

# **Annual Compliance Report 2010**

**Kalaeloa Barbers Point Harbor, Hawaii**



**Prepared for**

**Hawaii Department of Transportation  
Harbors Division**

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**January 2011**



*"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."*

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Signature

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Date

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Authorized Representative of Harbors Division



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## LIST OF ACRONYMS AND ABBREVIATIONS

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ACR	Annual Compliance Report
BMP	Best Management Practice
CFR	Code of Federal Regulations
CSRCP	Construction Site Runoff Control Program
CWB	Clean Water Branch
EMS	Environmental Management System Manual
HAR	Hawaii Administrative Rules
HAR-EE	Harbors Division Environmental Engineering Section
HAR-OE	Harbors Division Oahu District Enforcement
HDOH	Hawaii Department of Health
HDOT	Hawaii Department of Transportation
Honolulu Tower	Honolulu Harbor Marine Traffic Control Tower
HRS	Hawaii Revised Statutes
IDDE	Illicit Discharge Detection and Elimination
IEP	Inspection and Enforcement Plan
KBPH	Kalaeloa Barbers Point Harbor
LIDS	Low Impact Development Standards
MEP	Maximum Extent Practicable
MS4	Municipal Separate Storm Sewer System
NA	Not Applicable
NGPC	Notice of General Permit Coverage
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
NSWD	Non-Stormwater Discharge
ORI	Outfall Reconnaissance Inventory
SWMP	Stormwater Management Plan
SWPPP	Stormwater Pollution Prevention Plan
TBD	To Be Determined
TMK	Tax Map Key

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**LIST OF ACRONYMS AND ABBREVIATIONS, CONTINUED**

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TRP	Tenant Revocable Permit
TSI	Tenant Self-Inspection
USEPA	U.S. Environmental Protection Agency
WESTON	Weston Solutions, Inc.

## 1.0 INTRODUCTION

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The Hawaii Department of Transportation (HDOT), Harbors Division has developed this Annual Compliance Report (ACR) for the Hawaii Department of Health (HDOH) in accordance with its Notice of General Permit Coverage (NGPC), permit number HI03KB488. The ACR details activities conducted by Harbors Division to comply with the requirements of its permit and to keep a record of progress toward yearly goals.

The ACR follows the format and organization of the Storm Water Management Plan (SWMP) to facilitate comparison between planned activities and activities that were accomplished. The ACR describes efforts made by Harbors Division to implement the six minimum control measures established by the United States Environmental Protection Agency (USEPA) and as required by the Hawaii Administrative Rules (HAR) 11-55 Appendix K and the NGPC. This report identifies activities completed during calendar year 2010 and presents areas that will be addressed in calendar year 2011. The following is included in this ACR:

- ✓ Status of Compliance;
- ✓ Assessment of the SWMP minimum control measures:
  - 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;
  - Pollution prevention/good housekeeping;
- ✓ Modifications to the SWMP;
- ✓ Summary of Planned Activities;
- ✓ Modifications to the Small Municipal Separate Storm Sewer System (MS4); and
- ✓ Summary of Future and Expended Budget Requirements



### 1.1 APPLICABLE REGULATIONS

It is the intention of HDOT Harbors that this ACR demonstrates compliance with the following regulations listed in the NGPC:

- ✓ HAR, Chapter 11-55, Appendix K, National Pollutant Discharge Elimination System (NPDES) General Permit Authorizing Discharges of Storm Water and Certain Non-Storm Water Discharges from Small Municipal Separate Storm Sewer Systems;

- ✓ HAR, Chapter 11-55, Appendix A, HDOH, Standard General Permit Conditions; and
- ✓ HAR, Sections 11-55-34.04(a), 11-55-34.07, 11-55-34.11, 11-55-34.12, and any other applicable Sections of HAR, Chapter 11-55.

## **1.2 STATUS OF COMPLIANCE**

HAR Chapter 11-55 Appendix K authorizes discharges of storm water and certain non-stormwater discharges from small MS4s. Prior NGPC for the storm drain system was granted by HDOH. In a letter dated October 19, 2007 HDOH provided for an extension of the NGPC until a notice of renewed coverage under the applicable general permit is issued or until HDOH notification is received. This extension is in accordance with HAR, Chapter 11-55-34.09(d). The original permit and letter of extension can be found in Appendix A of this document.

## **1.3 SWMP PERFORMANCE EVALUATION**

A process for conducting an annual performance and effectiveness evaluation of the SWMP has been developed and included in this ACR. This evaluation addresses specific direct and indirect measurements in order to track the long-term progress of the SWMP towards achieving improvements in water quality.

The SWMP contains Best Management Practice (BMP) tables that outline activities that are either occurring or will be implemented in the future to ensure each of the minimum control measures are being implemented. Each BMP task is assigned a specific evaluation indicator, milestone, time frame/due date, and responsible party. The ACR is structured such that each section and BMP table corresponds with those in the SWMP. This allows the ACR to be used as an evaluation tool, addressing conformance with established performance standards, quantitative monitoring, estimates of pollutant load reductions or increases, and detailed accounting of SWMP accomplishments.

As trends are detected and the usefulness of specific BMPs or their evaluation indicators become apparent, the SWMP will be modified to ensure the program is protective of the receiving waters.

The 2009 SWMP and ACR establish a baseline from which evaluations in future ACRs can be made. Harbors has committed resources to executing programs described in the 2009 SWMP, and will continue each year to implement new initiatives based on available budget and resources. All ongoing and new activities will be reported in the ACR.

## 2.0 PUBLIC EDUCATION AND OUTREACH

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### 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:*

- (B) Hazards associated with illicit discharges, and*
- (A) Impacts of stormwater discharges on water bodies,*
- (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.*

## 2.1 TENANT EDUCATION AND OUTREACH

Harbors Division requires tenants to reduce to the maximum extent practicable (MEP) pollution in storm water discharges and effectively prohibit unauthorized non-storm water discharges into the MS4 through its tenant lease agreements and Tenant Revocable Permit (TRP), which are attached as Appendix B.

An inventory of tenants at Kalaeloa Barbers Point Harbor (KBPH) is kept on file at Harbors Environmental Section and has been updated this year to include all current tenants. The tenant inventory identifies primary and alternate environmental contacts for each tenant. Personnel identified in the inventory are deemed responsible for implementation of storm water protection measures and BMP requirements at their facility. Please see BMP 2-1. The tenant inventory can be found in Appendix C, and has been updated to reflect changes from 2010.

Harbors Division sends out an annual mailing to Small MS4 users in order to educate them on storm water quality issues, and collect data on tenant operations for updating the database. The 2010 mailing was sent on 27 September and included:

- A cover letter from the HDOT Harbors Administrator
  - Defined the regulatory background
  - Invited all tenants to attend Tenant Storm Water Pollution Prevention Awareness Training
  - Informed all tenants of the anticipated inspection schedule
- The Tenant Self-Inspection (TSI) form
  - Returned forms utilized for updating and tracking tenant operations and contact information
- The tenant inspection checklist
  - Provide advanced understanding of the inspection requirements
  - Allowed tenants to review and ask questions or seek further guidance prior to the inspections
- New BMP flyers
  - “Vehicle and Equipment Washing” Flier. The flier describes the flow pathway of pollutants into the storm drains, the responsibility of tenants to operate within parameters of the Harbors SWMP, and solutions the tenant may implement to stay in compliance.
  - “Vehicle and Equipment Fueling” Flier. The flier describes administrative and structural controls that are required to be implemented in order to prevent the flow of fuel-related pollutants into the storm drains.

A copy of this mailing and its attachments can be found in Appendix D. The updated TSI database for KBPH is found in Appendix E. Future tenant mailings will be updated with new BMP flyers based on findings from the annual tenant inspections.

On November 3 and 5, 2010 Harbors Division held annual tenant educational workshops entitled, “Tenant Storm Water Pollution Prevention Awareness Training.” The agenda included background on applicable regulations presented by a HDOH Clean Water Branch (CWB) representative, followed by Harbors General Permit requirements for Small MS4s, information on pollution prevention and good housekeeping, notification of upcoming facility inspections, the structure of the Inspection and Enforcement Program (IEP), emergency contact information, and a question and answer session. A copy of the presentation and tenant attendance record are provided as Appendix F.

Harbors Division has maintained a hotline for storm water information and discharge reporting since October 22, 2009. Please see BMP 2-1. The hotline is reachable by dialing (808)-587-1962. The hotline number is a direct line to the Harbors Division Environmental Engineer. Harbors Environmental Section maintains records of calls, follow-up inspection dates and findings,

enforcement actions taken, and resolutions in the Harbors Division Environmental Engineering Section (HAR-EE) Spill Documentation Form. Although no calls were received from the public, calls from the Honolulu Harbor Marine Traffic Control Tower (Honolulu Tower) were received as required notification after environmental incidents, which were recorded in the spill documentation form. Please see Appendix G for the HAR-EE Spill Documentation Forms.

### BMP 2-1 Tenant Education and Outreach

Goals: 1) Generate tenant awareness of storm water pollution. 2) Engage tenant interest in preventing storm water pollution. 3) Promote positive tenant behavior changes that reduce pollution or opportunities for pollution.					
Activity	Evaluation Indicators (or Measurable Goals)	Milestones	Date Performed	Action Performed by	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	Sept 2010	Weston Solutions, Inc. (Weston)	Items were updated to include vehicle fueling and washing.
	Percentage of tenants' feedback about the updates that are positive	At least 50% of feedback positive	Not Applicable (NA)	Harbors Environmental Section	No feedback received.
Review TSI responses from tenants	Percentage of tenants responsive to the TSI Form	Greater than 90% of tenants	Ongoing	Harbors Environmental Section	To Be Determined (TBD) by December 2011
Mail educational materials and reporting contacts to tenants	Number of educational materials distributed	100% of tenants received educational materials and reporting contacts	Registered mail receipt varies	Harbors Environmental Section	206 mailings were sent (Honolulu Harbor and KBPH)
	Responses on TSI Form show improvement in storm water awareness	Completeness of TSI forms increasing from previous year	Registered mail receipt varies	Harbors Environmental Section	Include TSI guidance with 2011 flyer
Establish a reporting/complaint tracking system to log response & enforcement	Create a hotline system for reporting violations and answering questions	Create and maintain one hotline number	22 Sept 2009	Harbors Environmental Section	Hotline established



continue to foster relationships with other State agencies and develop new programs for public education and outreach in 2011.

**BMP 2-2      General Public Education and Outreach**

Goals: 1) Generate tenant awareness of storm water pollution. 2) Engage tenant interest in preventing storm water pollution. 3) Promote positive tenant behavior changes that reduce pollution or opportunities for pollution.					
Activity	Evaluation Indicators (or Measurable Goals)	Milestones	Date Performed	Action Performed by	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	NA	Harbors Environmental Section	Tenant inspections identified optimal public locations for signs. Signs will be created and posted in 2011
	Storm drains with “flows to ocean” stenciling	Number of drains stenciled	NA	Harbors Environmental Section	Collected contact information for tenant volunteers for stenciling activity. Activity to be held in 2011.
	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	NA	Harbors Environmental Section	Will be tracked in 2011.
Create/update runoff water quality presentations on Harbors Division website	Create/update presentation and post to website	Presentation is posted	Ongoing	Weston/Harbors Environmental Section	Presentation created and will be posted in 2011
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	TBD	Harbors Environmental Section; Harbors web master	Website posting to be completed in 2011

Goals: 1) Generate tenant awareness of storm water pollution. 2) Engage tenant interest in preventing storm water pollution. 3) Promote positive tenant behavior changes that reduce pollution or opportunities for pollution.					
Activity	Evaluation Indicators (or Measurable Goals)	Milestones	Date Performed	Action Performed by	Status/ Comments
Set up and solicit a volunteer cleanup or storm drain stenciling activity	Participation in activities.	At least one of the listed activities	NA	Harbors Environmental Section	Volunteer solicitation conducted and activity will be implemented in 2011
	Number of employee and public participants	An increase in participation from previous year	NA	Harbors Environmental Section	Tenant solicitation during training resulted in increased volunteer commitment
Post public awareness advertisement in local newspaper or magazine to educate the general public on storm water pollution control	Number of advertisements sponsored	One per year	NA	Harbors Environmental Section	No advertisement posted in 2010.

### 2.3 VESSEL OPERATORS EDUCATIONAL PROGRAM

Outreach to vessel operators docking at Harbors Division facilities ensures awareness of potential pollutant sources associated with vessel operation in the harbor, including vessel equipment wash water and polluted deck wash-down water, and vessel maintenance. A used oil educational flier was distributed to vessel operators and is available in the 2009 SWMP.

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 storm water pollution control compliance. Harbors is developing a tracking system for Marine Cargo Specialist monitoring records, which will include storm water observations. The monitoring records will be tracked following Marine Cargo Specialist training in 2011. Please see BMP 2-3.

**BMP 2-3      Expand the Educational Program to Vessel Operators**

Goal: Minimize discharge of pollutants to receiving waters within the harbors					
Activity	Evaluation Indicators (or Measurable Goals)	Milestones	Date Performed	Action Performed by	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	NA	Harbors Oahu District; Marine Cargo Specialists; Harbor Agents	To be implemented in 2011
	Number of Marine Cargo Specialist Attending Annual Storm water Training	Increasing attendance	NA	Harbors Oahu District; Marine Cargo Specialists; Harbor Agents	Training to occur in 2011
	Number of actions taken as a result of loading and unloading monitoring	For informational purposes	NA	Harbors Environmental Section; Marine Cargo Specialists; Harbor Agents	No monitoring performed
Develop and maintain inventory of ships agents responsible for tracking vessel operators and provide educational materials	Percentage of ships agents in inventory	100% of ships agents identified	NA	Harbors Environmental Section; Marine Cargo Specialists; Harbor Agents	Ships agents identified in tenant inspections and inventory will be developed in 2011
	Percentage of ships agents receiving educational materials	100% of ships agents received materials	NA	Harbors Environmental Section; Marine Cargo Specialists; Harbor Agents	Educational materials distributed in training. Total number of agents TBD.

## 2.4 INSPECTION AND PROGRESSIVE ENFORCEMENT PROGRAM

A tenant and user inspection and enforcement program has been developed as part of Harbor's Environmental Management System (EMS). This program identifies, tracks, inspects and ensures compliance with the Harbor Division's tenant lease agreements and TRPs. As part of the inspection and progressive enforcement program, the inventory of businesses and industries currently operating at the Harbor has been updated (Appendix C). Inspection and Illicit Discharge Detection and Elimination (IDDE) findings are further discussed in Section 4.0.

Harbors completed inspection of all of its KBPH tenants in 2010. Inspection of and outreach to commercial and industrial tenants was conducted to ensure the following:

- ✓ Establish a baseline of the level of compliance of tenants and where outreach efforts should be focused;
- ✓ The facility operator has been made aware of storm water pollution prevention requirements and the consequences of non-compliance;
- ✓ The facility operator is in compliance with its tenant lease agreement or TRPs;
- ✓ Unauthorized non-storm water discharges do not occur at the facility; and
- ✓ Illicit connections are not present at the facility.

Harbors Division continues to respond to violations observed during these inspections in accordance with the SWMP. Inspection findings were added to the database upon completion in January 2011.

