-06-2552	H-02-2383	Distribution Natural Stone Tile no manufacturin g	No	N/A	N/A	No	None	Distribution Natural Stone Tile no manufacturin g	Drain near Harbor Police Office	Oil and Grease from forklift	None	No	No	No	Previously submitted	
5-Nov-08	31-Oct-08	5-Nov-08	DEPENDABLE HAWAIIAN EXPRESS, INC.	703 North Nimitz Highway,	Ron Richardson	(808) 841-7311 x1701	rrichardson@dhx.com	(808) 791-2785	2001	N/A	N/A		H-01-2285	Freight Forwarding	No	N/A	No	No	N/A	Freight Forwarding	Ocean	N/A	N/A	No	No	No	No	
1/7/2008	31-Oct-08		DRAFTSTONE COMPANY, INC.	P.O. Box 161117	Waldemar Rojek	808-737-4696	draftstone@gmail.com	808-737-4694	Jan-00	N/A	No		H-01-2274	Storage od Natural Stone	No	No	No	No	No		Naturally	N/A	N/A	No	No	No	No	
5-Jan-07	21-Nov-06	20-Nov-06	EARTH TECH, INC.	841 Bishop Street, Suite 500	Leslie Field/ Paul Chinen	(808) 523-8834	leslie.field@earthtech.com	(808) 523-8950	Office- Dec 2000 Warehouse- April 2000	N/A	N/A	Grapac Properties (Warehouse); Davies Pacific Center (Office)		Environment qal Services/Civil Engineering Design	N/A	N/A	N/A	N/A	N/A	Environme ntqal Services/Civil Engineerin g Design	N/A	N/A	N/A	N/A	No	No	No	
3-Dec-08	31-Oct-08		ED YAMASHIRO, INC.	45-552 Kamehameha Highway,	Aaron Yamashiro	(808) 247-6628 808-228-2189	eky2.inc@hawaiiantel.net	(808) 247-7870	May-78	N/A	42127353		H-91-1737	Hauling	Yes	No	No	No	No	Hauling	Ground Drainage		ULS Diesel Fuel ~ 5400 gallons outdoor	secondary containmnet around fuel tank	No	No	Yes (Attached)	
14-Nov-08	31-Oct-08	14-Nov-08	EQUILON ENTERPRIS ES, LLC/Shell Oil Products US Honolulu Terminal	789 N. Nimitz Hwy	Dwight Amemiya	808-537-3911	Dwight.amemiya@shell.com	808-538-1075	1950	N/A	5171		H-98-2068 H-98-2067 H-98-2066 H-98-2065 H-98-2064	Petroleum Fuel Terminal	Yes	HIR80B 250; HI02FB 319; HI98HA 808	Yes; Oily debris waste related to the maintenanc e of storage tanks; HID000631 655	Yes	None	Petroleum Fuel Terminal	Honolulu Harbor	Oil and Grease, petroleum hydrocarbon, ;ubrication oil leaks	Gasoline & Ethanol- (2,622,600 gallons) [Outdoors above ground storage]; Diesel (3,934 gallons) [Outdoors above ground	No	No	Yes	Yes (Attached)	
12/31/2008	03-Nov-08		ERIK BUILDERS, INC.	50-CC Sand Island Access Road,	Jimmy Sakata	845-7736/ 808-224-1033	ebihi@hawaiiantel.net	808-841-0591	1978		No		H-98-2092 H-97-1984	General Contractor	No	No	No		No		out from driveway		N/A	No	No	No	No	

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5-Nov-08	31-Oct-08	5-Nov-08	FRANK P. WHITE JR. PROPERTIE S dba CONTAINER STORAGE CO.	2276 Pahounui Drive,	Frank White	(808) 841-5555/ 2276 Pahounui Drive	fpwhite@aol.com	(808) 845-5552	Sep-89		No		H-01-211 H-97-1986	Storage of Ocean Containers empty	No	No	No	No	No	Storage of Ocean Containers Empty	Ground	N/A	N/A	No	No	No	No	
8-Dec-08	31-Oct-08		Fresh Island Fish, LLC	1135 North Nimitz Highway	Derek Higa	808-831-4911	derek@freshislandfish.com	808-836-8762	Nov-06		N/A	H-05-24		Fresh Fish Wholesaler	No	No	No	No	No	Fresh fish Wholesale r	in a trap	None	None	None	No	No	No	
12/24/2008			FRIENDS OF HOKULE'A & HAWAII'ILOA	P.O. Box 696,	Jay Dowsett	261-1841 256-1841/ Sand Island Access Road Pier 62	dowsetti001@hawaii.rr.com		1996		3732		H-98-2074	Canoe Building/Repair	No	No	N/A	No	N/A	Canoe Building/Repair	Ocean		N/A	No	No	No	No	
			FRIENDS OF FALLS OF CLYDE	P.O. BOX 25008																		N/A						
12/9/2008	01-Nov-08		FUKUNAGA, PAUL N. dba P.F. MARINE	1391 Haloa Drive	Paul N Fukunaga	842-1330		(808) 845-8255	Jul-02	None	No		H-02-2339	Fiberglass boat repair	No	No	No	No	No	Fiberglass boat repair	To road/ On site		Polyester Resin, 55 Gallons, Drum,, Indoor	Yes	No	No	Yes (Attached)	
11/6/2008	31-Oct-08	6-Nov-08	GILLIS, EUGENE dba EXCAVATION SERVICES	5928 Kalanianao le Highway,	Eugene Gillis	808-383-1959	kqillis@hawaii.rr.com	808-395-1959	Oct-02	None	No		H-02-2366	Storage	No	No	No	No	No	Storage	None	0	N/A	No		No	No	
			GLP ASPHALT, LLC	94 KAMOKI LA BLVD., STE 100																		N/A						
	31-Oct-08		HAWAII MARITIME CENTER	1525 Bernice Street	Karla Vasey	(808) 599-3810	karla@bishopmuseum.org	(808) 536-1519		Best Restraunt	712110	H-87-30		Museum and Falls of Clyde. Falls of Clydetransferred to friends of the Falls of Clyde on 9-30-08	No	No	No	N/A	N/A	Museum and Falls of Clyde	Ground	N/A	N/A	No	No	No	See Bishop Museum Facility Support Office 1525 Bernice Street Telephone-848-4141	
5-Nov-08	31-Oct-08	5-Nov-08	HAWAII PAINTING & WALLCOVERING	P.O. Box 17038,	Dean & Brian Negatoshi	(808) 479-6825 (808) 479-6501	HPW-Consulting @hawaii.rr.com	(808) 247-2676		N/A	No		H-99-2153	Storage	No	No	No	No	N/A	Storage	Unknown	N/A	N/A	No	No	Unknown	No	
12/22/2008	03-Nov-08		HAWAII STEVEDORES, INC.	P.O. Box 2160,	Jeff Brennan	527-3414/ 965 N. Nimitz Highway	jbrennan@hawaiistevedores.com	(808) 527-3448	1990	Pacific Ocean Producers, KEMS Kewalo & Hawaii Stevedores/Castle & Cooke FCU	No	H-90-4	H-98-2038 H-96-1912 H-92-1794 H-90-1682 H-92-1753 H-84-1195	Marine Cargo Handling	Yes	R80A305	Yes, 061107 043 023P	No	No	Marine Cargo Handling	storm drain to harbor		N/A	No	No	No	Yes	
12/19/2007	04-Dec-07		HAWAII SUPERFERRY	1 Waterfront, Suite 300	John Keever	808-853-4134	john.keever@hawaiisuperferry.com	808-531-7410	Sep-07	N/A	N/A		H-07-2583	Passanger/car water transportation	No	No	No	No	No	Passanger/car water transportation	Honolulu Harbor	Acid Waste, Oils and Grease, Lubrication oil leaks	Formula 7961 (acid) 4 gallons indoor, Lube Oil 160 gallons indoor, Grease	No	No	No	Yes (Attached)	
24-Dec-08	01-Nov-08		HAWAIIAN AQUA PRODUCTS	1130 Wilder Avenue, Suite 102,	Evelyn Lim	(808) 521-5468	evylim2@aol.com	(808) 521-5477	Aug-79	N/A	N/A		H-97-2002	Fiberglass Fabrication, Boat Building	No	HI R20A 196	N/A	no	N/A	Fiberglass Fabrication , Boat Building	Keehi Lagoon	None	N/A	N/A	No	No	No	

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	31-Oct-08		HAWAIIAN CEMENT	99-1300 Halawa Valley Road,	Dane Wurlitzer	532-3407	dane.wurlitzer@hawaiiancement.com	(808) 441-7696	1970's	None	5032	H-88-36 H-98-10	H-88-1540	Portland Cement import and distribution	No	Exempt Maritime Facility-letter on file.	CESQG	No		Portland Cement import and distribution	Storm ater basin harbor drian	Cement /Particulate matter, Oils and Grease, Petroleum Hydrocarbons, Lubrication oil leaks	Cement 60K MT enclosed indoors, Petroleum <500 Gallon Various tanks and drums indoor AMAP	No	No	No	Yes	
	31-Oct-08		HEALY TIBBITTS BUILDERS, INC.	99-994 Iwaena Street, Suite A,	Glen Toyama	(808) 487-3664 (808) 682-6104	gtoyama@hawaii.rr.com	(808) 682-3736; (808) 487-3660	Apr 2006; Jul 1991	N/A	237990		H-06-2538: H-92-1783	Construction Storage Yard	No			No	No	Constructi on Storage Yard	Ground Drainage	Lubrication oil leaks	N/A	N/A	No	No	Yes (Attached)	
11/17/2008	04-Nov-08	17-Nov-08	HEUMANN, JAMES dba WIND & SEA CHARTERS	P.O. Box 8672,	Jim Heumann	(808) 220-2675	jmh@lava.net	(808) 732-6454	1-Jun	N/A			H-99-2128	Woodworkin g - Boat repair	No	No	No	No	No	Woodworki ng - Boat repair	thru a grate in parking area		Acetone 2 gallons indoor locker, Laquer thinner 1 gallon Indoor locker,	No	No	No	No	
31-Dec-08	04-Nov-08		Honolulu AGENCY, INC. & OCEANIC GLOBAL TRADING	P.O. Box 4165,	Steven Yoshizawa	808-454-1255	steveny@hawaiiintel.net	(808) 454-1256	1971	Irrigatio n System s, Inc.		H-99-1	H-03-2394	Ship Agent and Ship Chandler	No	No	No	N/A	No	Ship Agent, Ship Chandler, Pipe Supply	ocean		N/A	No	No	No	Yes (Attached)	
3-Nov-08	01-Nov-08	3-Nov-08	HONOLULU MARATHON ASSOCIATION	1635 Citron Lane	Ronald Chun	808-946-0539 808-255-2602	ichun@honorlulumarathon.org	808-941-1380	Jul-06	None	No		H-06-2544	Produce Long Distance Running Events	No	No	No	No	No	Produce Long Distance Running Events	Natural flow to the road	Lubrication oil leaks	None	No	No	No	Yes (Attached)	
			HONOLULU RECOVERY, INC.	1391 MIKOLE STREET																		N/A						
11/5/2008	31-Oct-08	5-Nov-08	HORIZON LINES, LLC	1601 Sand Island Parkway	Frank Roznerski	808-842-5389	froznerski@horizonlines.com	808-842-5394		N/A	483111	H-90-4		Ocean Cargo Terminal Facility	Yes	HIR808909	No	No	No	Ocean Cargo Terminal Facility	Honolulu Harbor	Cadmium, Copper, Oil and grease, Petroleum Hydrocarbons, Zinc, Lubrication oil leaks	Petroleum Hydrocarbons 20,000 gallons	No	No	No	Yes (Attached)	
19-Dec-08	31-Oct-08		HPBS, INC.	P.O. Box 721,	Fay Leong	532-7233/ Pier 19	officeadmin@hawaiiipilots.net	(808) 532-7229	Sep-93	N/A	N/A		H-99-2159 H-93-1819	Provide Pilot Boat Services & Dispatching Services	No	N/A	None	No	N/A	Harbor Pilots		N/A	N/A	None	No	No	No	
3 Jan 07- Tried to followed up but no phone number	05-Nov-08	24-Nov-06	IAN J. LANSDOWN, dba HAWAII'S SAILING CENTER	665 IANA Street,																		N/A						
28-Dec-07	19-Nov-08	5-Dec-07	IMPERIUM RENEWABLE HAWAII LLC	P.O. Box 3767	Adrienne Barnes	808-532-9702	adrienne.barnes@imperiumrenewables.com	808-356-0697	Not Signed yet		N/A			Will construct and operate a biodiesel processing facility	No	Will obtain NPDES permit for construction and operation and will submit to DOT upon issuance	No	No	No	Will construct and operate a biodiesel processing facility	Currently storm water @ future site drains toward malakole street in a swale that leads to the pacific ocean.	N/A	N/A	No	No	No	Yes	
			INCHCAPE SHIPPING SERVICES	521 ALAMOANA BLVD., STE. 256																		N/A						

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11/12/2008	03-Nov-08	12-Nov-08	ISHIKAWA, NORMAN & DOLORES dba NORMAN'S TRACTOR SERVICE	P.O. Box 2280,	Theresa L. Alcosiba	(808) 778-0344	nts96819@hotmail.com		1965	None	No		H-97-1988	Demolishing, Grading & Hauling	No	None	No	No	None	Demolishing, Grading & Hauling		Oil and Grease,	Waste oil 3 barrels(55gallon drums) Outdoor on skip	No	No	No	Yes (Attached)	
1-Dec-08	03-Nov-08	1-Dec-08	ISLAND MOVERS	P.O. Box 17865,	Ryan K. Fukunaga	(808) 832-4813	ryanf@hawktree.net	(808) 832-2701	1970	N/A	4225		H-00-2197 H-90-1642	Warehousing	No	HI R80A506	No	No	No	Warehousing	Honolulu Harbor	Alkaline Waste; Oils and Grease; Lubrication Oil Leaks	Lube oil 400-gallon indoor, antifreeze 250 gallon indoor, 250 gal used	No	No	No	Yes (Attached)	
28-Nov-08	04-Nov-08	28-Nov-08	ISLANDS BEACH ACTIVITIES	P.O. Box 8181	Herbert Bessa	808-946-7490		808-955-0818	Jul-06	None	No		H-06-2543	Storage	No	No	No	No	None	Storage	None	None	None	None	No	No	No	
10-Nov-08	04-Nov-08	10-Nov-08	JAPAN FOOD (HAWAII), INC.	P.O. Box 4404,	Toshiaki Wada	(808) 537-9528 887 N Nimitz Highway Pier 34		(808) 536-0389	Jul-02	N/A	N/A		H-02-2330	Office and Warehouse for Japanese Food	No	No	No	No	No	Japanese Food		None	N/A	No	No	No	No	
12-Nov-08	31-Oct-08	12-Nov-08	JAS. W. GLOVER, LTD	P.O. Box 579	John Romanowski	(808) 591-8977 (808) 864-0368	johnr@gloverltd.com	(808) 591-8978	Oct-06	N/A	No		H-06-2553	the function of this property is to serve as an aggregate stockpile area.	No	Yes, File Number HI R70C472	No	No	No	Aggregate & RAP Stockpiling	Keehi Lagoon (21° 19'37"N 157°53'29"W)	Lubrication oil leaks	N/A	No	No	No	Yes (Attached)	
3-Dec-08	31-Oct-08		K-Sea Transportation, Hawaii Division (formerly UAUKEWAI DIVING, SALVAGE & FISHING, INC.)	Pier 21,	Bill Boland	522-1000 780-2278	wboland@K-Sea.com	(808) 522-1011		None	No		H-01-2273 H-01-2249 H-93-1816 H-93-1804	Operating towboats	No	No	No	No	No	Operating towboats	Honolulu Harbor	Lubrication oil leaks	N/A	No	No	No	Yes	
5-Nov-08	03-Nov-08	5-Nov-08	KAGAMI, INC.	P.O. Box 745,	Wayne M. Kagami	(808) 523-5700	peeks2096@aol.com	(808) 523-5757	Jan-02	N/A	N/A		H-02-2343	Contracting; Environmental Investigation of Subsurface Area, Remediation Activities Piers 18-38	No	No	No	No	No	Contracting; Environmental Investigation of Subsurface Area, Remediation Activities Piers 18-38	Harbor	N/A	N/A	No	No	No	No	
			KEALOHA LANIEQUIPMENT & RENTAL, INC.	47-497 HUI AEKO PLACE																		N/A						

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Subleasing to DHX, see Pendelton Flour Mills same area per telephone conversatio n with Tim Byam.	03-Nov-08		KERR PACIFIC CORP, dba HFM Foodservice	P.O. Box 855,		843-3217/ 716 Umi Street						H-86-1 H-79-1										N/A						
	03-Nov-08		KIRKWOOD CLARKE dba HAWAIIAN CATAMARAN MULTIHULL DESIGN	50-C Sand Island Access Road,	Matt Buckman	(808) 306-6012		(808) 841-8063					H-97-2000	Boat repair and fabrication-some welding	No	No	No	No	No	Boat repair and fabrication-some welding	Makai ewa corner	Chromium; copper; oil and grease	Acetone 5 gal; resin 5 gal; paint 5-5gal	No	No	No	Yes (Attached)	
			KNIGHT UNLIMITE D, dba KNIGHT TRANSPORT	99-818 MEAAL A STREET																		N/A						
12/30/2008	31-Oct-08		KONG ENTERPRISES, INC.	P.O. BOX 5187	Richard Kong	(808) 478-3582	rkingkong@aol.com	(808) 239-0077	Apr-07					Dry good storage	No	No	No	No	No	Dry good storage	roadway		N/A	No	No	No	No	
5-Dec-06	31-Oct-08	24-Nov-06	KO OLINA MARINA, LLC.	92-1480 Aliiniui Drive,	Russell "RD" Doane	(808) 679- 1050 or 671-2512	rd@koolina.com	(808) 679-1055	Mar-00	N/A	N/A	H-89-1		Slip Rentals	N/A	N/A	N/A	N/A	N/A	Slip Rentals	Marina Basin	N/A	N/A	N/A	No	No	No	
says nothing has changed phone conversatio n on 1-27-09	03-Nov-08		KUMU CORP.	50 K Sand Island Access Road,	Dan Kahler	(808) 848-2026 808-223-2577		808-847-0586	1991	N/A	N/A		H-97-1995	Transmissio n Parts	No	No	N/A	N/A	N/A	Transmissi on Parts	Keehi Lagoon	Oil and grease, Lubrication Oil Leaks	N/A	No	No	No	Yes (Attached)	
2/6/2009	17-Nov-08		MARINE PETROLEUM CORPORATION	P.O. Box 29249,	Michael P. Rossman	(808) 842-3538	marine.fuel@hawaiiantel.net	(808) 842-0316			5172		H-98-2082	Distribution	Yes	N/A	N/A	No	No	Distribution	Never been advised	Oil and Grease	Lube oil in drums	No	No	No	No	
1-Dec-08	31-Oct-08		MARINE SPILL RESPONSE CORPORATION	179 Sand Island Access Road,	Stuart Larson	425-304-1547	larson@m src.org	425-339-1229	Jun-93	N/A	4959 NAICS-562910		H-94-1845	Oil Spill Response	Yes, 90,000 Gallon #2 Diesel-below deck fuel tanks (208' vessel)	N/A	No, used oil only	No	No	Oil Spill Response	this is a 208' vessel for oil spill response	Oil and Grease, petroleum Hydrocarbons, lubrication oil leaks	See attached chemical inventory sheet	No	No	No	Yes	
1/9/2008	03-Nov-08		MARISCO, LTD.	91-607 Malakole Road,	neil	808-564-0730	bmccaffery@marisco.net	808-682-5848	Jan-89	A&B Electric, The Boat		H-90-10	H-00-2224 H-99-2186 H-96-1901	Dry Dock/ Ship Repair	No	HI-0021786	Yes, HIR000135442	Yes	N/A	Dry Dock/ Ship Repair	ground via sump	Oil and Grease, Lubrication Oil Leaks	Used Motor Oil 200 gallons outdoor, paint/thinner 100 gallons	Yes	No	No	No	
28-Jan-09	31-Oct-08		MARITIME LICENSE CENTER	1311 Kapiolani Blvd, Suite 407,	Charles Howard	589-0123	trng@marictr.com	(808) 591-6276	Jan-00	N/A	N/A		H-02-2364 H-01-2298	Life Boat Training	No	No	No	No	No	Life Boat Training	Pier	N/A	N/A	N/A	No	No	No	
3 Jan 07- Tried to followed up but no phone number	01-Nov-08	27-Nov-06	MASUDA, RICHARD dba RICHARD K. MASUDA MASONRY	833 Ekoa Place,									H-97-1987									N/A						
Same as Matson Terminal (3 Jan 07)	31-Oct-08	24-Nov-06	MATSON NAVIGATION COMPANY, INC.	P.O. Box 899,		848-1321/ Pier 51-B Sand Island Access Road							H-84-1237									N/A						

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13-Jan-09	04-Nov-08		MATSON TERMINALS , INC.	P.O. Box 2630,	Keahi Birch	(808) 848-1252	kbirch@matson.com	(808) 845-3892	Jul-79	N/A	4491	H-79-5	H-00-2225 H-99-2156 H-98-2116 H-82-1011	Marine Cargo Handling	Yes SPCC Submitted Previously	NGPC-File No. HIR80A152	Yes HID 981628340	No	Industrial Wastewater Discharge Permits No. 20040526 and No. 20040591	Marine Cargo Handling	Honolulu Harbor	Oils and Grease; Petroleum Hydrocarbons	Paint- 100 gallons (Storage Shelf) [Indoors]; Unleaded Gas-5000 gallons (UST) [Outdoors]; Diesel Fuel-10,000 gallons (UST) [Outdoors]; Hydraulic Oil-	No	No	No	Yes (Attached)	
24-Dec-08	31-Oct-08		MC & A, INC.	615 Piikoi Street, Suite 1000,	Martin Fayardo	808-589-5500	marty.fayardo@mcahawaii.com	(808) 589-5501	Jan-01	N/A	N/A		H-03-2405	ground Operations for cruise ships	No	No	No	No	No	ground Operations for cruise ships			N/A	No	No	No	No	
	31-Oct-08		McCABE, HAMILTON & RENNY	P.O. Box 210,	Andrew Souza	808-479-0356	andrewsouza16@msn.com	808-538-6486	Nov-94				H-99-2160 H-96-1911 H-93-1820 H-90-1630	Repair Shop	No		No	No	No	Repair Shop	Harbor	Oil and Grease	N/A	No	No	No	No	
			MID PAC PETROLEUM LLC	677 ALA MOANA BLVD., SUITE 625																		N/A						
12/22/2008	31-Oct-08	5-Dec-07	MILLER/WATTS CONSTRUCTORS, INC.	737 Bishop Street, Suite 2900	Vincent E. Fragomene	808-543-5201	vince.fragomene@watts-con.com	808-543-5208	Jan-07	N/A	N/A		H-06-2564	Heavy Civil Contractor	No	HIR06GC529 HIR10C527	N/A	No	None	Heavy Civil Constructor	Lat. 21 deg; 18 min; 30 sec N Long. 157deg; 53min; 18sec W		N/A	No	No	No	Yes (Attached)	
8-Dec-08	03-Nov-08		MOANA PA'A KAI, INC. (Subsidiary of Young Brothers)	P.O. Box 3288,	Nathan Kapule	(808) 543-9398	nkapule@htbyb.com	(808) 543-9458	1999	N/A	483211		H-99-2175	Inerisland cargo tug and barge operations	No	HIR80B059	CESQG HID 982411357	No	No	Towing and Tugboat Services	Honolulu Harbor	Oils and Grease; zinc	Used oil less than 500 gallons, hydraulic oil 55 gallons, engine oil 55 gallons	No		No	Yes	
20-Dec-07	04-Dec-07	6-Dec-07	MURAO, JOY P., dba RJ LUNCHWAGON	1410 Noelani Street	Joy Murano	808-485-2233 808-271-8917	joymurano@aol.com		Feb-06	None	N/A			Concession-Food Service Mobile	No	None	None	None	None	Concession- Food Service Mobile	None	None	None	None	No	No	No	
10-Nov-08	04-Nov-08	10-Nov-08	NANAKULI NEIGHBORHOOD HOUSING SERVICES	P.O. Box 17489,	Paige Kapiolani Barber	(808) 842-0770	alohakap@gmail.com	(808) 842-0780	Jun-01	None	No		H-01-2248	Collect reusable construction materials and distribute to families in need, diversion form landfill	No	None	None	No	None	Non Profit Recycling Construction Materials, Homeownership Training	Stormdrain	Oils and Grease; Lubrication Oil Leaks (forklift, truck)	N/A	No	No	No	Yes (Attached)	
21 Dec 2007 Only rent small room inside the Pier 10/11 Terminal for storage of check-in equipment. N/At a land based tenant.	03-Dec-07	8-Dec-08	NCL AMERICA, INC. (1 ship in service-Pride of America)	745 Fort Street, Suite 1600	Grant Karamatsu	808-527-3857	gkaramatsu@ncl.com	(808) 527-3820	Jan-05		No		H-05-2480	Cruise Vacations	No	No	No	No	No	Storage	N/A		None	No	No	No	No	
12-Nov-08	01-Nov-08	12-Nov-08	NORKO MARINE AGENCY, INC.	791 North Nimitz Highway,	Norman Cheu	(808) 536-4568	ncheu@norkomarine.com	(808) 536-4866	Apr-02	N/A	N/A		H-01-2314	General Office	No	No	No	No	No	General Office	None	None	N/A	No	No	No	Yes (Attached)	

Date Responded (Letter)	Date Return Receipt Signed	Date Receipt Sent	Tenant	Address	POC	Telephone Address (Phone Book 2005-2006)	E-mail	Fax	Tenant Since Month/Yr	Sub Tenants	SIC	Lease Number	Permit Number	Primary Use and Activity of Facility	Oil Products Yes/N/A	NPEDE S Permit	Hazardous Waste Generator Yes/N/A	SARA III Yes/N/A	Other Federal Permits	Activities Conducted	Storm Water Discharged to	Identification of Potential Pollutant Sources	Chemicals Used on Site	Floors/Decks located in Chemical Storage Areas	Run-off during Dry Weather Yes/No	Non-Storm Water Discharges	Facility Plans Drawings Yes/N/A	Certification Date/Person
14-Nov-08	31-Oct-08	14-Nov-08	OCEANTRONICS, INC.	711 North Nimitz Highway,	Olinda D. Amsberg	(808) 522-5600	amtsberg@msn.com	(808) 522-5222	Nov-98	N/A	N/A		H-98-2102	Marine & Landmolile Sales, Service & Repair	No	No	No	No	No	Marine & Landmolile Sales, Service & Repair	Unknown	N/A	N/A	N/A	No	No	No	
6-Dec-07	31-Oct-08	5-Dec-07	OHAII, LEO A.	P.O. Box 28002,	Nephi Ohai	(808) 531-2524	nephi@laura.net	(808) 550-8381	Jan-62	N/A	N/A	H-99-3		Fishermen	N/A	N/A	N/A	N/A	N/A	Fishermen	City	N/A	N/A	N/A	No	No	No	
17-Nov-08	11/1/008	17-Nov-08	P & R WATER TAXI, LTD.	P.O. Box 2851,	Sandra C. Pires	808-599-3809	s.pires@pnrwater taxi.com	808-521-2456	1995	None	4489		H-05-2504 H-91-1714	Launch Service	Yes	HIR80A153	No	No	None	Provide Water Taxi Service to Barber's Point	Over the bulkhead to harbor waters	Oil and Greas, Petroleum Hydrocarbons	refer to Chapter 3.2 of the SWPCP	No	No	No	No	
	03-Nov-08		PACIFIC COMMERCIAL SERVICES, LLC	5 Sand Island Access Road, B931 Unit 115	Jingho Chung	808-545-4599	jingbo.chang@pcshi.com	808-845-9773	Dec-04	N/A		H-02-223	H-06-2529	Environmental Services	No	No	No	No	No	Environmental Services	?	None	None	No	No	No	Yes (Attached)	
30-Jan-09	31-Oct-08		PACIFIC ENVIRONMENTAL CORPORATION	65 North Nimitz Highway, Pier 14,	Teal Cross / Jeremy Sirkin	(808) 545-5195	jeremy@penco.org teal@penco.org	(808) 524-2307	May-85	N/A	NACICS-562910		H-98-2055 H-96-1898 H-93-1817	Full Service Environmental Company	No	No	HID984467530	N/A	No	Full Service Environmental Company	Honolulu Harbor		Paint 50 gal indoor, oil 100 gal indoor	N/A	No	No	No	
8-Dec-08	12-Nov-08		PACIFIC FISHING AND SUPPLY, INC. (Same as Petro Pacific)	P.O. Box 27378,	Roger Dang	533-1195/867A N Nimitz Highway	pacificfishing@gmail.com	(808) 533-2141	Mar-95	N/A	None		H-97-1969	Commercial Fishing Supplies	No	No	N/A	No	None	Commercial Fishing Supplies			N/A	No	No	No	No	
	31-Oct-08		PACIFIC OCEAN PRODUCERS, INC.	1133 North Nimitz Highway,	Arlen Walsten	537-2905 x105/ 1133 N Nimitz Highway	arlen@popohawaii.com	(808) 536-3225	2004	N/A	441222, 451110	H-03-18	H-98-2096 H-98-2079 H-95-1865	Retail/Wholesale Sales of Commercial and Sport Fishing Supplies marine hardware.	No	No	No	No	None	Retail/Wholesale Sales of Commercial and Sport Fishing Supplies marine hardware.	Honolulu Harbor & Stormdrains	Lubrication Oil Leaks	None	Yes	No	No	Yes (Attached)	
18-Nov-08	31-Oct-08		PACIFIC SHIPYARDS INTERNATIONAL, LLC (PREVIOUSLY HONOLULU SHIPYARD, INC.)	P.O. Box 30989,	Michael Ebbert/ Environmental Manager	(808) 848-6211	mebbert@pacificshipyards.com	(808) 848-6279	Oct-84	N/A	3731		H-98-2123 H-84-1229	Ship Building and Repairing	Yes	HI0020753	Yes, HID990675704	No	No	Ship Building and Repairing	Honolulu Harbor	Acid Waste, Cadmium; Chromium; Copper; Mercury; Oils and Grease; Petroleum Hydrocarbons; Zinc; Lubrication Oil Leaks	Diesel Fuel (4,000 gallons AST-Containment-Outdoors); Paints (1200 gallons in 1, 5 and 55 gallon containers-Indoors) Gasoline (300	Yes	No	No	No	
1-Dec-08	31-Oct-08		PANG, SANDRA dba SP LUNCH WAGON	139 Mokauea Street,	Sandra Pang	(808) 848-0040 (808) 778-4686				N/A	N/A		H-91-1735	Lunch Wagon (Only park for couple of hours and serve lunches. No cleaning or draining is done on Harbors property.)	No	No	No	No	No	Lunch Wagon	N/A	N/A	N/A	N/A	No	No	No	
11/12/2008	31-Oct-08	12-Nov-08	PARADISE CRUISE, LTD.	1540 South King Street,	Captain Rich Davison	808-983-7765	RHardtDavison@aol.com	808-983-7782	Jun-57	N/A	N/A	H-98-11 (Pier 8 Mooring permit, berthing only, no land	H-99-2137 Terminated 10-06, H-98-2121, H-94-1843 Terminated 1-99, H-89-1585 Terminated 8-04	General Manager	No	No	No	No	No			None	None	No	No	No		

Date Responded (Letter)	Date Return Receipt Signed	Date Receipt Sent	Tenant	Address	POC	Telephone Address (Phone Book 2005-2006)	E-mail	Fax	Tenant Since Month/Yr	Sub Tenants	SIC	Lease Number	Permit Number	Primary Use and Activity of Facility	Oil Products Yes/N/A	NPEDE S Permit	Hazardous Waste Generator Yes/N/A	SARA III Yes/N/A	Other Federal Permits	Activities Conducted	Storm Water Discharged to	Identification of Potential Pollutant Sources	Chemicals Used on Site	Floors/Decks located in Chemical Storage Areas	Run-off during Dry Weather Yes/No	Non-Storm Water Discharges	Facility Plans Drawings Yes/N/A	Certification Date/Person
2-Jan-09	31-Oct-08		PENDLETON FLOUR MILLS, LLC dba HAWAIIAN FLOUR MILLS	P.O. Box 1238,	Tim Byam	(808) 527-3272	tbyam@pfmills.com	(808) 522-5554	1964	DHX	2041		H-01-2283	Flour Milling	No	No	No	No	No	Flour Milling	Ground, Over bulkhead to Harbors Waters	Oils and Grease, Pesticides	Hydrogen Phosphide- 3104 cells (outdoors locked vault); Aluminum Phosphide- 44	No	No	No	Yes (Attached)	
8-Dec-08	02-Nov-08		PETRO PACIFIC, LLC	P.O. Box 27378,	Roger Dang	533-1195/ 867A Nimitz Highway	petropacific@gmail.com	(808) 533-2141	Aug-05	N/A	N/A		H-97-1969	mobile Fuel facility				No	No	Mobile Fueling Facility	Ground Drainage		N/A					
5-Nov-08	31-Oct-08	5-Nov-08	PETROSPECT, INC.	499 North Nimitz Highway	David Harrington	(808) 536-6626	dharrington@petrospect.net	(808) 531-1359	Mar-87	N/A	N/A		H-88-1517 H-87-1411	Petroleum Inspection	No	No	No	No	No	Petroleum Inspection	Harbor	Petroleum Hydrocarbons	Hydrocarbons varies in saze stored in locker	Second Floor	No	No	No	
19-Dec-08	07-Nov-08		PIONEER MACHINERY, INC.	P.O. Box 22265,	Rodney Yee	(808) 371-4892	allstaryee@yahoo.com	(808) 833-5614	Apr-07	N/A	327390		H-90-1678	Casting Concrete Slabs	No	No	No	No	N/A	Casting Concrete Slabs	On to the road	N/A	N/A	No	No	No	Yes	
28-Nov-08	31-Oct-08	28-Nov-08	PRYNE, TY dba H.B.N.	742 Queen Street, Suite 301,	Ty Pryne	(808) 597-8120	tyhbn@concentric.net	(808) 593-8199	2000	No	No		H-01-2271	Boat Storage	No	No	No	No	No	Boat Storage	Roof/Wareho use Only	N/A	None	No	No	No	No	
11/10/2008	31-Oct-08	10-Nov-08	R.C. INTERNATIONAL, INC.	P.O. Box 22276,	Calvin Wong/ Wai Phan Chan	(808) 223-2828 (808) 383-8339	RCI168@hotmail.com	(808) 941-9169	Feb-01		No		H-00-2241	Seafood Drying	No	No	No	No	No	Seafood Drying	In front of the warehouse	No chemicals	N/A	No	No	No	No	
No Number	31-Oct-08		REBECCA'S FINE COLLECTION dba R.F.C. GROUP	1585 Kapiolani Blvd., #812																		N/A						
1/27/2009	03-Nov-08		RON'S CONCRETE SPECIALISTS, LTD.	P.O. Box 17370	James A. Mainaapo	845-0467/ Sand Island Access Road	ronsconcretespecialist@yahoo.com	845-0573	Jan-02	N/A	N/A		H-98-2115	Concrete Subcontractor	No	No	No	No		Concrete Subcontractor	On to dirt road into ground	Oil and Grease, petroleum hydrocarbons, lubrication oil leaks	W.B resin Cure 1 - 55gal drum outdoor, Cleanstrip 1 - 55gal drum outdoor	Yes, Concrete	No	No	Yes	James Mainaapo
13-Nov-08	03-Nov-08	13-Nov-08	SAITO, LINCOLN TIMOTHY dba KOKUA RECYCLE	1058 12th Avenue, Unit B	Timothy Saito	808-284-0420	TimothySaito@yahoo.com		Apr-96	N/A	N/A		H-97-1991	Sort and Store Glass Beverage Bottles for Resale	No	No	None	No	None	Sort and Store Glass Beverage Bottles	On to the road	None	None	None	No	No	No	
7-Nov-08	31-Oct-08	7-Nov-08	SAUSE BROS., INC.	705 North Nimitz Highway,	Wayne Stachel	(808) 306-2177	Waynes@sause.com	(808) 533-4109	2001; 2004	N/A	N/A		H-01-2261 H-94-1833 H-93-1823 H-93-1800	Maintenance and Repair Support for Tug and Barges as well as Logistics Support (Parts, Supplies, Storage, etc.)	No	No	No	No	None	Maintenace and Repair Support for Tug and Barges as well as Logistics Support (Parts, Supplies, Storage, etc.)	Over the bulkhead to Harbors water	Oils and Grease, Petroleum Hydrocarbons	None	N/A	No	No	Yes (Attached)	
	31-Oct-08		SEA ENGINEERING, INC.	Pier 21,	W. Patrick Ross	(808) 536-3603	pross@seaengineering.com	(808) 536-3703	1992	None	237990		H-07-2594 H-93-1814 H-01-2289	Marine Engineering and Construction	No	No	No	No	No	Equipment and Supply Storage, Maintenance Area.	not sure		N/A	No	No	No	Yes	
11/5/2008	31-Oct-08	5-Nov-08	SIU, WAI LUN	2336A Kahauiki Street,	Raymond Siu	808-256-2907	siucancook@aol.com		Dec-98	N/A			H-98-2114 H-00-2199	Food Service	No	No	No	No	No	Food Service	Ocean	Oil and Grease	None					
	31-Oct-08		STATE OF HAWAII, DOAG/CRIMINAL JUSTICE	425 Queen Street,	Kern Nishioka	(808) 586-1383	kern.k.nishioka@hawaii.gov	(808) 586-0932	7 years	Sherrif			H-99-2155	Criminal Justice	No	No	No	No	N/A	Criminal Justice	Storm Drain	Oil and Grease; lubrication oil leaks	Gas (fuel for forklift and vehicles) in 5 gallon can oil 10 qts.	No	No	No	No	
14-Nov-08	31-Oct-08	14-Nov-08	STEINKE BROTHERS, INC.	98-889 Kaahale Street,	Robert Steinke	(808) 488-9668 808-478-9777		(808) 486-9458	1985	N/A	N/A		H-97-1981	Construction Material Storage	No	N/A	No	No	N/A	Constructi on Material Storage	Drains to Roadway	N/A	None	No	No	No	Yes	
15-Dec-08	31-Oct-08		SUBMARINES HAWAII, L.P. (Subsidiary of Robert's Hawaii)	680 Iwilei Road, Suite 700,	Laki Sagiao	(808) 831-1564	laki.sagiao@robertshawaii.com	(808) 522-7866	1984	N/A	N/A		H-99-2168 H-97-1951 H-94-1849	Mooring and Support Facility	No	N/A	N/A	No	No	Mooring and Support Facility	Harbor	Oil and Grease	oil waste 4- 55gal outdoor	None	No	No	No	

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19-Dec-08	31-Oct-08		TESORO HAWAII CORPORAT ION- SAND ISLAND TERMINAL	431 Kuwili Street,	Wade K. Nakashima	(808) 547-3830	wnakashi ma@tsoco rp.com	(866) 873-3451	Nov-74	N/A	5171	H-80-3		Bulk Petroleum Storage and Distribution	Yes	NGPC No. R80A725	EPA I.D. No. HIR 0000 40535	Yes	No	Fuel Supply and Distribution	Honolulu Harbor Kalihi Channel only when closed valve is opened under supervision.	Oils and Grease; Petroleum Hydrocarbons; Herbicides	Diesel 19,526 bbl ast outdoor; Transmix 12,718 bbl ast outdoor; Additives- 600 gallons (Totes-	No	No	No	On file	SPCC Dated June 9, 2003 on file
10-Nov-08	03-Nov-08	10-Nov-08	THE GAS COMPANY, LLC	P.O. Box 3000,	Kevin Nishimura	(808) 594-5573	knishimu @hawaii ga s.com	(808) 594-5610	1950	N/A		H-03-2424	H-93-4 H-80-9 H-72-15 H-69-4	LPG Storage and Propane Air Unit	Yes	No	No	Yes	No	LPG Storage and Propane Air Unit	Existing inlet adjacent to property, Kapalama Canal, and some runoff will pond onsite.	Diesel (3,000 gallon aboveground tank-outdoors)	Petroleum Hydrocarbons	No	No	No	No	
24-Nov-08	31-Oct-08	24-Nov-08	THE PASHA GROUP, dba PASHA HAWAII	677 Ala Moana Blvd., Suite 700	Darren Lee	(808) 590-3617	Darren.Lee@Pashanet.com	(808) 550-0023	Mar-05	None			H-06-2565	Loading/Unloading Household Crates	No	No	No	No	N/A	Loading/U nloading Household Crates	N/A	None	None	No	No	No	No	
18-Dec-08	03-Nov-08		THE PHOENICIA N, LLC	91-573 Malakole Road	John Gomersall	(808) 478-8031	the phoenician @thephoe nician.net	808-682-1983	Jun-02	No	No	2E+08	GP2002-05-0317	Small boat repair facility	No	HI R20B748	HIR 000135201 CESQG	Yes	No	Small boat repair facility	Barbers Point Harbor	Oil and Grease, Lubrication oil leaks, copper, zinc	Solvents <200 gal; paint related material < 200 gal; Solids 50- oil waste 4-55gal outdoor	Yes	No	No	Yes	
15-Dec-08	31-Oct-08		THE WEBE CORPORAT ION, LTD. (Subsidiary of Robert's Hawaii)	680 Iwilei Road, Suite 700,	Laki Sagiao	(808) 831-1564	laki.sagiao @robertsh awaii.com	(808) 522-7866	1984	N/A	N/A	H-84-11	H-05-5208	Mooring of Alii Kai and Conduct Cruise Boat Operations	No	N/A	N/A	No	N/A	Mooring of Alii Kai and Conduct Cruise Boat Operations	Harbor	Oil and Grease		No	No	No	No	
			TRANSM ARINE NAVIGAT ION CORPORA TION	677 ALA MOANA BLVD., STE. 800																		N/A						
	28-Nov-06		TROUBLE FREE CORP.	P.O. Box 8260,	Chris Boyles	(808) 864-8864	BOYLES@Commerce/glass.info jody.hardin@dhs.gov	(907) 868-1116					H-03-2422	Boat Building	No	N/A	N/A	No	No	Boat Building	the lot next door		N/A	No	No	No	No	
31-Dec-08	31-Oct-08		U.S. BUREAU OF CUSTOMS AND BORDER PROTECTI ON, DEPARTME NT OF HOMELAND SECURITY	300 Ala Moana Boulevard, Room 2-267	Jody Hardin, SCBPO	808-522-8001 X223	jody.hardin@dhs.gov	808-522-8005	1933	N/A	No		H-03-2419 H-97-1934	Inspection and Clearance of all vessels and foreign cargo crew	No	No	No	No	No	Immigratio n Processing , Enforceme nt, Detention/ Removal	Harbor		N/A	No	No	No	No	
19-Nov-08	03-Nov-08	19-Nov-08	U.S. DEPARTME NT OF COMMERC E NOAA, NATIONAL MARINE FISHERIES SERVICE	2570 Dole Street, (Site address: 1125B Ala Moana Blvd., Honolulu, HI 96814)	Robert Dollar	(808) 983-3702	robert.doll ar@noaa.gov	(808) 983-8300	Jul-58	N/A	No		H-81-946	Non Commercial Scientific Research	No	No	Yes, we are a conditionall y exempt small quantity generator and have no EPA ID Number.	No	No	Non Commerci al Scientific Research	Storm Drain		Alcohol- 12 gallons (gallon container) [Indoors]; Gasoline- 60 gallons (jerry cans) [Indoors]; Formalin- 40 gallons (5	No	No	No	Yes (Attached)	
17-Dec-08	03-Nov-08		UNITED EXCAVATIO N EQUIPMEN T CORPORAT ION	653A Mapunapu na Street	Calvin Beppu	(808) 292-3725		808-836-5792		None	No		H-00-2209	Excavating Contractor	No	No	No	No	No	Excavating Contractor			N/A		No	No	No	

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22-Dec-08	31-Oct-08		UNITED FISHING AGENCY, LTD.	1131 North Nimitz Highway,	Daniel Otani	(808) 536-2148	ufa-hi@pixi.com	(808) 526-0137	Aug-04	N/A	422460	H-03-17	H-98-2037	Fish Auction	No	No	No	No	No	Fish Auction	Storm Water Run-off; Any water hose in apron area divereted to sanitary sewer.	Oils and Grease; Petroleum Hydrocarbons; Lubrication Oil Leaks	Gasoline- 5 gallons (Flammable Storage Cabinet- [Outside]; Hydraulic Fluid-	No	No	No	Yes (Attached)	
26 Dec 2006 Access only no physical access	31-Oct-08	27-Nov-06	URS CORPORATION	615 Piikoi Street, 9th Floor,																		N/A						
3-Nov-08	31-Oct-08	3-Nov-08	VAN, KEVIN dba HI-SEA HAWAII FISHING SUPPLY	Pier 20, Warehouse #6,	Kevin Van	(808) 282-1452 (Cell) Bus- (808) 521-6076	hiseafishing@hawaiiintel.net	(808) 533-1405	Oct-98	N/A	N/A		H-97-1936	Selling Fishing Gears, Bait	No	N/A	No	No	No	Selling Gears, Bait	Not sure	N/A	N/A	N/A	No	No	No	
3 Jan 07- Tried to followed up but no phone number	03-Nov-08	25-Nov-06	WAIKIKI MARINE SALES	91-1217 Kaneana Street, Apt. G									H-87-1397									N/A						
13-Nov-08	03-Nov-08	13-Nov-08	WELSH, JR., DARRELL G., AIA	One Aloha Drive, Box 63	Darrell G. Welch Jr., AIA	(808) 585-8522	welchandweekds@hawaii.rr.com	(808) 585-8622	Aug-99	N/A	No		H-99-2134	Architecture	No			No		Architectur e	No		N/A	Unknown	No	Unknown	No	
5-Dec-08	03-Nov-08		WHITE PUBLISHING COMPANY	One Aloha Tower Drive, Box 137	Tetsuzo Nagashima	(808) 792-0000	tetsu@hawaiiactivities.com	(808) 599-3778	Apr-99	N/A	N/A		H-02-2332 H-99-2133	Internet	No	No	No	No	No	Maritime Magazine Publishing	Unknown	N/A	N/A	N/A	No	No	No	
8-Dec-08	03-Nov-08		YOUNG BROTHERS, LTD.	P.O. Box 3288,	Nathan Kapule	(808) 543-9398	nkapule@htbyb.com	(808) 543-9498	1998	N/A	488320	H-98-8	H-99-2131	Marine Cargo Handling	Yes	HIR80A119	EPA # HIR000060046	Yes	Used Oil Permit/Transporter, Industrial Wastewater Discharge	Marine Cargo Handling	Honolulu Harbor	Oils and Grease; Petroleum Hydrocarbons; zinc; Lubrication Oil Leaks	Diesel- 12,000 gallons (Double Lined Tank) [Outdoors]; Gasoline- 500 gallons [Outdoors]; Lubrication oil 55 gallons indoors	No	No	No	Yes (Attached)	

APPENDIX F

INSPECTION AND ENFORCEMENT PLAN

Inspection and Enforcement Manual



**State of Hawaii
Department of Transportation
Harbors Division**

November 2009

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ACRONYMS

AST	Aboveground Storage Tank
BMP	Best Management Practice
CESQG	Conditionally Exempt Small Quantity Generator
CFR	Code of Federal Regulations
CWA	Clean Water Act
CWB	Clean Water Branch
EEO	Environmental Enforcement Officer
EHS	Extremely Hazardous Substance
EMS	Environmental Management System
EPA	Environmental Protection Agency
EPCRA	Emergency Planning and Community Right to Know Act
FWPCA	Federal Water Pollution Control Act
Harbors	State of Hawaii, Department of Transportation, Harbors Division
HAR	Hawaii Administrative Rules
HDOH	State of Hawaii, Department of Health
HDOT	State of Hawaii, Department of Transportation
HEPCRA	Hawaii Emergency Planning and Community Right to Know Act
HRS	Hawaii Revised Statutes
LQG	Large Quantity Generator
MSDS	Material Safety Data Sheets
MST	Mobile Storage Tank
NAICS	North American Industry Classification System
NPDES	National Pollutant Discharge Elimination System
NRC	National Response Center
OSC	On-Scene Coordinator
OWS	Oil Water Separator
P2	Pollution Prevention
RCRA	Resource Conservation and Recovery Act
SARA	Superfund Amendments and Reauthorization Act
SIC	Standard Industrial Code
SPCC	Spill Prevention Control and Countermeasure
SQG	Small Quantity Generator
TPQ	Threshold Planning Quantity
UST	Underground Storage Tank

1.0 BACKGROUND AND PURPOSE

The Hawaii Department of Transportation (HDOT), Harbors Division (Harbors) has created this inspection manual in order to comply with the Consent Decree dated January 30, 2006 between the HDOT and Hawaii Department of Health (HDOH). This inspection manual details the procedures implemented by Harbors environmental personnel to ensure that all DOT – harbors, tenants, and other users comply with regulatory requirements identified in the Environmental Management System (EMS).

The inspection manual is provided to Harbors personnel tasked with the responsibility of environmental compliance, in the content and procedures of an environmental inspection and enforcement program. Harbors will also implement an annual risk ranking of all tenants and will allow for an improved allocation of environmental oversight to those areas of harbor operations where environmental impacts are highest, as well as to provide an objective assessment of tenant activities at different facilities. The enforcement procedures contained within this manual, are designed with environmental compliance as the primary goal, and represent a partnership between the Harbors and the HDOH as both agencies strive to conduct business in the best interest of the State of Hawaii.

1.1 Environmental Regulations

The Harbors Division has identified several environmental regulations applicable to their activities. Regulated items include storm water management under the Clean Water Act (CWA); oil storage under the Spill Prevention, Control, and Countermeasure (SPCC) rules; proper waste management including hazardous waste, used oil, and universal waste; storage tank management; and hazardous material storage under the Emergency Planning and Community Right to Know Act (EPCRA). These regulations are verified through the Harbors' revised Tenant Inspection Checklist (Attachment G-3) used during inspections.

1.1.1 Clean Water Act and National Pollutant Discharge Elimination System Regulations

In 1972, Congress passed legislation under the Federal Water Pollution Control Act (FWPCA) creating the National Pollutant Discharge Elimination System (NPDES), which set the direction of water pollution control in the United States. The NPDES program established permitting requirements for anyone wishing to discharge pollutants to the waters of the United States. The discharge permit sets limits on the composition of the discharge and the concentration of pollutants in the discharge. The FWPCA was amended by the CWA of 1977 to include storm water discharges as a significant source of water pollution.

The CWA establishes the basic structure for regulating discharges of pollutants into the waters of the United States and regulating quality standards for surface waters. As authorized by the CWA, the NPDES permit program controls water pollution by regulating point sources that discharge pollutants into waters of the United States. Point sources are discrete conveyances such as pipes or man-made ditches. Individual homes

that are connected to a municipal system, use a septic system, or do not have a surface discharge do not need an NPDES permit; however, industrial, municipal, and other facilities must obtain permits if their discharges go directly to surface waters. In addition, most storm water discharges are considered point sources and require coverage under an NPDES permit. On November 16, 1990, the Environmental Protection Agency (EPA) issued regulations (contained in 40 CFR Parts 122, 123, and 124) establishing NPDES permit requirements for storm water discharges. In most cases, the NPDES permit program is administered by authorized states.

In the State of Hawaii, DOH has been delegated NPDES permitting authority by the EPA. Through such delegation, the DOH is responsible for administering the NPDES program including permit issuance, enforcement, and related programs throughout Hawaii.

A. 40 CFR Part 122 – EPA Administered Permit Programs: The National Pollutant Discharge Elimination System

The regulatory provisions contained in this Part and 40 CFR Parts 123, and 124 of this chapter implement the NPDES Program under sections 318, 402, and 405 of the CWA. This Part covers the basic EPA permitting requirements and minimum requirements for administering the approved state program (40 CFR Part 123); as well as procedures for EPA processing of permit applications and appeals (40 CFR Part 124). These provisions also establish the requirements for public participation in EPA and state permit issuance and enforcement and related variance proceedings, and in the approval of state NPDES programs.

B. HAR Title 11, Chapter 54 – Water Quality Standards

This chapter establishes water quality standards applicable for the state waters (defined in HRS 342D-1) that shall be maintained and protected to ensure protection of human health. To ensure compliance, all state waters are subject to monitoring and to the numeric standards for acute and chronic toxicity as established in this chapter. These regulations detail the following: definitions; general policy on water quality and anti-degradation; classification of state waters and water uses; basic water quality criteria applicable to all waters; uses and specific criteria applicable to inland waters, marine waters, and recreational areas; zones of mixing; water quality certification and components; revisions; and severability.

C. HAR Title 11, Chapter 55 – Water Pollution Control

HAR §11-55 became effective on October 22, 2007 and established the application of general and individual NPDES permits for facilities in Hawaii. The NPDES permit conditions include monitoring and sampling, permit coverage, modification, and revocation, penalties, remedies, hearings, appeals, severability, public interest, and field citations. HAR §11-55 also establishes general permit conditions specific activities with the potential to impact the storm water, including industrial activities (§11-55 Appendix B), construction activities (§11-55 Appendix C), and construction activity dewatering (§11-55 Appendix G).

1.1.2 Oil Pollution Prevention

A. 40 CFR Part 112 – Oil Pollution Prevention

Originally published in 1973 under the authority of §311 of the CWA, the Oil Pollution Prevention regulation (40 CFR 112) sets forth requirements for prevention of, preparedness for, and response to oil discharges at specific non-transportation-related facilities. To prevent oil from reaching navigable waters and adjoining shorelines, and to contain discharges of oil, the regulation requires these facilities to develop and implement SPCC Plans and establishes procedures, methods, and equipment requirements (Subparts A, B, and C). On December 5, 2008, the Federal Register published EPA's final rule to amend the SPCC rule. This regulation includes requirements for facilities to prepare, amend, and implement SPCC Plans to prevent discharges of oil to navigable waters and adjoining shorelines.

Before a facility is subject to the SPCC rule, it must meet three criteria:

- It must be non-transportation-related;
- It must have an aggregate aboveground storage capacity greater than 1,320 gallons or a completely buried storage capacity greater than 42,000 gallons; and
- There must be a reasonable expectation of a discharge into or upon navigable waters of the United States or adjoining shorelines.

When calculating oil storage capacity, the facility should not count containers with less than 55 gallons; completely buried tanks that are subject to all of the technical requirements of the UST Regulation (40 CFR part 280) or all of the technical requirements of a state UST program approved under 40 CFR part 281; containers that are permanently closed as defined in 40 CFR part 112.2; or parts of the facility used exclusively for wastewater treatment and not used to satisfy any requirement of 40 CFR part 112. Preparation of the SPCC Plan is the responsibility of the facility owner or operator.

B. 40 CFR 110 – Discharge of Oil

The regulations of this part apply to the discharge of oil prohibited by section 311(b)(3) of the CWA. For purposes of section 311(b)(4) of the Act, discharges of oil in such quantities that the Administrator of the EPA has determined may be harmful to the public health or welfare or the environment of the United States include discharges of oil that:

(a) Violate applicable water quality standards; or

(b) Cause a film or sheen upon or discoloration of the surface of the water or adjoining shorelines or cause a sludge or emulsion to be deposited beneath the surface of the water or upon adjoining shorelines

Any person in charge of a vessel or of an onshore or offshore facility shall, as soon as he or she has knowledge of any discharge of oil from such vessel or facility in violation of section 311(b)(3) of the Act, immediately notify the National Response Center (NRC) (800-424-8802). If direct reporting to the NRC is not practicable, reports

may be made to the Coast Guard or EPA predesignated On-Scene Coordinator (OSC) for the geographic area where the discharge occurs. All such reports shall be promptly relayed to the NRC. The procedures for such notice are set forth in U.S. Coast Guard regulations, 33 CFR Part 153, subpart B and in the National Oil and Hazardous Substances Pollution Contingency Plan, 40 CFR Part 300, subpart E.

1.1.3 Waste Management Regulations

The Resource Conservation and Recovery Act, commonly referred to as RCRA, is primary law governing the disposal of solid and hazardous waste in United States. Congress passed RCRA on October 21, 1976, which amended the Solid Waste Disposal Act of 1965 and set national goals for protecting human health and the environment from the potential hazards of waste disposal, conserving energy and natural resources, reducing the amount of waste generated, and ensuring that wastes are managed in an environmentally-sound manner. To achieve these goals, RCRA established three distinct programs: the solid waste program regulated under RCRA Subtitle D, the hazardous waste program regulated under RCRA Subtitle C, and the underground storage tank (UST) program regulated under RCRA Subtitle I. RCRA gives EPA the authority to control hazardous waste from the “cradle-to-grave.” This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of non-hazardous solid wastes.

A. Solid Waste Management Control - Hawaii Administrative Rules (HAR), Title 11, Chapter 58.1

This chapter establishes minimum standards governing the design, construction, installation, operation, and maintenance of solid waste disposal, recycling, reclamation, and transfer systems. These standards are intended to prevent pollution of the drinking water supply or waters of the state; prevent air pollution; prevent the spread of disease and the creation of nuisances; protect the public health and safety; conserve natural resources; and preserve and enhance the beauty and quality of the environment. The general provisions, requirements for the solid waste disposal facilities; solid waste storage, handling, and processing facilities; and solid waste reclamation facilities, special waste management rules, solid waste management responsibilities, and miscellaneous provisions are detailed in this chapter.

B. Hazardous Waste Regulations - 40 CFR Parts 260 through 263 and HAR §11, Chapter 260 through Chapter 263, Chapter 273, and Chapter 279

40 CFR Parts 260 through 263, enforced by EPA, establishes regulations for hazardous waste management including identification and listing of hazardous waste and standards applicable for generators and transporters of hazardous waste.

§11-260 through §11-263 establish rules governing hazardous waste management in Hawaii and are enforced by DOH. §11-260 through §11-263, §11-273, and §11-279 are patterned after the regulations promulgated in 40 CFR Parts 260 through 263, 273, and 279 respectively. All references in tables and appendices to provisions of the CFR shall be construed to mean the state rule analogue of the referenced federal regulation (for example, 40 CFR 260.1 shall be construed to mean section 11-260-1 of the HAR).

40 CFR Part 260 and §11-260 – Hazardous Waste Management System: General

This Part provides definitions of terms, general standards, and overview information applicable to the remainder of the hazardous waste rules.

40 CFR Part 261 and §11-261 – Identification And Listing Of Hazardous Waste

These regulations can be used to determine whether the waste is a solid waste and then to determine if it is a hazardous waste based on the characteristics exhibited by the waste and listed wastes.

40 CFR Part 262 and §11-262 – Standards Applicable To Generators of Hazardous Waste

This Part establishes standards for generators of hazardous waste including hazardous waste determination, EPA identification numbers, general requirements for hazardous waste manifests and hazardous waste packaging, labeling, marking, placarding, accumulation time, generator status, recordkeeping, and reporting.

These standards can be utilized to make a hazardous waste determination, identifying the operator's generator status based on quantity of hazardous waste generated per calendar month, and managing the hazardous waste in accordance with the requirements for different generators. The hazardous waste generators are classified into Large Quantity Generator (LQG), Small Quantity Generator (SQG), and Conditionally Exempt Small Quantity Generator (CESQG).

40 CFR Part 263 and §11-263 – Standards Applicable To Transporters of Hazardous Waste

This Part establishes standards which apply to persons transporting hazardous waste within the United States if the transportation requires a manifest under 40 CFR Part 262 or §11-262. These regulations do not apply to on-site transportation of hazardous waste by generators or by owners or operators of permitted hazardous waste management facilities. A transporter of hazardous waste must also comply with other applicable Parts of the 40 CFR and/or §11-262, where applicable. The standards for transporter EPA identification numbers, transfer facility requirements, requirements and compliance with the manifest system, recordkeeping, and immediate action and clean up for hazardous waste discharges are detailed in this Part.

C. Universal Waste Management – 40 CFR Part 273 and HAR §11-273

This Part establishes requirements that define the acceptable management of Universal Waste, which includes batteries, some pesticides, mercury-containing equipment, and lamps (bulbs). These rules provide an alternative set of management standards in lieu of regulation under 40 CFR Parts 260 through 272. The requirements provide definitions of Universal Waste and generator status as well as rules for managing Universal Waste including applicability, prohibitions, notification, labeling, marking, accumulation time limits, response to releases, off-site shipments, tracking shipments, and exports are listed in this Part. The Universal Waste rules are not applicable to the conditionally exempt small quantity generators of hazardous waste (40 CFR Part 273.8).

D. Standards for the Management of Used Oil - 40 CFR Part 279 and HAR §11-279

On July 30, 2003, EPA established standards for recycled used oil management. These standards were corrected and the final rule was published on July 14, 2006. This Part establishes used oil management requirements including definitions of used oil, applicability, specifications, prohibitions, hazardous waste mixing, storage, on-site burning, off-site shipments, collection centers, aggregation points owned by the generator, transportation, notification, tracking, recordkeeping, reporting, management of residues, restrictions on burning, disposal, and use as a dust suppressant.

E. Underground Storage Tanks (UST) Regulations - 40 CFR Part 280 and HAR §11-281

The requirements of this part apply to all owners and operators of an UST system as defined in Sec. 280.12 except as otherwise provided in paragraphs (b), (c), and (d) of 40 CFR 280.1. This chapter establishes UST regulations such as applicability, interim prohibition for deferred UST systems, definitions, performance standards for new UST systems, upgrading of existing UST systems, notification requirements, spill and overfill control, operation and maintenance of corrosion protection, compatibility, repairs allowed, general requirements for all UST systems, requirements for petroleum UST systems and hazardous substance UST systems, methods of release detection for tanks and piping, release detection recordkeeping, reporting of suspected releases, investigation due to off-site impacts, initial abatement measures and site check, free product removal, temporary closure, permanent closure and change-in-service, and financial responsibility.

F. HAR, Title 11, Chapter 104.1 - Management & Disposal of Infectious Waste

This chapter establishes standards governing the infectious waste management for generators, transporters, and treatment facilities. This chapter includes definition of infectious waste and storage, handling, treatment, transportation, and disposal requirements of infectious waste for generators, transporters, and treatment facilities.

1.1.4 Emergency Planning and Community Right-To-Know Act

In 1986, a federal law, the Emergency Planning and Community Right-to-Know Act (EPCRA), established requirements for Federal, State, and local governments and industry regarding emergency planning and “Community Right-to-Know” reporting on hazardous and toxic chemicals. EPCRA created five separate reporting requirements for subject facilities, including:

- Emergency planning and notification (EPCRA sections 301 through 303)
- Emergency and accidental release notification (EPCRA section 304)
- Chemical hazard reporting requirements (EPCRA section 311)
- Chemical inventory reporting requirements (commonly referred to as Tier II) EPCRA section 312)

- Toxic release reporting requirements (commonly referred to as TRI or Form R) (EPCRA section 313)

In 1993, Hawaii Emergency Planning and Community Right-to-Know (HEPCRA) became law (HRS 128E) and promulgated the federal EPCRA requirements in the State of Hawaii. HEPCRA provides authority to the DOH to create administrative rules implementing the requirements of the law. If a facility stores extremely hazardous substances (EHSs) above threshold planning quantities (TPQs) published in 40 CFR 355 Appendices A and B or if the facility store 10,000 pounds or more of a hazardous material, the facility is subject to HEPCRA.

A. 40 CFR Part 355 – Emergency Planning and Notification

This Part establishes the list of EHS, TPQs, and facility notification responsibilities necessary for the development and implementation of state and local emergency response plans. These regulations detail the following: purpose, definition, emergency planning, emergency release notifications, penalties, and the list of extremely hazardous substances and their TPQs.

B. 40 CFR Part 370 – Hazardous Chemical Reporting: Community Right-to-Know

This Part establishes reporting requirements which provide the public with important information on the hazardous chemicals in their communities for the purpose of enhancing community awareness of chemical hazards and facilitating development of state and local emergency response plans. These regulations detail the following: purpose, definition, penalties, applicability, material safety data sheets (MSDS) reporting, inventory reporting, mixtures, request for information, provision for information, Tier I emergency and hazardous chemical inventory form, and Tier II emergency and hazardous chemical inventory form.

C. 40 CFR Part 372 – Toxic Chemical Release Reporting: Community Right-to-Know

This Part sets forth requirements for the submission of information relating to the release of toxic chemicals under section 313 of Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986. The information collected under this Part is intended to inform the general public and the communities surrounding covered facilities about releases of toxic chemicals, to assist research, to aid in the development of regulations, guidelines, and standards, and for other purposes. These regulations also set forth requirements for suppliers to notify persons to whom they distribute mixtures or trade name products containing toxic chemicals that they contain such chemicals.

These regulations detail the following: purpose, definition, persons subject to this part, recordkeeping, compliance and enforcement, covered facilities for toxic chemical release reporting, Standard Industrial Codes (SIC) and North American Industry Classification System (NAICS) codes to which this Part applies, thresholds for reporting, reporting requirements and schedule for reporting, exemptions, notification about toxic chemicals, chemicals and chemical categories to which this part applies, and toxic

chemical release reporting form and instructions.

D. HAR Title 11, Chapter 451 – State Contingency Plan

This chapter, adopted on August 2, 1995, establishes the Hawaii State Contingency Plan in order to implement, administer, and enforce the HRS chapter 128D. These regulations are applicable to hazardous substances, pollutants, or contaminants, any release of hazardous substances, pollutants, or contaminants in quantities equal to or exceeding their reportable quantities, or any release or threat of release of hazardous substances, pollutants, or contaminants which poses or which may pose a substantial endangerment to public health or welfare, the environment, or natural resources, and all action taken pursuant to HRS chapter 128D, or these rules. The requirements such as notification of releases, hazardous substance response, natural resources, activities by other persons, administrative records, and entry and access are detailed in this chapter.

1.2 Department Overview

The Hawaii Department of Transportation is comprised of three Divisions: Harbors, Airports, and Highways. The Harbors Division provides administrative oversight, engineering services, property management, computer support, and fiscal control to ten commercial harbors in four Districts: Oahu (Honolulu and Kalaeloa Barbers Point Harbors), Maui (Hana, Kahului, Kaunapau, and Kaunakakai Harbors), Kauai (Nawiliwili and Port Allen Harbors) and Hawaii (Hilo and Kawaihae Harbors). The Harbors environmental organizational chart is included in Attachment G-1.

1.3 Environmental Organization

The Harbors environmental organization is centralized within the Engineering Branch at the Hale Awa Ku Moku building at 79 South Nimitz Highway. The Environmental Program Manager reports to the Engineering Branch Supervisor. The Engineering Branch Supervisor reports to the Deputy Director of Harbors, who in turn reports to the Director of Transportation.

The Environmental Section consists of one supervisor and one staff environmental inspector. The Environmental Section Supervisor continuously evaluates workloads and new tasks are assigned based on location, technical expertise, and current workload. This management structure allows for immediate access to the Environmental Section by the Districts, while maximizing utilization and therefore spreading the workload more evenly.

1.4 Intergovernmental Coordination

Continued coordination between the Harbors Environmental Section, DOH, and EPA concerning environmental issues is an integral part of the environmental program at each of Hawaii's harbors. The Environmental Section Supervisor will coordinate regulatory compliance program issues. These issues may include permitting, sampling, reporting requirements, policy and procedures, and staffing. Any changes to the Harbors environmental program will be subject to approval by the Director of Transportation, HDOH, and EPA. Some issues may also require the assistance of the Attorney General office and should be coordinated through the DOT Office of Special Compliance. The Harbors Environmental Section Supervisor should be included in these discussions.