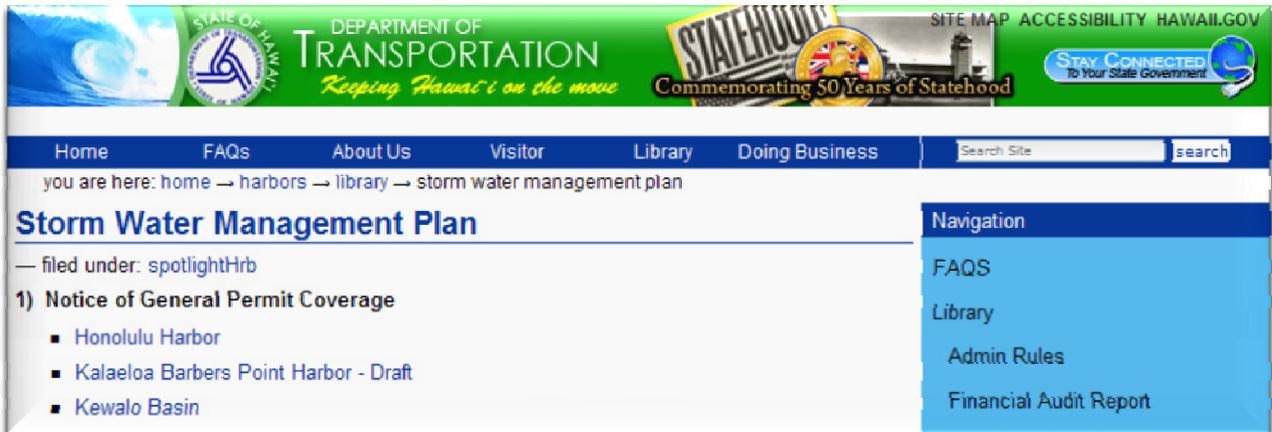
Overall each of the tenants showed a willingness to cooperate and improve compliance with storm water regulations and the Harbor's SWMP. In most cases the tenant was unaware of the potential storm water impacts and/or that administrative and engineering controls were required for compliance with storm water regulations. Inspections did not reveal any immediate threats to KBPH.

**BMP 2-4      Inspection and Progressive Enforcement Program**

Goal: Identify, track, inspect and ensure compliance with the Harbor Division's tenant lease agreements and TRPs					
Activity	Evaluation Indicators (or Measurable Goals)	Milestones	Date Performed	Action Performed by	Status/ Comments
Update inventory of businesses and industries currently operating at the Harbor	Frequency of inventory update	On-going	Annual	Harbors Division	Inventory is being updated
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	Dec 2010	Harbors Environmental Section	Database was updated and is located at Harbors Division office
Conduct initial inspection at all commercial and industrial tenant facilities (refer to BMP 4-2 for follow-up inspection)	Percentage of commercial and industrial tenant facilities inspected	100% of tenants	Dec 2010	Harbors Environmental Section, Weston, HDOT	9 of 9 (100%) KBPH tenants were inspected.
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	Ongoing	Harbors Environmental Section	Tenant inspection findings will be completed in February 2011 whereupon they will be included in the database.

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### 3.0 PUBLIC INVOLVEMENT/PARTICIPATION



#### Permit Requirements

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

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.*

### 3.1 RECEIVE PUBLIC FEEDBACK ON SWMP

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 storm water 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.

The current SWMP is in draft review with HDOH and USEPA Region IX; therefore no tenant or public comment has yet been solicited by Harbors Division. When the SWMP is ready for public comment, Harbors will post it on the website and request comments. Comments received will be tracked and changes will be implemented where necessary or improvements can be made. Please see BMP 3-1.

**BMP 3-1      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 (or Measurable Goals)	Milestones	Date Performed	Action Performed by	Status/ Comments
Ensure notification to harbor tenants of SWMP development capability	Percentage of tenants notified	100% of tenants notified	NA	Harbors Environmental Section	Not performed. SWMP still in draft review
Post the Draft SWMP to the Harbors website during public comment window	Number of people who viewed the SWMP online	Increasing from previous year	NA	Harbors Environmental Section; Harbors web master	Not performed. SWMP still in draft review
	Number comments received for SWMP revision	Increasing from previous year	NA	Harbors Environmental Section; Harbors web master	Not performed. SWMP still in draft review
Develop system for tracking comments and change produced by comments	Percentage of comments tracked	100% of comments tracked	NA	Harbors Environmental Section	Not performed. SWMP still in draft review

## 4.0 ILLICIT DISCHARGE DETECTION AND ELIMINATION

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### 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 Code of Federal Regulations (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.*

### 4.1 REGULATORY MECHANISMS IN-PLACE

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 Harbors IEP.

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 storm water 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 the SWMP and Appendix B of this report.

## **4.2 ILLICIT DISCHARGE DETECTION AND ELIMINATION PLAN**

Harbors Division has developed an IDDE plan as part of its SWMP in an effort to eliminate discharges that the established storm drainage system is not designed to accept, process, or discharge.

In accordance with its IEP, Harbors conducted inspections of nine of nine tenants at the KBPH (two tenants were located at both Honolulu Harbor and KBPH). Included in this task was the creation of comprehensive lists indicating the locations and quantities of various Non-Stormwater Discharges (NSWDs), potentially polluting materials, and BMPs in use at the facilities. The inspection findings will be completed by the end of 2011.

The resultant inspection report for each inspection will be sent to each tenant in 2011. The inspection reports contain the following:

- ✓ An explanation the objective of the inspections;
- ✓ Tenant contact information;
- ✓ Facility description
- ✓ A summary of inspection observations;
- ✓ Risk ranking;
- ✓ Personnel training requirements; and
- ✓ Photo log.

Observations include industrial activity, petroleum and solvent storage quantities, mode of storage, potential pollution sources, a description of site drainage, observed BMPs, and required BMPs.

In some cases where discrepancies showed an immediate threat to water quality, tenants were asked to rectify the discrepancy during the inspection. Discrepancies that could not be immediately rectified were communicated to the tenant representative and noted.

Overall, all tenants that had discrepancies were unaware of storm water regulations pertaining to the issue and showed willingness to comply immediately.

#### 4.2.1 Update Storm Sewer System Map

The most up-to-date MS4 outfall map is included as Appendix I of this document. The map contains outfall locations, drain and piping locations, and outfall IDs. Please see BMP 4-1.

#### BMP 4-1 Update Storm Sewer System Map

Goal: Develop a comprehensive infrastructure map of the MS4 storm drain system					
Activity	Evaluation Indicators (or Measurable Goals)	Milestones	Date Performed	Action Performed by	Status/ Comments
Update outfall maps to identify sources of outfall discharges and outfall conditions	Percentage of outfalls that have sufficient, up-to-date information	100% of outfalls	30 Dec 2009	Harbors Environmental Section	Outfall maps were submitted with SWMP. No change from 2009.
	Sources of outfall discharges identified	100% of sources identified	NA	Harbors Environmental Section	Investigation is ongoing

#### 4.2.2 Outfall Reconnaissance Inventory (ORI)

An annual dry weather ORI was performed December 30, 2010 by the Harbors Environmental Health Specialist. The ORI was made at low tide and observed outfall conditions, flow characteristics, and the surrounding areas. Although a dry weather inspection was performed, no records were produced. Wet weather observations were also not recorded this year.

Focus will be placed on documentation of inspections in 2011. Wet weather inspections will be implemented to ensure the dredge soil stock piles sediment control BMPs are appropriate and effective.

### BMP 4-2      Outfall Reconnaissance Inventory

Goal: Establish and carry out procedures to identify and remove illicit discharges					
Activity	Evaluation Indicators (or Measurable Goals)	Milestones	Date Performed	Action Performed by	Status/ Comments
Dry weather visual inspection of outfalls	Percentage of outfalls inspected	100% of outfalls inspected on-time	December 30 2010	Harbors Environmental Section	Completed
Wet weather inspections of outfalls	Percentage of outfalls inspected	20% of outfalls inspected on-time	NA	Harbors Environmental Section	Not recorded.
Collect and analyze reports of illicit discharges.	Number of apparent illicit discharges reported.	100% of illicit discharges found	NA	Harbors Environmental Section	No illicit discharges found.
Input inspection findings into database.	Percentage of findings input into database	100% of findings	December 2010	Harbors Environmental Section	Documentation not provided for 2010. Focus on 2011
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	NA	Harbors Environmental Section	No permitted NSWDs exist to date
Document these controls in a database with tenant information and Tax Map Key (TMK)	Percentage of permitted NSWDs recorded in database	100% of identified permitted NSWDs	NA	Harbors Environmental Section	NA

### **4.2.3 Illicit Discharge Reporting**

The Harbors Division Environmental Section collects and records reports of storm water quality violations through its storm water hotline. Calls are recorded on the HAR-EE Spill Documentation Form, available in Appendix G of this document. There were no illicit discharges reported through the hotline in 2010. The hotline will be advertised in future educational mailings and educational workshops. Please see BMP 4-3.

Harbors Grounds Maintenance personnel track illicit discharge incidents utilizing a Pier Inspection Form to record their observations. No illicit discharges were recorded by Harbors Ground Maintenance in 2010; however a monthly spill log was kept and is included as Appendix J. No spills were reported in the log for KBPH in 2010.

The Honolulu Tower keep s a log of all incidents reported for KBPH. The log details the date, time, location, persons involved, and description of the findings or incident reported. Please see BMP 4-3. The Honolulu Tower is required to notify HAR-EE on all environmental issues. Records of this notification can be found in Appendix G.

### BMP 4-3 Illicit Discharge Reporting

Goal: Encourage public education and involvement in eliminating illicit discharges					
Activity	Evaluation Indicators (or Measurable Goals)	Milestones	Date Performed	Action Performed by	Status/ Comments
Collect violation reports from the Marine Traffic Control Center	Percentage of violations reported	100% of violation reports collected	Continuous	Harbors Environmental Section	Follow up conducted as needed
Record report of illegal discharge incidents	Keep Marine Cargo Specialist inspection reports on-file.	100% of Pier inspection reports are kept	TBD	Harbors Environmental Section	No inspection reports received.
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	22 Oct 2009	Harbors Environmental Section	Completed
Determine effectiveness of hotline	Number of illicit discharge/illegal dumps reported by citizens	Increasing from previous year	NA	Harbors Environmental Section	No calls received by Hotline in 2010
	Number of illicit discharges prevented or stopped due to call to hotline	Increasing from previous year	NA	Harbors Environmental Section	NA
Advertise hotline	The hotline will be advertised on an insert in each TSI mailing and on all storm water pollution prevention signage	One TSI mailing insert per year and all signage	Registered mail receipt varies	Harbors Environmental Section	The hotline was advertised in TSI mailing in 2010. Quick reference cards distributed at training.

#### 4.2.4 Inspection and Enforcement Plan

When an illicit discharge is determined to have taken place, appropriate action is taken against the responsible parties according to the IEP. This document establishes specific inspection procedures, enforcement tools, and the progressive escalation of enforcement action with regard to the seriousness of the illicit discharge and the recalcitrance of the dischargers.

Harbors ranked each tenant based on the tenant’s potential to contribute pollutants to the environment. See BMP 4-4. The results of the tenant risk rankings will be reevaluated for accuracy each calendar year. The tenant’s ranking determines the frequency of inspection according to the IEP. High risk tenants will be inspected twice per year, medium ranking tenants will be inspected annually, and low ranking tenants will be inspected biannually. A summary of tenant rankings and inspection frequencies will be completed following the finalization of the inspection reports for all Harbors tenants.

Harbors Division maintains 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. Tenants are provided with inspection findings in the form of a letter. No major enforcement actions were taken in 2010 as a result of inspections. See BMP 4-4.

#### BMP 4-4 Inspection and Enforcement Plan

Goal: Eliminate illicit discharges through inspection and enforcement.					
Activity	Evaluation Indicators (or Measurable Goals)	Milestones	Date Performed	Action Performed by	Status/ Comments
Establish/update ranking of tenants according to Inspection and Enforcement Manual	Percentage of tenants ranked	100% of tenants ranked	December 2010	Harbors Environmental Section	Completed rankings for nine tenants (100%).
Perform initial investigation upon discovery or notification of a suspected illicit discharge or connection.	Percentage of reports investigated	100% investigated	NA	Harbors Environmental Section	No IDDE reported this period.
Follow up investigation of illicit discharge	Percentage of investigations followed up	100% Follow up	NA	Harbors Environmental Section	No IDDE reported this period.
If enforcement action has taken place, perform	Same as above	Same as above	NA	Harbors Environmental Section	No IDDE reported this period.

Goal: Eliminate illicit discharges through inspection and enforcement.					
Activity	Evaluation Indicators (or Measurable Goals)	Milestones	Date Performed	Action Performed by	Status/ Comments
follow up inspection within two weeks of initial inspection					
Initiate investigation of complaints transmitted by HDOH regarding facilities within its jurisdiction	Percentage of reports investigated	100%	NA	Harbors Environmental Section	No complaints by HDOH.

#### 4.2.5 Employee Training

Harbors Division annually provides initial and refresher NPDES training to key personnel to instruct personnel at all levels of responsibility, including Harbors Oahu District Enforcement (HAR-OE) personnel, concerning the components and goals of the SWMP. Please see BMP 4-5. 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 storm water pollution,
- ✓ Warning and enforcement procedures, and
- ✓ Recording incidents.

A copy of the employee training materials can be found in Appendix K.

As stated in the SWMP, Harbors Division will provide annual train to all employees who are responsible for identification, investigation, elimination, cleanup and reporting of illicit connections and other illicit discharges.

### BMP 4-5 Employee Training

Goal: Eliminate illicit discharges through training of essential personnel.					
Activity	Evaluation Indicators (or Measurable Goals)	Milestones	Date Performed	Action Performed by	Status/ Comments
Develop storm water IDDE training materials	Training materials address all relevant IDDE aspects and are up to date	IDDE is addressed	TBD	Harbors Environmental Section, Weston	Completed
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	TBD	Harbors Environmental Section, Weston	Completed. HAR-OE included.

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## 5.0 CONSTRUCTION SITE STORMWATER RUNOFF CONTROL

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*Drain Inlet Control, Barbers Point. January 2006.*

### 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.*

### 5.1 CONSTRUCTION SITE RUNOFF CONTROL PROGRAM

A Construction Site Runoff Control Program (CSRCP) has been developed and included as part of Harbor's 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

### 5.1.1 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.

Plan reviews are specific to a section’s area of responsibility. The Environmental Section reviews plans for potential storm water quality impacts and drainage connection and discharge permit applications. This review process is tracked and included in the ACR. Please see BMP 5-1.

Construction site operators are required to submit a Storm Water Pollution Prevention Plan (SWPPP) and a Notice of Intent (NOI) under the Hawaii NPDES General Permit Authorizing Discharges of Storm water Associated with Construction Activity, HAR Chapter 11-55 Appendix C (the Hawaii Construction General Permit) for projects greater than one acre prior to approval. Harbors Division ensures that plans reflect the actual site conditions and are updated accordingly. The HDOH CWB implements NPDES requirements in Hawaii and administers review and granting of Individual and General Permit Coverage, however NOI requests for discharge of storm water from industrial sites and SWPPPs have been routed to HAR-EE for review and comment. In 2010 the following plans were reviewed by Harbors Division:

**Table 5-1 Summary of Plans Reviewed**

Location	Project Description
Pier 7	Dust Suppression

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 the connection and/or discharge must be made. Upon review and acceptance of the application, Harbors returns a permit for connection, a permit for discharge or comments explaining a denied connection or discharge.

Storm water BMPs are reviewed by HDOH CWB during NPDES NOI review, and may be reviewed by the City and County of Honolulu if plans are routed through them. Please see BMP 5-1. 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 5-1 Required Document Review**

Goal: Prevent sediment and erosion runoff from construction sites during the planning phase.					
Activity	Evaluation Indicators (or Measurable Goals)	Milestones	Date Performed	Action Performed by	Status/ Comments
Review construction plans for potential impacts in respective areas	Percentage of construction plans reviewed	100% of plans reviewed	NA	All HDOT Engineering Branch Sections	Reviewed dust control plan on Pier 7. Documentation not available.
Review plans for storm water considerations during pre- and post-construction phases	Percentage of construction plans reviewed	100% of plans reviewed	NA	Harbors Design, Maintenance and Environmental Section	Construction plans with potential stormwater impact reviewed but not tracked.
Review SWPPP, NOI, and discharge permit applications for construction projects	Percentage of documents reviewed	100% of documents reviewed	NA	Harbors Design, Maintenance and Environmental Section	Applications reviewed but not tracked.
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	NA	HDOH Clean Water Branch, City and County of Honolulu, or Harbors Division	Plans reviewed but not tracked.

**5.1.2 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.

Harbors Division requires that construction site operators implement appropriate erosion and sediment control BMPs as well as any other BMPs that will reduce the flow of pollutants 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. Harbors Division requires construction site operators to prevent pollutants from sediment, erosion, and waste from entering the storm sewer system by use of structural controls and administrative BMPs.

### 5.1.3 Site Inspection and Enforcement

Construction sites are inspected for compliance with the storm water-related requirements until construction is terminated, the site has been stabilized, and the site's NPDES construction permit has been closed. Inspections are at least once every two weeks during the months of October through April, then at least bi-monthly during the remaining months. Inspections 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-storm water 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 is executed according to the IEP located in Harbor Division's EMS Manual. Reports include a list of all construction projects, inspection dates, and resolution of any violations of storm water-related requirements and can be found in Appendix L. Please see BMP 5-2.

**Table 5-2 Summary of Construction Inspections**

Project Number	Project Title	Dates Inspected (2010)	Corrective Actions
HC10385	Repair Lighting at Pier 1	3/24	No activity during inspection.
HC10387	Relamp Floodlights	4/13, 4/28, 12/8	None
HC10391	Repair Bullrails at Pier 7	3/24, 4/13, 4/28, 5/26	Verified waste removed daily.

### BMP 5-2 Site Inspection and Enforcement

Goal: Ensure implementation of BMPs and controls by construction site operators through inspection and enforcement.					
Activity	Evaluation Indicators (or Measurable Goals)	Milestones	Date Performed	Action Performed by	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	Throughout the year	Harbors Division, Site Inspectors	Completed. See Table 5-1 for summary and Appendix L for reports.
	Number of construction sites inspected	100% of construction sites	Throughout 2010	Harbors Division, Site Inspectors	3 of 3 (100%)
Incorporate inspection of storm water components into inspection program	Construction site storm water deficiencies are reduced	Deficiencies are reduced from previous year	Throughout 2010	Harbors Division, Site Inspectors	Baseline established. Erosion and sediment control inspections already underway.
Keep a list of all construction projects, inspection dates, and resolution of violations for the ACR.	Completeness of inventory	100% of construction sites, inspections, resolutions, and violations recorded	Throughout 2010	Harbors Construction and Environmental Section	File created at Harbors and 100% of known construction sites inspected.

#### 5.1.4 Receipt of Public Input

Harbors Division remains open to public comment and illicit/NSWD reporting. The public is able to contact Harbors Division via hotline, email, website, or mail. Communications are logged on the HAR-EE Spill Documentation Form and appropriate responses are made. No public input was received during the 2010 period. Please see BMP 5-3.

### BMP 5-3      Receipt of Public Input

Goal: To remain receptive public to opinion and involvement					
Activity	Evaluation Indicators (or Measurable Goals)	Milestones	Date Performed	Action Performed by	Status/ Comments
Accept and follow up on public reporting and record outcome	Track number of public reports	Increase from previous year	NA	Harbors  Environmental Section	None received

#### 5.1.5 Training and Outreach

Harbors Division employees who are responsible for construction plan review and site inspections are trained annually in the requirements of the SWMP and Hawaii General Permits. A copy of the Stormwater Construction Inspection training is available as Appendix M. Please see BMP 5-4. Employees were trained in plan review and inspection procedures.

Construction plan review training included the following 10 elements taken from USEPA guidance:

- ✓ Minimize clearing and grading;
- ✓ Protect waterways;
- ✓ Phase construction to limit soil exposure;
- ✓ Immediately stabilize exposed soils;
- ✓ Protect steep slopes and cuts;
- ✓ Install perimeter controls to filter sediments;
- ✓ Employ advanced sediment settling controls;
- ✓ Certify and train contractors on storm water site plan implementation;
- ✓ Control waste at the construction site; and
- ✓ Inspect and maintain BMPs.

Construction site inspection included training on specific forms from the Harbors EMS Manual:

- ✓ HDOH CWB NOI General Form
- ✓ HDOH CWB NOI Form C
- ✓ EMS Manual Appendix G – Inspection and Enforcement Program
- ✓ EMS Manual Appendix H – Construction Program
- ✓ HAR 11-55 Appendix C

Education and outreach will be provided for stakeholders. Harbors Engineering Branch has not yet developed educational materials. These educational materials are planned to be included in an

educational package to be distributed during the pre-construction meeting. Educational materials will include construction storm water BMPs and will be available electronically on the website or in hard copy upon request. Please see BMP 5-4. 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 storm water BMPs.

#### **5.1.6 Dredge Spoil Stockpile Management Plan**

As part of the 2009 SWMP, Harbors developed a dredged spoil stockpile management plan for implementation of erosion and sediment control BMPs, the purpose of which is to prevent both wind-and water-caused erosion of the stockpiled materials. Existing stockpiles and stockpile control measures were investigated during 2009 and again in 2010 in order to create the stockpile management plan. The stockpile management plan has been revised and is currently being implemented. Stockpile management activities for 2010 include issuance of a design for installation of erosion and sediment control BMPs. Surfactants will be utilized for erosion control and new silt barriers will be installed along the perimeter of the piles.

Stockpile management activities for 2011 will include implementing the first phase of erosion and sediment control BMPs, monitoring their effectiveness, and planning for future needed activities.

### BMP 5-4 Training and Outreach

Goal: Foster widespread knowledge of construction BMPs					
Activity	Evaluation Indicators (or Measurable Goals)	Milestones	Date Performed	Action Performed by	Status/ Comments
Develop internal training materials for plan review staff and inspectors	NA	NA	March 2010	Harbors Environmental Section	Developed in 2010. See Appendix M.
Conduct training for employees who are responsible for construction site inspections	Educate construction inspectors about proper selection, installation, inspection, and maintenance of BMPs	100% of construction site inspectors received education	March 2010	Harbors Environmental Section	Training conducted in March 2010
Provide educational materials for plan reviewers	Percent of plan reviewers receiving educational materials	100% of plan reviewers received educational materials	March 2010	Harbors Construction and Environmental Section	To be developed in 2011
Provide educational package to construction sites	Percentage of construction sites covered	100%	NA	Harbors Engineering Branch	To be developed in 2011
Post educational materials on Harbors website	Increase views to website	Increased views from previous year	NA	Harbors Web Master	To be posted in 2011

## 6.0 POST-CONSTRUCTION STORMWATER MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT

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### 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.*

### 6.1 POST-CONSTRUCTION STORMWATER MANAGEMENT PROGRAM

Harbors Division has developed a Post-Construction Stormwater Management Program as part of its SWMP to prevent polluted storm water 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 storm water quality can be addressed and attained.

Post-construction storm water 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.

**6.1.1 Construction Permit Review Process**

As part of the NPDES program, HDOH CWB 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 Storm Water 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 identifies controls that provide treatment and reduce storm water volume and velocity. Harbors Division also ensures that on-going maintenance of BMPs is provided in the plans and properly executed, as BMPs are not effective unless properly maintained.

No NPDES Permit and Low Impact Development Standards (LIDS) compliance applications were received in 2010. Please see BMP 6-1.

**BMP 6-1 Review NPDES Permit Application**

Goal: To ensure that long-term controls are in place to prevent degradation of storm water					
Activity	Evaluation Indicators (or Measurable Goals)	Milestones	Date Performed	Action Performed by	Status/ Comments
Review NPDES Permit and LIDS compliance applications	Percentage of applications reviewed	100% of applications	NA	Harbors Division Environmental, Design and Maintenance Sections	No applications received.

**6.1.2 Low Impact Development Standards Plan**

Harbors Division has developed a low impact development standard (see SWMP) 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.

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 apply only to the addition, and need not be applied to the entire development.

Implementation of LIDS and amendments of TRPs and tenant lease agreements will follow the completion of the Final SWMP. Please see BMP 6-2.

### **BMP 6-2 Low Impact Development Standards Plan**

Goal: Reduce pollution discharges to the MEP from all new development and significant redevelopment projects					
Activity	Evaluation Indicators (or Measurable Goals)	Milestones	Date Performed	Action Performed by	Status/ Comments
Implement LIDS and amend tenant lease agreements and TRPs as necessary	Percentage of necessary lease agreement and TRP amendments conducted	100%	TBD	Harbors Environmental Section, Design and Maintenance	To be released with Final SWMP

#### **6.1.3 Structural and Non-Structural BMPs**

Post-construction storm water 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 the Harbor,
- ✓ 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.

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

Post-construction storm water BMPs are evaluated by Harbors during tenant inspections. No new post-construction BMPs were implemented during 2010. Please see BMP 6-3.

### **BMP 6-3      Structural and Non-Structural BMPs**

Goal: Implementation of LID BMPs					
Activity	Evaluation Indicators (or Measurable Goals)	Milestones	Date Performed	Action Performed by	Status/ Comments
Evaluate current BMPs	Percentage of BMPs evaluated	100%	Ongoing	Harbors Construction and Environmental Section, Design and Maintenance	BMPs were identified during tenant inspections
Enforce development & implementation of new post-construction BMPs	Percentage of site potential pollutants are prevented	100%	NA	Harbors Construction and Environmental Section, Design and Maintenance	No post-construction BMPs developed in 2010

#### **6.1.4    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 program will be implemented by Harbors Division in 2011. Please see BMP 6-4.

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

Goal: To maintain effectiveness of BMPs through operations and maintenance plans					
Activity	Evaluation Indicators (or Measurable Goals)	Milestones	Date Performed	Action Performed by	Status/ Comments
Create database to track operation and maintenance practices	Create a database	Database has been created	NA	Harbors Environmental Section	To be created in 2011
Perform scheduled operation and maintenance practices	On-time completion of maintenance practices	100% of O&M has been confirmed conducted	NA	Oahu District	Identified BMPs will be documented and O&M will be confirmed in 2011
Inspect project for post-construction controls	Percentage of potential pollutants mitigated	Equal to maximum standard operating capacity	NA	Harbors Construction Environmental Section Inspectors and	To be inspected in 2011.

#### 6.1.5 Stakeholder Education and Outreach, Employee Training

Tenant TRPs and tenant leases require maintenance of post-construction runoff control measures in their premises. An educational packet will be sent to all stakeholders, which include tenants and their contractors. The education package will include:

- ✓ A post-construction BMP template
- ✓ BMP Checklist
- ✓ Questions relating to post-construction storm water management on the TSI

While it is the responsibility of the tenant to ensure that their construction contractors are educated in Post-Construction considerations, Harbors will send educational material to contractors that are identified to be working on Harbors property. Please see BMP 6-5.

Harbors internal training will include guidance on the inspection of post-construction BMPs. Please see BMP 6-5. Inspection training also includes proper operations and maintenance of typical post construction BMPs, indicators of BMP failure, and inspection techniques.

**BMP 6-5 Stakeholder Education and Outreach**

Goal: Create awareness with stakeholders and employees to reduce post-construction run-off.					
Activity	Evaluation Indicators (or Measurable Goals)	Milestones	Date Performed	Action Performed by	Status/ Comments
Develop post-construction educational package	NA	NA	NA	Harbors Environmental Section	Educational materials to be developed in 2011 after 2010 inspection data is compiled
Distribute educational packet in TSI Mailing	Percentage of tenants in receipt of mailing	100%	NA	Harbors Environmental Section	Educational materials were developed
Post information on Harbors Division website	Track number of views	Greater than previous year	NA	Harbors Web Master	Information to be posted in 2011
Conduct training	Percentage of employees and tenants trained	Greater than previous year	NA	Harbors Environmental Section	Training to be conducted in 2011

## 7.0 POLLUTION PREVENTION/GOOD HOUSEKEEPING

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### Permit Requirements

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

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.*

## 7.1 POLLUTION PREVENTION/GOOD HOUSEKEEPING PROGRAM

A Pollution Prevention/Good Housekeeping Program has been developed 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.

### 7.1.1 Maintenance and Housekeeping Practices

Maintenance is on-going at tenant and Harbors facilities. Please see BMP 7-1. 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. A record of spill cleanups can be found in Appendix J.

**7.1.1.1 Sweeping Common Areas and Select Tenant Facilities**

Sweeping prevents microscopic pollutants from entering the ocean by removing them before they flow into the storm sewer. Regular sweeping is performed by Harbors Grounds Maintenance. Grounds Maintenance has four sweepers. Sweeping is performed according to the following schedule presented in Table 7-1.

**Table 7-1 Grounds Maintenance Sweeping Schedule**

Location	Frequency	Duration (Hours)
KBPH Common Roadways & Apron	Twice per month	4

All waste from Honolulu Harbor and KBPH are combined and disposed of at the appropriate disposal contractors. Sweeper waste is disposed of at PVT Land Company and Waimanalo Gulch. This year approximately 215.22 tons of sweeper waste was removed for disposal. Grounds Maintenance is also responsible for collection of trash, leaves and other debris, which prevents debris from blocking storm drains and causing localized flooding. In 2010 approximately 7.13 tons of green waste was disposed of at Hawaiian Earth Products, a green waste disposal company.

**7.2 WASTE COLLECTION**

Grounds Maintenance picks up and disposes of other potential pollutants left in drop off areas or discarded illegally by the public in order to prevent pollution to the environment. This includes automobile, boat, and motorcycle lead acid batteries, scrap steel, discarded used tires, and construction debris.

Table 7-2 is a compilation of the different types of waste collected by Harbors Division and their disposal destinations. Quantities listed are the combined amounts from both Honolulu Harbor and KBPH. All disposal receipts are kept as supporting documentation of compliance with storm water regulations.

**Table 7-2 Waste Destination and Amounts**

<b>Waste Type</b>	<b>Destination Facility</b>	<b>Amount</b>
Lead Acid Batteries	Exide Technologies	130 batteries
Green Waste	Hawaiian Earth Products	7.13 tons
Refuse	Covanta Energy Honolulu Resource Recovery	110.81 tons
Sweeper Waste	PVT Land Company, Ltd.	178.28 tons
Sweeper Waste	Waimanalo Gulch	36.94 tons
Recycled Metal	Shnitzer Steel Hawaii Corp.	15.92 tons
Discarded Tires	Unitek Solvent Services, Inc.	139 tires

### 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 (or Measurable Goals)	Milestones	Date Performed	Action Performed by	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	Common area schedule already in-place	Harbors Maintenance Management and Personnel; tenants	Common areas and facilities with contracts with Harbors are swept according to a schedule.
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	On-going	Harbors Maintenance Management and Personnel; tenants	Drainage priorities to be determined from 2010 inspection results.
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	November 2010	Harbors Environmental Section	Instructions Provided in Harbors Storm Water training and mailing attachments
Provide training to employees	Percentage of employees to whom training has been provided	100% of employees	Ongoing	Harbors Environmental Section	Maintenance staff has been trained on general storm water pollution prevention. Please see Appendix K.

**7.2.1 Tenant Education and Employee Training**

Tenants and Harbor employees responsible for maintenance activities were educated about pollution prevention and good housekeeping practices at annual Harbors training workshops. Copies of the presentations given and records of attendance for tenants and employees are located in Appendices F and K, respectively. A video entitled, “Storm Watch,” by EXCAL Visual Communications, was shown during the presentation and topics including the following were discussed:

- ✓ Proper methods for cleaning equipment;
- ✓ Proper labeling and handling of cleaners, solvents, and chemicals;
- ✓ Organized chemical storage;
- ✓ Responsible disposal of chemicals;
- ✓ Storage procedures for stored metals;
- ✓ Proper site drainage;
- ✓ Proper equipment/material storage;
- ✓ Timely equipment operation and maintenance; and
- ✓ Proper site maintenance.

Slides depicting examples of proper and improper BMPs were also presented to illustrate acceptable procedures.