The Environmental Section staff may need to interact with members of the HDOH, Clean Water Branch (CWB) or other regulating agencies in order to address environmental issues and concerns as they arise. The Environmental Section Supervisor will be made aware prior to any contact with these agencies, and a summary of the issue(s) discussed will be forwarded to all member of the Environmental Section. This will help to maintain consistent compliance and enforcement throughout the state.

The completed Harbors' revised Tenant Inspection Checklists for tenants with separate industrial NPDES permit coverage will be routed to the Environmental Section Supervisor.

All correspondence between Harbors, DOH, and EPA will be tracked through a document control system developed by the HDOT. Also, the Environmental Section will keep a complete hardcopy set of all correspondence and submittals.

2.0 PROGRAM SCOPE

The Harbors Inspection and Enforcement program is directed toward all state harbors including:

- Hawaii District, Hilo Harbor
- Hawaii District, Kawaihae Harbor
- Kauai District, Nawiliwili Harbor
- Kauai District, Port Allen Harbor
- Oahu District, Honolulu Harbor
- Oahu District, Kalaeloa Barbers Point Harbor
- Maui District, Hana Harbor
- Maui District, Kahului Harbor
- Maui District, Kaunapali Harbor, Lanai
- Maui District, Kaunakakai Harbor, Molokai

Two HDOT harbors currently operate under NPDES permits, Honolulu and Kalaeloa Barbers Point Harbors on the island of Oahu. The operations for these harbors are guided by individual Storm Water Management Plans as well as the EMS program.

2.1 Implementation Schedule

Harbors will implement the Inspection and Enforcement program for Oahu District by December 31, 2010. Subsequently, the program will be implemented to a new district every three years until all districts are added.

2.2 Tenant Responsibility

All Harbors tenant lease agreements and revocable permits include language stating that the tenant is responsible for compliance with all environmental laws and regulations (Attachment G-5). Details of the lease agreements and revocable permits are included in Section 5.2. Tenants at the NPDES regulated facilities have been made aware of the Harbors' EMS and storm water management programs. Additionally, all Harbors tenants are to be inspected by Harbors environmental inspectors for conformance with the EMS program. Failure to comply with the Harbors environmental programs will result in enforcement actions against tenants as detailed in Section 6.0.

Harbors tenants conducting industrial activities within their exclusive areas are required to obtain separate NPDES permit coverage from HDOH. Vessels greater than or equal to 300 gross tons or that have the capacity to hold or discharge more than 8 cubic meters (2113 gallons) of ballast water, must submit a NOI to the EPA to obtain coverage under the Vessel General permit. This coverage permits discharges incidental to the normal operation of a vessel, such as:

- Deck Runoff and Above Water Line Hull Cleaning
- Bilgewater/Oily Water Separator Effluent
- Ballast Water
- Anti-fouling Leachate from Anti-Fouling Hull Coatings/Hull Coating Leachate,
- Aqueous Film Forming Foam (AFFF)
- Boiler/Economizer Blowdown
- Cathodic Protection
- Chain Locker Effluent
- Controllable Pitch Propeller and Thruster Hydraulic Fluid and other Oil Sea Interfaces including Lubrication discharges from Paddle Wheel Propulsion, Stern Tubes, Thruster Bearings, Stabilizers, Rudder Bearings, Azimuth Thrusters, and Propulsion Pod Lubrication
- Distillation and Reverse Osmosis Brine
- Elevator Pit Effluent
- Firemain Systems
- Freshwater Layup
- Gas Turbine Wash Water
- Graywater
- Motor Gasoline and Compensating Discharge
- Non-Oily Machinery Wastewater
- Refrigeration and Air Condensate Discharge
- Seawater Cooling Overboard Discharge (Including Non-Contact Engine Cooling Water; Hydraulic System Cooling Water, Refrigeration Cooling Water)
- Seawater Piping Biofouling Prevention
- Boat Engine Wet Exhaust
- Sonar Dome Discharge
- Underwater Ship Husbandry
- Welldeck Discharges
- Graywater Mixed with Sewage from Vessels
- Exhaust Gas Scrubber Washwater Discharge

3.0 RISK RANKING

3.1 Purpose

Harbors will rank each tenant based on the tenant's potential to either contribute pollutants to the environment. The results of the tenant risk rankings will be reevaluated for accuracy each calendar year. The risk designation of high, medium, or low will determine the frequency at which each tenant will be inspected by DOT Harbors Environmental Section (i.e. quarterly, annually, and biennially) for compliance with environmental laws and regulations. Some harbors tenants may have more than one facility, and each facility may be on a separate inspection schedule based on their drainage area and ranking.

An updated risk ranking for the tenants will be maintained in the Harbors Environmental Section files (Example in Attachment G-6).

3.2 Risk Ranking Criteria

All industrial tenants will be ranked as high, medium or low as determined by a cumulative score of the twelve risk criteria listed in this section. Certain individual criteria include a trigger for automatic assignment of high risk ranking regardless of the cumulative score. Risk rankings for cumulative scores are as follows:

Low = Score of 5 or less

Medium = Score from 6 through 16

High = Score more than 16, or a 5 in any individual criteria.

Each facility will be evaluated using the risk criteria detailed below.

The term, vessel, as used in this manual, includes every description of watercraft used or capable of being used as a means of transportation on water, including power boats, ships, tugs, cruise boats, small craft, smaller commercial vessels, sailing vessels, barges, scows, lighters, ferry boats, pleasure craft, floating equipment, house boats, floating gear, and any and all other watercraft. Small vessels are considered those less than 65 feet in length. (HAR 19-41-2)

3.2.1 Vessel Maintenance and Repair (VM)

Facilities are ranked based on the vessel maintenance and repair activities. Vessel maintenance and repair activities include parts replacement, parts washing, removing and/or replacement of fluids and greases, dismantling, sandblasting, sanding, and painting. Maintenance and repair activities are evaluated based upon the discharge potential to storm water.

0 = No maintenance activities are conducted.

1 = Maintenance activities are conducted entirely indoors, on any size vessel, with minimal potential for discharge of pollutants

2 = Minor maintenance for small vessels are conducted in their berth within 30 days with minimal potential for discharge of pollutants.

3 = Maintenance activities on large vessels are conducted outdoors and out of the water with minimal potential for discharge of pollutants.

4 = Major maintenance activities on any size vessel are conducted in a confined area in the water with moderate potential for discharge of pollutants.

5 = Maintenance activities on any size vessel are conducted in an unconfined area in the water or in an area with significant potential for discharge of pollutants. **(Automatic trigger to high risk designation)**

3.2.2 Vessel Fueling (VF)

Facilities are ranked based upon the type and method of vessel fueling. Vessel fueling includes transferring fuel between vessels as well as transferring fuel to a vessel through hoses from a mobile fuel truck or a stationary above ground storage tank.

0 = No fuel transfer activities are conducted.

1 = Fueling of small vessels is conducted by a fueling company.

2 = Fueling of large vessels is conducted in a confined area.

5 = Fueling of large vessels is conducted in areas WITHOUT containment/diversion. **(Automatic trigger to high risk designation)**

3.2.3 Vessel Washing (VW)

Facilities are ranked based upon vessel washing activities. Vessel washing includes the removal of salt, sediment, and sea life from the exterior of a vessel using water, detergent, and or scrapping devices. Vessel washing activities are evaluated based upon the discharge potential to storm water.

0 = No vessel washing is conducted.

1 = Vessel washing is conducted out of the water in an area designed to contain wash water and debris.

4 = Vessel washing is conducted in the water and operator has coverage under

EPA Vessel General Permit.

5 = Washing of any vessel is conducted in the water without EPA Vessel General Permit. (*Automatic trigger to high risk designation*)

3.2.4 Vehicle and/or Equipment Maintenance and Repair (EM)

Facilities are ranked based upon vehicle and/or equipment maintenance and repair activities. Vehicle and/or equipment maintenance and repairs includes activities such as parts replacement, parts washing, removal and/or replacement of fluids or greases, dismantling, sandblasting, sanding, and painting. Maintenance and repair activities are evaluated based upon the discharge potential to storm water.

0 = No maintenance activities are conducted.

1 = Maintenance activities are conducted entirely indoors, on a small scale, with minimal potential for discharge of pollutants.

2 = Maintenance activities are conducted entirely indoors, on a large scale, with minimal potential for discharge of pollutants.

3 = Maintenance activities are conducted in a covered area with moderate potential for discharge of pollutants.

4 = Maintenance activities are conducted outdoors or in an area with minimal potential for discharge of pollutants.

5 = Maintenance activities are conducted outdoors or in an area with significant potential for discharge of pollutants. (*Automatic trigger to high risk designation*)

3.2.5 Vehicle and/or Equipment Fueling (EF)

Facilities are ranked based upon the amount of fueling and the containment and/or diversion structures available. Small-scale fueling refers to the fueling of vehicles, aboveground storage tanks (ASTs), and equipment from mobile storage tanks (MSTs), underground storage tanks, and/or fuel cans. Large-scale fueling refers to the fueling of mobile fuel trucks from an aboveground storage tank loading rack.

0 = No fuel transfer activities are conducted.

1 = Vehicle and/or equipment fueling is conducted on a small scale.

2 = Vehicle and/or equipment fueling is conducted on a large scale in areas with containment/diversion.

5 = Vehicle and/or equipment fueling is conducted on a large scale in areas WITHOUT containment/diversion. (*Automatic trigger to high risk designation*)

3.2.6 Vehicle and/or Equipment Washing (EW)

Facilities are ranked based upon the methods used for vehicle and/or equipment washing. This category includes the washing of ground service equipment, maintenance equipment vehicles, and cars. All washing activities must take place in approved areas.

0 = No vehicle or equipment washing is conducted.

1 = Vehicle and/or equipment washing is conducted in a designated wash area with minimal to no potential for discharge of pollutants.

4 = Vehicle and equipment washing has potential for significant discharge of pollutants.

3.2.7 Oil Storage (aboveground > 55-gallon containers ONLY) (OS)

Tenants are ranked based upon the oil storage protocols employed at the facilities. Oil storage includes any oil as defined in 40 CFR 112.2 stored in ASTs, MSTs, and 55-gallon drums. Oil stored in containers smaller than 55-gallons are evaluated in Section 3.2.8: Container Storage.

The term “properly stored” indicates that ASTs, MSTs, and drums meet the following SPCC requirements for secondary containment:

- Containers are clearly labeled;
- Container material and construction are compatible with the stored material;
- Secondary containment is sufficient to contain the entire capacity of the largest single container and sufficient freeboard to contain precipitation;
- The bypass valve is sealed and retained storm water is properly managed;
- Container integrity is appropriately tested; and
- Drums are in good condition, neatly organized, and sealed when not in use.

0 = No oil product is stored.

1 = Less than 1,320 gallons of oil is properly stored with little or no potential for discharge of pollutants.

2 = More than 1,320 gallons of oil is properly stored with little or no potential for discharge of pollutants and the facility has a SPCC Plan.

4 = More than 1,320 gallons of oil is properly stored with little or no potential for discharge of pollutants and the facility does not have a SPCC Plan.

5 = Oil is improperly stored and/or stored with significant potential for discharge of pollutants.

3.2.8 Container Storage (CS)

Facilities are ranked based up the container storage methods employed and the toxicity of materials stored. This category includes materials such as chemical products, solid wastes, new oil, and used oil stored in containers smaller than 55-gallon size.

Storage methods are evaluated to ensure that materials are appropriately stored. The term “properly stored” indicates that containers are correctly labeled, not passed their expiration date, in good condition, sealed when not in use, and neatly organized.

0 = No materials are stored.

1 = All materials are properly stored indoors or in a covered area with little to no

potential for discharge of pollutants.

4 = Low toxicity materials are improperly stored and/or stored outdoors with significant potential for discharge of pollutants.

5 = High toxicity materials are improperly stored and/or stored outdoors with significant potential for discharge of pollutants. (*Automatic trigger to high risk designation*)

3.2.9 Material Handling (MH)

Facilities are ranked based upon the methods used for loading and unloading of non-fuel materials and cargo. Hawaii imports 80% of its required goods with 98% shipped via water. Therefore, the major operation occurring at Hawaii harbors is the loading and unloading of cargo from vessels, the moving of materials to warehouses, and the loading and unloading of trucks.

Other material handling operations at the harbors may include bilge servicing, sewage transfer, fire suppressant loading, handling of non-fuel oil, and construction materials staging. Bulk cargo operations are also included, such as the handling of sand, aggregate, coal, portland cement, and scrap metal. This criterion can also address pumping operations affiliated with the cleaning of tanks, sumps, piping, or pier areas.

0 = No materials are loaded or unloaded.

1 = All materials are loaded and unloaded entirely indoors with no to low potential for discharge of pollutants.

2 = All materials are loaded and unloaded with moderate potential for discharge of pollutants.

4 = Material loading and unloading is conducted with significant potential for discharge of pollutants.

3.2.10 Waste Handling and Disposal (excludes Used Oil) (WH)

Facilities are ranked based upon solid waste handling and disposal. Waste handling includes making the hazardous waste determination. If the waste is a hazardous waste the accumulation start date should be added to the product label. Additionally, the facility should ensure that the waste is stored within the designated storage time dependent upon the facility waste classification detailed in 40 CFR 262.

0 = No waste is stored.

1 = All waste is non-hazardous, stored indoors or in covered areas, with no to minimal potential for discharge of pollutants.

2 = All wastes are non-hazardous, stored outdoors or in covered areas, with some potential for discharge of pollutants.

3 = Hazardous wastes are generated and the tenant is classified as a CESQG. Hazardous wastes are stored and disposed of properly. Storage areas do not have potential for discharge of pollutants.

- CESQG generates 100 kg (220 lbs) or less of hazardous waste in one calendar month; generates 1 kg (2.2 lbs) or less of acutely hazardous waste in one calendar month; and does not accumulate 1,000 kg (2,205 lbs) or more of hazardous waste at any one time.

5 = Hazardous wastes are generated and the tenant is classified as a SQG or LQG. Hazardous wastes are stored and/or disposed of improperly. Storage areas have significant potential for discharge of pollutants. (*Automatic trigger to high risk designation*)

- SQG generates more than 100 kg (220 lbs) and less than 1,000 kg (2,205 lbs) of hazardous waste in one calendar month; and does not accumulate 6,000 kg (13,228 lbs) or more of hazardous waste at any one time.
- LQG generates more than 1,000 kg (2,205 lbs) of hazardous waste in one calendar month.

3.2.11 Spill History (SH)

Facilities are ranked based on past reports of oil and/or chemical spills at the tenants' facilities and/or inspection and investigation report.

0 = No history of surface spills greater than 5 gallons.

1 = One to three surface spills greater than 5 gallons in the past three years

2 = More than three surface spills greater than 5 gallons (but less than 25 gallons) in the past three years.

5 = One or more surface spills greater than the Reportable Quantity for a specific chemical in the past three years (40 CFR 302.4) or five reported spills of any quantity during a calendar year.

3.2.12 Enforcement History (EH)

Tenants are ranked based on the history of past environmental compliance warnings as well as the response actions taken by the tenant.

0 = No verbal or written warnings received in the past three years.

1 = Verbal warnings received in the past three years and corrective actions were immediately taken by the tenant.

2 = Written warnings received in the past three years and corrective actions were immediately taken by the tenant.

3 = Written warnings received in the past three years, but corrective actions were NOT immediately taken by the tenant.

5 = Civil penalties were assessed for non-compliance in the past three years. (*Automatic trigger to high risk designation*)

3.3 Inspection Frequency

All tenants shall be inspected by Harbors Environmental Section or their designee in accordance with Section 4.0 of this manual. The frequency of tenant inspections will be based on a combination of the NPDES permit coverage status and the tenant risk ranking determinations of high, medium, or low threat.

Harbors will inspect each tenant in each ranking class as follows:

- High ranked tenants, shall be inspected at least twice per year;
- Medium ranked tenants shall be inspected at least annually; and
- Low ranked tenants shall be inspected at least every two years.

3.4 Implementation

During the first year of the implementation of this Inspection and Enforcement Manual, a site visit will be conducted for every tenant at HDOT Harbors by Harbors Environmental Section or their designee. This site visit as well as previous knowledge of tenant operations will be used to make the risk ranking determination. The risk ranking determinations will be compiled into a Statewide Harbors Tenant Risk Ranking List.

Subsequent confirmation or reclassification of the risk ranking will be conducted as part of the routine inspection process. During inspections, Harbors environmental inspectors will reevaluate each facility based on the ranking criteria, determine if the current risk ranking classification is adequate, and make changes if warranted.

An electronic tenant database is maintained and updated by the Harbors Property Management Section. The Harbors environmental personnel will include the tenant list in their files along with information such as company name, harbor, contact information, property space identification number, mailing address, property space use, and risk ranking.

3.5 Results

Following the initial tenant risk ranking, the results of all subsequent tenant risk rankings will be submitted to the Harbors Environmental Supervisor by January 15th of each calendar year. Along with the subsequent risk ranking determination, the Harbors Environmental Supervisor will prepare a quarterly inspection schedule based on the risk ranking results. The inspection schedules will be maintained and updated by the Harbors Environmental Supervisor. An electronic copy of the Statewide Harbors Tenant Risk Ranking List will be made available to all members of the Harbors Environmental Program.

4.0 INSPECTION DESCRIPTION

The risk ranking process determines the number and frequency of facility inspections completed by Harbors Environmental Section or their designee that are required each calendar year at leased and common areas. The primary purpose of routine inspections is to evaluate how facility operations comply with environmental regulations. Compliance, BMP, and P2 information for each of the eleven inspection criteria are detailed in Section 4.1. A secondary purpose for routine inspections is to confirm compliance and correct environmental violations noted by the DOH, EPA, or a third party.

Inspections should also be conducted under the following circumstances: 1) to investigate reported unauthorized discharges of pollutants to receiving water or the storm water collections system; 2) to evaluate new tenant operations; and 3) to evaluate environmental conditions in tenant areas subject to lease termination. Joint inspections may also be conducted with DOH and/or EPA representatives. Additional inspection criteria for non-routine inspections are discussed in Sections 4.2 and 4.3.

4.1 Compliance, BMP, and P2 Information

In order for a facility to remain in compliance, they must be informed of the applicable environmental regulations. Additionally, they must consider the use of BMPs and P2 conditions to further aid in reducing pollution. The tenant should be aware of the requirements of the checklist and understand how their operations could impact the environment. Commonly applied BMPs associated with the eleven inspection criteria are included in Attachment G-2. BMPs also include treatment requirements, operating procedures, and practices to control site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. BMPs can be operational practices intended to prevent pollutants from entering surface waters by altering activities to eliminate or to minimize the pollution produced. Treatment control BMPs are physical devices or systems that remove pollutants from storm water. Spill Response BMPs rely on a combination of structural controls, employee awareness, and training to be effective methods for protecting the environment.

Some of the BMPs to be evaluated during the inspections are based on the May 1999 City and County of Honolulu publication, “Best Management Practices Manual for Construction Sites in Honolulu.” Brief descriptions of each BMP and the accompanying key inspection criteria follow below.

4.1.1 Elimination of Non-Storm Water Discharges to Storm Drains

This is a general BMP to be applied to all facilities. Non-storm water discharges can be classified as 1) activity-based (subtle) or 2) overt (hard-pipe connection). Activity-based non-storm water discharges may include wash water, tank overflows, and spillage. Overt non-storm water discharges – flows piped to the storm water collections system - may include process wastewater, treated cooling water, and sanitary wastewater. Non-storm water discharges can be detected during inspections of facilities and the storm water collections system itself, both of which should take place in both dry and wet

weather. Overt connections can also be detected during the engineering plan review process and outfall inspection.

Certain non-storm water discharges are exempt from regulation, such as air conditioning condensate drainage, landscape irrigation runoff, foundation drainage, and uncontaminated fire suppression flows.

Key Inspection Criteria:

- Activity-based discharges: identify facility areas exposed to storm water which are wet during dry periods or are stained;
- Activity-based discharges: inspect discharge points to the storm water collections system to identify uncharacteristic volume, color, turbidity, odor, floatables, or foaming;
- Overt discharges: inspect each discharge point to the storm water collections system during dry weather; and
- Overt discharges: ask the facility manager to identify the discharge pathway of all floor and facility drains. Review as built drawings of facilities as needed to verify piping schematics.

4.1.2 Vessel, Vehicle, and Equipment Maintenance and Repair

Due to the mild climate of Hawaii, significant vessel, vehicle, and equipment maintenance and repair activities take place in uncovered areas. Accordingly, the potential for discharge of pollutants to the environment from these activities is very high. Coordinating with Harbor Police (587-2006 or 587-2007) to ensure that maintenance and repair activities take place only in authorized areas is critical to the success of this BMP.

Additional state and federal regulations apply to some aspects of maintenance operations. These include, but are not limited to state and federal solid and hazardous waste regulations, sewer use ordinances, and the Uniform Fire Code. Maintenance area problems can be addressed with a combination of these regulatory tools.

Key Inspection Criteria:

- Work area: verify that maintenance occurs in an authorized area;
- Work area: verify that storm drain inlets are labeled and/or protected from waste discharge, and cleaned regularly;
- Work area: verify that maintenance areas are not hosed down, but are cleaned with either dry methods or a mop and bucket;
- Equipment: verify that greasy or leaking equipment is stored under cover and/or with drip pans;
- Equipment: verify that all fluids are drained and batteries removed from salvage vessels, vehicles, and equipment;
- Materials: evaluate hazardous materials utilized and make suggestions for substitutions of recycled or less toxic products (Attachment G-2);

- Materials: verify recycling or proper disposal of grease, oils, antifreeze, brake fluid, cleaning solutions, hydraulic and transmission fluids, solvents, paints, batteries, and filters; and
- Training: verify that maintenance employees have received awareness training on storm water BMPs and a hazardous communication (HAZCOM) course.

4.1.3 Vessel, Vehicle, and Equipment Fueling

Fuel transfer activities at Harbors facilities occur in various locations and circumstances. Designated fueling areas have been located and designed to prevent the run-on of storm water and the runoff of spills. Additionally, vessel fueling commonly must occur while the vessel is in the water. Due to the added potential for release with this operation, U.S. Coast Guard regulations must be adhered to. Certain fuel storage and transfer operations are regulated under 40 CFR 112: Oil Pollution Prevention and Response; Non-Transportation-Related Onshore and Offshore Facilities, commonly known as the Spill Prevention Control and Countermeasure (SPCC) Program. Underground fuel storage tanks are regulated under HAR Title 11, Chapter 281: Underground Storage Tanks.

Some tenants are covered by SPCC plans developed and implemented as a requirement of 40 CFR Part 112. These plans are discussed in Section 4.1.11. The key components of fueling BMPs address some practical measures that should be used independently or in conjunction with an SPCC plan.

Key Inspection Criteria:

- Vessel fueling area: ensure that there is containment around the vessel, such as floating booms to capture any releases;
- Fueling area: assess fueling area design, and make recommendations for installing a cover, dead-end sump, berms, or impervious surfacing if appropriate;
- Fueling area: inspect sump or oil/water separator and query tenant on maintenance schedule;
- Fueling area: query tenant on fueling location of mobile equipment;
- Operations: check for staining in fueling areas, and evaluate whether adequate spill cleanup methods are routinely employed;
- Operations: evaluate cleanup practices – spent absorbent should be picked up and stored in an appropriate container, fueling areas should not be hosed down, and employees should be trained on fueling, spill cleanup practices, and content of SPCC plan;
- Equipment: evaluate secondary containment devices – portable and permanent – used during fueling operations; and
- Equipment: inspect visible piping, tanks, and hoses for signs of leakage, wear, or malfunction.

4.1.4 Vessel, Vehicle, and Equipment Washing

Due to the potential of our marine environment to cause corrosion on metals, the need for washing of ground service equipment, maintenance equipment, vehicles, and vessels is increased. Wash racks equipped with oil/water separators and containment devices should be utilized for all washing operations on land.

Vessel washing should be conducted in a manor which contains the majority of the pollutants. This can be accomplished though prohibiting the use of surfactants, using minimal water, and/or containing the vessel with booms or other containment devices. Additionally, vessels greater than or equal to 300 gross tons or have the capacity to hold or discharge more than 8 cubic meters (2113 gallons) of ballast water must obtain coverage under EPA's Vessel General Permit.

Key Inspection Criteria:

- Washing area: evaluate area for the following optimal characteristics – cover, containment, surface integrity, slope, run-on/runoff;
- Wash water treatment: evaluate maintenance, cleaning, and disposal of materials from sumps and oil/water separators;
- Equipment: inspect wash water collection, pretreatment, and reclamation system components for potential discharges;
- Equipment: evaluate storage and use of cleaning agents;
- Permits: evaluate whether discharges to the sanitary sewer or an injection well are authorized;
- Permits: review coverage under EPA's Vessel General Permit, if applicable; and
- Operations: evaluate whether all washing operations take place in approved areas.

4.1.5 Outdoor Handling of Material

This BMP refers to the outdoor loading and unloading of non-petroleum materials and cargo. Fuel loading and unloading activities are covered in Section 4.1.3. Loading and unloading operations at harbors facilities can include bilge servicing, sewage transfer, fire suppressant loading, handling of non-fuel oil, and construction materials staging. This BMP also includes bulk cargo operations such as the loading and unloading of sand, aggregate, coal, scrap metal, and Portland cement. Additionally, the BMP can also address pumping operations affiliated with the cleaning of tanks, sumps, piping, or pier areas.

Key Inspection Criteria:

- Loading area: evaluate design and identify opportunities to improve cover, grading, berms, downspout and storm drain locations, and parking orientation;
- Loading area: evaluate non-structural loading areas for proximity to storm drains, stains, or pavement degradation;

- Equipment: verify that adequate supplies of cleanup materials are stocked at outdoor material handling locations;
- Operations: verify that leaks from transfers and spillage from hose disconnections are contained and absorbed and that residue is disposed of properly;
- Operations: review written operations plans and/or emergency spill cleanup plans; and
- Training: query tenant on spill prevention and response training of employees. Additionally, forklift drivers must receive training per OSHA federal regulation 29 CFR 1910.178.

4.1.6 Outdoor Storage

Containers of oil and hazardous waste are subject to specific storage and management standards under the federal Resource Conservation and Recovery Act (RCRA): 40 CFR Parts 260-279 and HAZARDOUS WASTE MANAGEMENT. These standards include the requirement for secondary containment of all used oil and hazardous waste containers as a spill prevention measure. The SPCC regulations (40 CFR Part 112) specify secondary containment requirements for all aboveground storage of oil. The Outdoor Container Storage BMP extends this secondary containment requirement to all oil and hazardous material containers stored outdoors. Waste handling and disposal will be discussed in Section 4.1.7.

Key Inspection Criteria:

- Storage area: evaluate adequacy of secondary containment – must be sufficient to hold volume of largest container plus average annual precipitation;
- Storage area: evaluate containers, aboveground tanks and piping for protection guards, such as bollards, to prevent vehicle or forklift damage;
- Equipment: verify that aboveground oil tanks are equipped with overflow protection devices to warn operators or to shut down transfer pumps automatically;
- Equipment: inspect container integrity for signs of failure;
- Operations: verify that all containers are clearly labeled to prevent misuse or accidental release; and
- Operations: evaluate management of secondary containment structures to prevent accumulation of storm water and/or free product, and verify that tenant logs releases of uncontaminated storm water from secondary containment.

4.1.7 Waste Handling and Disposal

This BMP is intended to prevent or reduce the discharge of pollutants to the environment from waste handling activities by tracking waste generation, storage, and disposal; to reduce waste generation and disposal through source reduction, reuse, and recycling; and to prevent run-on and runoff from waste management areas. Waste

handling activities, incompatible products, are regulated directly by both federal and state laws (see Section 4.1.6) due to a higher likelihood of release.

The high cost and regulation pertaining to waste provides incentives for reducing waste generation, and identifying opportunities for reuse and recycling. Components of this BMP target both the required waste management activities and waste reduction efforts.

Key Inspection Criteria:

- Storage area: inspect all hazardous waste and used oil storage areas to verify secondary containment;
- Storage area: inspect all waste storage areas to ensure that dumpsters are covered and not leaking;
- Sediments and wastes are not tracked off site;
- Operations: inspect all waste storage areas to ensure that incompatible wastes, such as acids and bases, are segregated and that all waste containers are labeled properly (consult HAR Title 11 Chapters 260-280: Hazardous Waste Management for labeling requirements);
- Operations: inspect waste storage containers for integrity (must be covered when not being filled as well as rust and dent-free) and waste storage areas for signs of leaks or spills;
- Operations: verify that all wastes are disposed of properly, and if applicable, query tenant on hazardous waste generator status (conditionally exempt, small quantity, or large quantity generator), obtain their EPA identification number, and verify that records of waste generation and disposal are being kept;
- Operations: evaluate tenant training of waste-handling employees;
- Waste reduction: recommend maintaining minimal inventory of chemical products to reduce spill potential and waste generation;
- Waste reduction: recommend identifying less toxic chemical substitutes to reduce hazardous waste generation;
- Waste reduction: recommend reusing or recycling materials whenever possible; and
- Waste reduction: evaluate processes generating wastes to identify modifications (e.g. double cleaning of parts, material substitutions or eliminations) that would minimize wastes.

4.1.8 Buildings and Grounds Maintenance

Activities such as painting, roofing, pressure washing, and construction generate debris and pollutants that could come into contact with storm water runoff. Grounds maintenance includes cleaning of operational areas and application of fertilizers, herbicides, and pesticides. It also includes management of the storm water drainage system.

Key Inspection Criteria:

- Building maintenance: evaluate temporary controls implemented to contain debris and pollutants, such as tarps, booms, restricted use of wash water, and storm drain covers;
- Grounds maintenance: evaluate cleaning methods for paved surfaces – recommend sweeping over washing, and proper storage and disposal of sweeper debris;
- Grounds maintenance: encourage careful use of fertilizers, herbicides, and pesticides to maximize absorption while minimizing runoff to storm water drainage system;
- Grounds maintenance: recommend leaving or planting native vegetation to reduce irrigation, fertilizer, herbicide, and pesticide needs. When applying herbicides or pesticides follow the manufacturer's instructions and do not spray in high winds or when rainfall is imminent to reduce overspray and runoff;
- Grounds maintenance: encourage collection and composting of green waste to prevent blockages in the storm water drainage system; and
- Grounds maintenance: evaluate cleaning schedule of the storm water drainage system.

4.1.9 Storm Water Pollution Prevention Education

Storm Water Management Plans have been developed and implemented for all harbors covered by the NPDES program. Tenants with separate permit coverage are also required to have Storm Water Pollution Control Plans and independent employee training, which is often a part of their corporate policy.

This section identifies potential components of storm water pollution prevention training programs. Inspection criteria would be limited to confirmation of employee training and review of storm water training materials.

Key Education Components:

- Increase awareness of what is and what is not allowed to enter storm drains;
- Identify storm water collection system components – encourage labeling of storm drains to discourage illegal dumping;
- Increase awareness of the detrimental environmental impacts that result from fuel, antifreeze, lubricants, pesticides, detergent, paint, and waste residue mixing with storm water;
- Promote the proper storage, use, and disposal of potentially harmful chemicals;
- Promote the proper storage and disposal of wastes;
- Encourage acquisition of alternative, less toxic chemicals such as short-lived pesticides, non-chlorinated solvents, water-based paints, and non-aerosol products;
- Encourage waste minimization and recycling; and

- Provide mechanism for reporting apparent violations and increase awareness of possible penalties affiliated with illicit dumping and storm water pollution.

4.1.10 Oil/Water Separators

Oil/water separators are chambers designed to remove petroleum compounds and greases, floatable debris, and settled solids from either wastewater or storm water. They are installed as a pretreatment device for wastewater, prior to discharge to a sanitary sewer, cesspool, recycling system, or treatment plant. Oil/water separators are also installed at locations with high fuel recovery potential, such as fuel truck loading areas where spilled product must be recovered for proper use or disposal. In the case of storm water, oil/water separators have been installed in operational areas prone to frequent small spills and drips that have a significant cumulative impact on storm water quality. With this application, the oil/water separator is utilized as a flow-through polishing device rather than a reclamation device.

Oil/water separators come in a range of sizes and designs, depending on the volume of flow and characterization of the influent. In order to be effective, all oil/water separators warrant regular maintenance.

Key Inspection Criteria:

- Performance: if possible, inspect effluent from oil/water separator for sheen, odor, clarity, and floatables;
- Operations: query tenant on oil/water separator inspection/cleaning frequency and practices – all solids and liquids must be disposed of properly;
- Operations: query tenant on major maintenance activities or routine parts replacement; and
- Operations: query tenant on employee training, in particular with oil/water separators that require valve opening or switching for use.

4.1.11 Emergency Spill Cleanup Plans

Emergency Spill Cleanup Plans are developed in support of other BMPs, including those that target maintenance, fueling, outdoor material handling, and waste storage (see Sections 4.1.2, 4.1.3, 4.1.5, 4.1.6, and 4.1.7). Owners and operators of facilities that store or process oil or oil products in certain quantities may be required, under 40 CFR Part 112, to develop and implement a SPCC plan. However, those tenants that use oil in sub-threshold quantities (not requiring SPCC plans) and have operations with high spill potential of potentially hazardous materials, an Emergency Spill Cleanup Plan should be developed, which is tailored to the activities of a single tenant, as a pollution prevention tool (see Attachment G-2, Page 11).

Key Inspection Criteria:

- Evaluate whether or not the tenant is regulated under the SPCC program – if so, verify that they have provided the Harbors with a current SPCC plan;

- Evaluate whether or not the tenant has operations which would warrant an Emergency Spill Cleanup Plan, and make recommendations;
- Review the existing plan for basic components: facility description, site plan, notification procedures, cleanup instructions, cleanup materials, and responsible parties;
- Review spill response records, if any;
- Verify that contingencies identified in the plan, such as spill kits, are present and stocked; and
- Verify that employees are trained on Emergency Spill Cleanup Plan components.

4.2 New Tenant Evaluation

Ongoing coordination with Properties Management Section enables environmental assessments of new tenant operations. Notification of a new lease triggers an evaluation of the potential environmental impacts of the new tenant, and if necessary, an environmental inspection. The purpose of this inspection is to identify any environmental assets, to assign a risk ranking, and to convey the environmental compliance regulations in the EMS program and the NPDES program if applicable to the new tenant. The database must be updated with any new information, to ensure that annual risk ranking includes all tenants.

4.3 Lease Termination

Tenants with environmental assets such as fuel tanks, maintenance areas, or hazardous materials and/or waste storage activities pose a potential risk to Harbors as the landowner. Prior to terminating leases for these tenants, inspection records shall be reviewed, and if necessary, final inspections are conducted to identify any environmental issues needing resolution prior to lease termination.

Examples of potential environmental issues include site investigations for UST closure, disposal of waste solids from vehicle wash sumps, or removal of stockpiled hazardous materials. If appropriate, tenants can be required to conduct appropriate environmental investigations and assessments to ascertain the presence and extent of environmental contamination that resulted from their operations.

5.0 INSPECTION PROCEDURES

Inspection procedures are designed to maintain compliance with the applicable environmental regulations at the Harbors facilities.

5.1 Pre-inspection Preparation

Prior to conducting routine compliance inspections, Harbors Environment Group inspectors shall collect and analyze available background information of the tenant to be inspected. Begin by generating a summary from the environmental database, which lists all known environmental assets affiliated with the facility as well as any past inspection records. Review property management files and harbor layout maps to identify leased areas. Review additional applicable files such as SPCC plans, past enforcement actions, facility plans for tenant improvement projects, and correspondence.

Compare facility diagrams with drainage maps for that area of the harbor to identify drainage pathways for potential facility discharges. Pay particular attention to changes that have occurred at the facility, to either operations or the facility structures, as well as to changes in Harbors environmental policies since the previous inspection. Identify and review the BMPs that apply to the facility's operations. Finally, identify any special safety considerations and inspection scheduling limitations prior to contacting the facility to arrange the inspection.

Once the background information has been reviewed, develop a strategy to highlight the key objectives of the inspection. While all inspections are intended to identify any environmental concerns, they should also serve to acquire specific information from the tenant, such as copies of permits or plan revisions, or to convey specific information to the tenant in a direct fashion. The strategy includes the following components:

- Objectives: define purpose of inspection and intended accomplishments.
- Tasks: identify specific tasks and information to be collected and/or reviewed.
- Procedures: identify any special procedures to be used.
- Resources: establish personnel and equipment needs.
- Schedule: given the inspection frequency, assess how much time will be required.
- Coordination: determine whether this inspection warrants coordination with other harbors personnel or regulatory agencies.

5.2 Entry

Leases and Revocable Permits provide Harbors inspectors the right to enter tenant facilities for the purpose of inspection. While notifying tenants of the intent to inspect their facilities is not a requirement, it does enable the tenant to gather necessary records, to make a facility representative available to accompany the inspector, and to prepare themselves to discuss any environmental questions or concerns. Unannounced inspections give a more accurate sense of day-to-day operations, and are generally

utilized when inappropriate corrective actions warrant a higher level of enforcement. Because the Harbors inspections have the dual purpose of environmental outreach and compliance, scheduling the inspection a few days in advance may foster a more productive working relationship with Harbors tenants.

If the inspection has been scheduled in advance, begin by introducing yourself to reception and asking for the facility contact. When using more than one inspector, either from Harbors or a combination of Harbors and DOH or EPA representatives, identify your respective roles in the inspection as well as who will be leading the inspection for the group. This will ensure efficient communication between the tenant and the inspection team.

In the rare instance when an inspector is denied access to a facility on Harbors property, the most efficient recourse, following notification of the inspector's supervisor, is to obtain a copy of the relevant lease or revocable permit section that highlights the right of entry. Lease and revocable permit language typically reads: "The Lessee shall allow the agents or representatives of said authorities access to the leased premises at any and all reasonable times for the purposes of inspecting the leased premises, and taking samples of any material for inspection or testing for compliance with any environmental laws."

If the tenant exhibits hostile behavior, inspectors should request Harbor Police to provide escort during the inspection. At no time should an inspector feel compelled to conduct the inspection in an unsafe environment. Some tenant facilities pose safety concerns and have specific safety protection requirements. Where possible, refrain from inspecting operational areas until a tenant representative can accompany you.

5.3 Tenant Conference

Depending on the size of the facility to be inspected, the tenant conference may consist merely of the inspector describing the purpose and order of the inspection to the facility representative. This will allow the facility representative to locate additional documents or key personnel necessary to meet the objectives. Pre-inspection preparation may have identified key areas and issues. If so, convey these to the facility representative to ensure that they are reviewed.

It is imperative that a facility representative accompanies the inspector during the inspection to answer questions and describe operations, as well as to address safety and liability considerations. Often a facility representative will include other employees with specialized roles during specific portions of the inspection.

Records, such as monitoring results, waste disposal manifests, or SPCC documentation, may be reviewed before, during or after the facility inspection. Most inspections result in one or more follow up activities, so it may be helpful to take a few minutes at the end to review relevant records and recap any deficiencies or violations, as well as questions requiring follow up by either the inspector or the facility representative.

5.4 Inspection

Conducting an effective inspection requires observing operations that have the potential to impact the environment, posing questions to the tenant as necessary to gain a clear picture of whether or not the operations comply with the environmental laws, and recording observations for future use.

Use the pre-inspection preparation to identify what the areas of concern require the most attention for each tenant. Communicate the areas you plan to inspect with the tenant representative to ensure that all areas are observed. As each area is observed, evaluate how operations conform to the Harbors' revised Tenant Inspection Checklist (Attachment G-3) and note any deficiencies. Provide oral guidance to the tenant concerning environmental improvements that may suit their operations, such as storage techniques, product substitutions, labeling requirements, proper housekeeping protocols.

The inspection is an opportunity for the inspector to convey information to the tenant in the context of the tenant's operation, as well as a time for the tenant to ask for guidance on particular environmental concerns. Many inspections generate follow up activities, for both the inspector and the tenant, which contribute to the goal of achieving environmental compliance in tenant operations.

5.5 Documentation and Recordkeeping

Accurate inspection documentation and recordkeeping are critical to the success of the Harbors Environmental Program. Photo documentation provides a simple method to illustrate whether environmental compliance has been achieved and is essential in follow-up investigations. If conducting multiple inspections on one day, begin the photo documentation with a picture of the outside of the facility or of an area where the operator of the facility can be easily identified. Record picture numbers on the Harbors' revised Tenant Inspection Checklist.

When warranted, the Harbors' revised Tenant Inspection Checklist is utilized to generate the EF-007: Noncompliance Documentation Form, and in some cases, form the basis from which enforcement actions will be taken. Additionally, facility contact or operational information collected during the inspection may be utilized by other Harbors sections, such as Properties Management, to update databases used for other purposes.

5.5.1 Harbors' revised Tenant Inspection Checklist

The Harbors' revised Tenant Inspection Checklist is the primary recordkeeping tool utilized during the inspection (Attachment G-3). Inspectors may find it helpful to fill out portions of the form in advance, such as the tenant contact information and notes within each relevant section on the environmental assets or issues of concern.

As the inspector reviews each relevant area on the checklist, time should be taken to complete these sections with comments and observations. Each line item will be checked whether item is "yes," "no," or "N/A" (item not applicable). Any items checked "no" require at minimum comments, explanation, and/or further investigation. A copy of the completed Harbors' revised Tenant Inspection Checklist will be sent to the tenant,

become a part of the permanent Harbors tenant file.

5.5.2 Investigation Report

Upon discovering an alleged noncompliance at a tenant facility, the inspector shall generate an Investigation Report (Attachment G-4). This form represents the formal documentation of an alleged noncompliance, and is completed for all alleged noncompliance issues regardless of whether or not enforcement actions will be issued. The Investigation Report should be written when the inspector returns from the site of the alleged noncompliance, while observations are still fresh in the inspector's mind.

The form identifies the checklist item that was deficient, the violation applicable to that deficiency, the plan for correction, the action taken, and also includes a space to record the date that the deficiency was verified and closed. The Investigation Report is intended for use by the inspector for enforcement follow-up or guidance on future enforcement issues. A copy of the form will be sent to the tenant, and will become a part of the permanent tenant file.

6.0 ENFORCEMENT

The primary objective of the Harbors enforcement program is to a) motivate tenants to voluntarily comply with the environmental regulations, b) to correct any violations, and c) to operate their facilities in accordance with the DOT environmental policy and BMPs. Developing and implementing this enforcement program will protect Harbors' environmental resources.

6.1 Scope of Authority

The enforcement options available to Harbors range from administrative actions including written warnings and eviction to the issuance of citations and a district court verdict of a misdemeanor or fine. Three general areas of the environmental enforcement in addition to the NPDES program are: a) HRS Chapter 266, which authorizes Harbors to issue citations and summons for violations of its rules and have its actions enforced through the district courts by verdict of a misdemeanor or fine, b) Hawaii Administrative Rules Title 19, which establishes uniform safety measures, operational standards and requirements, and the conduct for all tenants at Hawaii harbors; and c) the tenant lease agreement or revocable permits that provides the Harbors with the authority to terminate the lease. These three areas of general enforcement are discussed in Attachment G-5.

6.2 Description of Enforcement Steps

The goal of the Harbors is to motivate tenants to voluntarily comply with their environmental obligations. The DOT designated environmental enforcement officers are encouraged to assist tenants, without being prescriptive, on how the tenant can achieve environmental compliance; including suggesting that the tenant obtain the advice of a consultant if one is needed. In event that an enforcement action is required, the environmental enforcement officer will identify the appropriate enforcement response to achieve compliance. If the tenant does not achieve compliance by implementing the appropriate corrective action, the environmental enforcement officer will “escalate” the enforcement response by issuing a more severe action that will achieve compliance.

6.2.1 Written Warning

A Written Warning is given to a tenant where the finding is limited to conditions that do not pose an immediate threat to the environment and/or the public. Examples of conditions that warrant a Written Warning may include improper storage of batteries, lack of labeling on drums, or lack of drip pans beneath a vehicle. The Written Warning should include the Investigation Report (Attachment G-4) along with a memorandum that establishes the requirement for an Action Plan as well as a compliance deadline. The Written Warning must be documented in the tenant's file and a follow-up inspection should be scheduled to verify that the infractions were corrected. If the tenant does not respond to the Written Warning by the deadline, the Environmental Enforcement Officer (EEO) will forward the issue to the HDOH for further enforcement actions.

6.2.2 Enforcement Steps

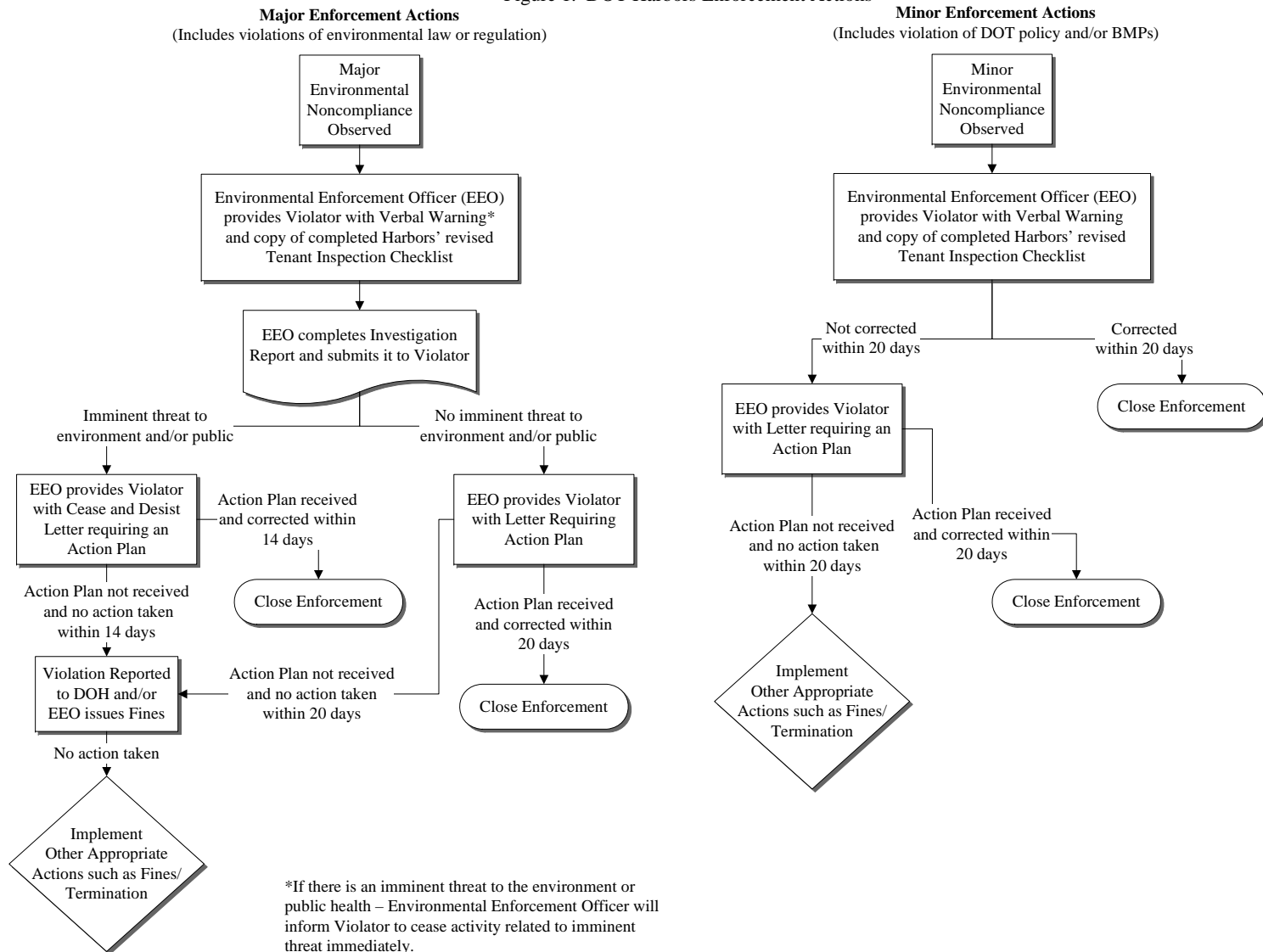
Harbors has adopted a tiered approach of escalating enforcement actions based on the severity of the violation and the tenant's compliance response history (Figure 1). The enforcement actions proceed along two separate courses depending upon whether the violation is considered major or minor. Major violations include those findings that are not in compliance with environmental law or regulation. These violations can be further subdivided into categories depending upon whether the finding poses an imminent threat to the environment and/or public. Minor violations include items such as violating DOT policy and not implementing the appropriate BMPs. All noncompliance findings are documented and kept on file by the Harbors Environmental Section.

When a violation is noted at a facility, the EEO will record the violation on the Harbors' revised Tenant Inspection Checklist. If the violation is considered minor, then the responsible party at the facility will be provided with a verbal warning and a copy of the checklist. The EEO will return within 20 calendar days to ensure that violation has been corrected. If the violation has not been corrected, the EEO will provide the responsible party at the facility with the completed Harbors' revised Tenant Inspection Checklist and a written warning letter requiring an Action Plan, which will denote the tasks that the violator will complete to come into compliance. The EEO will return to within 20 calendar days to ensure that the violation has been corrected. If the violator does not provide an Action Plan or does not correct the deficiency within 20 calendar days, then other appropriate actions may be implemented such as issuing fines and terminating the lease.

When the EEO notes a major violation at a facility, a verbal notification will be provided along with a copy of the completed Harbors' revised Tenant Inspection Checklist. If the violation is considered an imminent threat to the environment or the public, the EEO's verbal warning will include the direction to stop the activity relating to the imminent threat immediately. Additionally, the EEO will draft a cease and desist letter that will require the violator to produce an Action Plan to correct the violation. If the EEO has not received the Action Plan and the violations have not been corrected within 14 calendar days, then the violation will be reported to the DOH and/or the EEO will issue fines. In addition to the fines, the EEO can also implement other appropriate actions such as termination of the lease.

If the violation is not considered an imminent threat to the environment or the public, then following the verbal warning and documentation on the Harbors' revised Tenant Inspection Checklist, the EEO will provide the violator with a letter requiring an Action Plan. If the EEO has not received the Action Plan and the violations have not been corrected within 20 calendar days, then the violation will be reported to the DOH and/or the EEO will issue fines. In addition to the fines, the EEO can also implement other appropriate actions such as termination of the lease.

Figure 1. DOT Harbors Enforcement Actions



7.0 TRAINING

Inspector, tenant, and employee training has been designed to ensure that environmental requirements and responsibilities are clearly understood by all Harbors personnel responsible for preventing pollution. Inspector training guarantees that complete and accurate inspections and enforcement actions under the EMS program and NPDES program, if applicable, are conducted at all tenant facilities.

7.1 Harbors Inspector Training

This manual will guide Harbors personnel and contract management staff tasked with implementing and overseeing tenant inspections and enforcement activities. The Risk Ranking process detailed in Section 3.0 determines the number and frequency of facility inspections required each calendar year at leased and common areas. The key inspection criteria, inspection procedures and enforcement responses are covered in Sections 4.0, 5.0, and 6.0 of this manual.

In addition to this manual, new inspectors will gain inspection experience by spending at least 24 hours conducting tenant inspections with the current environmental inspectors. During the joint inspection, the new inspector will observe the environmental inspectors conduct a tenant facility inspection as well as conduct their own facility inspections with assistance from the experienced environmental inspectors. New inspectors will continue to have frequent conversations with the experienced environmental inspectors to discuss inspection issues as they arise.

The environmental inspectors will also receive classroom training by attending an internal auditor training course and a basic environmental regulations and requirements training course. These courses will provide further detail on the current environmental laws and requirements that must be followed by the DOT personnel, tenants, contractors, and other users of the DOT Harbors.

7.2 Annual Tenant and Employee Training

Environmental compliance training will be provided annually to Harbors tenants and Harbors employees. The annual training will discuss issues related to storm water protection, fueling activities, waste management, and other compliance/best management practices related material. Additionally, the training will explain the inspection criteria used by Harbors during tenant inspections and cover the basics of spill response and clean-up. New tenants will be provided with training materials along with their lease agreement so that they are aware of the environmental requirements prior to beginning their operations at the DOT Harbors.

8.0 ANNUAL PROGRAM REQUIREMENTS

Implementation of this Inspection and Enforcement Manual will help Harbors employees and tenants comply with regulatory requirements, BMPs, and P2 opportunities that may be applicable to each individual facility.

Harbors operation areas and tenant facilities must be inspected on a frequency determined by the Risk Ranking procedures outlined in Section 3.0. The inspection procedures, inspection process and potential enforcement actions are further detailed in the manual to guide Harbors personnel tasked with the responsibility of environmental compliance.

8.1 Risk Ranking Review

At least once each calendar year, Harbors will review and confirm or reclassify the tenant risk ranking results as part of the routine inspection process. The risk ranking criteria explained in this manual will be followed to ensure that a consistent review process is completed annually for all harbor facilities. Changes to the risk ranking determination will be noted in the tenant lists.

8.2 Annual Reporting

The Harbors is required to submit annual reports to the HDOH. Reports should include lists of tenants from each harbor, including the respective risk rankings, inspection dates, enforcement actions taken, and dates of required follow up activities. These reports should also summarize the number and dates of tenant inspection and enforcement program trainings, types of trainings, and attendees participating at each event.

9.0 CERTIFICATION AND SIGNATURE

I certify under penalty of that I have examined and am familiar with the information submitted in this document and all attachments and that this document and its attachments were prepared either by me personally or under my direction or supervision in a manner designed to ensure that qualified and knowledgeable personnel properly gather and present the information contained therein. I further certify, based on my personal knowledge or on my inquiry of those individuals immediately responsible for obtaining the information, that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowingly and willfully submitting a materially false statement.

Mr. Brennon Morioka
State of Hawaii
Director of Transportation

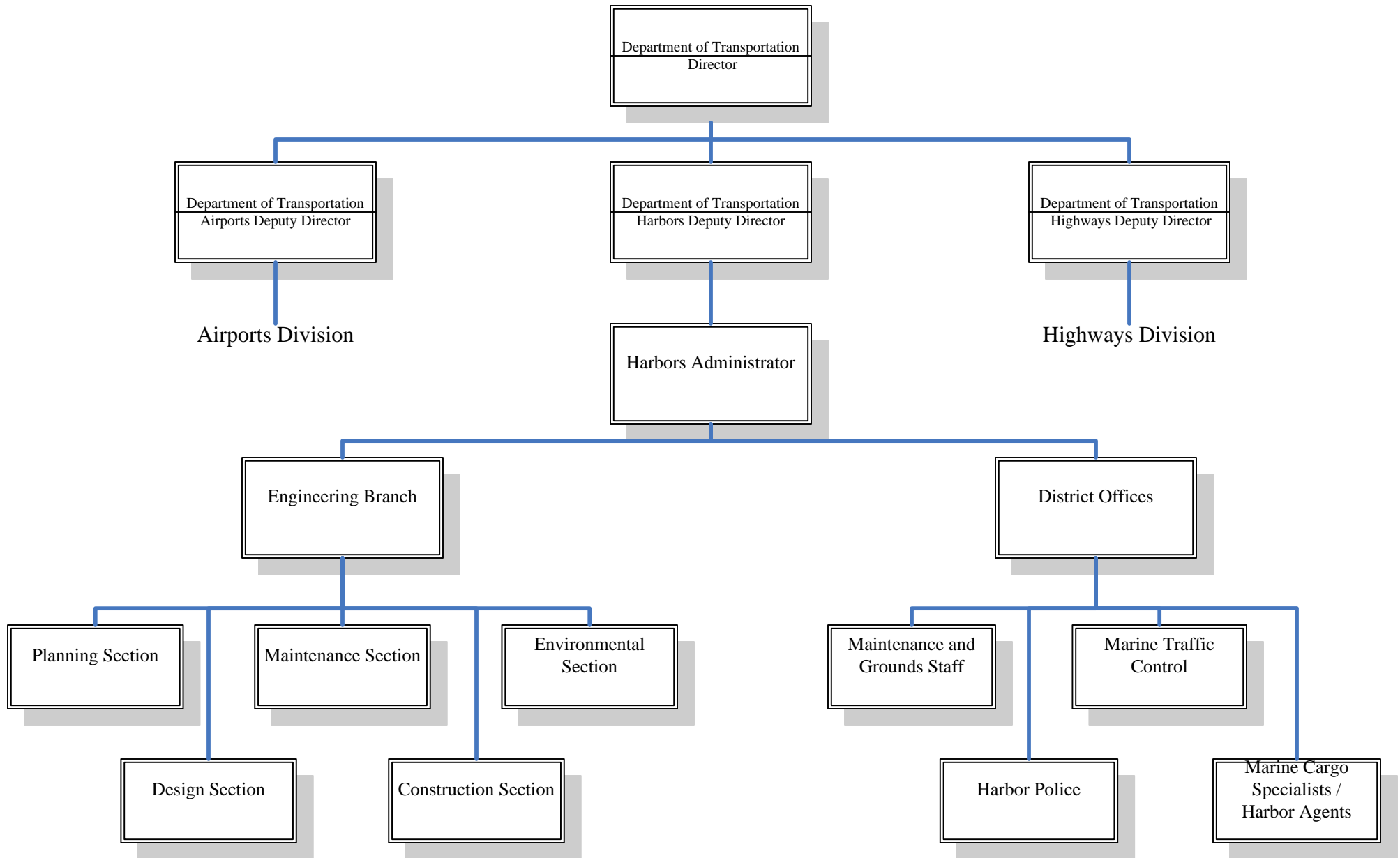
Date

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Attachment G-1: Harbors Organizational Chart

State of Hawaii Department of Transportation, Harbors Division Environmental Group Organizational Chart



Attachment G-2: Best Management Practices

Best Management Practices Good Housekeeping Practices

Description

Daily activities performed at the tenant facility require the use of materials and products that may be potential contaminants in storm water. Good housekeeping practices are intended to maintain a clean, safe, and orderly working environment at the facility where these materials are used or stored. Implementing the good housekeeping BMPs will reduce the amount of pollutants entering the state waters.

Limitations

There are no major limitations to the implementation of this BMP.

Practice		
<input type="checkbox"/>	1	Do not overfill trash dumpsters or leave trash outside of containers. Ensure that materials put into dumpsters will not leak out of dumpsters and commingle with storm water runoff. Use leak-proof dumpsters and keep covered when not in use.
<input type="checkbox"/>	2	All lids are closed when not in use.
<input type="checkbox"/>	3	Remove and properly dispose of debris from all areas daily.
<input type="checkbox"/>	4	Use appropriate clean up tools in the facility such as a broom for dry sweeping. Do not hose down facility floors with water or use a blower to remove clean up materials. Dry sweep or vacuum all areas to prevent tracking of materials.
<input type="checkbox"/>	5	Maintain ample spill clean-up supplies and keep them in proper physical condition.
<input type="checkbox"/>	6	Use absorbent materials to contain any non-hazardous spills. Promptly clean spills with rags or absorbent material, and properly dispose of cleaning materials. On Oahu, spent rags or absorbent material should be put in durable plastic bags, double wrapped if necessary, sealed with tape and placed in trash dumpsters. On outer islands and for hazardous spilled material, disposal should be in accordance with the Solid Waste Storage and Disposal BMP.
<input type="checkbox"/>	7	Inspect storm drain inlets regularly for illicit discharge such as sediment runoff or debris accumulation. Clean and remove debris as necessary.
<input type="checkbox"/>	8	Identify storm drains and waterways in each work area and prevent non-storm water discharges into the storm drainage system.
<input type="checkbox"/>	9	Perform daily facility inspections to ensure good housekeeping practices are being followed by facility personnel.
<input type="checkbox"/>	10	Conduct employee training on all best management practices annually and as required.

Best Management Practices Vessel, Vehicle, and Equipment Maintenance and Repair

Description

Routine maintenance of vessels, vehicles, and equipment must be done to maintain their proper operation. The maintenance and repair activities conducted at the tenant facility may include fluids removal, engine and parts cleaning, sanding and painting, or tire repair and replacement. These activities represent a potentially significant source of contaminants due to the harmful materials and waste generated. This BMP is designed to prevent or reduce the impact of contaminants from maintenance and repair on the storm water system.

Limitations

There are no major limitations to the implementation of this BMP.

Practice		
<input type="checkbox"/>	1	Maintain vessels, vehicles, and equipment used at the facility in good operating condition.
<input type="checkbox"/>	2	Perform vessels, vehicles, and equipment maintenance and repair activities in designated indoor or covered areas away from storm water runoff.
<input type="checkbox"/>	3	Inspect damaged vessels, vehicles, and equipment for fluid leaks and repair as soon as possible. Do not leave leaking vessels, vehicles, and equipment parked overnight without appropriate drainage controls.
<input type="checkbox"/>	4	Remove fluids and batteries from damaged equipment and equipment no longer in use before storage. Store under cover, if possible, until repair or disposal.
<input type="checkbox"/>	5	Transfer removed vehicle fluids to designated storage container as soon as possible.
<input type="checkbox"/>	6	Use drip pans, tarps, or any other drainage control whenever removing fluids to capture any releases of oil, fluids, and solvent.
<input type="checkbox"/>	7	When not in use, store drums/containers of liquid material or waste indoors or under cover and within secondary containment pallets.
<input type="checkbox"/>	8	Designate areas in service bays for parts cleaning. Allow parts to drain over solvent tank or drip pan. Do not wash or rinse parts outdoors and do not allow solvent to drip or spill onto the floor.
<input type="checkbox"/>	9	Use appropriate clean up materials in the facility. Do not hose down with water or use a blower to remove clean up materials. Dry sweep or vacuum all areas.
<input type="checkbox"/>	10	Maintain well stocked spill kits throughout the facility, especially in maintenance areas to protect discharge to receiving waters and storm drain inlets in the event of spill.
<input type="checkbox"/>	11	Perform all body repair activities indoors or under cover and out of the water.
<input type="checkbox"/>	12	Keep the amount of airborne dust to a minimum. Use vacuum sanding equipment whenever possible in order to reduce the amount of airborne dust.

Best Management Practices
Vessel, Vehicle, and Equipment Maintenance and Repair
(continued)

<input type="checkbox"/>	13	Sweep, vacuum, or use other dry cleanup methods routinely to pick up dust from dry sanding of primer, metal, or body filler. Make extra efforts to thoroughly sweep or vacuum dust prior to mopping.
<input type="checkbox"/>	14	Clean up wet sanding drips with rags or absorbent materials, or let the drips dry. Then sweep or vacuum up the dust. Finally, mop the area and dispose of the mop water properly.
<input type="checkbox"/>	15	Conduct all priming and painting activities in enclosed paint booths.
<input type="checkbox"/>	16	Do not use water to control overspray or dust in the paint booth unless the water evaporates in the booth. Sweep up the dust or collect and dispose of the wastewater.
<input type="checkbox"/>	17	Conduct employee training annually and as required.

Best Management Practice Vehicle and Equipment Washing

Description

Routine washing of vehicles and equipment shall be done at approved wash pads and areas using minimal water. However, vehicle and equipment washing activities may be conducted at the tenant facility wash rack or wash area. Vessels are not to be washed while in the harbor. This resulting wash water may contain oils, greases, heavy metals, sediments, and other pollutants that can pose a threat to storm drain system and receiving water bodies. The wash water shall be contained and diverted either to an Oil Water Separator (OWS) that drains to the C&C Sewer or to a sump. Additionally, OWS can also drain to wells or retention ponds. OWS or sump maintenance is performed by contractors who inspect, clean, collect, and dispose of waste material in accordance with applicable federal, state, and local regulations. This BMP is intended to reduce the impact of these activities on storm water runoff.

Limitations

There are no major limitations to this BMP.

Practice		
<input type="checkbox"/>	1	Wash vehicles and equipment at approved wash pads and areas using minimal water and biodegradable detergents.
<input type="checkbox"/>	2	Ensure the designated wash racks or wash areas of the facility are inside a building or on an impervious area where wash water can be contained and directed to an OWS that drains to the C&C Sewer System, wells or retention pond. Obtain all applicable permits.
<input type="checkbox"/>	3	Follow posted directions for wash rack or wash area use. At the tenant facility, post directions for use near the wash racks or wash areas.
<input type="checkbox"/>	4	See Solid Waste Storage and Disposal BMP for OWS maintenance.
<input type="checkbox"/>	5	Where applicable, sponge wash the vessels, vehicles, or equipment with a bucket of water to eliminate excess wash water in a contained area. Clean up any water that lands on the ground or the floor using absorbent materials or a wet/dry vacuum immediately after washing.
<input type="checkbox"/>	6	Washing of personal vehicles are prohibited.
<input type="checkbox"/>	7	Conduct employee training annually and as required.
<input type="checkbox"/>	8	Prevent all wash water from entering the Harbors.

Best Management Practice Vessel, Vehicle, and Equipment Fueling

Description

During fueling of vessels, vehicles, and equipment, there is the potential for leaked or spilled fuel to contaminate storm water. The procedures outlined in this BMP are intended to prevent fuel spills and leaks.

Limitations

There are no major limitations to the implementation of this BMP.

Practice		
<input type="checkbox"/>	1	Perform fueling of vehicles and equipment in designated areas, away from storm drain inlets, drainage channels, or receiving waters. Fueling of vessels should occur in an area designed to confine potential releases.
<input type="checkbox"/>	2	Maintain an ample supply of spill cleanup materials and spill control equipment near fueling areas to protect discharge to storm drain inlets and receiving waters, in the event of a spill. Equip fuel trucks and mobile tanks with spill cleanup materials.
<input type="checkbox"/>	3	No topping off or no unattended fueling.
<input type="checkbox"/>	4	Post proper fueling and cleanup instructions in fueling areas.
<input type="checkbox"/>	5	Do not hose off fueling area. Use absorbents.
<input type="checkbox"/>	6	Inspect hydrant trucks, mobile storage tanks, hoses and dispensing nozzles daily for cracks and leaks. If any defects are noticed, replace defective parts immediately or remove from service until repaired.
<input type="checkbox"/>	7	Check for proper operation of automatic shut off controls on fuel dispensing nozzles. Repair as needed.
<input type="checkbox"/>	8	Test, monitor, and maintain fuel storage tanks and pipeline as required by all applicable federal, state, and local laws.
<input type="checkbox"/>	9	<p>Use absorbent materials to contain any non-hazardous spills. Promptly clean spills with rags or absorbent material, and properly dispose of cleaning materials.</p> <p>On Oahu, spent rags or absorbent material should be put in durable plastic bags, double wrapped if necessary, sealed with tape and placed in trash dumpsters.</p> <p>On outer islands and for hazardous spilled material, disposal should be in accordance with the Solid Waste Storage and Disposal BMP.</p>
<input type="checkbox"/>	10	Train oil and hazardous material handling personnel annually and as required.

Best Management Practices Material Storage

Description

A variety of products and materials that may adversely affect water quality are stored at the tenant facility. This BMP is intended to reduce the potential for the contamination of storm water by minimizing exposure of such products and materials to storm water.

Limitations

There are no major limitations to the implementation of this BMP.