**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 (or Measurable Goals)	Milestones	Date Performed	Action Performed by	Status/ Comments
Develop educational materials and distribute to tenants	Percentage of tenants in receipt of educational materials	100% of tenants	September 2010	Weston	TSI attachments provided information and tips on housekeeping practices. Will develop contractor educational materials in 2011.
Hold training sessions for employees tasked with maintenance activities	100% of employees trained	100% of employees	Ongoing	Harbors Environmental Section	General awareness training conducted in 2010. Please see Appendix K.

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## **8.0 ADDITIONAL ANNUAL COMPLIANCE REPORT REQUIREMENTS**

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### **8.1 MODIFICATIONS TO THE SWMP**

Per USEPA Order for Compliance, paragraph 1, the SWMP was revised to more comprehensively detail specific BMPs that will be implemented for each of the program minimum control measures, with underlying rationale for their selection and inclusion. Requirements to specify quantitative goals, provide metrics for improvement, and milestones for each of the BMPs; and the name or name or position title and affiliation of the person or persons responsible for implementation or coordination of each program component are now tracked through the ACR.

Harbors Division made appropriate modifications to reflect the above requirements with its 2009 Draft SWMP submission and is currently awaiting comments from the USEPA and HDOH to incorporate into the revised SWMP.

### **8.2 MODIFICATIONS TO THE SMALL MS4**

No major modifications have been made to the Small MS4 during the 2010 calendar year. A copy of the outfall map is available in Appendix I.

### **8.3 SUMMARY OF PLANNED ACTIVITIES**

#### **8.3.1 Public Education and Outreach**

- ✓ Use TSI responses to assess the effectiveness of the annual mailing program
- ✓ Add additional educational materials
- ✓ Record hotline inquiries and track response time
- ✓ Post signs that advise against dumping
- ✓ Post tenant training presentation on Harbors website
- ✓ Set up and solicit a volunteer cleanup or storm drain stenciling activity
- ✓ Sponsor a yearly advertisement in the newspaper
- ✓ Monitor ship cargo loading and unloading
- ✓ Develop and maintain an inventory of ships and agents responsible for tracking vessel operators

- ✓ Provide educational materials to vessel operators
- ✓ Keep tenant inventory up-to-date
- ✓ Conduct inspections of all tenants by December 31, 2010
- ✓ Add findings, follow-up to the database

### **8.3.2 Public Involvement**

- ✓ Post SWMP to the Harbors website for public review and comment when completed
- ✓ Track comments and include them in the ACR for 2011

### **8.3.3 Illicit Discharge Detection and Elimination**

- ✓ Create a comprehensive list of NSWDS and control measures for all tenants
- ✓ Continue procedures outlined in the IEP
- ✓ Conduct dry and wet weather ORI
- ✓ Perform follow-up on dry weather NSWDS observations

### **8.3.4 Construction Site Runoff Control**

- ✓ Dependent on construction plan submittal
- ✓ Perform construction site plan and permit reviews
- ✓ Report and implement enforcement procedures against construction sites that are found to be out of compliance
- ✓ Perform construction site inspections to identify possible sources of pollution and to ensure BMP's are providing an appropriate level of pollution prevention. Inspections will specifically target the following:
  - ✓ 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.
- ✓ Execute Stockpile Management Plan

### **8.3.5 Post-Construction Storm Water Management**

- ✓ Inventory existing BMPs if found during tenant inspections
- ✓ Perform follow-up construction site permit reviews

- ✓ Enforce the incorporation of Low Impact Development Standards into all new development
- ✓ Ensure structural and non-structural BMP's are in place post-construction to minimize water quality impacts and attempt to maintain pre-development runoff conditions
- ✓ Ensure the longevity of post-construction BMP's via the creation of a long-term operation and maintenance programs
- ✓ Generate and distribute educational materials in annual mailings to tenants and maintain educational materials on the Harbors Division Stormwater Management website
- ✓ Conduct annual tenant training workshop

### **8.3.6 Pollution Prevention/Good Housekeeping**

- ✓ Continue the ongoing maintenance of tenant and Harbor's facilities
- ✓ Harbors will expand its maintenance program to include preventative maintenance of the storm drainage system, internal record keeping and scheduling, and appropriate training of employees
- ✓ Perform annual inspections and training to ensure tenant's compliance with employee training, pollution prevention, and good housekeeping requirements

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**APPENDIX A**

**HDOH 2007 LETTER OF NGPC EXTENSION**

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LINDA LINGLE  
GOVERNOR OF HAWAII



CHIYOME L. FUKINO, M.D.  
DIRECTOR OF HEALTH

STATE OF HAWAII  
DEPARTMENT OF HEALTH  
P. O. BOX 3378  
HONOLULU, HI 96801-3378

In reply, please refer to:  
OOHCWB

03KB488.EXT

October 19, 2007

The Honorable Barry Fukunaga  
Director  
Department of Transportation  
869 Punchbowl Street  
Honolulu, Hawaii 96813-5097

Attention: Mr. Frederick S. Nunes, P.E.  
Engineering Program Manager  
Harbors Division

Dear Mr. Fukunaga:

**Subject: Administrative Extension of  
Notice of General Permit Coverage (NGPC)  
Kalaeloa Barbers Point Harbor  
Kalaeloa, Oahu, Hawaii  
File No. HI 03KB488**

The Department of Health (Department), Clean Water Branch (CWB) acknowledges receipt of your Notice of Intent (NOI) and \$500 filing fee for coverage under the National Pollutant Discharge Elimination System general permit provisions, in accordance with the Hawaii Administrative Rules (HAR), Section 11-55-34.08.

The Department is unable to complete the processing of your project's NOI prior to the current NGPC expiration date. Therefore, in accordance with HAR, Section 11-55-34.09(d), the Department hereby administratively extends the subject NGPC until a notice of renewed coverage under the applicable general permit is issued or until notified by the Department, whichever occurs first. Please note that the Department may request you submit additional information in order to complete the processing of your NOI for the renewed coverage.

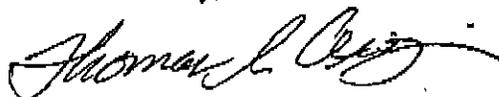
The Permittee shall not be held in violation of Hawaii Revised Statutes, Chapter 342D-6(h) and HAR, Chapter 11-55 during the pendency of its NOI, so long as it acts consistently with the NGPC presently granted. Any non-compliance with the conditions of the administratively extended NGPC may be subject to penalties of up to \$25,000 per violation per day.

It is the Permittee's responsibility to ensure that anyone working under this administrative extension of your NGPC understands and complies with the terms and conditions therein.

The Honorable Barry Fukunaga  
October 19, 2007  
Page 2

If you have any questions, please contact Ms. Joanna L. Seto, Supervisor of the Engineering Section, CWB, at 586-4309.

Sincerely,



FOR Chiyome Leinaala Fukino, M.D.  
Director of Health

c: Mr. Randal Leong, DOT-HAR [via fax 587-1864 only]  
Mr. Charles Schuster, EKNA Services, Inc. (w/Receipt No. 31732 for \$500 Filing fee)

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**APPENDIX B**

**TENANT LEASE AGREEMENT AND TENANT REVOCABLE PERMIT**

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# 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.

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**APPENDIX C**  
**TENANT INVENTORY**

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Hawaii Department of Transportation Harbors Division  
 Tenant Inventory - Kalaeloa Harbor

Tenant	Other Business Names	Kalaeloa Facility Location	Type	Address	Address1	Inspection POC	Phone Number	Secondary Phone Number	E-mail
AES KALAELOA VENTURE LLC		91-650 Malakole Rd	Tenant	91-086 Kaomi Loop	Kapolei, HI 96707	Roland	(808) 682-4113		<a href="mailto:robert.shampoe@aes.com">robert.shampoe@aes.com</a>
ALOHA PETROLEUM, LTD.		91-119 Hanua St.	Tenant	91-119 Hanua Street	Kapolei, HI 96707	Joe Lovan	808-673-4296		<a href="mailto:rconner@alohaqas.com">rconner@alohaqas.com</a>
GLP ASPHALT, LLC		John Wayne Ave.	Tenant	94 KAMOKILA BLVD., STE 100	Kapolei, HI 96707	Sara Thomas	203-2805	348-4895	
HAWAIIAN CEMENT		91-055 Kaomi Loop	Tenant	99-1300 Halawa Valley Road,	Aiea, HI 96701	Dane Wurlitzer	532-3407	330-3910 c	<a href="mailto:dane.wurliter@hawaiiacement.com">dane.wurliter@hawaiiacement.com</a>
HEALY TIBBITTS BUILDERS, INC.		Malakole St.	Tenant	99-994 Iwaena Street, Suite A,	Aiea, HI 96701	Glen Toyama	682-6104	368-1581 c	gtoyama@hawaii.rr.com
MARISCO, LTD.		91-607 Malakole Road	Tenant	91-607 Malakole Road,	Kapolei, HI 96707	neil	808-564-0730		<a href="mailto:bmccaffery@marisco.net">bmccaffery@marisco.net</a>
McCABE, HAMILTON & RENNY		Yes	Tenant	P.O. Box 210,	Honolulu, HI 96810	Andrew Souza	808-479-0356		<a href="mailto:andrewsouza16@msn.com">andrewsouza16@msn.com</a>
SAUSE BROS., INC.		John Wayne Ave.	Tenant	705 North Nimitz Highway,	Honolulu, HI 96817	Wayne Stachel for HNL, Mike for	HNL: (808)306-2177	KAL: 690-3412	<a href="mailto:Waynes@sause.com">Waynes@sause.com</a>
THE PHOENICIAN, LLC		91-573 Makaole St.	Tenant	91-573 Malakole Road	Kapolei, HI 96707	John Gomersall	(808) 478-8031		the phoenician@thephoenician.net



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**APPENDIX D**  
**EXAMPLE TENANT MAILING**

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LINDA LINGLE  
GOVERNOR



MICHAEL D. FORMBY  
INTERIM DIRECTOR

Deputy Directors  
FRANCIS PAUL KEENO  
JIRO A. SUMADA

10 OCT 15 AIO :03

HARBORS DIVISION

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HARBORS DIVISION  
79 SOUTH NIMITZ HIGHWAY  
HONOLULU, HAWAII 96813-4898

IN REPLY REFER TO:

HAR-EE  
8967.11

September 27, 2010

TO: HARBORS DIVISION TENANTS

FROM: DAVIS K. YOGI   
HARBORS ADMINISTRATOR

SUBJECT: TENANT SELF-INSPECTION FORM, STORM WATER COMPLIANCE  
AWARENESS TRAINING, STORM WATER COMPLIANCE INSPECTION  
NOTIFICATION

Your assistance is requested to provide essential information about your operational activities and storm water management practices that will aid the Department of Transportation Harbors Division to comply with federally mandated requirements of the Federal Water Pollution Act, commonly referred to as the Clean Water Act (CWA), and State of Hawaii requirements under the Department of Health, Hawaii Administrative Rules.

The regulations are defined in Title 40, Code of Federal Regulations (40 CFR), Parts 122 and 123, and in the State of Hawaii Administrative Rules, Chapter 11-55. The regulations establish a framework that governs the discharge of storm runoff into waters of the United States, and could impose penalties of up to \$27,500 per day per violation for non-compliance.

The Harbors Division has obtained coverage from the Department of Health to operate the storm drainage systems which discharge into Honolulu Harbor and Kalaeloa Barbers Point Harbor. We require your careful review and timely return of the attached Tenant Self-Inspection Form (Attachment 1), which is designed to help you and allow us to assess compliance with state and federal regulations as well as our discharge permit. This form needs to be completely filled out and returned, postmarked by **October 29, 2010**. Please send the completed form to the Harbors Division, Attention: Mr. Richard Min, Environmental Health Specialist, 79 South Nimitz Highway, Honolulu, Hawaii 96813. You may also deliver the form in person at one of the mandatory tenant training sessions detailed below. A Storm Water Best Management Practices handout (Attachment 2) is also included and must be furnished to all of your employees.

Should you fail to return a completed form, you may be subject to civil and/or criminal penalties.

This is also a notification of upcoming required awareness training pursuant to requirements established under the Honolulu Harbor and Kalaeloa Barbers Point Harbor Small Municipal Separate Storm Sewer System (MS4) Permits.

Mandatory awareness training will be provided for tenants of the Harbors Division, environmental managers and/or their representatives at the Honolulu Harbor Pier 2 Passenger Terminal on **November 3 and 4, 2010**. Please send at least one representative from your company to either of the two training sessions. Training sessions check-in starts at **8:30 am** and the presentation will be from **9:00 am to 11:30 am**. The training and parking are provided by the Harbors Division at no charge.

This is also a notification of an upcoming inspection of your facilities pursuant to requirements established under the Honolulu Harbor and Kalaeloa Barbers Point Harbor Small Municipal Separate Storm Sewer System (MS4) Permits.

We will be contacting you directly to schedule the inspection. Inspection activities are anticipated to commence on or about November 8, 2010 and will be conducted on Mondays through Fridays between 0730 and 1730 hours. Key points of interest during the inspection are detailed in the attached inspection checklist. Inspections will be managed by the Harbors Division's Environmental Health Specialist Mr. Min, and Weston Solutions, Inc. (Mr. Mark Ambler, 387-6167).

If you have any questions, please contact Mr. Min, Harbors Environmental Health Specialist, at 587-1976 or Mr. Randal Leong, Harbors Environmental Engineer at 587-1962.

**Attachment:**

- Tenant Self-Inspection Form
- Storm Water Best Management Practices Handout
- Tenant Inspection Checklist

# STORMWATER BEST MANAGEMENT PRACTICES



## Vehicle and Equipment Washing

Wash water from vehicle and equipment cleaning activities performed outdoors or in areas where wash water flows onto the ground can contribute toxic hydrocarbons, heavy metals, suspended solids, oils and greases, and other contaminants to stormwater run-off.

Releasing pollutants directly or indirectly into the storm drain system or the harbor by vehicle or equipment washing is a violation of the Harbor Municipal Separate Storm Sewer System (MS4) General Permit.

Proper employee training, BMP implementation, and pollution prevention methods are required for compliance with the Harbor's Storm Water Management Program (SWMP).

### BMP Implementation

#### Primary Option:

Off-site washing: Utilize a commercial facility designed for NPDES compliance and permitted for discharge to the sanitary sewer system.

#### Secondary Option

On-Site Washing: Requires designated area designed to collect wash water for treatment/disposal and prevent stormwater run-on/off.

- Approval of Harbors Engineering Branch required
- Area should be paved, bermed, and covered
- Wash water either treated and discharged to sanitary sewer (permit required) or collected for off-site disposal
- No vehicle maintenance allowed in washing areas
- Use automatic shut off hose nozzles and biodegradable soaps where appropriate
- Train employees (document) on proper cleaning, maintenance, and wash water disposal procedures



*The State Department of Transportation, Harbors Division, developed the Storm Water Management Program (SWMP) in compliance with the National Pollutant Discharge Elimination System (NPDES) and the State of Hawaii Municipal Separate Storm Sewer System (MS4) General Permit requirements.*

*The SWMP is administered by the Environmental Section under the Engineering Branch.*

*Phone: 587-1962*

*Website:  
<http://hawaii.gov/dot/harbors/library/storm-management-plan>*

**Cover it; Clean it; Collect it; Keep our waters Clear!**

# STORMWATER BEST MANAGEMENT PRACTICES



## Vehicle and Equipment Fueling

Transfer and storage of bulk petroleum products (i.e. gasoline, diesel, and motor oil) have the potential to pollute stormwater run-off. Implementation of BMPs is required to reduce or prevent petroleum pollutants from entering the stormwater drainage system. Both administrative controls (employee training) and structural controls (automatic shut-off/secondary containment) are necessary for an effective pollution prevention program.