Practice		
<input type="checkbox"/>	1	Store materials in their original or appropriate containers as recommended by the manufacturer. Store small containers of flammable materials within flammable storage lockers.
<input type="checkbox"/>	2	Ensure that all containers are closed, secured to prevent movement, fastened, stored neatly, and properly labeled.
<input type="checkbox"/>	3	Maintain accurate inventory of stored supplies. Periodically review inventory and properly dispose of materials that are expired or no longer used. Only purchase and store required quantities of hazardous materials.
<input type="checkbox"/>	4	Store materials and containers indoors or in covered areas. Containers holding liquid materials should also be within secondary containment.
<input type="checkbox"/>	5	Identify, list and inventory all chemical substances present in the facility. Compile Material Safety Data Sheets (MSDS) for all chemical substances. Have MSDS data readily accessible for facility employees.
<input type="checkbox"/>	6	Cover containers and materials with a plastic wrap or tarp when storing them outdoors temporarily (24 hours or less). Do not store materials outdoors that may leach pollutants into the storm water or come in contact with storm water runoff.
<input type="checkbox"/>	7	Maintain an ample supply of spill clean-up materials near storage areas.
<input type="checkbox"/>	8	Use absorbent materials to contain any spills. Promptly clean spills with rags or absorbent material, and properly dispose of cleaning materials. Put spent rags or absorbent material in durable plastic bags, double wrap if necessary, seal with tape, and dump in trash dumpsters. For larger spills, contact spill response personnel immediately. See Spill Response BMP.
<input type="checkbox"/>	9	Sweep or vacuum up spilled materials immediately.
<input type="checkbox"/>	10	Inspect material storage and equipment parking areas daily. Look for leaking or corroded containers, chemical discoloration, or other changes in the containers or contents that may indicate a potentially hazardous condition or chemical deterioration.
<input type="checkbox"/>	11	Conduct employee training annually and as required.

Best Management Practices Material Handling

Description

Prevent or reduce the discharge of pollutants to storm water from material handling by minimizing hazardous material use on site and training employees in the proper handling and use of materials. The loading and unloading of materials usually takes place outside; therefore, materials spilled, leaked, or lost during the process may collect in the soil or on other surfaces and have the potential to be carried away by storm water runoff or enter a surface water body.

Limitations

There are no major limitations to the implementation of this BMP.

Practice		
<input type="checkbox"/>	1	Use materials only where and when needed to complete the work.
<input type="checkbox"/>	2	Minimize use of hazardous materials on-site. Use less hazardous, alternative materials where possible. (see alternatives table)
<input type="checkbox"/>	3	Follow manufacturer's instructions regarding uses, protective equipment, ventilation, flammability, and mixing of chemicals.
<input type="checkbox"/>	4	Limit exposure of material to rainfall whenever possible, such as only loading or unloading during dry weather or conducting the loading or unloading indoors or under cover. Avoid placing the loading area near storm drains or cover storm drains during loading or unloading operations.
<input type="checkbox"/>	5	Conduct regular dry sweeping of the loading or unloading areas.
<input type="checkbox"/>	6	Conduct employee training annually and as required.

Alternative Products Table

Original Product	Alternative
Bleach	Borax or hydrogen peroxide
Detergent & Soap	Vegetable- or citrus-based soaps instead of petroleum-based soaps and detergents
Scouring Powders	Baking soda
Floor Cleaner	1 cup of white vinegar in 2 gallons of water
Window Cleaner	1 cup of white vinegar in 1 quart of warm water, rinse and squeegee
General Cleaner	Bicarbonate of soda and vinegar; lemon juice combined with borax paste
Head Cleaner	Pour in baking soda and use brush
Shower Cleaner	Wet surface, sprinkle on baking soda, and scrub
Aluminum Cleaner	2 tablespoons of cream of tartar in 1 quart of hot water
Brass Cleaner	Worcestershire sauce or paste made of equal parts salt, vinegar, and water
Copper Cleaner	Lemon juice and salt
Chrome Cleaner / Polish	Apple cider vinegar to clean/baby oil to polish
Fiberglass Stain	Baking soda paste
Drain Opener	Use boiling water and plumbers snake or disassemble; substances should not be used in a through-hull drain
Mildew Remover	Paste using equal parts of either lemon juice and salt or vinegar and salt
Furniture Polish	3 parts olive oil and 1 part white vinegar
Wood Polish	Almond or olive oil (interior wood only)
Hand Cleaner	Baby oil or margarine

Source: “Managing Boat Wastes – A Guide for Hawai’i Boaters” by US Sea Grant College Program, School of Ocean and Earth Science and Technology, Department of Health Office of Solid Waste Management, and Department of Land and Natural Resources Division of Boating and Ocean Resources.

Best Management Practices Solid Waste Storage and Disposal

Description

The chemicals used at the tenant facility ultimately require waste management. The improper handling of solid wastes can allow contaminants to enter the storm water runoff or surface water body. The discharge of these pollutants can be prevented and reduced by tracking solid waste storage, handling, and disposal as well as reducing the waste generation through reuse and recycling.

The solid waste generated from the tenant facility may include, but not be limited to, oil based paints, solvents, thinners, petroleum products, acid from batteries, anti-freeze, sewage, and other compounds. Some of these wastes should be managed as hazardous waste, universal waste, and/or used oil as required by state and federal regulations. Hazardous waste generators are responsible for making a hazardous waste determination and to dispose of the waste properly. Universal waste includes batteries, some pesticides, mercury containing equipment (mercury thermostats), and bulbs (lamps).

The procedures outlined in this BMP are intended to prevent or reduce the discharge of pollutants to storm water and to the land from waste through proper solid waste storage and disposal and training of employees and subcontractors.

Limitations

All hazardous waste that can or cannot be reused or recycled must be disposed of by an approved hazardous waste hauler.

Practice		
<input type="checkbox"/>	1	Use the entire product before disposing of the container. Minimize use of hazardous materials on-site. Use less hazardous, alternative materials where possible.
<input type="checkbox"/>	2	Do not remove the original product label; it contains important safety and disposal information.
<input type="checkbox"/>	3	Inspect containers regularly and transfer waste from damaged containers into containers that are intact.
<input type="checkbox"/>	4	Identify, list and inventory all chemical substances present in the facility. Compile Material Safety Data Sheets (MSDS) for all chemical substances. Have MSDS data readily accessible for facility employees
<input type="checkbox"/>	5	Only purchase and store required quantities of hazardous materials.
<input type="checkbox"/>	6	Do not clean out brushes or rinse paint containers into the dirt, street, gutter, storm drain, or stream. "Paint out" brushes as much as possible. Water-based paints should be dried and disposed of in the landfill. Dispose of excess oil based paints and sludge as hazardous waste.
<input type="checkbox"/>	7	Ensure that hazardous waste or chemicals (acids, pesticides, additives, curing compounds) are not disposed of in dumpsters designated for dry construction debris.

**Best Management Practices
Solid Waste Storage and Disposal
(Continued)**

<input type="checkbox"/>	8	Designate an indoor or covered hazardous waste collection area.
<input type="checkbox"/>	9	Hazardous wastes should be stored in secure, covered containers, and protected from damage. Place hazardous waste containers in secondary containment.
<input type="checkbox"/>	10	Label hazardous waste containers clearly with the words “Hazardous Waste” and the date when the hazardous waste accumulation began.
<input type="checkbox"/>	11	Do not mix waste, this can cause chemical reactions, make recycling impossible, and complicate disposal.
<input type="checkbox"/>	12	Arrange for regular hazardous waste collection before containers reach capacity.
<input type="checkbox"/>	13	Ensure that hazardous wastes are collected, removed, and disposed of only at authorized disposal sites by an approved hazardous waste hauler. Maintain disposal manifests for a minimum on three years.
<input type="checkbox"/>	14	Recycle any useful waste such as used oil, spent solvents, spent lead acid batteries, scrap metal, and used oil filters, etc. Filter and re-use thinners and solvents.
<input type="checkbox"/>	15	If the facility generates used oil, at a minimum, the facility shall store used oil in appropriate containers, label containers clearly with the words “Used Oil”, and provide secondary containment.
<input type="checkbox"/>	16	If the facility generates Universal Waste, at a minimum, the facility shall store universal waste in appropriate containers, label containers clearly with the words “Universal Waste” followed by “lamps, batteries, etc.”, and mark with the accumulation start date. Dispose of the Universal Waste within a year of the accumulation start date.
<input type="checkbox"/>	17	Place spill cleanup materials where it will be readily accessible.
<input type="checkbox"/>	18	If containers do spill, clean up immediately – follow procedures in Spill Prevention and Response BMP.
<input type="checkbox"/>	19	At minimum, OWSs must be inspected annually and cleaned to remove accumulated oil, grease, floating debris, and sediment in order to maintain solids and petroleum removal efficiency. Maintain an inspection and maintenance log.
<input type="checkbox"/>	20	Sewage and bilge water should be contained and pumped out at an approved harbor facility.
<input type="checkbox"/>	21	Conduct employee training annually and as required.

Best Management Practices Spill Prevention and Response Practices

Description

Spills of materials used and stored at the tenant facility can contaminate storm water runoff. The procedures outlined in this BMP are intended to prevent spills from occurring and to outline procedures to be followed in the event of a spill.

Small spills of oil (less than 25 gallons) which are capable of being cleaned up within 72 hours and that do not threaten ground or surface waters will be cleaned up using absorbent materials or other acceptable practices and disposed properly, without disrupting harbor operations. Daily inspections of the facility will identify any small spills, which will be addressed immediately.

In the event of a large or uncontrolled release, the owner or manager of the tenant facility shall act as the Emergency Coordinator (EC).

Limitations

There are no major limitations to the implementation of this BMP.

Practice		
<input type="checkbox"/>	1	Stop work.
<input type="checkbox"/>	2	Shut down equipment and secure work operations.
<input type="checkbox"/>	3	Determine the source of the release and any hazards present.
<input type="checkbox"/>	4	Notify the EC and Harbor Patrol (587-2006). Notify and alert others of the incident via: (1) voice; (2) hand-held radios; and/or (3) other effective communication.
<input type="checkbox"/>	5	<p>The EC shall evaluate the situation and decide whether to implement a "fight or flight" response by gathering the following information, if it can be done safely:</p> <p>Your name, location, and how you may be reached.</p> <p>Location of the release.</p> <p>Type, quantity, and description of the release.</p> <p>Hazards of the release.</p> <p>Type of media affected (soil, asphalt, concrete, etc.).</p> <p>Rate of the release.</p> <p>Migratory direction of the release.</p> <p>Potential for fire or explosion.</p> <p>Potential for human exposure.</p> <p>Potential for migration to surface water (ocean, storm drains, etc.).</p>
<input type="checkbox"/>	6	Keep non-essential employees and visitors away from the spill area.
<input type="checkbox"/>	7	Prevent vehicles and equipment from driving through the spill area.
<input type="checkbox"/>	8	Remove all injured persons from the area of danger and render first aid.

Best Management Practices
Spill Prevention and Response Practices
(continued)

<input type="checkbox"/>	9	Never subject yourself or other personnel to unreasonable risk of illness or injury.
<input type="checkbox"/>	10	If the decision is to "fight," spill response personnel are to don the appropriate PPE.
<input type="checkbox"/>	11	Eliminate all possible sources of ignition/detonation such as vehicle engines, welding and grinding operations, and smoking.
<input type="checkbox"/>	12	Remove or isolate ignitable and incompatible materials from the area of the release if the spill is of a flammable substance.
<input type="checkbox"/>	13	Locate, stop, and contain the source of the release.
<input type="checkbox"/>	14	<p>Confine the release to prevent further migration using drainage controls, including but not limited to methods from the following list:</p> <p>Diking and berming using sand, soil, or other inert material;</p> <p>Sealing storm drains with plastic and sandbags;</p> <p>Placing granular absorbent or absorbent pads and booms;</p> <ul style="list-style-type: none"> ▪ Diverting the chemicals from entering drains, manholes, streams, etc.; and ▪ Implementing retention techniques.
<input type="checkbox"/>	15	Call the facility spill response contractor for cleanup and removal of accumulated product resulting from the release. Ensure that the contractor collects and containerizes the spilled materials, affected media, used decontamination solutions, and disposable PPE in proper containers. The contractor will transport and properly dispose of the hazardous waste in accordance with applicable state and federal regulations.
<input type="checkbox"/>	16	Implement proper decontamination procedure on vehicles, pavement, PPE, equipment, and other affected media to prevent the spilled material from being tracked into a larger area.
<input type="checkbox"/>	17	Clean any stained pavement by placing a berm for containment around the stained area, scrubbing the area using detergent or cleaning agent, and rinsing. The detergent and rinse water must be contained and removed.
<input type="checkbox"/>	18	If the release is not readily and easily controlled, evacuation may be necessary.
<input type="checkbox"/>	19	If the EC decides on the "flight" option, the EC is to immediately alert and evacuate all personnel to a safe distance upwind from the spill in a designated assembly area.
<input type="checkbox"/>	20	Call the facility spill response contractor to handle the clean-up of the spilled material.

Best Management Practices
Spill Prevention and Response Practices
(continued)

<input type="checkbox"/>	21	<p>DOT Harbors personnel will assist the EC in determining whether the spill is of a reportable quantity. If the spill is of a reportable quantity, the following agencies should be notified:</p> <ul style="list-style-type: none"> ▪ National Response Center - (800) 424-8802 ▪ U.S. Coast Guard - (808) 842-2606 ▪ DOH HEER office - (808) 586-4249 or after hours (808) 247-2191 ▪ DOH Clean Water Branch (CWB) – (808) 586-4309 (only if spill reaches state waters) <p>The following information should be provided:</p> <ul style="list-style-type: none"> ▪ Caller Name, location, organization, and telephone number ▪ Name, address, and telephone number of the facility owner ▪ Name, address, and telephone number of the facility contact person ▪ Date, time, and duration of the release ▪ Date and time the release was discovered ▪ Name of the chemical spilled and the approximate quantity released ▪ Location of the release ▪ Type of media affected (e.g. soil, asphalt, concrete, etc.) ▪ Measures taken in response to the release ▪ Danger or threat posed by the release or spill ▪ Number and type of injuries (if any) ▪ Weather conditions at the incident location ▪ Any other information that may help emergency personnel respond to the incident
<input type="checkbox"/>	22	<p>If the spilled material is of a reportable quantity, a written notification must also be submitted to the DOH HEER no later than thirty (30) days following the discovery of the release. A copy of this report must be provided to the DOH CWB if the spilled material reached the state waters.</p>

*Attachment G-3: Harbors' revised Tenant
Inspection Checklist*

Hawaii Department of Transportation Harbors Division Compliance, BMP and P2 Inspection Checklist

Harbor.	Honolulu Harbor Pier:	Date/Time:	a.m.
Tenant/User*/Business Name:		Phone Number:	
Tenant Address:		Risk Ranking:	LOW
Tenant Representative(s):		Basin or PMID:	
Vessel/Permittee		SIC or NAICS:	
Representative(s) Signature		Weather Conditions	
Inspector(s)**:			

STORM WATER		Compliance YES NO N/A	Comments
1	The user performs vehicle/vessel/equipment maintenance, washing, and/or stores industrial equipment.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	If yes, NPDES Permit No.: _____ Permit expiration date: _____
2	If required, a Discharge and/or Connection Permit application has been filed with the DOT Harbors Division.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Date of Submittal. Date of Approval. _____ _____
3	If required, the facility has a Storm Water Management Plan (SWMP) and /or Storm Water Pollution Control Plan (SWPCP). Applicable plans are available at the facility.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
4	Records have been kept of spills and releases in SWPCP or SPCC Spill and Discharge Log.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
5	If an NPDES Individual Permit or NGPC covers the facility, reporting requirements under the permit have been completed and are up to date.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
6	The facility has submitted its annual Discharge Monitoring Report (DMR) for storm water discharges to the HDOH.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Date of Submittal. _____
7	The facility maintains accurate records of the monitoring data for a minimum of five (5) years.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
8	The facility's total aboveground storage capacity (containers 55 gallons or larger) of petroleum products is less than 1,320 gallons. If no, the facility has a Spill Prevention Control and Countermeasure (SPCC) Plan signed by a professional engineer and has been updated within the last 5 years.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Date of SPCC Plan: _____
9	All changes to the personnel responsibilities, facility layout and potential pollutants source and activities have been updated in the SWPCP and/or SPCC.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
10	Personnel have received annual storm water Best Management Practices (BMPs) awareness training, and training records are maintained at the facility.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Date of Last Training: _____

* User: Land or water user of Department of Transportation Harbors Division facilities.

** Inspector(s): Inspector must check and verify all reports and documentation.

Inspector Name:

Date:

Hawaii DOT, Harbors Division

11	Areas of the facility exposed to storm water aren't wet during dry weather and are free of stains. If no, take photos.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
12	Discharge points to storm drainage system do not exhibit unusual characteristics such as color, odor, sheen, foam, or floatables.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
13	Storm water drainage systems are cleaned regularly and are labeled with "No Dumping" placards to educate personnel that non-storm water is not to be discharged into the storm drainage system.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
14	Discharge pathway of all floor and facility drains is acceptable.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
15	Discharges to the sanitary sewer is authorized by an Industrial Wastewater Discharge Permit (IWDP), if required, and permit documents are on file at the facility. If not, describe where wastewater is processed and disposed.		IWDP Number: _____ Expiration Date _____

MAINTENANCE AND REPAIR		YES NO N/A	Comments
16	Maintenance is performed in an authorized area and clean up activities do not impact storm water.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
17	Greasy or leaky equipment is stored under cover or with drip pans.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
18	Fluids and batteries are removed from salvage equipment before storage.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
19	Hazardous material substitutions have been explored. If so, list or give examples.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
20	Maintenance logs are available for inspection.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
21	Maintenance employees have received awareness training on storm water BMPs.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Date of Last Training: _____
22	Existing products and materials are used before purchasing or using additional ones of the same kind.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	

FUELING		YES NO N/A	Comments
23	Fueling area engineering controls and BMPs are effective in preventing storm water run on/runoff.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
24	Secondary containment devices for fixed and mobile fueling areas are adequate to contain spills.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
25	Structural controls, such as sumps, oil/water separators, and containment areas are being maintained properly.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
26	Fueling areas are free of unattended stains and spill cleanup practices/materials (Spill Kits) are adequate.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
27	Visible piping, tanks, and hoses do not exhibit signs of leakage, wear, or malfunction. Inspection log available for inspection	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
28	Fuel-handling employees are trained on fueling BMPs, spill cleanup practices, and the content of the SPCC plan.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Date of training: _____

Inspector Name:
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Date:

VEHICLE, VESSEL, AND EQUIPMENT WASHING		YES NO N/A	Comments
29	Washing takes place in a designated area and is designed to prevent storm water run on/runoff.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
30	Discharges from washing activities are authorized by permits if required, and permit documents are on file with DOT Harbors Division. Vessel has a EPA Vessel General Permit.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	If yes, Permit No.: _____ Permit expiration date: _____
31	Wash water treatment system, such as sumps, oil/water separators, and reclamation systems are maintained and operational.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
32	Cleaning agents and equipment are stored properly. Environmentally preferred products are used where possible. List product used.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
33	Solid wastes from washing activities are disposed of properly.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	

OUTDOOR MATERIAL HANDLING		YES NO N/A	Comments
34	Loading areas are designed and located to minimize impacts to storm water drainage system.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
35	Loading areas are free of unattended stains or pavement degradation indicating poor material handling practices. If no, take photos.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
36	Adequate plans and spill cleanup materials are on hand to address spills and leaks due to material transfers.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
37	Material handling employees and/or forklift operators have been trained on material handling BMP's.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Date of training: _____

CONTAINER STORAGE		YES NO N/A	Comments
38	Facility has aboveground storage tanks (AST's) or underground storage tanks (UST's) including hydraulic lift tanks, emergency generator day tanks, fuel storage, and used oil storage tanks. Proper maintenance, training, leak tests, notifications, and inspections are up to date. For tanks greater than 1,100 gallons, inventory is monitored daily.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
39	Facility had notified the HDOH UST program office of all UST's located in-site. HDOH has issued a "No Further Action" statement for the closure of any UST at the facility.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
40	AST meets or exceeds the National Fire Protection Association (NFPA) requirements.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
41	Storage area has adequate secondary containment and integrity protection.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
42	Containers are compatible with materials stored, free of damage, and labeled correctly, and not stored past allowable hold times. Lids are kept closed and secured when not in use.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
43	Bulk product storage containers are equipped with overflow protection alarms or automatic shutdown pumps.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	

Inspector Name:
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Date:

MATERIAL AND WASTE HANDLING AND DISPOSAL		YES NO N/A	Comments
44	Waste are disposed properly, Records are kept and hazardous waste generator status is known. Facility has an Environmental Protection Agency (EPA) hazardous waste generator identification number and follow appropriate regulations/requirements (CESQG, SQG, LWG). Submit copy of EPA's letter.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Waste Generator ID Number: _____
45	Hazardous waste and used oil storage areas have adequate secondary containment and integrity protection.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
46	Personnel who handle hazardous waste and/or universal waste or come into contact with hazardous waste/universal waste are trained and training records are documented, and past training logs are available at the facility.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Date of Last Training: _____
47	Containers are compatible with materials, free of damage, labeled correctly.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
48	Storm water accumulation in secondary containment areas is minimized, managed, disposed of correctly, and logged.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
49	Waste storage areas are free of unattended spills or degradations indicating poor waste handling practices.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
50	Materials such as grease, oil, antifreeze, brake fluid, cleaning agents, hydraulic and transmission fluid, solvents, paints, batteries and filters are recycled or disposed of properly.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
51	Out-of-service, spent lead acid batteries are protected from contact with stormwater runoff, and placed in secondary containment.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
52	Dumpsters and recycle bins are kept closed when not in use.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
53	Potential pollutants are stored under covered areas.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
54	Waste reduction opportunities have been explored and implemented.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	

PIERS, BUILDINGS, AND GROUNDS HOUSEKEEPING		YES NO N/A	Comments
55	Spills are cleaned thoroughly. Petroleum spills are cleaned until water added to spill area does not produce sheen.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
56	Good housekeeping controls are implemented to contain debris and pollutants generated by building maintenance activities.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
57	All work areas and storage areas are neat and clean.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
58	Paved surfaces are swept vs. washed down and sweepings are disposed of properly.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
59	There is no dirt/debris accumulation/buildup in parking areas.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
60	Fertilizers, pesticides, and herbicides are applied according to manufacturer's instructions and not applied before or during a rain event.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
61	Storm water drainage system is maintained regularly.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
62	Excessive watering of landscaped areas is avoided.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	

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Date:

OIL/WATER SEPARATORS MAINTENANCE		YES NO N/A	Comments
63	Operation and maintenance of oil/water separator is adequate and wastes are disposed of properly. Maintenance log/disposal manifest available for inspection	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	

RUNOFF RETENTION BASINS		YES NO N/A	Comments
64	Catch basins are clean and free of debris and stains.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
65	Sediment build up in the basin is monitored, removed when necessary, and disposed of properly.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	

EMERGENCY SPILL CLEANUP PLANS		YES NO N/A	Comments
66	Tenant SPCC/Emergency Spill Cleanup Plan is adequate and being implemented effectively.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
67	Spill kits are in high-risk areas and are appropriately stocked.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
68	Spill kits are inspected and replenished monthly or after kits are utilized.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
69	Employees have been trained in spill prevention and response and spill and training records are maintained on site.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Date of training: _____
70	The National Response Center (NRC) Phone Number is available on-site for immediate reporting of spills. NRC (800) 424-8802	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	

CONSTRUCTION		YES NO N/A	Comments
71	Construction activities have occurred at the facility since the last inspection	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
72	Construction plans have been submitted and reviewed by the Department of Transportation Harbors Division. Refer to form to be used by the construction inspectors.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	

EPCRA		YES NO N/A	Comments
73	Facility is required to report chemical inventory (Tier II) and/or Toxic Release Inventory (TRI) Report. If yes, supply a copy of the report(s).	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	

Inspector Name:
Hawaii DOT, Harbors Division

Date:

ADDITIONAL COMMENTS	
No.	Alleged Violation or Corrective Action

INSPECTION PHOTOGRAPHS	
No.	Photo Description

Inspector Name:
Hawaii DOT, Harbors Division

Date:

Attachment G-4: Investigation Report

Environmental Investigation Report
Department of Transportation
Harbors Division

ID#:		Date of Investigation:		Page: 1 of 5
Harbor:		Facility Name:		
Permit#:		Facility Address:		
Phone#:		SIC Code:		Property ID#:

Representatives / Inspection Purpose:

Weather Conditions:

Description of Facility Operations:

Inspection Findings:

Inspector Initials:

Environmental Investigation Report
Department of Transportation
Harbors Division

ID#:

Date of Investigation:

Page: 2 of 5

Inspection Findings (cont.):

Recommendations:

Inspector Initials:

Environmental Investigation Report
Department of Transportation
Harbors Division

ID#:

Date of Investigation:

Page: 3 of 5

Inspection Signatures:

Name: _____
Signature: _____
Title: _____
Organization: _____
Date: _____

Name: _____
Signature: _____
Title: _____
Organization: _____
Date: _____

Name: _____
Signature: _____
Title: _____
Organization: _____
Date: _____

Environmental Investigation Report Prepared by: _____

_____ Date

Inspector Initials:

Environmental Investigation Report
Department of Transportation
Harbors Division

ID#:

Date of Investigation:

Page: 4 of 5

Photograph #1:

Observers:

Location:

Description:

Photograph #2:

Observers:

Location:

Description:

Photograph #3:

Observers:

Location:

Description:

Photograph #4:

Observers:

Location:

Description:

Inspector Initials:

Environmental Investigation Report
Department of Transportation
Harbors Division

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Photograph #5:

Observers:

Location:

Description:

Photograph #6:

Observers:

Location:

Description:

Photo Certification:

I certify that the six (6) attached photos described above were taken by the undersigned and are a true, accurate, and unaltered representation of what was observed on _____ at _____.

Inspector

Date

Inspector Initials:

*Attachment G-5: Regulations for
Environmental Compliance*

HARBORS REGULATIONS FOR ENVIRONMENTAL COMPLIANCE

The Harbors environmental inspectors have been given enforcement actions that include verbal warnings, written citations, and potential tenant eviction.

HRS §266-3, Rules, establishes the Harbors authority to establish and enforce its rules. The Harbors then relies on HRS §266-24, which permits the Director of Transportation the authority to designate persons to enforce Chapter 266 and all rules and orders issued pursuant thereto and of all other laws of the state. Such officers, employee's agents, and representatives of the Harbors have police powers to serve and execute warrants and arrest offenders, and the power to serve notices and orders. When arresting or issuing a citation to a purported violator of any provision of Chapter 266, the Director of Transportation's designee, hereinafter "enforcement officer" can 1) issue a summons or citation (similar to a traffic ticket) warning or directing the violator to appear and answer the charge before a district judge, or 2) take the purported violator without delay before a district judge. Penalties for violating the provision of Chapter 266 or rules or orders issued pursuant to Chapter 266 are issued by the district court and includes a finding or guilty or not guilty verdict of a misdemeanor and a fine.

Fines arising from environmental protection violations include reimbursing the HDOT for the entire amount of the HDOH or EPA fine under HRS §266-28 and can include an additional amount of not more than \$10,000 per violation under HRS §266-25.

Hawaii Administrative Rules, Title 19

Hawaii Administrative Rules, Title 19, Chapters 41 through 44 were adopted by the HDOT to regulate operations of the state harbors. Chapter 42-126 and 127 specifically apply to environmental regulation. These rules require that no litter be left within a state harbor, except in a properly marked bin. Additionally, oil, oily refuse, sludge, chemicals, or other hydrocarbons should only be deposited in designated collection points. Specifically, Chapter 42-127 can be applied to activities such as maintenance or washing that has the potential to discharge into state water. Chapter 42-127 states:

"No person shall place, throw, deposit, or discharge, or cause to be placed, thrown, deposited, or discharged into the waters of any harbor, river or shore waters of the State any litter, or other gaseous, liquid or solid materials which render the water unsightly, noxious or otherwise unwholesome so as to be detrimental to the public health and welfare or a navigational hazard. No person shall discharge oil sludge, oil refuse, fuel oil or molasses either directly or indirectly, or pump bilges or ballast tanks containing other than clean water into the waters of any harbor, river or into any shore waters in the State."

Chapter 42 also contains language specifying storage, usage, and/or handling requirements for hazardous materials or other potential pollutants. These regulations detail specific environmental practices where enforcement is possible through arrest or citation and presented before the district judge.

Chapter 42-15 – Compliance with Federal, State, and County Laws, Ordinances and Rules

- Use of state harbors and harbors facilities is subject to compliance with all applicable federal, state, and county laws, ordinances, rules and regulations.
- Specific rules include the use of rat guards and other measures to prevent rodents from leaving the vessel, DOH rules pertaining to air and water pollution, and fire department rules.

Chapter 42-16 – Citation for Violation

- Citations issued pursuant to section 266-24.1, Hawaii Revised Statutes, to a commercial firm for violation of this part may be issued to any agent, officer, or manager of the firm

Chapter 42-52 - Small Craft and Smaller Commercial Vessel Repairs, Reconstruction or Major Modification

- Minor repairs to small craft and smaller commercial vessels may be made at the assigned berth and shall be completed within thirty days.
- Prior approval is required for maintenance that lasts more than thirty days or for the used of cranes, lifts, and any similar devices within the harbor.

Chapter 42-103 through 105 – Explosives

- No vessel containing more than five hundred pounds of Class A, one ton of Class B, and/or ten tons of Class C explosives (net explosive content) shall enter or be loaded in any harbor without prior written consent.
- Handling and hauling of explosives will be conducted in a safe and careful manner.

Chapter 42-106 – Containers for Flammable Liquids

- Containers of flammable liquids cannot be placed on the wharf unless they are securely closed with metal screw plugs.
- Containers of flammable liquids must be removed by carrier immediately.

Chapter 42-107 – Nitrate of Soda, Nitrate of Ammonia, Sulphur, and Other Similar Materials

- No nitrate of soda, nitrate of ammonia, sulphur, or other similar material shall be stored or left upon any wharf for more than four hours unless packed in sound and non-leaking containers. Additionally, the material must be stored under continuous guard until removed.
- After handling the material, the wharf must be swept clean and free of such materials.

- A protective device approved by the harbor master shall be used during the period of loading or unloading to prevent the material being handled from falling upon the wharf structure.
- For the purposes of firefighting, containers of not less than 50 gallons at intervals of not more than 50 feet containing nitrate of soda and water are required.

Chapter 42-108 – Dangerous Acids; Electric Storage Batteries

- No acids can be placed on the wharf until the carrier is ready to receive it.
- Electric storage batteries that are securely boxed are exempt from this rule.

Chapter 42-113 – Repair, Manufacturing, Construction, or Maintenance Work on Wharf

- No person shall make any repair or do any kind of manufacturing, construction, or maintenance work on any wharf without the permission of the harbor master.

Chapter 42-129 – Duty of Persons Who Lose, Drop, or Abandon Any Floating or Sinking Object

- If an object is lost, dropped, or abandoned in the navigable waters and shore waters of the state, that person must notify the harbor master and take action to retrieve the object.

Chapter 42-132 – Waste Outlets; Permit Required

- Permit is required to discharge any wastes from shore into the waters of a state commercial harbor so as to reduce the quality of the water below the standards of water quality adopted for such waters by the state department of health.
- Permit is required to construct, install, modify, alter, or operate any treatment works or part thereof or any extension or addition thereto which discharges from shore into the waters of a state commercial harbor.
- Permit is required to construct or use any new outlet for the discharge of any wastes from shore into the waters of a state commercial harbor.

Chapter 42-136 – Fueling

- A permit is required for fueling and the operator must have an insurance policy of not less than \$500,000.
- Prior to fueling a vessel at a state harbor, the operator shall securely moor the vessel; stop all engines, motors, fans, and devices which could produce sparks; extinguish all fires; close all ports, windows, doors, and hatches; and clear the area of people not involved in the operation.
- During fueling, the operator shall refrain from smoking, striking matches, or throwing switches; and keep the nozzle of the fuel hose, or fuel can in continuous contact with the fuel tank opening to guard against static sparks.
- After fueling, the operator shall close fill openings; wipe up all spilled fuel; open all ports, windows, doors, and hatches; permit vessel to ventilate for at

least five minutes; and check that there are no fuel fumes in the vessel's bilges or below deck spaces before starting machinery or lighting fires.

- Fueling a vessel from a fuel barge or tanker barge shall be allowed only when it is done in accordance with operational procedures approved by the U. S. Coast Guard.

Note: The majority of Chapter 42 deals with loading and unloading of hazardous materials and does not apply to storage of materials and waste that are used at harbor tenant facilities. In the case of improper use or storage of hazardous materials or wastes, Harbors will follow the terms of the tenant lease or permit procedures as stated below.

Enforcement Officers may issue Title 19 penalties for the following circumstances:

- A tenant who is in violation of an environmental regulation, but where a Written Warning is not an effective tool.
- A tenant in violation of a Harbors requirement, but not in violation of DOH storm water regulations.
- A transient vessel owner who is in violation of a Harbors requirement, BMP, or DOH storm water regulation, but does not have a tenant lease agreement or revocable permit.

Lease Agreement Addendum 1

Environmental Compliance - Lessee's Duties

ADDENDUM 1

ENVIRONMENTAL COMPLIANCE – LESSEE'S DUTIES

A. Definitions.

For purposes of this Lease, Lessee agrees and understands that the following terms shall have the following meanings:

“Environmental Laws” shall mean all federal, state and local laws of every nature including statutes, ordinances, rules, regulations, codes, notices, standards, directives of every kind, guidelines, permits, licenses, authorizations, approvals, interpretations of the foregoing by any court, legislative body, agency or official, judicial decisions, orders, rulings or judgments, or rules of common law which currently are in effect or which may come into effect through enactment, issuance, promulgation, adoption or otherwise, which in any way pertain to, relate to, or have any relevance to the environment, health or safety. These environmental laws include, but are not limited to, regulations and orders of the federal Environmental Protection Agency and of the State of Hawaii Department of Health.