### BMP Implementation

- Utilize off-site commercial fueling facilities as the primary option for vehicle and equipment fueling
- Designate specific areas on-site for vehicle and equipment fueling when required
  - Avoid positioning upstream or adjacent to stormwater drainage features
  - Utilize impervious surfaces and containment designed to prevent stormwater run-on/off
  - Ensure spill kits are available (immediately clean up and properly dispose of used absorbent materials)
  - Equip dispensing nozzles with automatic shut-off controls
- Utilize drip pans if remote or mobile fueling is required
- Provide secondary containment for aboveground storage tanks
  - Containment required to be 110% of largest tank capacity
  - Containment required to have locking drain valve
  - Record containment inspections and uncontaminated rain water discharges
  - Develop Spill Prevention, Control, and Countermeasures (SPCC) Plan if required per Federal/State regulations
- Perform periodic inspections (document) of petroleum handling equipment and structural controls
- Train employees (document) on proper fueling and spill response responsibilities
- Report all spills exceeding 5 gallons and/or spills that impact surface water and document response procedures



*The State Department of Transportation, Harbors Division, developed the Storm Water Management Program (SWMP) in compliance with the National Pollutant Discharge Elimination System (NPDES) and the State of Hawaii Municipal Separate Storm Sewer System (MS4) General Permit requirements.*

*The SWMP is administered by the Environmental Section under the Engineering Branch.*

*Phone: 587-1962*

*Website:  
<http://hawaii.gov/dot/harbors/library/storm-management-plan>*



# Tenant Stormwater Compliance Self Inspection Form

LINE ITEM	FORM FIELD		
<b>Company Information</b>			
<b>Business Name</b>			
Street Address 1			
Street Address 2			
City, State			
Zip Code			
<b>Business Owner / Operator</b>			
Telephone Number			
Email Address			
Fax Number			
Tenant Since (month/year)			
<b>Alternate Contact Name</b>			
<b>Tenant Information</b>			
List Sub-tenants (if applicable)			
EPCRA Section 313 SIC Code			
Lease Number			
Permit Number			
Business Activity Description			
<b>Pollution Prevention Info</b>			
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)?	<input type="checkbox"/> YES	<input type="checkbox"/> 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.	<input type="checkbox"/> YES	<input type="checkbox"/> 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?  _____	<input type="checkbox"/> YES	<input type="checkbox"/> NO	
Do you generate any Hazardous Waste? If so identify the waste and provide your EPA Generator Identification Number.  _____	<input type="checkbox"/> YES	<input type="checkbox"/> NO	
What chemicals, which could pollute storm water runoff if released, are presently being stored on-site? (Attach additional sheets as necessary)			
<b>Chemical Name</b>	<b>Quantity</b>	<b>Method of Storage</b>	<b>Outdoor / Indoor</b>

LINE ITEM	FORM FIELD				
<b>Pollution Prevention Info (Continued)</b>					
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.					
<input type="checkbox"/> Acid Waste	<input type="checkbox"/> Non-halogenated Solvents*	<input type="checkbox"/> Alkaline Waste	<input type="checkbox"/> Oils and Grease	<input type="checkbox"/> Arsenic	
<input type="checkbox"/> Pesticides	<input type="checkbox"/> Cadmium	<input type="checkbox"/> Petroleum Hydrocarbons	<input type="checkbox"/> Chromium	<input type="checkbox"/> PCB's	
<input type="checkbox"/> Copper	<input type="checkbox"/> Phenols	<input type="checkbox"/> Cyanide	<input type="checkbox"/> Selenium	<input type="checkbox"/> Halogenated Solvents	
<input type="checkbox"/> Silver	<input type="checkbox"/> Herbicides	<input type="checkbox"/> Thallium	<input type="checkbox"/> Mercury	<input type="checkbox"/> Zinc	
<input type="checkbox"/> Nickel	<input type="checkbox"/> 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)?				<input type="checkbox"/> YES	<input type="checkbox"/> 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				<input type="checkbox"/> YES	<input type="checkbox"/> NO
Do you have to submit SARA III reporting?				<input type="checkbox"/> YES	<input type="checkbox"/> 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>		
<b>Pollution Prevention Info (Continued)</b>		
<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/>	<input type="checkbox"/> YES	<input type="checkbox"/> NO
<p>Are floor drains or deck drains located in the areas of chemical storage or chemical use, present at your facility? If yes, where is the discharge point?</p> <p> <input type="checkbox"/> Sanitary sewer                <input type="checkbox"/> Ground surface                <input type="checkbox"/> Unknown         </p>	<input type="checkbox"/> YES	<input type="checkbox"/> NO
<b>Points of Contact for Water Pollution Reporting</b>		
<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>		
<b>Point of Contact</b>	<b>Telephone Number</b>	
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	
<b>Feedback</b>		
<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?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
<p>Comments:</p>   		



## 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 Representative(s) Signature		SIC or NAICS:	
Inspector(s)**:		Weather Conditions	

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:  
Hawaii DOT, Harbors Division

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:  
Hawaii DOT, Harbors Division

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.		
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"/>	

Inspector Name:  
Hawaii DOT, Harbors Division

Date:

<b>OIL/WATER SEPARATORS MAINTENANCE</b>		<b>YES NO N/A</b>	<b>Comments</b>
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"/>	

<b>RUNOFF RETENTION BASINS</b>		<b>YES NO N/A</b>	<b>Comments</b>
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"/>	

<b>EMERGENCY SPILL CLEANUP PLANS</b>		<b>YES NO N/A</b>	<b>Comments</b>
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"/>	

<b>CONSTRUCTION</b>		<b>YES NO N/A</b>	<b>Comments</b>
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"/>	

<b>EPCRA</b>		<b>YES NO N/A</b>	<b>Comments</b>
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:

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**APPENDIX E**

**TENANT SELF INSPECTION DATABASE**

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Hawaii Department of Transportation Harbors Division  
 Tenant Self Inspection - Kalaeloa Harbor

Tenant	Activity	Lease Number	Permit Number	SIC Code	NPDES Permits	SARA III	Other Federal Permits
AES KALAELOA VENTURE LLC	Marine Cargo Handling	H-89-14				No	Non-covered source permit (NSP) No. 0289-01-N
ALOHA PETROLEUM, LTD.	Bulk Fuel Storage	H-96-1; H-89-11		5171	HIR80A998	No	Clean Air Permit 0220-01-C 0220-04-N
GLP ASPHALT, LLC							
HAWAIIAN CEMENT	Portland Cement import and distribution	H-88-36; H-98-10	H-88-1540	5032	Exempt Maritime Facility-	No	
HEALY TIBBITTS BUILDERS, INC.	Construction Storage Yard		H-06-2538;H-92-1783	237990		No	No
MARISCO, LTD.	Dry Dock/ Ship Repair	H-90-10	H-00-2224;H-99-2186;H-96-1901		HI-0021786	Yes	N/A
McCABE, HAMILTON & RENNY	Repair Shop		H-99-2160; H-96-1911; H-93-1820; H-90-1630			No	No
SAUSE BROS., INC.	Maintenance and Repair Support for Tug and Barges as well as Logistics		H-01-2261; H-94-1833; H-93-1823; H-93-1800			No	None
THE PHOENICIAN, LLC	Small boat repair facility	201150200	GP2002-05-0317		HI R20B748	Yes	No



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**APPENDIX F**

**HARBORS TENANT TRAINING RECORDS**

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**Weston Solutions, Inc**

Suite 2301  
841 Bishop Street  
Honolulu, HI 96813  
808-275-2900  
Fax: 808-585-7378

**HDOT HARBORS  
STORMWATER MANAGEMENT  
TENANT TRAINING  
November 3, 2010**



**SIGN-IN SHEET**

COMPANY	PRINT NAME	SIGNATURE	EMAIL	VOLUNTEER FOR CLEAN-UP?
Robert's Hawaii	Andrew Lind	<i>[Signature]</i>	andrew.lind@robertshawaii.com	
HARDY CONST CO	MELVIN HARDY	<i>[Signature]</i>	HARDY001@hawaii.hr.com	
HONOLULU MARATHON ASSN	RONALD CHEN	<i>[Signature]</i>	jchen@hawaii.net	
ARITA POUKSON CON CON	STEVE JOHNSON	<i>[Signature]</i>	STEVE@ARITAPOUKSON	
NATHAN SIBBERN	NATHAN SIBBERN	<i>[Signature]</i>	Nathan.Sibbern@hawaii.com	
Concrete Carving	KEOLA GOO	<i>[Signature]</i>	keolag@gloverhd.com	
JAS. W. GLOVER LTD.	Irene Yang	<i>[Signature]</i>		
Queen's Supermarket	Clint Kagami	<i>[Signature]</i>	Clintkagami@hotmail.com	
Kagami Inc	RON RICHARDSON	<i>[Signature]</i>	ron.richardson@dhx.com	
DHX	MICHAEL CHANG	<i>[Signature]</i>	mchang@petrospect.net	
PETROSPECT, INC.	J PEDRO	<i>[Signature]</i>	jpedro@hawaii.gov	
HPD - PAL	Tim Sawyer	<i>[Signature]</i>	tsrv@cleanislands.org	
Clean Islands Council	Chris Hillman	<i>[Signature]</i>	chris@tropicalis.com	
Tropical J's Inc	Daniel Otani	<i>[Signature]</i>	dtj027@gmail.com	
United Fishing Agency	LAYNE KANE	<i>[Signature]</i>	kanotrucking@hawaii.com	
I.T. KANO TRUCKING	NATHAN KAPULE	<i>[Signature]</i>	nkapule@hawaii.com	OK
Hawaii Engineering & Design	NATHAN KAPULE	<i>[Signature]</i>	nkapule@hawaii.com	OK
OCEANIC DIRECT	Meghan Chan	<i>[Signature]</i>	mchan@hawaii.com	
CS&P				



**Weston Solutions, Inc**

Suite 2301  
841 Bishop Street  
Honolulu, HI 96813  
808-275-2900  
Fax: 808-585-7378

**HDOT HARBORS  
STORMWATER MANAGEMENT  
TENANT TRAINING  
November 5, 2010**



**SIGN-IN SHEET**

VOLUNTEER FOR  
CLEAN-UP?

COMPANY	PRINT NAME	SIGNATURE	EMAIL	VOLUNTEER FOR CLEAN-UP?
Hi-Tel Roofing	Cynthia Jeffers	<i>[Signature]</i>	cahitec@ixi.com	
PACIFIC SHIPYARDS	THOMAS ATKINSON	<i>[Signature]</i>	tatkinson@pacificshipyards.com	
American Guard Svcs	Michael Burgan	<i>[Signature]</i>	scm200@yahoo.com	
Arita Paulson Gen Con	Gary Wallen	<i>[Signature]</i>	garry@arita-paulson.com	
Unitek Maritime	TOMT REEST	<i>[Signature]</i>	Toni@unitek.com	
CUSTOM BILT METALS	STEVE GUYNES	<i>[Signature]</i>	Steve@CustomBiltMetals.com	
PIR Water Taxi	Akuritino Maiva	<i>[Signature]</i>	IPA	
ED Yanashiro	Aaron Yamd	<i>[Signature]</i>	2477870	ok
JFC International, Inc	Rae Miyasaki	<i>[Signature]</i>	rmiyasaki@jfc.com	
Norman's Transfer Service	Maresa Hoosiba	<i>[Signature]</i>	nts96819@hotmail.com	
Projects Enterprises, Inc	Karen Tina Lee	<i>[Signature]</i>	klee@projects.com	
ISS/INX	Jenida Kukauba	<i>[Signature]</i>	jenida.kukauba@iss-shipping.com	
ISS/INX	Sandy Kusumoto	<i>[Signature]</i>	Sandy.Kusumoto@iss-shipping.com	
TreePac	Todd Santos	<i>[Signature]</i>	TSantos@treepac.org	
PM Realty/ATM	Madene Daley	<i>[Signature]</i>	mdaley@p.maq.com	Yes
ALOHA COBRAINER	Richard Piston	<i>[Signature]</i>		YES
CONTROL TECH LLC	MELWIN TSUE	<i>[Signature]</i>	ctech@lava.net	
AES HAINAIL	SAMMUEL AND SHUBUTUM	<i>[Signature]</i>	SAMMUEL.GUANID@AES.COM	YES
KANAKA				

11/4/10

VOLUNTEER FOR CLEAN-UP?

COMPANY	PRINT NAME	SIGNATURE	EMAIL
EAST WEST MEXICO	BERTIE SM BARZANUKA		Bergamen Gladion
PBR WATER TAXI	GUY CHING		TAXIPILOTEHAWAIIANTEL.NET
PHOENICIAN LLC	GREG POWELL		ThePhoenixianofTheHawaii
SLAND MOVERS	DEREK CUNANARA		DerekCunanaraMovers.com
HORIZON LINES	DANE MARTIN		dmartin@horizonlines.com
NANAKULI HOUSING	BERT BARBER		
HORCEE ELECTRIC	KEVIN O'HARA		
ATLANTIS SUBMARINES	VERNA KUU		vernie@atlantisadventures.com
ATLANTIS SUBMARINES	JOHN CHAPMAN		JohnChapman@atlantisadventures.com
PM Realty Group	GAIL LUM		glum@pmrg.com
DON'S MURAKI	DEBORA KURORUM		
DON'S SAKIKI	DEWALD GAN		
TROPICAL ROOFING	JASON PELONA		jedelona13@gmail.com
MATSON NAVIGATION	KEAHI BURN		kburn@matson.com
AMERICAN MARINE COMP.	DAVID GRIFFITH		dgriffith@americancorp.com
HAWAII STEVEDORES	HOWARD E. HAGER		RHAGER@HAWAII-STEVEDORES.COM
AES KAHALOHA	ROBERT P. KAHUNA		
ALOHA GREG TRAVEL	TOM CRESECCI		Tom@acthi.com
AMERICAN MARINE CORP.	RANDY GRUNE		randy.grune@amshiq
PENCO	RANDY GRUNE		" " "





## State of Hawaii Water Pollution Rules and Regulations: Industrial Storm Water Pollution Prevention at DOT Harbors

**November 3 and 4, 2010**

By: Matthew Kurano  
Department of Health  
Clean Water Branch



### Industrial Storm Water Pollution Prevention: DOH's Role

**DOH-Clean Water Branch**

- The Clean Water Branch (CWB) protects the public health of residents and tourists who enjoy playing in and around Hawaii's coastal and inland water resources. The CWB also protects and restores inland and coastal waters for marine life and wildlife. This is accomplished through statewide coastal water surveillance and watershed-based environmental management through a combination of permit issuance, monitoring, enforcement, sponsorship of polluted runoff control projects, and public education.



State waters off of Lanai

### Industrial Storm Water Pollution Prevention: DOH's Role

**DOH-Clean Water Branch**

- Issues NPDES permits for:**
  - Construction Sites (1 acre or more)
  - Industrial Facilities
  - Municipal Sewage Treatment Plants
  - Storm Sewer System Owners
  - Misc. Facilities that discharge to State waters



Discharge from State waters

### Industrial Storm Water Pollution Prevention: Unlawful Discharges

Hawaii Revised Statutes (HRS) § 342D-50(a):

- No **person**, including any public body, shall discharge any **water pollutant** into **State waters**, or cause or allow any water pollutant to enter state waters, except as in compliance with the provisions of this chapter, rules adopted pursuant to this chapter, or a permit or variance issued by the Director.



Discharge from a Pier to State waters

### Industrial Storm Water Pollution Prevention: Regulations

Hawaii Revised Statutes (HRS) § 342D-30(a):

- Any person who violates this chapter, any rule, or any term or condition of a permit of variance issued pursuant to this chapter shall be fined not more than **\$25,000 for each separate offense**. Each day of each violation shall constitute a separate offense.