“Hazardous Substance” shall mean and include any chemical, substance, organic or inorganic material, controlled substance, object, condition, waste, living organism, or combination thereof which is, may be, or has been determined by proper state or federal authority under any environmental law to be, hazardous to human health or safety or detrimental to the environment. This term shall include, but not be limited to, petroleum hydrocarbons, asbestos, radon, polychlorinated biphenyls (PCBs), methane, and other materials or substances that are regulated by state or federal authorities.

B. Lessee's Activities and Duties.

1. **Compliance with Environmental Laws.** Lessee agrees, at its sole expense and cost, to comply with all environmental laws that apply to the leased premises during the term of this lease, and Lessee's occupancy of, and activities on, the leased premises. This duty shall survive the expiration or termination of this lease which means that the Lessee's duty to comply with environmental laws shall include complying with all environmental laws, regulations and orders that may apply, or be determined to apply, to the occupancy and activities of the Lessee on the leased premises after the expiration or termination of this lease. Failure of the Lessee to comply with any environmental laws shall constitute a breach of this lease for which the Lessor shall be entitled, in its discretion, to terminate this lease and take any other action at law or in equity it deems appropriate. Lessee shall conform its operations with 49 CFR, Part 195 (Pipeline Safety), and shall install Time Domain Reflectivity (TDR) cable leak detection and monitoring equipment, which meet or exceed industry standards, adjacent to the fuel pipelines and related facilities, to provide an indication of any leak occurrence from any fuel pipeline or containment

device. In addition, the Lessee shall install a secondary containment wall/vaulting to prevent releases into the environment. The Lessee shall also develop, implement, and follow a written integrity management program that addresses the risks of each pipeline, and provides for periodic assessment of the integrity of each pipeline through internal inspection, pressure testing, or other equally effective assessment means, on a regular basis.

2. **Hazardous Substances.** Lessee shall not use, store, treat, dispose, discharge, release, generate, create, or otherwise handle any Hazardous Substance, or allow the same by any third person, on the leased premises (with the exception of the intended routine management of the petroleum products within the proposed pipeline) without first obtaining the written consent of the Lessor and complying with all environmental laws, including giving all required notices, reporting to, and obtaining permits from, all appropriate authorities, and complying with all provisions of this lease.

3. **Notice to Lessor.** Lessee shall keep Lessor fully informed at all times regarding all environmental law related matters affecting the Lessee or the leased premises. This duty shall include, without limited the foregoing duty, providing the Lessor with a current and complete list and accounting of all hazardous substances of every kind which are present on or about the leased premises and with evidence that the Lessee has in effect all required and appropriate permits, licenses, registrations, approvals and other consents that may be required of or by federal and state authorities under all environmental laws. This duty shall also include providing immediate written notice of any investigation, enforcement action, remediation, or other regulatory action, order of any type, or any legal action, initiated, issued, or any indication of an intent to do so, communicated in anyway to the Lessee by any federal or state authority, or individual, which relates in any way to any environmental law, or any hazardous substance, and the Lessee or the leased premises. As part of this written notice to the Lessor, the Lessee shall also immediately provide the Lessor with copies of all written communications from individuals, or state and federal authorities, including copies of all correspondence, claims, complaints, warnings, reports, technical data and any other documents received or obtained by the Lessee. At least thirty days prior to termination of this lease, or termination of the possession of the leased premises by Lessee, Lessee shall provide the Lessor with written evidence satisfactory to the Lessor that Lessee has fully complied with all environmental laws, including any orders issued by any governmental authority to the Lessee that relate to the leased premises.

4. **Notice to Authorities.** Lessee shall provide written notice to the Environmental Protection Agency and the State of Hawaii Department of Health at least sixty days prior to the termination of this lease, or sixty days prior to Lessee's termination of possession of the leased premises, whichever occurs first, that Lessee intends to vacate the leased premises and terminate its operations on those leased premises. Lessee shall allow the agents or representatives of said authorities access to the leased premises at any and all reasonable times for the purpose of inspecting the leased premises, and taking samples of any material for inspection or testing for compliance with any environmental laws. Lessee shall provide copies of said written notices to Lessor at the time said notices are provided to said authorities.

5. **Disposal/Removal.** Except for materials that are lawfully sold in the ordinary course of the Lessee's business, Lessee shall cause any hazardous substances to be removed from the leased premises for disposal, and to be transported from the leased premises solely by duly licensed hazardous substances transporters, to duly licensed facilities for final disposal as

required by all applicable environmental laws. Lessee shall provide Lessor with copies of documentary proof, including manifests, receipts, or bills of lading, which reflect that said hazardous substances have been properly removed and disposed of in accordance with all environmental laws.

6. Environmental Investigations and Assessments. The Lessee, at its sole cost and expense, shall cause to be conducted such investigations and assessments of the leased premises to determine the presence of any hazardous substance on, in, or under the leased premises as may be directed from time to time by the Lessor, in its sole discretion, or by any federal or state authority. The extent and number of any environmental investigations and assessments shall be determined by the Lessor or the federal or state authority directing said investigations and assessments to be conducted. Lessee shall retain a competent and qualified person or entity that is satisfactory to the Lessor or governmental authority, as the case may be, to conduct said investigations and assessments. Lessee shall direct said person or entity to provide the Lessor or governmental authority, if so requested, with testable portions of all samples of any soils, water, ground water, or other material that may be obtained for testing, and provide to the Lessor and the governmental authority written results of all tests on said samples upon completion of said testing.

7. Remediation. In the event that any hazardous substance is used, stored, treated, disposed on the premises, handled, discharged, released, or determined to be present on the leased premises, Lessee shall, at its sole expense and cost, remediate the leased premises of any hazardous substances, and dispose/remove said hazardous substance in accordance with paragraph 4. This duty to remediate includes strictly complying with all environmental laws and directives to the Lessee to remediate said hazardous substance from the Lessor. This duty to remediate shall include replacement of any materials, such as soils, so removed with material that is satisfactory to the Lessor and governmental authority, as the case may be. In the event Lessee does not remediate the leased premises to the same condition as it existed at the commencement of the lease, as determined by the Lessor, Lessee understands and agrees that Lessor may exercise its rights under the paragraph entitled Lessor's Right to Act, and until such time as the remediation is complete to the satisfaction of the Lessor, Lessee shall be liable for lease rent in the same manner and amount as if the lease had continued in effect during the period of remediation.

8. Restoration and Surrender of Premises. The Lessee hereby agrees to restore the leased premises, at its sole cost and expense, including the soil, water and structures on, in, or under the leased premises to the same condition as the premises existed at the commencement of this lease, fair wear and tear to the structures excepted. In the event Lessee does not restore the leased premises to the same condition as it existed at the commencement of the lease, as determined by the Lessor, Lessee understands and agrees that Lessor may exercise its rights under the paragraph entitled Lessor's Right to Act, and until such time as the restoration is complete to the satisfaction of the Lessor, Lessee shall be liable for lease rent in the same manner and amount as if the lease had continued in effect during the period of restoration.

9. Lessor's Right to Act. In the event Lessee fails for any reason to comply with any of its duties under this lease or under any environmental laws within the time set for doing so, or within a reasonable time as determined by the Lessor, Lessor shall have the right, but not the obligation, in its sole discretion, to perform those duties, or cause them to be performed. Lessee

hereby grants access to the leased premises at all reasonable hours to the Lessor, its agents, and anyone designated by the Lessor in order to perform said acts and duties. Any cost, expense, or liability of any type that may be incurred by the Lessor in performing said acts or duties shall be the sole responsibility of the Lessee, and Lessee hereby agrees to pay for those costs and expenses, and indemnify the Lessor for any liability incurred. This obligation shall extend to any costs and expenses incident to enforcement of Lessor's right to act, including litigation costs, attorneys fees, and the costs and fees for collection of said cost, expense or liability.

10. Release and Indemnity. Lessee hereby agrees to release the Lessor, its officers, agents, successors, and assigns from any liability of any kind, including, but not limited to, any liability for any damages, penalties, fines, judgments, or assessments that may be imposed or obtained by any person, agency, or governmental authority against the Lessee by reason of any hazardous substance that may be present by whatever means on, in or under the leased premises. The Lessee hereby agrees to indemnify, defend with counsel suitable to the Lessor, and hold harmless the Lessor from any liability that may arise in connection with, or by reason of, any occurrence involving any hazardous substance that may be alleged to be connected or related in any way with the leased premises, the Lessor's ownership of the premises, or this lease, including the presence of any hazardous substance on the leased premises.

11. Surety/Performance Bond for Cleanup/Restoration. At its sole cost and expense, Lessee shall provide the Lessor with a Bond, or other security satisfactory to Lessor, in the amount of \$100,000.00 to assure removal of any hazardous substances, and the remediation and restoration of the leased premises during the term of, and at the conclusion of the lease so as to comply with the terms of this lease to the satisfaction of the Lessor, and in order to comply with environmental laws. Lessee shall provide written evidence that said Bond or security has been secured by the Lessee, which evidence shall indicate the term during which said Bond or other security shall irrevocably remain in effect.

12. Insurance. Effective at the commencement of this lease, Lessee shall obtain and keep in force a comprehensive liability and property damage policy of insurance issued by an insurer licensed to do business in the State of Hawaii, with limits of indemnity coverage no less than \$1,000,000. Said policy of insurance shall provide coverage for personal injury or damage to property caused by hazardous substances or any occurrence that may constitute a violation of any environmental law by the Lessee. Said policy of insurance shall name the Lessor as an additional insured. Lessee shall provide proof of said insurance satisfactory to the Lessor which shall include, at a minimum, the coverage provided, and the term during which said policy shall be effective.

Excerpt from Standard Revocable Permit

Environmental Compliance - Permittee's Duties

26. SPECIAL TERMS AND CONDITIONS.

ENVIRONMENTAL COMPLIANCE – PERMITTEE'S DUTIES

A. Definitions.

For purposes of this Revocable Permit, Permittee agrees and understands that the following terms shall have the following meanings:

“Environmental Laws” shall mean all federal, state and local laws of every nature including statutes, ordinances, rules, regulations, codes, notices, standards, directives of every kind, guidelines, permits, licenses, authorizations, approvals, interpretations of the foregoing by any court, legislative body, agency or official, judicial decisions, orders, rulings or judgments, or rules of common law which currently are in effect or which may come into effect through enactment, issuance, promulgation, adoption or otherwise, which in any way pertain to, relate to, or have any relevance to the environment, health or safety. These environmental laws include, but are not limited to, regulations and orders of the federal Environmental Protection Agency and of the State of Hawaii Department of Health.

“Hazardous Substance” shall mean and include any chemical, substance, organic or inorganic material, controlled substance, object, condition, waste, living organism, or combination thereof which is, may be, or has been determined by proper state or federal authority under any environmental law to be, hazardous to human health or safety or detrimental to the environment. This term shall include, but not be limited to, petroleum hydrocarbons, asbestos, radon, polychlorinated biphenyls (PCBs), methane, and other materials or substances that are regulated by state or federal authorities.

B. Permittee's Activities and Duties.

1. **Compliance with Environmental Laws.** Permittee agrees, at its sole expense and cost, to comply with all environmental laws that apply to the premises during the term of this Revocable Permit, and Permittee's occupancy of, and activities on, the premises. This duty shall survive the expiration or termination of this Revocable Permit which means that the Permittee's duty to comply with environmental laws shall include complying with all environmental laws, regulations and orders that may apply, or be determined to apply, to the occupancy and activities of the Permittee on the premises after the expiration or termination of this Revocable Permit. Failure of the Permittee to comply with any environmental laws shall constitute a breach of this Revocable Permit for which the State shall be entitled, in its discretion, to terminate this Revocable Permit and take any other action at law or in equity it deems appropriate.

2. **Hazardous Substances.** Permittee shall not use, store, treat, dispose, discharge, release, generate, create, or otherwise handle any Hazardous Substance, or allow the same by any third

person, on the premises without first obtaining the written consent of the State and complying with all environmental laws, including giving all required notices, reporting to, and obtaining permits from, all appropriate authorities, and complying with all provisions of this Revocable Permit.

3. Notice to the State. Permittee shall keep the State fully informed at all times regarding all Environmental law related matters affecting the Permittee or the premises. This duty shall include, without limit to the foregoing duty, providing the State with a current and complete list and accounting of all hazardous substances of every kind which are present on or about the premises and with evidence that the Permittee has in effect all required and appropriate permits, licenses, registrations, approvals and other consents that may be required of or by federal and state authorities under all environmental laws. This duty shall also include providing immediate written notice of any investigation, enforcement action, remediation or other regulatory action, order of any type, or any legal action, initiated, issued, or any indication of an intent to do so, communicated in anyway to the Permittee by any federal or state authority or individual which relates in any way to any environmental law or any hazardous substance and the Permittee or the premises. This written notice to the State shall include the Permittee immediately providing the State with copies of all written communications from individuals or state and federal authorities, including copies of all correspondence, claims, complaints, warnings, reports, technical data and any other documents received or obtained by the Permittee. At least thirty (30) days prior to termination of this Revocable Permit, or termination of the possession of the premises by Permittee, which ever shall first occur, Permittee shall provide the State with written evidence satisfactory to the State that Permittee has fully complied with all environmental laws, including any orders issued by any governmental authority to the Permittee that relate to the premises.

4. Notice to Authorities. Permittee shall provide written notice to the Environmental Protection Agency and the State of Hawaii Department of Health at least sixty (60) days prior to the termination of this Revocable Permit, or sixty (60) days prior to Permittee's termination of possession of the premises, whichever occurs first, the fact that Permittee intends to vacate the premises and terminate its operations on those premises. Permittee shall allow the agents or representatives of said authorities access to the premises at any and all reasonable times for the purpose of inspecting the premises and taking samples of any material for inspection or testing for compliance with any environmental laws. Permittee shall provide copies of said written notices to the State at the time said notices are provided to said authorities.

5. Disposal/Removal. Except for materials that are lawfully sold in the ordinary course of the Permittee's business and for which the Permittee has obtained all required authorizations from appropriate authorities including the prior written permission of the State to have said substance on the premises, Permittee shall cause any hazardous substances to be removed from the premises for disposal. This duty shall include the transportation of said hazardous substance from the premises solely by duly licensed hazardous substance transporters to duly licensed facilities for final disposal as required by all applicable environmental laws. Permittee shall provide the State with copies of documentary proof, including manifests, receipts or bills of lading, which reflect that said hazardous substances have been properly removed and disposed of in accordance with all environmental laws.

6. Environmental Investigations and Assessments. The Permittee, at its sole cost and expense, shall cause to be conducted such investigations and assessments of the premises to determine the presence of any hazardous substance on, in, or under the premises as may be directed from time to time by the State, in its sole discretion, or by any federal or state authority. The extent

and number of any environmental investigations and assessments shall be determined by the State or the federal or state authority directing said investigations and assessments to be conducted. Permittee shall retain a competent and qualified person or entity that is satisfactory to the State or governmental authority, as the case may be, to conduct said investigations and assessments. Permittee shall direct said person or entity to provide the State or governmental authority, if so requested, with testable portions of all samples of any soils, water, ground water or other material that may be obtained for testing and provide directly to the State and the governmental authority at the sole expense of the Permittee written results of all tests on said samples upon completion of said testing.

7. **Remediation.** In the event that any hazardous substance is used, stored, treated, disposed on the premises, handled, discharged, released, or determined to be present on the premises, or to have migrated from the premises, Permittee shall, at its sole expense and cost, remediate the premises, or any location off the premises to which it is determined that the hazardous substance has migrated, of any hazardous substances. Said duty to remediate includes the removal and disposal of said hazardous substances in accordance with paragraph 5. This duty to remediate includes strictly complying with all environmental laws and directives to remediate said hazardous substance issued from the State or any federal or State governmental authority charged with enforcing the Environmental laws. This duty to remediate shall include replacement of any materials, such as soils, removed with material that is satisfactory to the State and governmental authority, as the case may be.

8. **Restoration and Surrender of Premises.** The Permittee hereby agrees to restore the premises, at its sole cost and expense, including the soil, water and structures on, in, or under the premises, to the same condition as the premises existed at the commencement of this Revocable Permit, fair wear and tear to the structures excepted. In the event Permittee does not restore the premises to the same condition as it existed at the commencement of the Revocable Permit, as determined by the State, the Permittee understands and agrees that the State may exercise its rights under the paragraph entitled State's Right to Act, and until such time as the restoration is complete to the satisfaction of the State, Permittee shall be liable for Revocable Permit rent in the same manner and amount as if the Revocable Permit had continued in effect during the period of restoration.

9. **State's Right to Act.** In the event the Permittee fails for any reason to comply with any of its duties under this Revocable Permit or under any environmental laws within the time set for doing so, or within a reasonable time as determined by the State, the State shall have the right, but not the obligation, in its sole discretion, to perform those duties, or cause them to be performed. Permittee hereby grants access to the premises at all reasonable hours to the State, its agents and anyone designated by the State in order to perform said acts and duties. Any cost, expense or liability of any type that may be incurred by the State in performing said acts or duties shall be the sole responsibility of the Permittee and Permittee hereby agrees to pay for those costs and expenses and indemnify the State for any liability incurred. This obligation shall extend to any costs and expenses incident to enforcement of State's right to act, including litigation costs, attorneys fees and the costs and fees for collection of said cost, expense or liability.

10. **Release and Indemnity.** Permittee hereby agrees to release the State, its officers, agents, successors and assigns from any liability of any kind, including, but not limited to, any liability for any damages, penalties, fines, judgments or assessments that may be imposed or

obtained by any person, agency or governmental authority against the State and/or the Permittee by reason of any hazardous substance that may be present by whatever means on, in or under the premises. The Permittee hereby agrees to indemnify, defend with counsel suitable to the State, and hold harmless the State from any liability that may arise in connection with, or by reason of, any occurrence involving any hazardous substance that may be alleged to be connected or related in any way with the premises, the State's ownership of the premises, or this Revocable Permit, including the presence of any hazardous substance on the premises. Permittee understands and agrees that any assessments, fines or penalties that may be assessed against the Permittee or the State by reason of any environmental law violation concerning the premises shall be paid, complied with, and in every way satisfied by the Permittee and not the State.

11. Surety/Performance Bond for Cleanup/Restoration. At its sole cost and expense, Permittee shall provide the State with a Bond, or other security satisfactory to State, in the amount of \$ N/A to assure removal of any hazardous substances and the remediation and restoration of the premises during the term of, and at the conclusion of the Revocable Permit so as to comply with the terms of this Revocable Permit to the satisfaction of the State and in order to comply with environmental laws. Permittee shall provide written evidence that said Bond or security has been secured by the Permittee which evidence shall indicate the term during which said Bond or other security shall irrevocably remain in effect.

12. Insurance. Effective at the commencement of this Revocable Permit, Permittee shall obtain and keep in force a comprehensive liability and property damage policy of insurance issued by an insurer licensed to do business in the State of Hawaii with limits of indemnity coverage no less than \$500,000.00. Said policy of insurance shall provide coverage for personal injury and damage to property caused by hazardous substances or any occurrence that may constitute a violation of any environmental law by the Permittee or the State. Said policy of insurance shall name the State as an additional insured. Permittee shall provide proof of said insurance satisfactory to the State which shall include, at a minimum, the coverage provided and the term during which said policy shall be effective.

Attachment G-6: Risk Ranking (Example)

Harbors Risk Ranking (Example)

[illegible]

APPENDIX G
OUTFALL RECONNAISSANCE INSPECTION FORM AND OUTFALL
LIST

OUTFALL RECONNAISSANCE INVENTORY FORM

Section 1: Background Data

Subwatershed:		Outfall ID:	
Today's date:		Time (Military):	
Investigators:		Form completed by:	
Temperature (°F):	Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0		
Latitude: 2358837.854	Longitude:	GPS Unit:	GPS LMK #:
Camera: Nikon-		Photo #s:	
Land Use in Drainage Area (Check all that apply): <div style="display: flex; justify-content: space-between;"> <div> <input type="checkbox"/> Industrial <input type="checkbox"/> Ultra-Urban Residential <input type="checkbox"/> Suburban Residential <input type="checkbox"/> Commercial </div> <div> <input type="checkbox"/> Open Space <input type="checkbox"/> Institutional Other: _____ Known Industries: _____ </div> </div>			
Notes (e.g., origin of outfall, if known): large crabs, Minnows, vegetation along canal is sparse, trash on side of canal, paper and plastic.			

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED
<input type="checkbox"/> Closed Pipe	<input type="checkbox"/> RCP <input type="checkbox"/> CMP <input type="checkbox"/> PVC <input type="checkbox"/> HDPE <input type="checkbox"/> Steel <input type="checkbox"/> Other: _____	<input type="checkbox"/> Circular <input type="checkbox"/> Single <input type="checkbox"/> Elliptical <input type="checkbox"/> Double <input type="checkbox"/> Box <input type="checkbox"/> Triple <input type="checkbox"/> Other: _____ <input type="checkbox"/> Other: _____	Diameter/Dimensions: _____ _____	In Water: <input type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully With Sediment: <input type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully
	<input type="checkbox"/> Open drainage	<input type="checkbox"/> Concrete <input type="checkbox"/> Earthen <input type="checkbox"/> rip-rap <input type="checkbox"/> Other: _____		
<input type="checkbox"/> In-Stream	(applicable when collecting samples)			
Flow Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <i>If No, Skip to Section 5</i>			
Flow Description (If present)	<input type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Substantial			

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
<input type="checkbox"/> Flow #1	Volume		Liter	
	Time to fill		Sec	
<input type="checkbox"/> Flow #2	Flow depth		In	
	Flow width	0' "	Ft, In	
	Measured length	0' "	Ft, In	
	Time of travel		Sec	
Temperature			°F	
pH			pH Units	Test strip/Probe
Ammonia			ppm	Test strip

Outfall Reconnaissance Inventory Form

Section 4: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐ Yes ☐ No (If No, Skip to Section 5)

INDICATOR	CHECK if Present	DESCRIPTION	RELATIVE SEVERITY INDEX (1-3)		
Odor	<input type="checkbox"/>	<input type="checkbox"/> Sewage <input type="checkbox"/> Rancid/sour <input type="checkbox"/> Petroleum/gas <input type="checkbox"/> Sulfide <input type="checkbox"/> Other:	<input type="checkbox"/> 1 – Faint	<input type="checkbox"/> 2 – Easily detected	<input type="checkbox"/> 3 – Noticeable from a distance
Color	<input type="checkbox"/>	<input type="checkbox"/> Clear <input type="checkbox"/> Brown <input type="checkbox"/> Gray <input type="checkbox"/> Yellow <input type="checkbox"/> Green <input type="checkbox"/> Orange <input type="checkbox"/> Red <input type="checkbox"/> Other:	<input type="checkbox"/> 1 – Faint colors in sample bottle	<input type="checkbox"/> 2 – Clearly visible in sample bottle	<input type="checkbox"/> 3 – Clearly visible in outfall flow
Turbidity	<input type="checkbox"/>	See severity	<input type="checkbox"/> 1 – Slight cloudiness	<input type="checkbox"/> 2 – Cloudy	<input type="checkbox"/> 3 – Opaque
Floatables -Does Not Include Trash!!	<input type="checkbox"/>	<input type="checkbox"/> Sewage (Toilet Paper, etc.) <input type="checkbox"/> Suds <input type="checkbox"/> Petroleum (oil sheen) <input type="checkbox"/> Other:	<input type="checkbox"/> 1 – Few/slight; origin not obvious	<input type="checkbox"/> 2 – Some; indications of origin (e.g., possible suds or oil sheen)	<input type="checkbox"/> 3 – Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials)

Notes: Potential tidal influence due to low tide

Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐ Yes ☐ No (If No, Skip to Section 6)

INDICATOR	CHECK if Present	DESCRIPTION	COMMENTS
Outfall Damage	<input type="checkbox"/>	<input type="checkbox"/> Spalling, Cracking or Chipping <input type="checkbox"/> Peeling Paint <input type="checkbox"/> Corrosion	
Deposits/Stains	<input type="checkbox"/>	<input type="checkbox"/> Oily <input type="checkbox"/> Flow Line <input type="checkbox"/> Paint <input type="checkbox"/> Other:	sediment and algae
Abnormal Vegetation	<input type="checkbox"/>	<input type="checkbox"/> Excessive <input type="checkbox"/> Inhibited	
Poor pool quality	<input type="checkbox"/>	<input type="checkbox"/> Odors <input type="checkbox"/> Colors <input type="checkbox"/> Floatables <input type="checkbox"/> Oil Sheen <input type="checkbox"/> Suds <input type="checkbox"/> Excessive Algae <input type="checkbox"/> Other:	
Pipe benthic growth	<input type="checkbox"/>	<input type="checkbox"/> Brown <input type="checkbox"/> Orange <input type="checkbox"/> Green <input type="checkbox"/> Other:	

Section 6: Overall Outfall Characterization

<input type="checkbox"/> Unlikely <input type="checkbox"/> Potential (presence of two or more indicators) <input type="checkbox"/> Suspect (one or more indicators with a severity of 3) <input type="checkbox"/> Obvious

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

Outfall ID	Outfall Coordinates		Facility Owner/ Operator	Outfall Description and Size	Use Activities occurring in the drainage basin
	Lat. N.	Long. W.			
NA	21° 19.250'	158° 06.933'	City and County of Honolulu	5' X 3.5' box drain outfall	Adjacent Kenai Industrial Park, no contribution from Harbor property
BP-02	21° 19.247'	158° 06.935'	DOT Harbors	12" trench drain outfall	Vicinity of Transit Shed, dredged coral stockpile, Pier 5 apron
BP-03	21° 19.250'	158° 06.929'	DOT Harbors	24" drain outfall	Dredged coral stockpile, Pier 5 apron
BP-04	21° 19.261'	158° 06.915'	DOT Harbors	12" trench drain outfall	Dredged coral stockpile, Pier 5 apron
BP-05	21° 19.285'	158° 06.890'	DOT Harbors	12" trench drain outfall	Dredged coral stockpile, Pier 5 apron
BP-06	21° 19.296'	158° 06.681"	DOT Harbors	36" drain outfall	Dredged coral stockpile, Pier 5
BP-07	21° 19.309'	158° 06.864'	DOT Harbors	12" trench drain outfall	Dredged coral stockpile, Pier 5
BP-08	21° 19.335'	158° 06.839'	DOT Harbors	12" trench drain outfall	Dredged coral stockpile, Piers 5 apron, Pier 6 apron
BP-09	21° 19.342'	158° 06.830'	DOT Harbors	36" drain outfall	Dredged coral stockpile, Pier 5 apron
BP-10	21° 19.361'	158° 06.812'	DOT Harbors	12" trench drain outfall	Dredged coral stockpile, Pier 5 apron
BP-11	21° 19.385'	158° 06.784'	DOT Harbors	12" trench drain outfall	Dredged coral stockpile, Pier 5 apron
BP-12	21° 19.388'	158° 06.779'	DOT Harbors	36" drain outfall	Dredged coral stockpile, Pier 5 apron
BP-13	21° 19.421'	158° 06.746'	DOT Harbors	12" trench drain outfall	Dredged coral stockpile, Pier 5 apron
BP-14	21° 19.437'	158° 06.725'	DOT Harbors	36" drain outfall	Dredged coral stockpile, Pier 5 apron
BP-15	21° 19.442'	158° 06-717'	DOT Harbors	12" drain outfall	Dredged coral stockpile, Pier 5 apron
BP-16	21° 19.467'	158° 06.698'	DOT Harbors	12" drain outfall	Dredged coral stockpile, coal conveyor, cement transfer plant
BP-17	21° 19.474'	158° 06.688'	DOT Harbors	36" drain outfall	Dredged coral stockpile, coal conveyor, cement transfer plant
BP-18	21° 19.481'	158° 06.678'	DOT Harbors	36" drain outfall	Runoff from offsite cement storage domes, Pier 7 apron
BP-19	21° 19.488'	158° 06.674'	DOT Harbors	12" drain outfall	Runoff from dredged coral stockpile, Pier 7 apron
BP-20	21° 19.505'	158° 06.652'	DOT Harbors	12" trench drain outfall	Runoff from dredged coral stockpile, Pier 7 apron
BP-21	21° 19.528'	158° 06.633'	DOT Harbors	12" trench drain outfall	Runoff from dredged coral stockpile, Pier 7 apron
BP-23	21° 19.557'	158° 06.611'	DOT Harbors	12" trench drain outfall	Runoff from dredged coral stockpile, Pier 7 apron
BP-24	21° 19.551'	158° 06.602'	DOT Harbors	curb outfall	Runoff from dredged coral stockpile, Pier 7 apron

APPENDIX H

STORM DRAIN CONNECTION/DISCHARGE PERMIT APPLICATION

NPDES File No. _____
(DOH)

APPENDIX I
PERMIT FOR CONNECTION TO THE STATE HARBORS DRAINAGE
SYSTEM

Harbors I.D. No.: _____
(for office use)

Harbor. _____
(NPDES)

NPDES File No. _____
(DOH)

PERMIT FOR CONNECTION TO THE STATE HARBORS DRAINAGE SYSTEM

Application Date _____

Pursuant to Hawaii Administrative Rules, Chapter 11-55, application is hereby made to connect to the State Harbors drainage system at the location(s) specified below and at no other place.

1. Name of Harbor: _____
2. Tax Map Key: _____
3. Location and Description of Connection(s): _____

Licensee*, the undersigned, hereby agree to the following:

1. That Licensee shall bear the entire cost of engineering, construction and maintenance of the private drainage system.
2. That Licensee shall indemnify and hold the State free and harmless from all suits and actions caused by the Licensee's acts or failure to act in connection with engineering construction and maintenance of the Licensee's private drainage system and its connection to the State Harbors Division's drainage system.
3. That the construction of the drainage system shall be made in accordance with plans and specifications approved by the Administrator, Harbors Division, and subject to compliance with all applicable statutes, ordinances, and rules and regulations of Federal, State or City agencies having the effect of the law.
4. That prior to any construction work, Licensee shall obtain a Permit to Perform Work Upon State Harbors from the Engineering Program Manager, Harbors Division.
5. That in the event any portion of the State Harbor drainage system is damaged or destroyed during the construction of the private drain connection, the Licensee shall bear the entire cost of engineering and construction, or replacement of the damaged facility.
6. That no additions or alterations to the private drainage system will be made without the prior written consent of the Administrator, Harbors Division.
7. That the private drainage system shall remain the Licensee's property and that Licensee will be solely responsible for its maintenance and upkeep.
8. That in the event the private drainage system within the State right-of-way shall at any time interfere with any public use, Licensee will relocate the private drainage system at the Licensee's expense.
9. That any time the private drainage system discharges pollutants or other objectionable material into the State Harbors drainage system which exceeds applicable water quality standards of the State of Hawaii as identified in Section 11-54-04, Hawaii Administrative Rules, or otherwise misuse the system, or cause a violation of any provisions of the State's National Pollutant Discharge Elimination System (NPDES) Permit, the State, by written notice, may terminate this license and have the system removed at the Licensee's expense. In addition, the Licensee shall be liable for any and all penalties as a result of discharges from the Licensee's system.
10. That discharges into the State Harbors drainage system shall be composed entirely of storm water. In the event the discharge into State Harbors drainage system includes storm water associated with industrial activity as defined in the Federal regulations, Licensee shall obtain appropriate National Pollutant Discharge Elimination System (NPDES) permit(s)/permit coverage(s) and shall provide data on the characterization of the constituents, quantity of the effluent and discharge at the Licensee's expense within one (1) year after the date of connection, and annually thereafter or as the need may arise as determined by the Administrator, Harbors Division.

11. That the Administrator, Harbors Division, or his authorized representative, may during reasonable hours and upon notification to Licensee, enter any building or premises to inspect or investigate, measure or test any effluent that is discharged directly or indirectly to the State Harbors drainage system.
12. That Licensee will notify the Engineering Program Manager at least 24 hours before commencing construction work, to arrange for necessary inspectional services.
13. That this agreement shall be made a condition of any subsequent transfer of property ownership.

Signature of Licensee

Date

Print Name and Title

Company Name

Company Address

City, State, Zip Code

Telephone No.

Fax No.

APPROVED:

Engineering Program Manager

Date

CONSTRUCTION DATA

Work Started: _____

Work Completed: _____

Inspector: _____

*Licensee shall be the owner or authorized representative of the owner applying for the permit.
Attach: Drain Connection Plans (3 sets)

APPENDIX J

PERMIT TO DISCHARGE INTO THE STATE HARBORS DRAINAGE
SYSTEM

Harbors I.D. No.: _____
(for office use)

Harbor. _____
(NPDES)

NPDES File No. _____
(DOH)

PERMIT TO DISCHARGE INTO THE STATE HARBORS DRAINAGE SYSTEM

Application Date _____

Pursuant to Hawaii Administrative Rules, Chapter 11-55, application is hereby made to discharge into the State Harbors drainage system at the location(s) specified below and at no other place.

1. Name of Harbor: _____
2. Tax Map Key: _____
3. Location: _____

4. Type of Discharge (check one):

<input type="checkbox"/> Storm water associated with industrial activities	<input type="checkbox"/> Construction activity dewatering
<input type="checkbox"/> Storm water associated with construction activities	<input type="checkbox"/> Hydrotesting
<input type="checkbox"/> Others (Describe): _____ _____ _____	

Licensee*, the undersigned, hereby agree to the following:

1. That Licensee shall indemnify and hold the State free and harmless from all suits and actions resulting from the licensee's discharge operations.
2. That Licensee shall provide appropriate best management practices and/or treatment devices for the removal of soil particles, and/or other pollutant(s) in the discharge, and such discharge shall meet the basic water quality criteria applicable to all waters, as identified in Section 11-54-04, and any other applicable sections in Chapter 11-54, Hawaii Administrative Rules, at the point of discharge into State waters.
3. That Licensee shall obtain National Pollutant Discharge Elimination System (NPDES) permit/permit coverage as required by the State Department of Health and submit a copy to the State Department of Transportation Harbors Division.
4. That a copy of any effluent monitoring required by the NPDES permit shall be furnished to the State Department of Transportation Harbors Division.
5. That the Licensee shall make all restorations to any State Harbors property damaged during the Licensee's discharge operations in accordance with the State Department of Transportation Harbors Division requirements.
6. That Licensee shall discontinue the discharge should the State Department of Health determine that the receiving waters are being polluted, or the discharge does not meet the effluent requirements of the NPDES permit, or the Licensee's operations are not in the best interest of the general public. In addition, the Licensee shall be liable for any and all penalties as a result of discharges from the Licensee's system.
7. That if the State Department of Transportation Harbors Division determines that any materials or substances from the Licensee's discharge operations have settled into any storm sewer, Licensee shall immediately remove and clear any material and substance to the satisfaction of the State Department of Transportation Harbors Division.
8. That Licensee shall inspect and clean the State Harbors drainage system prior to discharging.