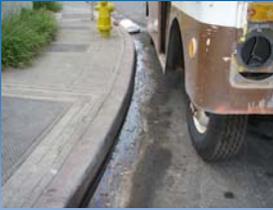


Storm Water Pollutant Source at an Industrial Facility

### Industrial Storm Water Pollution Prevention: Regulations

Hawaii Revised Statutes (HRS) § 342D-33: Knowing Violations

- Any person who knowingly violates this chapter or any rule adopted by the department pursuant to this chapter, or any condition in a permit issued under this chapter or any requirement imposed in a pretreatment program... **shall be punished by a fine of not less than \$5,000 nor more than \$50,000 per day of violation, or by imprisonment for not more than 3 years, or by both**



Discharge of a pollutant from an industrial activity to State waters

### Industrial Storm Water Pollution Prevention: Harbors Specific

DOT-Harbors has an NPDES Permit which requires:

- Public Education
- Public Involvement
- Illicit Discharge Elimination
- A Construction Storm Water Control Program
- A Post Construction Storm Water Management Program
- A Pollution Prevention Program



Discharge of a pollutant from a Harbor Facility to State waters

### Industrial Storm Water Pollution Prevention: Harbors Specific

Harbors is required to :

- Have a rigorous enforcement system
- Find and eliminate any illicit discharges
- Insure no polluted discharges occur from the DOT MS4
- Implement a construction monitoring program
- Utilize Post Construction BMPs



Discharge of a pollutant from a Harbor facility to State waters

### Industrial Storm Water Pollution Prevention: Harbors Specific

However :

- DOT-Harbors MS4 permit is not a shield
- Individual Responsible Persons (e.g. Tenants) can be subject to enforcement actions by the EPA, DOH, DOT-Harbors, and INDEPENDENT CITIZENS



DOT-Harbors: Accumulated Sediment at Kalaeloa Harbor

### Industrial Storm Water Pollution Prevention: Harbors Specific

EPA Has Issued an Administrative Order against DOT-Harbors:

- DOT-Harbors MS4 Program was audited by the EPA on December 8, 2008
- EPA issued an Administrative Order on June 18, 2009



DOT-Harbors: Sediment Tracking

**DOT-Harbors MS4 Program MUST Improve**

### Industrial Storm Water Pollution Prevention: Penalties

In the last two years...

The DOH-CWB has issued penalties of:

- \$500.00 to 1.73M
- For discharges of polluted storm water
- For failing to comply w/ permit conditions
- For sewer cross connections
- For construction related discharges



Illicit Discharge at a Harbor Facility

### Industrial Storm Water Pollution Prevention: Your Responsibility

You Will Be Held Responsible

1. Do Not Discharge Pollutants to State waters
2. Comply with all NPDES permit conditions
3. Follow DOT-Harbors Environmental Rules



Harbor facility during inspection

Industrial Storm Water Pollution  
Prevention: The CWB

Department of Health

Clean Water Branch

919 Ala Moana Blvd.

Room #301

Honolulu, HI 96814

Ph: (808) 586-4309








**2010 TENANT STORM WATER POLLUTION PREVENTION AWARENESS TRAINING**

Hawaii Department of Transportation – Harbors Division

### Introduction

- Hawaii Department of Transportation – Harbors Division
  - ▣ Mr. Carter Luke PE – Engineering Program Manager
  - ▣ Mr. Randal Leong PE – Environmental Engineer
  - ▣ Mr. Richard Min – Environmental Health Specialist
- Weston Solutions, Inc.
  - ▣ Mr. Mark Ambler PE, PMP
  - ▣ Mr. Joe Weidenbach
- Hawaii Department of Health
  - ▣ Mr. Matthew Kurano

### Upcoming Award

**2011 Environmental Manager of the Year**

*for Exemplary Management of a Tenant Stormwater Program Focused on Directing Meaningful Change*

### Agenda

- Regulatory Background
- Harbors (Small MS4) General Permit Requirements
  - ▣ Public Education
  - ▣ Public Participation
  - ▣ Illicit Discharge Detection and Elimination (IDDE) Program
  - ▣ Construction Site Run-Off Control
  - ▣ Post Construction Control
- Video Presentation (20 mins) – “Storm Watch”
- Pollution Prevention and Good Housekeeping
- Facility Inspections
- Enforcement Response Program
- Contact Information
- Questions and Answers

### Recent Program History

- HDOT Harbors General Permit – May 19, 2003
- EPA Audit – December 2008
- Finding of Violation – June 18, 2009
- Tenant Inspections – November 2009
- Stormwater Management Plan Revision – Dec 2009

### Federal Regulatory Background

- Clean Water Act (40 CFR 100-149)
  - ▣ 1972 Clean Water Act– Swimmable, Fishable
  - ▣ 1987 Amendments – NPDES (National Pollutant Discharge Elimination System) regulations
- NPDES – Environmental Protection Agency Regulatory Authority
  - ▣ Phase I issued in 1990 – Individual Permit
    - ▣ Industrial Facilities (PENDING MODIFICATION AND RENEWAL)
    - ▣ Construction Sites > 5 acres (PENDING MODIFICATION AND RENEWAL)
    - ▣ Medium and Large Municipality Separate Storm Sewer System (MS4)
  - ▣ Phase II issued in 1999 – General Permit
    - ▣ Small MS4
    - ▣ Construction Sites > 1 acre, < 5 acres (PENDING MODIFICATION AND RENEWAL)
- MS4 – conveyance that is owned by a state, city, town, village, or other public entity that discharges to waters of the U.S.; designed or used to collect or convey stormwater; and not combined with sewer.



## Hawaii Regulatory Background

- NPDES regulatory authority is administered by Hawaii Department of Health
- Hawaii Administrative Rules (HAR)
  - Title 11 Chapter 55 (11-55)
    - Water Pollution Control
  - Appendix K
    - NPDES General Permit Authorizing Discharges of Storm Water and Certain Non-Storm Discharges from Small MS4s
- Harbors Division – Notice of General Permit Coverage (NGPC)
  - HI 03KB482 – Honolulu Harbor Permit
  - HI 03KB488 – Kalaeloa Barbers Point Harbor Permit



## General Permit Requirements

### Minimum Control Measures

**Each Minimum Control Measure Requires:**

- Written Plan – SWMP
- BMP Implementation
- Training
- Reporting
- Enforcement

- Public Education & Outreach
- Public Participation & Involvement
- Illicit Discharge Detection & Elimination
- Construction Site Runoff Control
- Post-Construction Runoff Control
- Pollution Prevention & Good Housekeeping

## General Permit Allowable Discharges\*

- Water Line Flushing
- Landscape Irrigation
- Diverted Stream Flows
- Rising Ground Water
- Uncontaminated Ground Water Infiltration
- Uncontaminated Pumped Ground Water
- Discharges from Potable Water Sources
- Air Conditioning Condensate
- Crawl Space Pumps and Footing Drains
- Dechlorinated Swimming Pool Water
- Discharges from Fire Fighting Activities

\* Unless discharges "Cause or contribute to water quality objective exceedances."

## Understanding Pollutant Transport and Management Strategies

*Understanding the source, vehicle, and route of storm drain pollution is key to cost effectively managing facilities and discharges.*

- Source (leaking container, building material, spill)
- Vehicle / Carrier (irrigation water, wash water, rainfall, A/C condensate, ground water, etc)
- Route (direct dumping, swale, storm drain)

## Storm Water Best Management Practices

**What Are They?**

Administrative and structural controls are utilized to

- remove,
- contain, or
- treat pollutants

through

- Source removal,
- Preventative containment, and
- Capture/treatment methods.

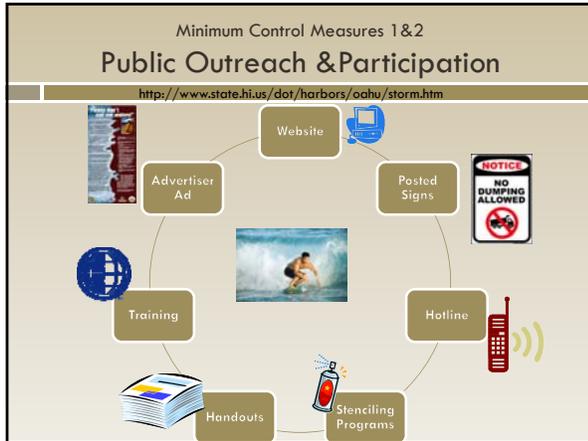
- Administrative Controls
  - Laws and ordinances
  - Leases and tenant agreements
  - Inspections
  - Housekeeping
  - Material Handling and Storage Practices
  - Maintenance Schedules
- Structural Controls
  - Secondary Containment
  - Berms
  - Washracks
  - Silt Fencing
  - Exclusion
  - Drain Inlet Protection, etc...

### Minimum Control Measure 1 Tenant Self Inspection Form



2009: 75.4%

Goal: 90%



### Minimum Control Measure 3 Illicit Discharge Detection & Elimination (IDDE) Program

**Common sources of illicit discharges include -**

- Sewage inflows from leaking sewage collection and transmission lines
- Commercial carwash and laundry wastewater
- Floor washing to shop drains
- Commercial Vehicle and Equipment washwater
- Potable line flushing that runs across hardscapes
- Pumping of vaults or trenches
- Construction activities
- Liquid wastes containing oil, paint, and process water
- Waste water from manufacturing or equipment processes
- Pesticides, herbicides, and other industrial chemicals

A collage of six photographs showing different sources of illicit discharges: a leaking pipe, a car wash, a shop floor drain, a construction site, a trench, and industrial waste.

### Minimum Control Measure 3 IDDE and Outfall Inspections

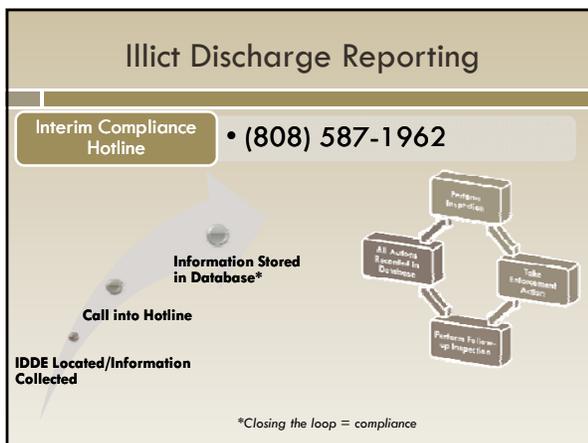
- Dry Weather Outfall Inspections will be performed to detect illicit discharges into outfalls.
- Dry Weather Flow indicates non-storm water discharges. Tracking these drain systems back to the source is an efficient way to detect Illicit.
- Utilize sampling, instruments, and observations to discern ground water vs potable water and presence of nutrients, toxic substances, sediments, bacteria, and general chemistry to "fingerprint" sources for abatement proceedings.

A photograph showing a pipe discharging water into a natural, vegetated area, likely an outfall.

### Illicit Discharges Threaten our Waters

**REPORT IT!!  
587-1962**

Two photographs: the left one shows a canal filled with blue-tinted water and debris; the right one shows a stormwater treatment facility with multiple basins.



### Minimum Control Measure 4 Construction Site Runoff Control

The diagram shows four interconnected components: 'Erosion Control', 'Storm Water Construction Inspection Program', 'Storm Water Storage and Handling', and 'Waste Management'.

**Common Problems Found During Inspections**

- No sediment controls on-site
- No erosion prevention
- No sediment control for temporary stockpiles
- No inlet protection
- No BMPs to minimize vehicle tracking on to the road
- Vehicle Tracking onto Streets
- Improper solid waste or hazardous materials management
- Dewatering at the construction site
- Poorly maintained BMPs

### Waste Management (Source Control)

Exposed Waste Management  
Subject to Rainfall and Birds



Unsecured / Unlocked  
Dumpster – Trespassing –  
Illegal Dumping

### Waste Management



Secured Enclosure – Minimized  
Illegal Dumping. Add non-  
galvanized corrugated roofing to  
prevent rain runoff.

Secured Enclosure – Minimized  
Illegal Dumping. Add non-  
galvanized corrugated roofing to  
prevent rain runoff.

ZERO RUNOFF SOLUTION

### Stockpiling (Source Control and Pollution Prevention)



Use Silt Fences to Contain  
Stockpiles

Cover Stockpiled Material  
\*Covers provide dust  
suppression and prevent  
polluted runoff.

### Silt Fencing (Treatment)



Inspection and maintenance of  
BMP's is as important as  
installing them.  
Improperly maintained silt  
fences are ineffective.

### Silt Fencing



Vegetated Swale!!

### Storm Drain Inlet Protection (Pollution Prevention)



### Storm Drain Inlet Protection

### Cleaning Equipment (source control)

### Construction Equipment Cleaning

### Minimum Control Measure 5 Post-Construction Design Features

Goal: Eliminate and minimize exposure of pollutants to storm water and to capture and infiltrate / treat.

U.S. EPA logo: Design for the Environment

### Minimum Control Measure 5 Post-Construction Controls

Considering water quality impacts early in the design process can provide long-term water quality benefits and lower administrative environmental management costs.

- ▣ **Low-Impact Development**
- ▣ **Green Design**
- ▣ **Site Specific/Innovative BMPs**
- ▣ **Infiltration**
- ▣ **Filtration**
- ▣ **Retention/Detention**
- ▣ **Isolation/Separation of Runoff from Processes**

**Retrofits you can use to manage your site:**

*Eliminating Curbs and Gutters:*  
 Green Parking  
 Green Roofs  
 Rain Barrels / Cisterns  
 Downspout Disconnects  
 Protection of Natural Features  
 Urban Forestry  
 Grassed Swales  
 Infiltration Basin/Trench  
 Permeable Pavement  
 Porous Asphalt Pavement  
 Sand and Organic Filters  
 Vegetated Filter Strip  
 Dry Detention Ponds  
 In-Line Storage  
 Storm Water Wetland

### Minimum Control Measure 5 Post-Construction Structural Controls

Drainage Swales

Storm Water Retention Ponds

Green Roofs

Porosity Pavement & Storm Water

Minimum Control Measure 6  
Pollution Prevention & Good Housekeeping

VIDEO Presentation

“Storm Watch”  
Municipal Stormwater Pollution Prevention  
EXCAL Visual Communications



Pollution Prevention & Good Housekeeping

- Inventory of Activities and Potential Pollutants
- Proper Labeling and Handling of Cleaners, Solvents, and Chemicals
- Organized Chemical Storage
- Responsible Disposal of Chemicals
- Storage Procedures should include covering stored metals
- Proper site drainage should be in place
- Proper Equipment/Material Storage
- Timely Equipment O&M
- Site maintenance and cleaning procedures should be in place. They should address environmental considerations and they should include BMP's



Minimum Control Measure 6  
Pollution Prevention & Good Housekeeping



Minimum Control Measure 6  
Pollution Prevention & Good Housekeeping

Stocked metals should be covered to prevent heavy metal intrusion into waterways



Minimum Control Measure 6  
Pollution Prevention & Good Housekeeping

All drums should be in good, working condition. Inspections should be held regularly and any drums with damage should be replaced immediately.



Minimum Control Measure 6  
Pollution Prevention & Good Housekeeping

Access to chemicals should be restricted to personnel trained in proper handling and disposal procedures; all must be labeled and have MSDS available

Flammable chemicals, solvents, and paints should be stored in a fireproof locker. Chemicals must be separated by compatibility



**Minimum Control Measure 6**  
**Pollution Prevention & Good Housekeeping**



Do not overfill



Trash bin kept covered when not in use



Keep trash and debris from accumulating around the bin, because storm water will carry it out to the ocean

**Vehicle and Equipment Washing**  
**(Source Control)**

- Allowed only at designated facilities
  - Water must be contained
  - Facility should be covered
  - Oil/Water Separator
  - Connected to Sanitary Sewer
- Wash water is NOT allowed outside/uncontained
  - Includes discharge of mop water
  - Includes rinsing or cleaning of waste bins
  - Always seek approval for discharge to sanitary sewer

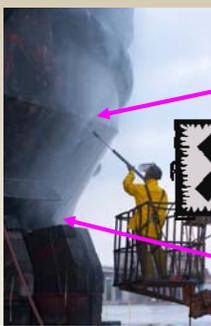
See the BMP flier attached to TSI Mailing

**Vehicle and Equipment Washing**  
**(Pollution Prevention)**





**Vehicle and Equipment Washing**  
**(Pollution Prevention)**



No grinding, painting, welding, or sand blasting



Containment and Collection is required!

**Vehicle and Equipment Washing**



Permitted Vehicle Wash Rack





Temporary Only: Wash water and debris require off-site disposal; Minimize detergents and overspray

**Vehicle and Equipment Washing**

ZERO RUNOFF SOLUTION



DRY cleaning methods uses "dry ice" to clean without water



Dry ice cleaning more effective, won't damage non-stainless fasteners, safe for electrical equipment, non-conductive.

### Spill Prevention and Response

- ❑ PREVENTION FIRST!!
- ❑ Proper Storage
  - ❑ Secondary Containment
  - ❑ Protected from equipment damage
  - ❑ Install shut-off controls, overfill protection, etc...
  - ❑ Stored away from storm drains
- ❑ Proper filling and handling procedures
  - ❑ Use drip pans
  - ❑ Use drop cloths

```

            graph TD
            A[Control] --> B[Contain]
            B --> C[Capture]
            
```

### Spill Prevention and Response

#### SPILL RESPONSE

- ❑ Assess the Spill
  - ❑ What Spilled
  - ❑ How Much Spilled
  - ❑ Where did it Spill; Surface Water Impacted?
  - ❑ Toxic or Hazardous Substance?
- ❑ Stop the release
- ❑ Contain the Spill
- ❑ Clean the Spill
- ❑ Properly Dispose of Materials
- ❑ Report All Spills
  - ❑ Small Spills should be tracked internally
    - Harbors Environmental
    - Hawaii Department of Health
    - U.S. Coast Guard
  - ❑ Large Spills

### Secondary Containment

Illicit Discharges!!

### Secondary Containment

Option: Add overhead coverage to eliminate exposure and reduce management of ponded water potentially containing pollutants

### Secondary Containment (Pollution Prevention)

- ❑ Keep locked to prevent unwanted discharge
- ❑ If excess storm water collects, inspect for sheen and/or test storm water to determine whether there are contaminants present

- ❑ If no contaminants present, supervise and document discharge of clean storm water and relock valve

### Spill Prevention and Response

Procedures should focus on prevention first. Then clean up if spills still occur

### Best Management Practices – Vehicle Pans/Pads

### Tenant Facility Inspections

- Site Inspections will be conducted for all tenants before the end of the year (2010)
  - 1 week notification
  - Starting with 50 high priority tenants
  - Inspection Checklist Provided
  - Inspection Report and Findings to be provided following Site Visits
  - Follow-up Inspections will be scheduled if required
  - Serious Violations will require immediate action
    - Depending on the severity of the discharge, regulatory actions may be pursued.
    - All inspection results and actions will be added to our database.
  - Risk ranking developed based on findings

### Site Inspections

### Construction Site Inspections

Site Inspections will be held on active construction sites to ensure NPDES is being properly followed.

Inspections will focus on proper BMP Management to reduce illicit discharges into the Harbor's storm drain system.

### Construction Site Inspections

### Enforcement Response Program

Regulatory Mechanisms	Penalties for Lack of Compliance (dependant on severity of violation)
<ul style="list-style-type: none"> <li>□ Hawaii Administrative Rules (HAR)</li> <li>□ Hawaii Revised Statutes (HRS)</li> <li>□ Tenant Leases/Revocable Permits</li> <li>□ 40 CFR - Clean Water Act &amp; NPDES</li> <li>□ Other Applicable State &amp; Federal Regulations</li> </ul>	<ul style="list-style-type: none"> <li>□ Verbal Warnings</li> <li>□ Written Notices</li> <li>□ Citation with Monetary Fines</li> <li>□ Stop Work Orders</li> <li>□ Abatement by Harbors Division with Reimbursement by the Responsible Party</li> <li>□ Lease/Permit Termination</li> <li>□ Referral to HDOH or Other Appropriate Regulatory Agency</li> <li>□ Monetary Fines – Up to \$27,500 Per Day!!!</li> <li>□ Mandatory Minimum Penalties under CWA.</li> </ul>

## Storm Water Contacts

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**First Call Harbors Hotline**

- Harbors Hotline @ (808) 587-1962

**Discharges**

- Marine Traffic Control Unit @ (808) 587-2076

**Serious Offenses**

- Hawaii Department of Health, Clean Water Branch @ (808) 586-4309
- U.S. Coast Guard @ (800) 424-8802
- USEPA @ (808) 541-2721



**REMOVE! CONTAIN! TREAT!**  
**KEEP OUR WATERS CLEAN.....**

**QUESTIONS OR COMMENTS?**



A single tin of paint can contaminate millions of gallons of water!

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**APPENDIX G**  
**HARBORS ENVIRONMENTAL ENGINEERING SPILL**  
**DOCUMENTATION FORMS**

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# Oahu District

## HAR-EE Spill Documentation Form

Regardless of amount of spill, all spills of oils, hazardous materials, or unknown chemicals must be immediately recorded on this form.

### A. Spill Information (to be provided by HAR-OCT Staff)

Recorded 6/25/10, W Time/Date Environmental Section Notified 6/25, 11:13 >  
Person reporting Bong Kim Phone 72076  
Location of Spill KBPH, P-5 Time of Spill 11am Date of Spill 6/25/10  
Substance spilled Black oil Amount Spilled unknown Duration of Spill \_\_\_\_\_

Media into which the release/spill occurred:

Air  Ground  Concrete/Asphalt  Stream  Ocean Other: \_\_\_\_\_

Responsible Party Vessel Atlantic Olive

Cause of spill \_\_\_\_\_

Description of clean-up actions \_\_\_\_\_

Notifications Made: USCG, DOT

Additional information \_\_\_\_\_

### B. Environmental Section Information

>CERCLA RQ (40CFR 117, 302)  (Y/N)

HEERO Notification (808) 586-4249/after hrs 247-2191

Notified at \_\_\_:\_\_\_ on \_\_\_/\_\_\_/\_\_\_

Written Notification to be submitted:  (Y/N) by \_\_\_/\_\_\_/\_\_\_

LEPC Notification (808) 523-4121 (Honolulu)/Fax 524-3439

Notified at \_\_\_:\_\_\_ on \_\_\_/\_\_\_/\_\_\_

NRC Notification (800-424-8802)

Notified at \_\_\_:\_\_\_ on \_\_\_/\_\_\_/\_\_\_

HAR-EE staff \_\_\_\_\_

Report number \_\_\_\_\_

Person notified \_\_\_\_\_

HAR-EE staff \_\_\_\_\_

Person notified \_\_\_\_\_

HAR-EE staff \_\_\_\_\_

Report number \_\_\_\_\_

Oahu District

HAR-EE Spill Documentation Form

Regardless of amount of spill, all spills of oils, hazardous materials, or unknown chemicals must be immediately recorded on this form.

A. Spill Information (to be provided by HAR-OCT Staff)

Recorded 11/3/09 Time/Date Environmental Section Notified Oct 30, 12:12 pm

Person reporting Barry Kim Phone 72076

Location of Spill Phoenix, K BPH Time of Spill 12:00t Date of Spill Oct 30

Substance spilled Diesel Amount Spilled ~ Duration of Spill

Media into which the release/spill occurred:

Air [checked] Ground Concrete/Asphalt Stream Ocean Other:

Responsible Party Phoenix

Cause of spill

Description of clean-up actions

Notifications Made:

Additional information

B. Environmental Section Information

>CERCLA RQ (40CFR 117, 302) (Y/N)

HEERO Notification (808) 586-4249/after hrs 247-2191

Notified at : on / /

Written Notification to be submitted: (Y/N) by / /

LEPC Notification (808) 523-4121 (Honolulu)/Fax 524-3439

Notified at : on / /

NRC Notification (800-424-8802)

Notified at : on / /

HAR-EE staff

Report number

Person notified

HAR-EE staff

Person notified

HAR-EE staff

Report number

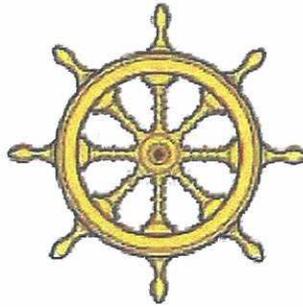
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**APPENDIX H**

**VOLUNTEER ACTIVITY FLIER AND ATTENDANCE RECORD**

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# Get The Drift & Bag It!

Also Celebrating the 25<sup>th</sup> Annual International Coastal Cleanup

**September 25, 2010**

**WIKOLIANA EDUCATIONAL EXCURSIONS**  
*(Site Coordinator-Honolulu Harbor)*

**What:** Get The Drift & Bag It and also the 25<sup>th</sup> Anniversary of the International Coastal Cleanup

**When:** Saturday, September 25, 2010

**Where:** Honolulu Harbor, Pier 7  
Wikoliana Educational Excursions

**Contact:** Captain Jeff Lansdown  
(808)230-0940

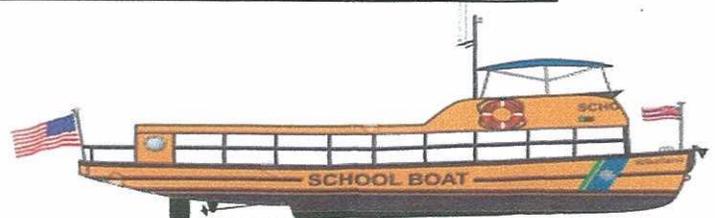
**Site Coordinator:** Wikoliana  
Educational Excursions (808)230-0940

**Online:** [www.wikoliana.com](http://www.wikoliana.com)  
[www.getthedriftandbagit.com](http://www.getthedriftandbagit.com)  
[www.coastalcleanup.org](http://www.coastalcleanup.org)

**The Mission of the Wikoliana Harbor Stewardship Program:**

To remove debris from Honolulu harbors, expand public awareness and education of the value of Honolulu's marine and maritime environment, and generate enthusiasm for future endeavors with schools and community organizations

To volunteer or receive information about the **Wikoliana Harbor Stewardship** or the **Wikoliana Education Excursions Programs**, please call **(808) 230-0940**, or email: **wikoliana@gmail.com**





## Wikoliana Educational Excursions Volunteer Hours Log

Name	Date	Activity Where are you from? (ethnicity or visiting from...)	HOURS
Wauker, Ellen	9/25/10	Belgium	
TAINI LADYDIANE	9/25/10	Cameroon	
TATIANA ZASHEVA	9/25/10	Russia	
Shchedrov Igor	9/25/10	Russia	
Galukhina Diana	9/25/10	Russia	
Kurbanov, Bartyr	9/25/10	Turkmenistan	
Saali, Eetu	9/25/10	Finland	
Strayan, Nayirah	9/25/10	LEBANON	
Chandra Braeger	9/25/10	Colorado U.S.A.	
Yahya Gilany	9/25/10	Egypt	
Helmi Merkhi	9/25/10	Tunisia	
Siyuan Shen	9/25/10	China	
Sheikh Rahman	9/25/10	Bangladesh	
Sadman Mondalib	9/25/10	BANGLADESH	





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**APPENDIX I**  
**UPDATED SMALL MS4 OUTFALL MAP**

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**APPENDIX J**

**HARBORS GROUND MAINTENANCE SPILL CLEANUP LOG**

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MONTHLY SPILL LOG OCTOBER 2010

Date	Material Spilled	Quantity	Responsible Person(s)	Discharge to Storm Drain or Ocean? (Y/N)	If Yes, Identify Water Body	Describe Clean-up Method, Disposal, and Group and Individual's Involved
10/22/2010	HYDRAULIC FLUID	32 GALLONS	DOT/HARBORS C-225 STREET SWEEPER	NO		<p>AT OR AROUND 0700 THE STREET SWEEPER C-225 HAD A HYDRAULIC PROBLEM THE HYDRAULIC LEAK STRETCHED ABOUT 100 YARDS IN MATSON BASEYARD AT PIER 52 A LABOR, STREET SWEEPER OPERATOR, A STATE SUPERVISOR AND 4 MATSON EMPLOYEES USED 10 OIL PADS AND 4 BAGS OF OIL SPONGE TO CLEAN THIS SPILL. USED PADS AND OIL SPONGE WAS PUT INTO A TRASH BAG AND WAS DISPOSED INTO HARBORS REFUSE CONTAINER TO BE DISPOSED AT H POWER AREA WAS SECURED AT 0900 HOURS</p>
10/29/10	oil	1/2 quart	unknown	no		<p>on 10/29/10 time 1;25pm labor crew cleaned oil thats coming out from under oil containment center. soaked up oil with pads &amp; used oil granuêls to soak up the balance.</p>

MONTHLY SPILL LOG JUNE 2010

Date	Material Spilled	Quantity	Responsible Person(s)	Discharge to Storm Drain or Ocean? (Y/N)	If Yes, Identify Water Body	Describe Clean-up Method, Disposal, and Group and Individual's Involved
6/18/10	PAINT	ONE gallon	UNKNOWN	NO		<p>At 0712 hours, refuse crew found paint coming out of our refuse container at pier 36. Refuse crew put oil pads on the paint surface that covered a 3x6 feet area. Refuse crew contacted supervisor. Refuse crew disposed 2 - 5 gallons and 3 - one gallon paint containers that was empty. Labor crew relieved refuse crew. Labor crew disposed soiled pads into trash bag. Labor crew then put down oil sponge dust onto paint and spread it around to absorb the paint on the ground. Labor crew swept the used oil sponge dust and put it into a trash bag. Labor crew then disposed both trash bags that had the soiled oil pads and used oil sponge dust into refuse container.</p> <p>Site was secured at 0824 hours.</p> <p>Labor crew put new oil pad under hole in refuse container and weighed it down so it is secured.</p> <p>1/2 BAG SPONGE &amp; 28 OIL PADS</p>
6/21/10	<p>OIL</p> <p>SOMEONE DUMPED WASTE OIL INTO REFUSE CONTAINER.</p> <p>OIL CONTAINMENT CENTER IS LOCATED NEXT TO OIL SPILL</p> <p>MATERIAL USED WERE 1/2 BAG OF OIL SPONGE AND 20 OIL PADS</p>	ONE gallon	UNKNOWN	NO		<p>At 0540 hours, the maintenance and repair supervisor notified oil mix with water from the rain under 4 REFUSE CONTAINERS at pier 18. The supervisor contacted the maintenance &amp; repair supervisor I via cell phone, who contacted the labor and refuse crew about this hazzord. The labor crew arrived and used pads and oil sponge dust to clean up the mix oil and water at this site and put the soiled oil pads &amp; used oil sponge dust into a trash bag and disposed it into the pier 18 REFUSE CONTAINER</p> <p>The work to contain the oil spill started at 07 30 hours and site was secured at 0800 hours</p>

DON KAULEINAMOKU MAINTENANC AND REPAIR SUPERVISOR II OF DOT/HARBOR DIVISION/HAR-OCG SANITATION AND GROUNDS UNIT OFS STATE OF HAWAII

July 2010

MONTHLY SPILL LOG

Date	Material Spilled	Quantity	Responsible Person(s)	Discharge to Storm Drain or Ocean? (Y/N)	If Yes, Identify Water Body	Describe Clean-up Method, Disposal, and Group and Individuals Involved
7/7/10	engine oil	1 quart	unknown	no		8:18am refuse crew noticed oil coming from under engine at pier 18 custodian can. cleaned oil with u4, water & pads. worked in dry with oil absorbent dust. put oil pads under engine. will take engine to pier 30 staging area on 7/8/10.
7/22/10 pier 37	engine oil	1 quart	unknown	no		7:29am refuse crew cleaned oil spill coming from refuse container. cleaned spill with u-4, water, pads & oil absorbent.
7/22/10 pier 16	engine oil	1 cup	unknown	no		8:16am refuse crew cleaned oil spill with u-4, water, oil pads & absorbent that was under refuse container.
7/30/ 2010	ENGINE OIL	1 QUART	UNKNOWN	NO		AT OR AROUND 0920 HOURS ON 30 july 2010 AT PIER 18 OIL CONTAINMENT CENTER 55 GAL. DRUMS OF WASTE OIL IS FULL AND OVERFLOWING OUT OF BARREL. LABOR CREW CLEAN SIDES OF BARREL AND PUT OIL PADS ON TOP OF BARREL TO SOAK UP BALANCE. NOTIFIED ACTING HARBOR MASTER BILL DAVIS ABOUT SITUATION . BILL DAVIS CONTACTED CONTRACTOR TO PUMP WASTE OIL OUT

DON KAULEINAMOKU  
 MAINTENANCE AND REPAIR SUPERVISOR II  
 SANITATION AND GROUND UNITS- HAR/OCG  
 DEPARTMENT OF TRANSPORTATION  
 HARBOR DIVISION  
 STATE OF HAWAII.