9. That Licensee shall notify the Harbors Engineering Program Manager or Maintenance Engineer at least 24 hours before commencing discharge and at the conclusion of the discharge operation to arrange for necessary inspectional services at telephone number 587-1860 or 587-1877.

10. The Licensee shall require this permit to be a part of the contract with the contractor.

Signature of Licensee

Date

Print Name and Title

Company Name

Company Address

City, State, Zip Code

Telephone No.

Fax No.

APPROVED:

Engineering Program Manager

Date

CONSTRUCTION DATA

Work Started: _____

Work Completed: _____

Inspector: _____

*Licensee shall be the owner or authorized representative of the owner applying for the permit.

Attach: Drain Connection Plans (3 sets)

APPENDIX K

LOW IMPACT DESIGN STANDARD

Hawaii Department of Transportation – Harbors Division

LOW IMPACT DEVELOPMENT STANDARD NO. 01

TABLE OF CONTENTS

1.0 GENERAL

2.0 SUBMITTAL REQUIREMENTS

3.0 LOW IMPACT DESIGN BMPs

LOW IMPACT DEVELOPMENT STANDARD NUMBER 01.

1.0 GENERAL.

1.1 Purpose. This Standard has been established for the purpose of informing applicants of preparation, submittal, and review requirements for the Hawaii Department of Transportation (HIDOT) Harbors Division Tenant Development so that proper and adequate information is presented in a consistent manner, thereby providing the basis for an efficient and timely review. It is intended that this Development Standard provide support and clarification to tenants during the planning phase of new development and significant redevelopment projects. This Standard does not waive any applicable City regulations and/or codes.

1.2 Requirements. HIDOT Harbors Engineering and Environmental sections will review the plans and calculations to determine if Low Impact Development (LID) Best Management Practices (BMPs) have been utilized in the project design to the maximum extent practicable in order to maintain or improve pre-development runoff conditions. Plans and specifications for all significant development as defined in this standard shall be reviewed for the required measures in this standard prior to project approval and issuance of a notice to proceed. The HIDOT Harbors tenant agreements and revocable permits provide the authority to which this standard is issued. This standard shall also apply to HIDOT Harbors development projects.

1.3 Implementation Date. This standard shall be implemented and is considered active 90 days after acceptance by the Hawaii Department of Health and United States Environmental Protection Agency. All aspects of the standard shall be adhered to and enforcement actions are will be performed upon activation of the standard.

1.4 Definitions.

- A. Significant Redevelopment. Significant redevelopment is defined as the creation or addition of at least 5,000 square feet of impervious surfaces on an already developed site. Significant redevelopment includes, but is not limited to expansion of a building footprint, or replacement of a structure; replacement of impervious surface that is not part of a routine maintenance activity; and land-disturbing activities related to structural or impervious surfaces. Where significant redevelopment results in an increase of less than 50 percent of the impervious surfaces of a previously existing development, and the existing development was not subject to Development Standards, the BMP design standards discussed below apply only to the addition, and need not be applied to the entire development.

Hawaii Department of Transportation – Harbors Division

LOW IMPACT DEVELOPMENT STANDARD NO. 01

- B. **Low Impact Development.** LID is an approach to land development or re-development that works with nature to manage stormwater as close to its source as possible. LID employs principles such as preserving and recreating natural landscape features, minimizing effective imperviousness to create functional and appealing site drainage that treat stormwater as a resource rather than a waste product. There are many practices that have been used to adhere to these principles such as bioretention facilities, rain gardens, vegetated rooftops, rain barrels, and permeable pavements. By implementing LID principles and practices, water can be managed in a way that reduces the impact of built areas and promotes the natural movement of water within an ecosystem or watershed. Applied on a broad scale, LID can maintain or restore a watershed's hydrologic and ecological functions. LID has been characterized as a sustainable stormwater practice by the Water Environment Research Foundation and others.

2.0 SUBMITTAL REQUIREMENTS.

2.1 **Stormwater Peak Runoff Flowrate Calculation.** A calculation of the added peak flow rate in cubic feet per second of additional stormwater runoff due to the new construction or significant re-development must be completed and submitted including:

A. *Given Values.* The values used in the calculations and the basis for the use of those values. Attach manufacturers' specifications or industry standards for porosity values (C). For rainfall intensity (i) for development on Oahu the City and County Department of Planning and Permitting Rules Relating to Storm Drainage Standards shall be used unless more accurate site specific data is available. The area of the development shall be determined using scaled design drawings of the new construction or significant re-development (A).

C_i = initial runoff coefficient (dimensionless)

C_f = runoff coefficient (dimensionless)

i = rainfall intensity (in/hr)

A = Area of new construction or significant re-development (ft²)

B. *Calculations.* Calculate the added stormwater peak runoff created due to the new construction or significant re-development using the following equation:

$$Q_{\Delta} = (C_i - C_f) \times i \times A \times 0.0033 \quad [\text{Eq 2-1}]$$

Q_{Δ} = change in peak runoff flow rate (cfs)

For development with multiple runoff coefficients, calculate the Q_{Δ} for each area using equation 2-1 and add the results to determine total change in peak runoff flow rate.

C. *Results.* Present the results for change in peak runoff flow rate for each new construction or significant redevelopment in table format similar to the following table showing the construction of a parking lot in a previously undeveloped lot:

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LOW IMPACT DEVELOPMENT STANDARD NO. 01

TABLE 2-1 Sample Results Table for Change in Peak Runoff Flow Rate

Location	C _i	C _f	i (in/hr)	A (ft ²)	Q _Δ (cfs)
Porous Pavement Parking Lot	0.20	0.25	2.0	90,150	29.7
Vegetated Bio-Swales Surrounding Parking Lot	0.20	0.10	2.0	12,000	-7.9
Greenroof on Adjacent Storage Warehouse	1.0	0.10	2.0	1,000	-5.9
TOTAL CHANGE IN PEAK RUNOFF FLOW:					15.9

2.2 LID Designs and Specifications. All LID construction plans must include manufacturer's or installer's equipment or design specifications including but not restricted to the following:

A. *Operations and Maintenance (O&M) Manual.* The O&M manual for LID infrastructure is a key component to ongoing functionality of the system. All LID components which require regular scheduled maintenance require O&M submittal.

B. *Installation and Design Specifications.* All constructed LID components must be accompanied by installation and design specifications including but not limited to drainage layer material and depths, piping configurations, compaction requirements, slope requirements and landscape design.

C. *Performance Specifications.* If applicable, All LID components must include performance specifications including but not limited to stormwater containment volume capacity, runoff coefficient, and energy savings calculations.

3.0. LOW IMPACT DESIGN BMPs. The following Low Impact Design techniques shall be considered in order to promote the natural movement of water within the associated watershed corresponding with the new construction or significant re-development.

Examples of some of these techniques can be seen in Figure 3-1 (LID parking lot) and Figure 3-2 (LID street and sidewalk).

3.1. *Greenroof:* Vegetated roof for stormwater retention. Typical 4-inch thick systems can retain over 90% of a 1-inch, 1-hour storm event. Greenroof installation on existing building can be used to offset ground level development such as parking lot. Added benefit is building HVAC energy savings.

3.2. *Bio-Swale:* A low slope, open drainage swale where stormwater is allowed to infiltrate through the growth media as it slowly drains toward the receiving waters. Storm sewer inlet pipes may be placed below the growth media and a sand filter layer to allow for flood control during larger storm events.

3.3. *Bio-Retention Planter Box:* Typically 2.5 – 4 feet deep planter box integrated into the stormwater flow path where stormwater is allowed to accumulate. During major rain events there will typically be 6 – 12 inches of ponding on the surface of the planter box.

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Storm sewer inlet pipes may be placed below the growth media and a sand or ammended soil filter layer to allow for flood control during larger storm events. Mulch should be used to reduce topsoil erosion.

3.4. *Porous Sidewalk*: High porosity sidewalks with granular subbase for stormwater infiltration. Conservative sizing of sidewalks reduces the amount of less porous development.

3.5. *Rain Barrels*: Connected to the building gutter systems, rain barrels provide a storage system for roof runoff. Rain barrels should include a first flush system to reduce clogging and should provide for manual or slow release of stored water typically utilized in building landscaping.

3.6. *Xero-scapes and Smart Irrigation*: Landscaping that requires little or no irrigation. Plant selection, soil media and shading are important factors and landscape architects should design accordingly. Smart irrigation uses sensors and controllers to regulate watering schedules based on plant need. Moisture sensors provide direct feedback and when coupled with plant watering requirements will minimize water use. Watering should not occur during heavy rainfall.

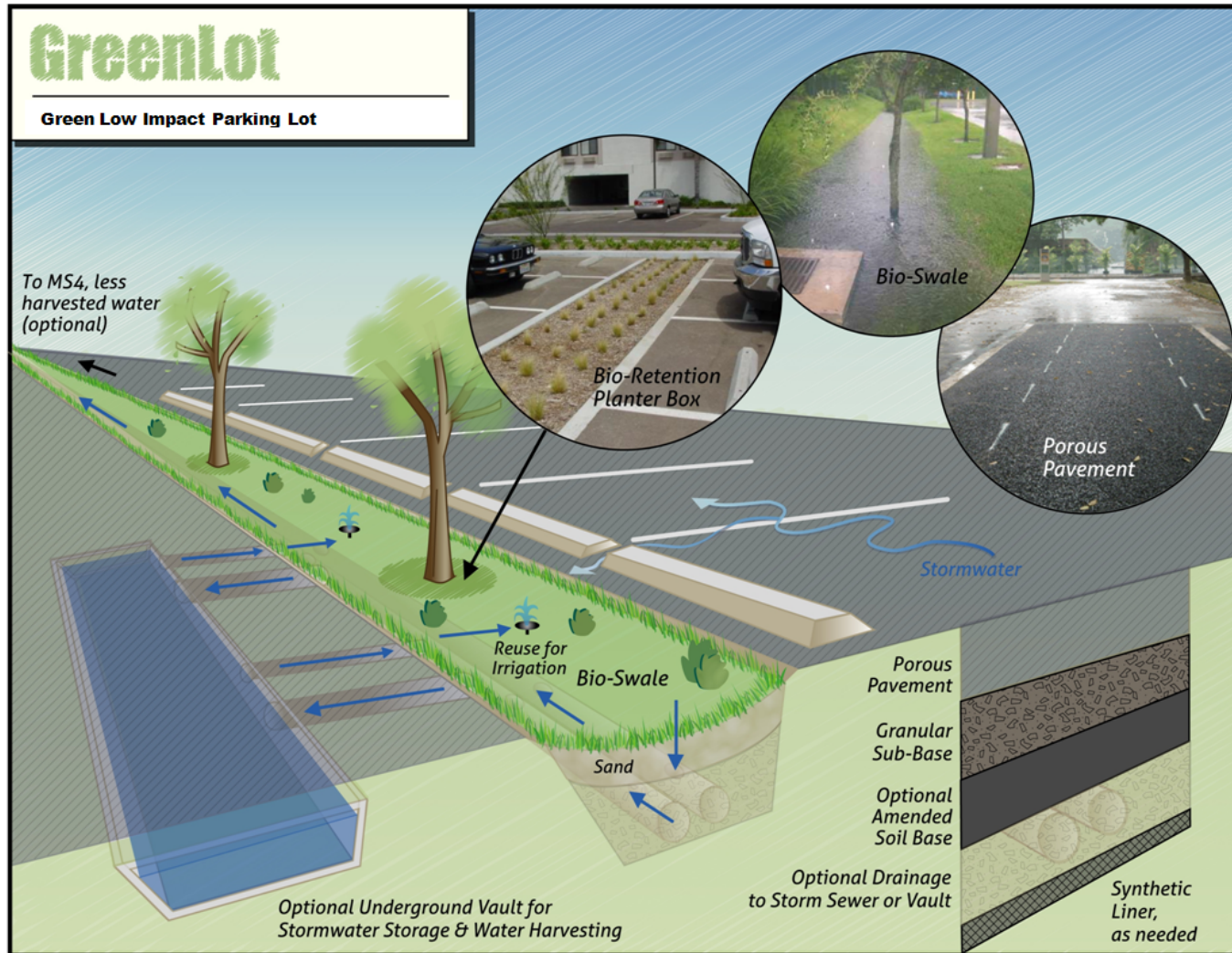
3.7. *Curb Openings*: Whenever feasible, curbs should be opened to allow for street stormwater flow to drain to pervious surfaces.

3.8. *Amended Soil*: Soil that is dry, full of sediment and without plant, tree or shrub ground cover should be ameded for improved stormwater drainage and to reduce sediment erosion. Soil can be amended by mulching and seeding or hydromulching. Organic matter in mulch provides water retention for sandy soil and it corrects clay soil by making it looser so that air, water and roots can penetrate. Successfully amended soil will be cohesive and will be able to support plant growth.

3.9. *Signage*: Signage should be included near water retention and storage devices to educate the public on LID implementation. Several LID solutions appear to be experiencing flooding when they are operating properly. Proper signage will deter incorrect assumptions on site drainage

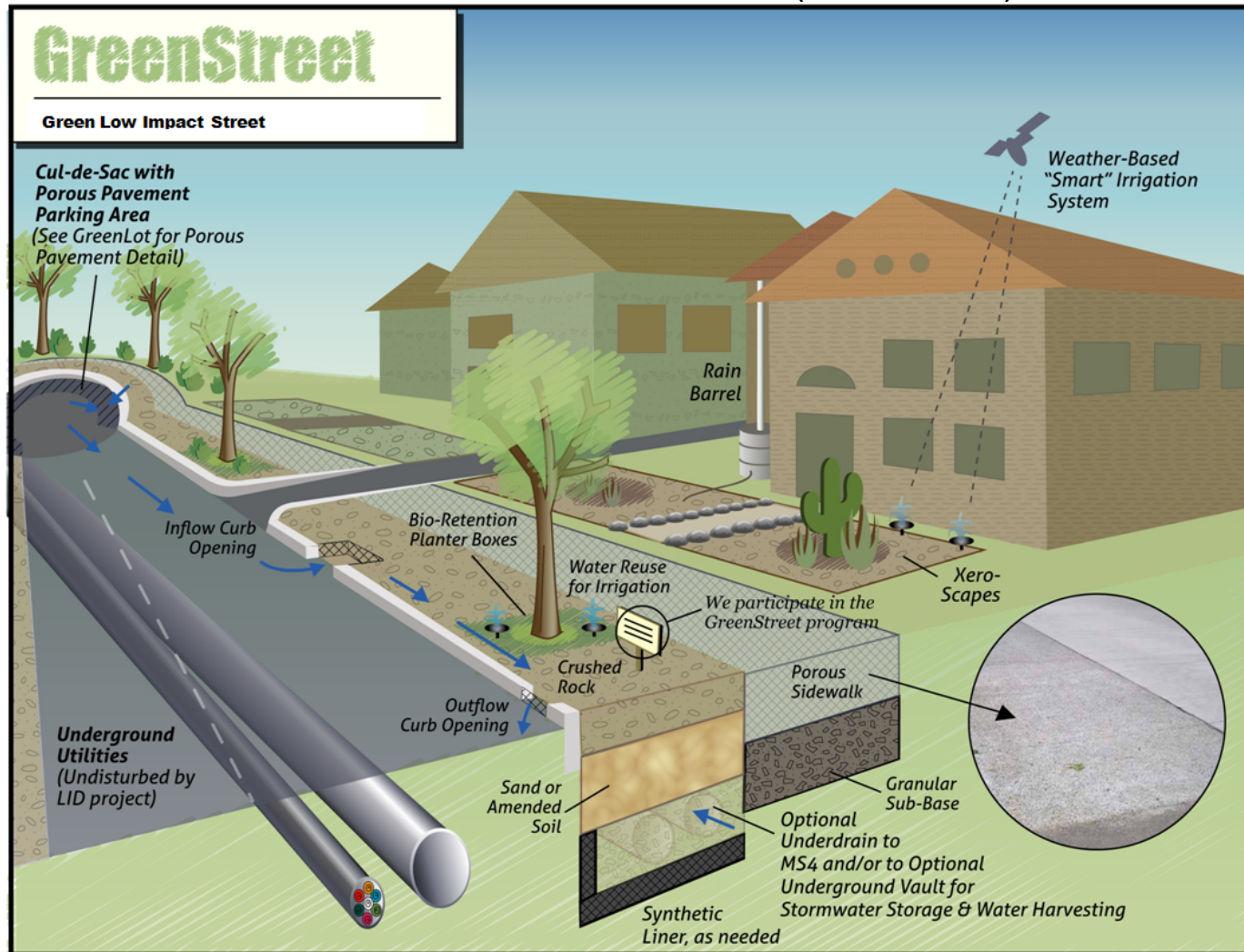
Hawaii Department of Transportation – Harbors Division
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FIGURE 3-1 GREEN LOW IMPACT DEVELOPMENT PARKING LOT (GREENLOT)



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FIGURE 3-2 GREEN LOW IMPACT STREET (GREENSTREET)



APPENDIX L

ANNUAL COMPLIANCE REPORT CHECKLIST



Annual Compliance Report Checklist

STATUS OF COMPLIANCE	COMPLETED	
PUBLIC EDUCATION AND OUTREACH:		
Development of new tenant educational mailings	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Tenant Self Inspection results	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Establishment of reporting/complaint logging system	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Recording outreach areas needing improvement	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Posting of signs at public locations	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Status of website and online presentation	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Participation in public activity	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Outreach to vessel operators	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Results of monitoring of cargo loading/unloading	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Status of inventory of business and industries	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Status of database used to record and track tenant inspection findings, enforcements, and resolutions	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Result of tenant inspections	<input type="checkbox"/> YES	<input type="checkbox"/> NO
PUBLIC INVOLVEMENT AND PARTICIPATION		
Summary of advertisement efforts for public involvement in SWMP revision	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Summary of public input and tracking of input	<input type="checkbox"/> YES	<input type="checkbox"/> NO
ILLICIT DISCHARGE DETECTION AND ELIMINATION		
Summary of telephone reports	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Number of IDDE investigated	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Their status (abated, could not duplicate, pending)	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Status of outfall maps containing sources of discharges and outfall conditions	<input type="checkbox"/> YES	<input type="checkbox"/> NO
List of NSWDS and BMPs/controls implemented for each	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Result of dry/wet weather inspections	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Summary of public/tenant/MTCC reporting	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Evaluation of reporting hotline and advertisement of hotline	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Ranking of tenants according to Inspection and Enforcement Manual	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Summary of enforcement actions	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Summary of educational materials and training conducted	<input type="checkbox"/> YES	<input type="checkbox"/> NO
CONSTRUCTION SITE RUNOFF CONTROL		
Updates to the tenant agreements reflecting construction stormwater and waste control requirements	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Summary of construction plan, SWPPP, NOI, and discharge permit application reviews	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Summary of public input	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Results of site inspections, enforcements, and resolutions	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Summary of educational outreach efforts, including development of materials	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Summary of employee training	<input type="checkbox"/> YES	<input type="checkbox"/> NO

STATUS OF COMPLIANCE	COMPLETED	
OTHER CATEGORIES TO REVIEW	(REVIEWED)	
Post-Construction Stormwater Management	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Pollution Prevention and Good Housekeeping	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Modifications made to the SWMP and implementation schedule, with justifications	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Summary of planned stormwater activities planned for the next year	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Major modification to the facility's MS4s	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Comments:		

APPENDIX M

2010 BUDGET SUMMARY

Future Task Rough Order of Magnitude

PROJECT INFORMATION

PROJECT:	HDOT- Harbors	CONTRACT:	#53692
TITLE:	Stormwater Management		
LOCATION:	Oahu, Hawaii		

BACKGROUND

Weston Solutions, Inc. (WESTON) is providing this Rough Order of Magnitude (ROM) pursuant to request by Hawaii Department of Transportation – Harbors Division to provide program funding for implementation of requirements set forth in Administrative Order (AO) CWA-309(a)-09-023. WESTON provided a cost proposal for Task #5 under Contract #53692 to execute Phase I of the AO requirements. Tasks that require implementation following completion on Phase I are identified below. These tasks and the ROM provided are subject to change pending completion of Phase I requirements.

FUTURE TASKS

- Outfall Reconnaissance Inventory (ORI) - \$50,000 to \$75,000**

This task includes inspection, documentation, and reporting for all outfalls at Honolulu and Kalaeloa Harbors. Inspections will include GPS location verification, structural assessment, and water quality assessments. This task is meant to be an annual requirement under the MS4 permit.

This task assumes HDOT-Harbors will supply a vessel and pilot to complete the inspections. HDOT-Harbors will also coordinate all necessary permits or access agreements with the Harbor Master and tenants.
- Illicit Discharge Detection and Elimination (IDDE) Inspections - \$75,000 to \$150,000**

This task includes inspection of all non-storm water or dry weather flows identified during the ORI to determine the nature, extent, and origin of the discharge. The IDDE inspection will define if the flow is an Illicit or allowable discharge and dictate further actions. The IDDE inspection will require chasing flows upstream as an accurate trunk analysis (utilizing accurate infrastructure maps to trace potential illicit sources) is not possible at this time. WESTON would utilize dye and smoke testing or pipeline video techniques to locate discharge sources. Samples will also be collected to determine the nature of the discharge. All inspected/impacted areas will be documented and locations recorded by GPS. The IDDE inspection report will detail source locations and illicit vs allowable determinations. Recommendations for connection eliminations will also be included in the IDDE report.

This task will require a HDOT-Harbors vessel and pilot as well as complete access to shore side storm water infrastructure. Local subcontractors will be secured for pipeline video requirements. Elimination of the illicit discharge (i.e. cross connection removal) is not included in this task. Enforcement requirements for tenant actions will be HDOT-Harbors responsibility.

3.	<p>2010 Tenant Inspections - \$50,000 to \$75,000</p> <p>This task includes inspection of all Honolulu and Kalaeloa tenant facilities for storm water compliance. Initial and Follow-up inspections and reporting will be conducted. HDOT-Harbors staff will accompany WESTON personnel in two teams. Enforcement actions will be the responsibility of HDOT-Harbors staff.</p> <p>Access to tenant locations will be coordinated by HDOT-Harbors staff. Inspections will be scheduled one month following tenant storm water awareness training and submission of educational materials.</p>
4.	<p>2010 Annual Compliance Report (ACR) - \$25,000 to \$50,000</p> <p>Annual compliance reports will include an evaluation of source reduction based on implementation of the revised Storm Water Management Plans. WESTON will provide budget and funding forecasts for the following year. The ACR will discuss and document all reported spills, discharges, and NOV's. They will also include a comprehensive list of tenants and construction activities.</p> <p>HDOT-Harbors staff will provide comprehensive documentation on all storm water related incidents and construction inspections performed through out the permit year.</p>
5.	<p>Harbor and Tenant Storm Water Awareness Training - \$15,000 to \$30,000</p> <p>WESTON will provide training presentations, instructors, and certificates for storm water awareness training of tenant and HDOT-Harbors personnel. Training sessions will be 2 hours in duration and include a proficiency test. Multiple sessions will be provided to help with tenant schedules.</p> <p>HDOT-Harbors will provide notification, scheduling, and the training facility.</p>
6	<p>Asset Management System Modifications - \$100,000 - \$300,000</p> <p>This task includes development of HDOT-Harbors module onto the existing HDOT-Highways Asset Management System. Further understanding of the existing system and HDOT-Harbors requirements are needed prior to further scope definition. It is anticipated that tenant inspections, construction inspection, ORI, spill reporting, and training information will all be required for the updated system.</p>
7	<p>Kalaeloa Harbor Stockpile Management - \$850,000 - \$1,300,000</p> <p>This task includes implementation of the initial phases of the Dredge Spoil Stockpile Management Plan including stockpile investigation, existing BMP maintenance, and additional BMP installation. The cost assumes the initial estimates of BMP scope and placement. Additional BMP's types and quantities may be required upon further investigation of the stockpiles. The costs are inclusive of management, planning, subcontracting and reporting. Marketing and cost recovery through stockpile reuse are not incorporated in this estimate. Management and execution of any stockpile reuse alternatives have not been incorporated into this estimate.</p>
<p>Total Future Requirements Inclusive of Kalaeloa Stockpile Management - \$1,165,000 to \$1,980,000</p>	

APPENDIX N

DREDGE SPOIL STOCKPILE MANAGEMENT PLAN

Hawaii Department of Transportation – Harbors Division

DREDGE SPOIL STOCKPILE MANAGEMENT PLAN

Kalaeloa Harbor, Hawaii

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2.0 STOCKPILE GENERAL DETAILS
3.0 STOCKPILE MANAGEMENT PLAN
4.0 STOCKPILE BMPs
5.0 FUTURE STOCKPILE REQUIREMENTS

DREDGE SPOIL STOCKPILE MANAGEMENT PLAN

1.0 SITE OVERVIEW

The Kalaeloa Harbor is situated on the Ewa Coastal Plain, which comprises the southwestern corner of the island of Oahu, Hawaii. The Ewa Plain is the largest coastal plain in the Pacific and was created during multiple stages of sea level fluctuation within the Late Pleistocene. The overall topography of the coastal plain is flat, and roughly steps upward in elevation inland where material deposited during past major high stands of the sea intersect. No streams cut across the coastal plain in the vicinity of the Kalaeloa Harbor which reflects both the flatness of the area and the high permeability of the emergent reef deposits which promote infiltration rather than overland flow. In parts of the coastal plain, enclosed depressions of up to 35 feet deep are found which have been interpreted as sinkholes resulting from secondary solution of the emergent reef by infiltrating rainfall.

2.0 STOCKPILE GENERAL DETAILS

There are five stockpiles located at Kalaeloa Harbor which have been stored from accumulated material generated during construction and expansion of Kalaeloa Harbor in Kapolei, Hawaii. The stockpiles have been designated as stockpile 1 through stockpile 5 counterclockwise from the southernmost stockpile to the northernmost as provided in Figure 1-1.

The aerial square footage of the bottom slope perimeter of the stockpiles is presented in Figure 1-1. Stockpile 1 is approximately 106,871 ft², stockpile 2 is approximately 223,328 ft², stockpile 3 is approximately 404,467 ft², stockpile 4 is approximately 373,940 ft², stockpile 5 is approximately 571,988 ft². The height of the stockpiles ranges from 10 to 35 ft based on field estimates. The slope of the stockpile sidewalls ranges from 15 degrees on the south side of stockpile 3 to near shear on the west extreme of stockpile 5.

Neighboring properties to the east and south (bordering Hanua Street) have also been utilized for stockpile material which has since been removed and reused. A majority of the stockpile material is anticipated to be crushed coral based on the site geology and previous soil studies on similar sources. Crushed coral is utilized in Hawaii as a non-expansive fill material for sites designated for buildings and pavement providing it meets certain dimensions, plasticity, and percent composition of fine particles.

3.0 STOCKPILE MANAGEMENT PLAN

The stockpile management plan consists of an integrated approach which begins with the investigation of the stockpile geology and topography and simultaneous investigation and maintenance of existing BMPs. The BMPs presented in Figures 1-2 through 1-5 are based upon

Hawaii Department of Transportation – Harbors Division

DREDGE SPOIL STOCKPILE MANAGEMENT PLAN

Kalaeloa Harbor, Hawaii

field estimates of slope, size, material and site conditions and are subject to change based on initial investigation of the stockpiles.

3.1 Stockpile Investigation

The stockpiles will be surveyed to verify topography, slope and volume. During the survey, the stockpiles will be investigated for stormwater concerns including location of erosion channels, slope stability, surface material composition, and vegetation. Additionally, there are existing BMPs to protect receiving waters from sediment laden flow. These BMPs will be surveyed for location and condition and a punch list will be generated for immediate repair of any deficiencies.

The topography will be utilized to determine the slope of the stockpiles and surrounding area. The volume of the detention basin shown in Figure 1-3 will be determined and calculations will be conducted to verify adequate sizing for the 50 year storm event for the area. Flow direction assumptions will be verified and the planned locations for infiltration trenches will be modified if needed.

A soil characterization will be performed to determine the stockpiled soils particle sizes, maximum and average aggregate sizes, and plasticity index (ASTM Test Method D4318-84). All of this information will be needed to design the infiltration trenches as per EPA guidance document 832-F-99-019. Location of the borings will be determined after topography surveying has been completed and analyzed. All of the BMP's in this initial conceptual design will be reevaluated to verify their ability to manage the runoff flow volumes and material composition generated by their respective stockpiles.

3.2 Stockpile Stormwater BMP Design and Implementation

Based on the investigation an implementable design will be developed which will likely include all of the BMP components in Figures 1-1 through 1-5 although the location and size of each component is likely to change. The chemical stabilization and rip rap entrance components provided in the conceptual design Figure 1-5 will be installed during the implementation phase of the management plan. This will allow for application of all chemical stabilization material and rip rap during the same mobilization. There is approximately 500,000 ft² of chemical stabilization identified.

The geotechnical sample results from the stockpile borings will be utilized to scope and market the material while design of the infiltration trenching and detention pond is being conducted. If there is a strong interest for immediate reuse of the stockpiles the construction stormwater pollution prevention plan will be developed along with a Stockpile Management and Reuse Transportation (SMART) plan to integrate stormwater pollution control into efficient and well defined planning for soil staging, excavation, traffic control, truck loading, documentation, transportation routes and health and safety.

The demand for the material will also dictate the type and location of BMPs so it is important that stockpile marketing and constructed stormwater control design occur simultaneously.

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Kalaeloa Harbor, Hawaii

4.0 STOCKPILE BMPs

Several BMPs have been selected for the site based on site conditions and the requirements to control both wind and water erosion. The location is typically extremely dry and vegetation is difficult to establish without substantial irrigation. Kapolei gets 10.13 inches of rain per year on average and this volume is typically disseminated over the span of 20-25 rain days per year (weather station KHIMAKAK1).

4.1 Infiltration Trenching

The EPA recognizes infiltration trenching as an efficient method of removing suspended solids and particulate pollutants. The captured runoff infiltrates the surrounding soils and increases groundwater recharge. Prior to implementation of infiltration trenches, the subsurface soils all the way to the groundwater table have to be identified so that the flow path and capacity of the subsurface can be determined. Another issue with infiltration trenches is that they can get clogged if they are overloaded with sediment. The recommended sediment buffer strip surrounding the infiltration trench has been integrated into the conceptual design. The infiltration trench will not be useful if the stockpiles are being actively removed. If a stockpile is scheduled for removal, other stormwater BMPs will be utilized and developed in the SMART plan.

4.2 Chemical Stabilization

Chemical stabilizers, also known as soil binders or soil palliatives, provide temporary soil stabilization. Vinyl, asphalt, or rubber are sprayed onto the surface of exposed soils to hold the soil in place and minimize erosion from runoff and wind. These materials are easily applied to the surface of the soil, can stabilize areas where vegetation cannot be established, and provide immediate protection. The manufacturer's specifications will be followed for design of chemical stabilization application to the stockpile sidewalls. Chemical stabilization will not be overused to cover the entire stockpiles because it has the capability to create impervious surfaces which is detrimental to infiltration. Chemical stabilization of the stockpile sidewalls will substantially mitigate wind erosion. To the extent practicable, the first four feet on the top surface of the stockpile should also be treated to mitigate wind erosion due to uplift and vortex air flows near the sidewalls.

4.2 Construction Entrances

The purpose of stabilizing entrances to a construction site is to minimize the amount of sediment leaving the area as mud and sediment attached to vehicles. Installing a pad of gravel over filter cloth where construction traffic leaves a site can help stabilize a construction entrance. As a vehicle drives over the pad, the pad removes mud and sediment from the wheels and reduces soil transport off the site. The filter cloth separates the gravel from the soil below, keeping the gravel from being ground into the soil. The fabric also reduces the amount of rutting caused by vehicle tires. It spreads the vehicle's weight over a soil area larger than the tire width.

4.3 Rip Rap

Riprap is a layer of large stones used to protect soil from erosion in areas of concentrated runoff. Riprap can also be used on slopes that are unstable because of seepage problems. Smaller diameter rip rap will be utilized to stabilize erosion

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Kalaeloa Harbor, Hawaii

channels that were observed during initial field investigations including the site pictured in Figure 1-5.

4.4 Sediment Barriers

Sediment barriers are perimeter sediment control structures constructed of concrete piles left over from harbor construction activities. Filter cloth is installed at structural gaps to improve barrier efficiency. The sediment barriers provide for an efficient line of defense that can be constructed to completely surround the stockpiles.

4.5 Vegetated Bench

Vegetated filter strips (grassed filter strips, filter strips, and grassed filters) are vegetated surfaces that are designed to treat sheet flow from adjacent surfaces. Filter strips function by slowing runoff velocities and filtering out sediment and other pollutants, and by providing some infiltration into underlying soils. Filter strips were originally used as an agricultural treatment practice, and have more recently evolved into an urban practice. With proper design and maintenance, filter strips can provide relatively high pollutant removal. One challenge associated with filter strips, however, is that it is difficult to maintain sheet flow, so the practice may be "short circuited" by concentrated flows, receiving little or no treatment.

4.6 Vegetated Swale

If the initial investigation identifies locations that would benefit from installation of a vegetated swale, certain design criteria need to be followed in order to produce an effective control. Plant selection for this region of the island is critical. The following plants would potentially be able to survive the soil and precipitation conditions at Kalaeloa Harbor:

- i. **'Ae'ae** (*Bacopa monnieri*) Extremely dense low ground cover; supreme soil erosion stopper as it roots at every node; will become a thick carpet of bright green with regular watering; tiny bluish to white flowers bloom constantly; thrives equally well on land with regular watering or in extremely wet conditions (i.e. in the bed of a slow-flowing stream or around the edge of a pond)
- ii. **'Akulikuli** (*Sesuvium portulacastrum*) A thick & elegant ground cover with vibrant reddish stems, succulent green leaves & dazzling purplish-pink flowers; extremely tolerant to full sun, drought, wind, salt spray & sandy soil conditions; ideal for beachside gardens or any landscape location
- iii. **Naio papa** (*Myoporum sandwicense*) Glossy leaves, tiny pink to white flowers & clusters of small white to yellow fruit are identical to those of the regular Naio shrub; naturally evolved to tolerate full sun, drought, wind, salt spray & sandy soil conditions.
- iv. **Pohinahina** (*Vitex rotundifolia*) The native Hawaiian Beach Vitex; arguably Hawaii's most hardy native plant; thrives in almost any sun, soil, water, or environmental condition; sends out long runners covered with stunning silvery-green leaves & purple flower clusters; excellent ground cover which cascades beautifully down lava rock retaining walls & over embankments;

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DREDGE SPOIL STOCKPILE MANAGEMENT PLAN

Kalaeloa Harbor, Hawaii

sweet spicy aroma adds a pleasant scent to any garden or landscape; exceptional replacement plant for the weedy & invasive *Wedelia*

- v. **Pa'u o hi'iaka** (*Jacquemontia ovalifolia* subsp. *sandwicensis*) Outstanding soil stabilizing ground cover with long runners that root at almost every node; alluring trumpet shaped white to light blue flowers bloom constantly; resistant to drought, wind & salt spray; grows equally well in both normal & sandy soil types.

Although these plant selections are relatively drought tolerant, irrigation either by water truck or through some form of water well or water storage system would need to be implemented in order to maintain a plant loading that would supply enough leaf surface area to filter sediments out of the flow. Soil treatment prior to planting would also assist in the probability that the vegetated swale would succeed. Low quality mulch would be sufficient to mend the coralline soils and should be distributed well in advance of planting.

5.0 FUTURE STOCKPILE REQUIREMENTS

Any future construction activity that might anticipate adding to the dredge spoil stockpiles should be accompanied at minimum by a construction SPPP and should also include a SMART plan to incorporate soil staging, excavation, traffic control, truck loading, documentation, transportation routes and health and safety.

Future stockpiles should also adhere to the current industry standard construction specifications calling for properly placed and stabilized spoil piles to reduce soil erosion. Spoil piles should be located a minimum of eight feet from the top of the bank of drainage swales and slope landward to prevent drainage from the spoil pile back into the waterway. To prevent wind and water erosion, piles should not be steeper than 3:1 on any single edge. Stormwater BMPs should be implemented prior to or at the first groundbreaking of construction so that pollution controls are in place prior to activities that have the potential to pollute a waterway.

Reuse of the stockpile material and management of the same shall be incorporated into the initial construction design, contracting scope, and budget of any new expansion so that long term storage of stockpiles does not become standard practice.

If there are any industry standards that provide guidance contradicting this document, the more stringent of the guidance shall dictate the rule. Any approved amendments or additions to this document may be approved and initiated outside of the storm water management plan (SWMP) in which the original version of this document was established.

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Kalaeloa Harbor, Hawaii

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SOLUTIONS

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KALAELOA STOCKPILE 1 & 2

Kalaeloa Harbor, Oahu, Hawaii

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DESCRIPTION OF REGION

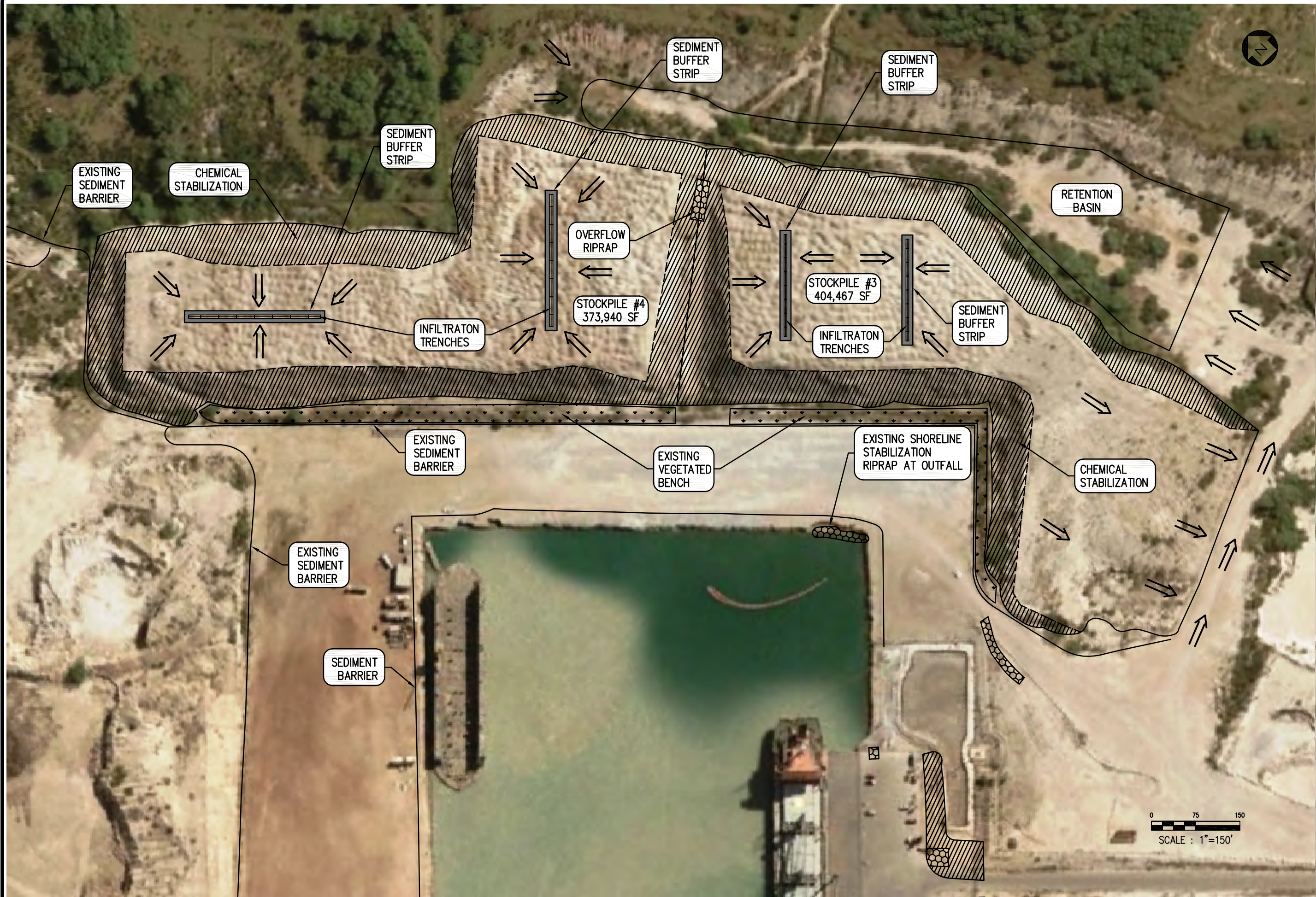
FIGURE


1-2

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Kalaeloa Harbor, Hawaii

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KALAELOA STOCKPILE 3 & 4
Kalaeloa Harbor, Oahu, Hawaii

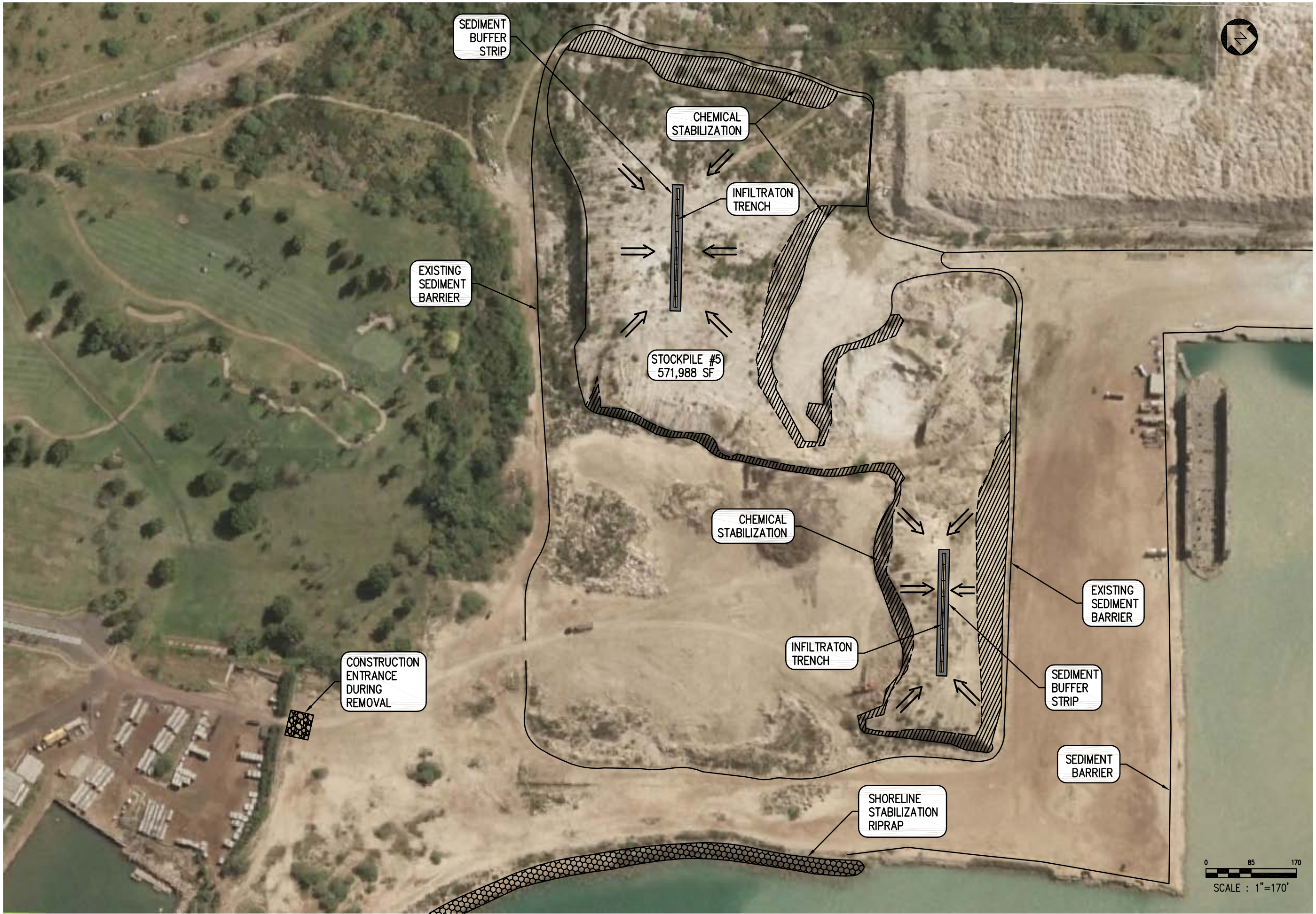
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FIGURE

1-3

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WORK ORDER NUMBER

KALAELOA STOCKPILE 5

Kalaeloa Harbor, Oahu, Hawaii

GRAPHIC SCALE

DESCRIPTION OF REGION

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REVISION

FIGURE

1-4

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DREDGE SPOIL STOCKPILE MANAGEMENT PLAN
Kalaeloa Harbor, Hawaii

ATTACHMENT A:
EPA STORMWATER TECHNOLOGY FACT SHEET
Infiltration Trench

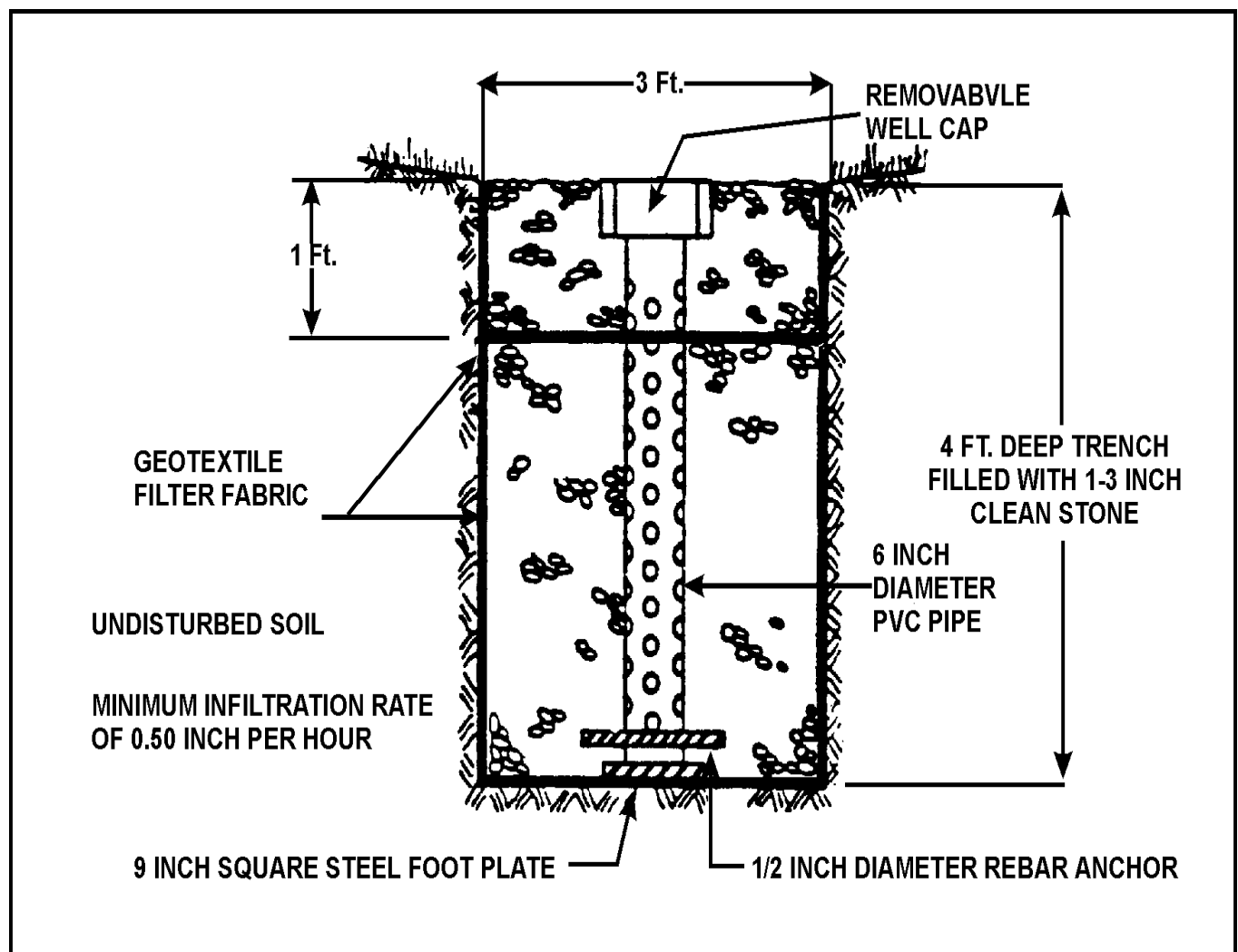


Storm Water Technology Fact Sheet Infiltration Trench

DESCRIPTION

Urban development is significantly increasing surface runoff and contamination of local watersheds. As a result, infiltration practices, such as infiltration trenches, are being employed to remove suspended solids, particulate pollutants,

coliform bacteria, organics, and some soluble forms of metals and nutrients from storm water runoff. As shown in Figure 1, an infiltration trench is an excavated trench, 0.9 to 3.7 meters (3 to 12 feet) deep, backfilled with a stone aggregate, and lined with filter fabric. A small portion of the runoff, usually the first flush, is diverted to the infiltration



Source: Southeastern Wisconsin Regional Planning Commission, 1991.

FIGURE 1 TYPICAL INFILTRATION TRENCH

trench, which is located either underground or at grade. Pollutants are filtered out of the runoff as it infiltrates the surrounding soils. Infiltration trenches also provide groundwater recharge and preserve baseflow in nearby streams.

APPLICABILITY

Infiltration trenches are often used in place of other Best Management Practices where limited land is available. Infiltration trenches are most widely used in warmer, less arid regions of the U.S. However, recent studies conducted in Maryland and New Jersey on trench performance and operation and maintenance have demonstrated the applicability of infiltration trenches in colder climates if surface icing is avoided (Lindsey, et al, 1991).

Infiltration trenches capture and treat small amounts of runoff, but do not control peak hydraulic flows. Infiltration trenches may be used in conjunction with another Best Management Practice (BMP), such as a detention pond, to provide both water quality control and peak flow control (Harrington, 1989). Figure 2 is an example of such a combined technology. This type of infiltration trench has a concentrated input, as opposed to dispersed input (as shown in Figure 1). This system stores the entire storm water volume with the water quality (BMP) volume connected to the infiltration system. This is commonly achieved with a slow release of the storm water management volume through an orifice set at a specified level in the storage facility. As a result the BMP water quality volume will equal the storm water detention area below the orifice level which must infiltrate to exit.

Runoff that contains high levels of sediments or hydrocarbons (oil and grease) that may clog the trench are often pretreated with other BMPs. Examples of some pretreatment BMPs include grit chambers, water quality inlets, sediment traps, swales, and vegetated filter strips (SEWRPC, 1991, Harrington, 1989).

ADVANTAGES AND DISADVANTAGES

Infiltration trenches provide efficient removal of suspended solids, particulate pollutants, coliform bacteria, organics and some soluble forms of metals and nutrients from storm water runoff. The captured runoff infiltrates the surrounding soils and increases groundwater recharge and baseflow in nearby streams.

Negative impacts include the potential for groundwater contamination and a high likelihood of early failure if not properly maintained.

As with any infiltration BMP, the potential for groundwater contamination must be carefully considered, especially if the groundwater is used for human consumption or agricultural purposes. The infiltration trench is not suitable for sites that use or store chemicals or hazardous materials unless hazardous and toxic materials are prevented from entering the trench. In these areas, other BMPs that do not interact with the groundwater should be considered. The potential for spills can be minimized by aggressive pollution prevention measures. Many municipalities and industries have developed comprehensive spill prevention control and countermeasure (SPCC) plans. These plans should be modified to include the infiltration trench and the contributing drainage area. For example, diversion structures can be used to prevent spills from entering the infiltration trench.

Because of the potential to contaminate groundwater, extensive site investigation must be undertaken early in the site planning process to establish site suitability for the installation of an infiltration trench. The use of infiltration trenches may be limited by a number of factors, including type of native soils, climate, and location of groundwater tables. Site characteristics, such as excessive slope of the drainage area, fine-particled soil types, and proximate location of the water table and bedrock, may preclude the use of infiltration trenches. The slope of the surrounding area should be such that the runoff is evenly distributed in sheet flow as it enters the trench unless specifically designed for concentrated input. Generally, infiltration trenches are not suitable for areas with relatively impermeable soils containing clay and silt

or in areas with fill. The trench should be located well above the water table so that the runoff can filter through the trench and into the surrounding soils and eventually into the groundwater. In addition, the drainage area should not convey heavy levels of sediments or hydrocarbons to the trench. For this reason, trenches serving parking lots must be preceded by appropriate pretreatment such as an oil-grit separator. This measure will make effective maintenance feasible. Generally, trenches that are constructed under parking lots must provide access for maintenance.

An additional limitation on use of infiltration trenches is the climate. In cold climates, the trench surface may freeze, thereby preventing the runoff from entering the trench and allowing the untreated runoff to enter surface water. The surrounding soils may also freeze, reducing infiltration into the soils and groundwater. However, recent studies indicate that if properly designed and maintained, infiltration trenches can operate effectively in colder climates. By keeping the trench surface free of compacted snow and ice, and by ensuring that part of the trench is constructed below the frost line, the performance of the infiltration trench during cold weather will be greatly improved.

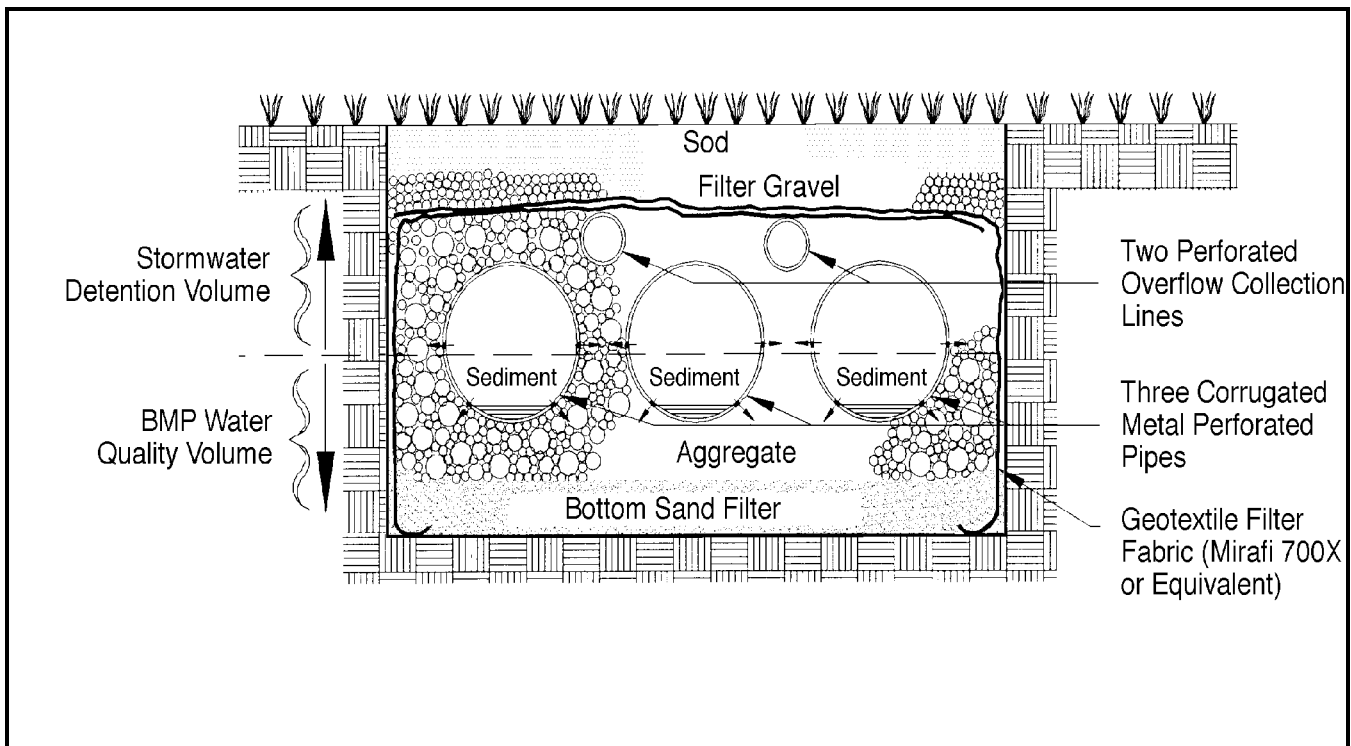
Finally, there have been a number of concerns raised about the long term effectiveness of infiltration trench systems. In the past, infiltration trenches have demonstrated a relatively short life span, with over 50 percent of the systems checked having partially or completely failed after 5 years. A recent study of infiltration trenches in Maryland (Lindsey et al., 1991) found that 53 percent were not operating as designed, 36 percent were partially or totally clogged, and another 22 percent exhibited slow filtration. Longevity can be increased by careful geotechnical evaluation prior to construction and by designing and implementing an inspection and maintenance plan. Soil infiltration rates and the water table depth should be evaluated to ensure that conditions are satisfactory for proper operation of an infiltration trench. Pretreatment structures, such as a vegetated buffer strip or water quality inlet, can increase longevity by removing sediments, hydrocarbons, and other materials that may clog the trench. Regular maintenance, including the

replacement of clogged aggregate, will also increase the effectiveness and life of the trench.

DESIGN CRITERIA

Prior to trench construction, a review of the design plans may be required by state and local governments. The design plans should include a geotechnical evaluation that determines the feasibility of using an infiltration trench at the site. Soils should have a low silt and clay content and have infiltration rates greater than 1.3 centimeters (0.5 inches) per hour. Acceptable soil texture classes include sand, loamy sand, sandy loam and loam. These soils are within the A or B hydrologic group. Soils in the C or D hydrologic groups should be avoided. Soil survey reports published by the Soil Conservation Service can be used to identify soil types and infiltration rates. However, sufficient soil borings should always be taken to verify site conditions. Feasible sites should have a minimum of 1.2 meters (4 feet) to bedrock in order to reduce excavation costs. There should also be at least 1.2 meters (4 feet) below the trench to the water table to prevent potential ground water problems. Trenches should also be located at least 30.5 meters (100 feet) upgradient from water supply wells and 30.5 meters (100 feet) from building foundations. Land availability, the depth to bedrock, and the depth to the water table will determine whether the infiltration trench is located underground or at grade. Underground trenches receive runoff through pipes or channels, whereas surface trenches collect sheet flow from the drainage area.

In general, infiltration trenches are suitable for drainage areas up to 4 hectares (10 acres) (SEWRPC, 1991, Harrington, 1989). However, when the drainage area exceeds 2 hectares (5 acres), other BMPs should be carefully considered. The drainage area must be fully developed and stabilized with vegetation before constructing an infiltration trench. High sediment loads from unstabilized areas will quickly clog the infiltration trench. Runoff from unstabilized areas should be diverted away from the trench into a construction BMP until vegetation is established.



Source: Fairfax County Soils Office, 1991.

FIGURE 2 INFILTRATION TRENCH WITH CONCENTRATED INPUT AND AUGMENTED PIPE STORAGE

The drainage area slope determines the velocity of the runoff and also influences the amount of pollutants entrained in the runoff. Infiltration trenches work best when the upgradient drainage area slope is less than 5 percent (SEWRPC, 1991). The downgradient slope should be no greater than 20 percent to minimize slope failure and seepage.

The trench surface may consist of stone or vegetation with inlets to evenly distribute the runoff entering the trench (SEWRPC, 1991, Harrington, 1989). Runoff can be captured by depressing the trench surface or by placing a berm at the down gradient side of the trench.

The basic infiltration trench design utilizes stone aggregate in the top of the trench to promote filtration; however, this design can be modified by substituting pea gravel for stone aggregate in the top 0.3 meter (1 foot) of the trench. The pea gravel improves sediment filtering and maximizes the pollutant removal in the top of the trench. When the modified trenches become clogged, they can generally be restored to full performance by removing and replacing only the pea gravel layer, without replacing the lower stone aggregate layers.

Infiltration trenches can also be modified by adding a layer of organic material (peat) or loam to the trench subsoil. This modification appears to enhance the removal of metals and nutrients through adsorption. The trenches are then covered with an impermeable geotextile membrane overlain with topsoil and grass (Figure 2).

A vegetated buffer strip (6.1 to 7.6 meters, or 20-25 feet, wide) should be established adjacent to the infiltration trench to capture large sediment particles in the runoff. The buffer strip should be installed immediately after trench construction using sod instead of hydroseeding (Schueler, 1987). The buffer strip should be graded with a slope between 0.5 and 15 percent so that runoff enters the trench as sheet flow. If runoff is piped or channeled to the trench, a level spreader must be installed to create sheet flow (Harrington, 1989).

During excavation and trench construction, only light equipment such as backhoes or wheel and ladder type trenchers should be used to minimize compaction of the surrounding soils. Filter fabric should be placed around the walls and bottom of the trench and 0.3 meters (1 foot) below the trench

surface. The filter fabric should overlap each side of the trench in order to cover the top of the stone aggregate layer (see Figure 1). The filter fabric prevents sediment in the runoff and soil particles from the sides of the trench from clogging the aggregate. Filter fabric that is placed 0.3 meters (1 foot) below the trench surface will maximize pollutant removal within the top layer of the trench and decrease the pollutant loading to the trench bottom, reducing frequency of maintenance.

The required trench volume can be determined by several methods. One method calculates the volume based on capture of the first flush, which is defined as the first 1.3 centimeters (0.5 inches) of runoff from the contributing drainage area (SEWRPC, 1991). The State of Maryland (MD., 1986) also recommends sizing the trench based on the first flush, but defines first flush as the first 1.3 centimeters (0.5 inches) from the contributing impervious area. The Metropolitan Washington Council of Governments (MWCOG) suggests that the trench volume be based on the first 1.3 centimeters (0.5 inches) per impervious acre or the runoff produced from a 6.4 centimeter (2.5 inch) storm. In Washington D.C., the capture of 1.3 centimeters (0.5 inches) per impervious acre accounts for 40 to 50 percent of the annual storm runoff volume. The runoff not captured by the infiltration trench should be bypassed to another BMP (Harrington, 1989) if treatment of the entire runoff from the site is desired.

Trench depths are usually between 0.9 and 3.7 meters (3 and 12 feet) (SEWRPC, 1991, Harrington, 1989). However, a depth of 2.4 meters (8 feet) is most commonly used (Schueler, 1987). A site specific trench depth can be calculated based on the soil infiltration rate, aggregate void space, and the trench storage time (Harrington, 1989). The stone aggregate used in the trench is normally 2.5 to 7.6 centimeters (1 to 3 inches) in diameter, which provides a void space of 40 percent (SEWRPC, 1991, Harrington, 1989, Schueler, 1987).

A minimum drainage time of 6 hours should be provided to ensure satisfactory pollutant removal in the infiltration trench (Schueler, 1987, SEWRPC, 1991). Although trenches may be designed to

provide temporary storage of storm water, the trench should drain prior to the next storm event. The drainage time will vary by precipitation zone. In the Washington, D.C. area, infiltration trenches are designed to drain within 72 hours.

An observation well is recommended to monitor water levels in the trench. The well can be a 10.2 to 15.2 centimeter (4 to 6 inch) diameter PVC pipe, which is anchored vertically to a foot plate at the bottom of the trench as shown in Figure 1 above. Inadequate drainage may indicate the need for maintenance.

PERFORMANCE

Infiltration trenches function similarly to rapid infiltration systems that are used in wastewater treatment. Estimated pollutant removal efficiencies from wastewater treatment performance and modeling studies are shown in Table 1.

Based on this data, infiltration trenches can be expected to remove up to 90 percent of sediments, metals, coliform bacteria and organic matter, and up to 60 percent of phosphorus and nitrogen in the runoff (Schueler, 1992). Biochemical oxygen demand (BOD) removal is estimated to be between 70 to 80 percent. Lower removal rates for nitrate, chlorides and soluble metals should be expected,

TABLE 1 TYPICAL POLLUTANT REMOVAL EFFICIENCY

Pollutant	Typical Percent Removal Rates
Sediment	90%
Total Phosphorous	60%
Total Nitrogen	60%
Metals	90%
Bacteria	90%
Organics	90%
Biochemical Oxygen Demand	70-80%

Source: Schueler, 1992.

especially in sandy soils (Schueler, 1992).

Pollutant removal efficiencies may be improved by using washed aggregate and adding organic matter and loam to the subsoil. The stone aggregate should be washed to remove dirt and fines before placement in the trench. The addition of organic material and loam to the trench subsoil will enhance metals and nutrient removal through adsorption.

OPERATION AND MAINTENANCE

Infiltration, as with all BMPs, must have routine inspection and maintenance designed into the life performance of the facility. Maintenance should be performed as indicated by these routine inspections. The principal maintenance objective is to prevent clogging, which may lead to trench failure. Infiltration trenches and any pretreatment BMPs should be inspected after large storm events and any accumulated debris or material removed. A more thorough inspection of the trench should be conducted at least annually. Annual inspection should include monitoring of the observation well to confirm that the trench is draining within the specified time. Trenches with filter fabric should be inspected for sediment deposits by removing a small section of the top layer. If inspection indicates that the trench is partially or completely clogged, it should be restored to its design condition.

When vegetated buffer strips are used, they should be inspected for erosion or other damage after each major storm event. The vegetated buffer strip should have healthy grass that is routinely mowed. Trash, grass clippings and other debris should be removed from the trench perimeter and should be disposed properly. Trees and other large vegetation adjacent to the trench should also be removed to prevent damage to the trench.

COSTS

Construction costs include clearing, excavation, placement of the filter fabric and stone, installation of the monitoring well, and establishment of a vegetated buffer strip. Additional costs include planning, geotechnical evaluation, engineering and permitting. The Southeastern Wisconsin Regional Planning Commission (SEWRPC, 1991) has

developed cost curves and tables for infiltration trenches based on 1989 dollars. The 1993 construction cost for a relatively large infiltration trench (i.e., 1.8 meters (6 feet) deep and 1.2 meters (4 feet) wide with a 68 cubic meter (2,400 cubic feet) volume) ranges from \$8,000 to \$19,000. A smaller infiltration trench (i.e., 0.9 meters (3 feet) deep and 1.2 meters (4 feet) wide with a 34 cubic meter (1,200 cubic feet) volume) is estimated to cost from \$3,000 to \$8,500.

Maintenance costs include buffer strip maintenance and trench inspection and rehabilitation. SEWRPC (1991) has also developed maintenance costs for infiltration trenches. Based on the above examples, annual operation and maintenance costs would average \$700 for the large trench and \$325 for the small trench. Typically, annual maintenance costs are approximately 5 to 10 percent of the capital cost (Schueler, 1987). Trench rehabilitation, may be required every 5 to 15 years. Cost for rehabilitation will vary depending on site conditions and the degree of clogging. Estimated rehabilitation costs run from 15 to 20 percent of the original capital cost (SEWRPC, 1991).

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