1 of 2 pages  
OCTOBER 2010

MONTHLY SPILL LOG

Date	Material Spilled	Quantity	Responsible Person(s)	Discharge to Storm Drain or Ocean? (Y/N)	If Yes, Identify Water Body	Describe Clean-up Method, Disposal, and Group and Individual's Involved
10/7/10	OIL	1 GALLON	UNKNOWN	NO		<p>AT 0744 HOURS, REFUSE CREW ENCOUNTERED AN OIL SPILL AT PIER 18 OIL SPILL WAS 10'x5' 3-MAN REFUSE CREW SECURED AREA AND USED 10 OIL PADS TO SOAK UP OIL. CREW THEN USED A 1/5 OF A BAG OF OIL SPONGE UPON THE LEFT OVER SPILL AND WORK THE OIL SPONGE INTO THE OIL SPILL TO SOAK UP LEFT OVER OIL. USED OIL SPONGE WAS PLACED IN TRASH BAG AND DISPOSED OF INTO REFUSE TRUCK THAT WENT TO H POWER. AREA WAS SECURED AT 0757 HOURS</p>
10/20/2010	OIL	ONE GALLON	UNKNOWN	NO		<p>AT 1225 HOURS, LABORS FOUND OIL SEEPING FROM THE SIDE/BOTTOM OF THE OIL CONTAINMENT CENTER AT PIER 18. LABORS SECURED AREA BY SHORING WHERE THE OIL WAS SEEPING OUT BY SPREADING AGAINST THE OIL CONTAINMENT CENTER WITH 3/4 OF THE OIL SPONGE DUST. LABORS LEFT OIL SPONGE AGAINST THE OIL CONTAINMENT CENTER SIDE/BOTTOM WHICH WAS STILL SOAKING THE SLOW OIL LEAK. COULD NOT GET TO THE SOURCE OF THE LEAK DUE TO 55 GALLON DRUMS WHERE FILLED WITH WASTE OIL.</p>

DON KAULEINAMOKU MAINTENANCE AND REPAIR SUPERVISOR II OF HAR/OCG DOT HARBOR DIVISION  
STATE OF HAWAII

NOVEMBER 2010

MONTHLY SPILL LOG

Date	Material Spilled	Quantity	Responsible Person(s)	Discharge to Storm Drain or Ocean? (Y/N)	If Yes, Identify Water Body	Describe Clean-up Method, Disposal, and Group and Individuals Involved
11/18/10	oil	1/4qrt	n/a	n		12:40pm at pier 18 oil cont. center labor crew cleaned oil thats coming out from under cont.center with pads & granals
11/24/10	oil	1/4qrt.	n/a	n		12;31pm pier 18 oil cont.center 55 gallon drum over flow with usedoil.cleaned around drum with pads, 4u & dust absorbent. also put pads on drum to plug hole.





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**APPENDIX K**

**HARBORS EMPLOYEE TRAINING RECORDS**

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## EMPLOYEE STORM WATER POLLUTION PREVENTION AWARENESS TRAINING

Hawaii Department of Transportation – Harbors  
Division

## Introduction

- Hawaii Department of Transportation – Harbors Division
  - Mr. Randal Leong – Environmental Engineer
  - Mr. Richard Min – Environmental Health Specialist
- Weston Solutions, Inc.
  - Mr. David Johnson
  - Mr. Joe Weidenbach
  - Mr. Mark Ambler

## Agenda

- Regulatory Background
- Purpose of NPDES
- Storm Water BMPs
- Stormwater Documents – SWMP and ACR
- Minimum Control Measures
- Video Presentation (20 mins) – “Just Passing Through”
- Pollution Prevention and Good Housekeeping
- Enforcement Response Program
- What Harbors Employees Can Do
- Contact Information
- Grounds Maintenance Records for 2009
- Questions and Answers

## Federal Regulatory Background

- Clean Water Act (40 CFR 100-149)
  - 1972 Clean Water Act– Swimmable, Fishable
  - 1987 Amendments – NPDES (National Pollution Discharge Elimination System) regulations
- NPDES – Environmental Protection Agency Regulatory Authority
  - Phase I issued in 1990 – Individual Permit
    - Industrial Facilities
    - Construction Sites > 5 acres
    - Medium and Large Municip Separate Storm Sewer System (MS4)
  - Phase II issued in 1999 – General Permit
    - Small MS4
    - Construction Sites > 1 acre < 5 acres
- MS4 – conveyance that is owned by a state, city, town, village, or other public entity that discharges to waters of the U.S.; designed or used to collect or convey stormwater; and not combined with sewer.

## Hawaii Regulatory Background

- NPDES regulatory authority is issued to Hawaii Department of Health by the EPA
- Hawaii Administrative Rules (HAR)
  - Title 11 Chapter 55 (11-55)
    - Water Pollution Control
  - Appendix C
    - Storm Water Associated with Construction Activity
  - Appendix K
    - NPDES General Permit Authorizing Discharges of Storm Water and Certain Non-Storm Discharges from Small MS4s
- Harbors Division – Notice of General Permit Coverage (NGPC)
  - HI 03KB482 – Administratively extended in October 2007
  - HI 03KB488 – Administratively extended in October 2007

## Purpose of NPDES

- NPDES ensures that no Non-Storm Water Discharge (NSWD) is allowed into the ocean
- Exceptions Include
  - Water Line Flushing
  - Landscape Irrigation
  - Diverted Stream Flows
  - Rising Ground Water
  - Uncontaminated Ground Water Infiltration
  - Uncontaminated Pumped Ground Water
  - Discharges from Potable Water Sources
  - Air Conditioning Condensate
  - Crawl Space Pumps and Footing Drains
  - Dechlorinated Swimming Pool Water
  - Discharges from Fire Fighting Activities

## Storm Water Best Management Practices

**What Are They?**

Administrative and structural controls that are utilized to reduce storm water pollution and keep our surface waters and oceans clean.

- **Administrative Controls**
  - Inspections
  - Housekeeping
  - Material Handling and Storage Practices
  - Maintenance Schedules
- **Structural Controls**
  - Secondary Containment
  - Berms
  - Washracks
  - Silt Fencing
  - Drain Inlet Protection, etc...

## Storm Water Management Plan



- Specific, quantifiable goals
- Milestones
- Deadlines
- Responsible Parties
- Costs

## Annual Compliance Report



- Show that SWMP has been followed
- Quantify progress
- Explanations for deficiencies, if any
- Documentation

## Public Education/Participation

<http://www.state.hi.us/dot/harbors/oahu/storm.htm>

 Website

 Training

 Posted Signs

 Handouts

 Hotline

 Stenciling Programs



## Illicit Discharge Detection & Elimination (IDDE) Program

**Common sources of illicit discharges include -**

- Sewage inflow from leaking sewage collection and transmission lines
- Commercial carwash and laundry wastewater
- Floor washing to shop drains
- Commercial Vehicle and Equipment wastewater
- Potable line flushing that runs across hardscapes
- Pumping of vaults or trenches
- Construction activities
- Liquid wastes containing oil, paint, and process water
- Waste water from manufacturing or equipment processes
- Pesticides, herbicides, and other industrial chemicals





## Outfall Inspections



- Harbors will perform Dry and Wet Weather Outfall Inspections to detect illicit discharges into outfalls.
- Dry Weather Flow indicates non-storm water discharges. Tracking these drain systems back to the source is an efficient way to detect Illicit Discharges
- Report NSWDs to Harbors!




## Illicit Discharges Threaten our Waters

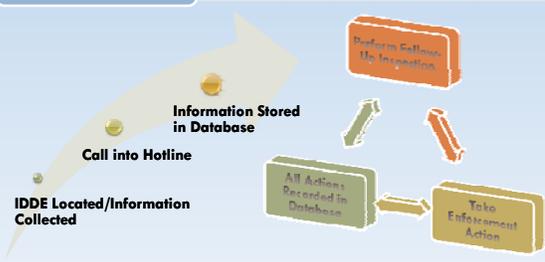


**REPORT IT!!**



## Illicit Discharge Reporting

Interim Compliance Hotline • (808) 587-1962



## Construction Site Runoff Control



**Report NSWDS to Harbors!**

**Common Problems Found**

- No temporary or permanent cover
- No sediment controls on-site
- No sediment control for temporary stockpiles
- No inlet protection
- No BMPs to minimize vehicle tracking on to the road
- Improper solid waste or hazardous materials management
- Dewatering at the construction site
- Poorly maintained BMPs

## Stockpiling

Improper Stockpiling





Insufficient Containment of Stockpile

## Stockpiling



Use Silt Fences to Contain Stockpiles



**Cover Stockpiled Material**  
\*Covers provide dust suppression and prevent polluted runoff.

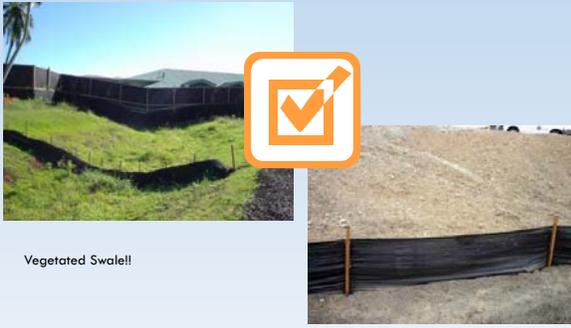
## Silt Fencing



Inspection and maintenance of BMP's is as important as installing them.  
Improperly maintained silt fences are ineffective.



### Silt Fencing



Vegetated Swale!!

This slide features a large orange checkmark icon. It contains two photographs: one showing a vegetated swale with a black silt fence installed along its edge, and another showing a close-up of a black silt fence barrier.

### Storm Drain Inlet Protection



This slide features a large black 'X' icon. It contains three photographs: one showing a storm drain inlet with a metal grate, another showing a storm drain inlet with a concrete curb, and a third showing a storm drain inlet with a concrete curb and a grate.

### Storm Drain Inlet Protection



This slide features a large orange checkmark icon. It contains three photographs: one showing a storm drain inlet with a concrete curb, another showing a storm drain inlet with a concrete curb, and a third showing a storm drain inlet with a concrete curb and a grate.

### Cleaning Equipment



This slide features a large black 'X' icon. It contains four photographs: one showing a yellow excavator with a high-pressure water spray attachment, another showing a yellow forklift, a third showing a yellow backhoe loader, and a fourth showing a yellow backhoe loader with a high-pressure water spray attachment.

### Equipment Cleaning



This slide features a large orange checkmark icon. It contains five photographs: one showing a white truck being cleaned, another showing a green backhoe loader, a third showing a white car being cleaned, a fourth showing a pile of gravel, and a fifth showing a white truck.

### Pollution Prevention & Good Housekeeping

VIDEO Presentation

“JUST PASSING THROUGH”  
Stormwater Pollution Prevention  
EXCAL Visual Communications



This slide features a photograph of a yellow dumpster, a red barrel, and a blue barrel on a yellow pallet.

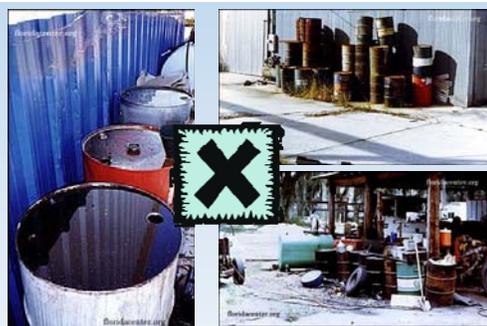
### Pollution Prevention & Good Housekeeping

- Proper Labeling and Handling of Cleaners, Solvents, and Chemicals
- Organized Chemical Storage
- Responsible Disposal of Chemicals
- Storage Procedures should include covering stored metals
- Proper site drainage should be in place
- Proper Equipment/Material Storage
- Timely Equipment O&M
- Site maintenance and cleaning procedures should be in place. They should address environmental considerations and they should include BMP's

WARNING /  
INCORRECTLY  
STORING  
FLAMMABLE  
ITEMS MAY  
CAUSE YOUR  
SUPERVISOR  
TO EXPLODE



### Pollution Prevention & Good Housekeeping



### Pollution Prevention & Good Housekeeping



Stocked metals should be covered to prevent heavy metal intrusion into waterways



### Pollution Prevention & Good Housekeeping



All drums should be in good, working condition. Inspections should be held regularly and any drums with damage should be replaced immediately.




### Pollution Prevention & Good Housekeeping



Access to chemicals should be restricted to personnel trained in proper handling and disposal procedures; all should be labeled and have MSDS available




Flammable chemicals, solvents, and paints should be stored in a fireproof locker. Chemicals should be separated by compatibility

### Pollution Prevention & Good Housekeeping

Do not overfill



Trash bin kept covered when not in use



Keep trash and debris from accumulating around the bin, because storm water will carry it out to the ocean

### Vehicle and Equipment Washing

- Allowed only at designated facilities
  - Water must be contained
  - Facility should be covered
  - Oil/Water Separator
  - Connected to Sanitary Sewer
- Wash water is NOT allowed outside/uncontained
  - Includes discharge of mop water
  - Includes rinsing or cleaning of waste bins
  - Always seek approval for discharge to sanitary sewer

### Vehicle and Equipment Washing




### Vehicle and Equipment Washing



No Containment means metals, greases, oils, and other contaminants are being directly discharged into the waterway.

Containment is required!

### Vehicle and Equipment Washing



Permitted Vehicle Wash Rack




Temporary Only: Wash water and debris require off-site disposal; Minimize detergents and overspray

### Spill Prevention and Response

- Prevention First
- Proper Storage
  - Secondary Containment
  - Protected from equipment damage
  - Install shut-off controls, overflow protection, etc...
  - Stored away from storm drains
- Proper filling and handling procedures
  - Use drip pans
  - Use drop cloths
- Report all major spills
- Document all spills with Environmental Section

### Spill Prevention and Response

SPILL RESPONSE

- Assess
  - What Spilled
  - How Much Spilled
  - Where did it Spill; Surface Water Impacted?
  - Toxic or Hazardous Substance?
- Stop the release (scene is safe and properly trained)
- Contain the Spill
- Clean the Spill
- Properly Dispose of Materials
- Report All Spills
  - Small Spills should be tracked internally
  - Large Spills (>5 or above Reportable Quantity Threshold)
    - Harbors Environmental
    - Hawaii Department of Health
    - U.S. Coast Guard



### Secondary Containment

**Illicit Discharges!!**

### Secondary Containment

### Secondary Containment

- Keep locked to prevent unwanted discharge
- If excess storm water collects, inspect for sheen and/or test storm water to determine whether there are contaminants present

- If no contaminants present, supervise and document discharge of clean storm water and relock valve

### Spill Prevention and Response

Procedures should focus on prevention first. Then clean up if spills still occur

### Enforcement Response Program

Regulatory Mechanisms	Penalties for Lack of Compliance (dependant on severity of violation)
<ul style="list-style-type: none"> <li>Hawaii Administrative Rules (HAR)</li> <li>Hawaii Revised Statutes (HRS)</li> <li>Tenant Leases/Revocable Permits</li> <li>40 CFR - Clean Water Act &amp; NPDES</li> <li>Other Applicable State &amp; Federal Regulations</li> </ul>	<ul style="list-style-type: none"> <li>Verbal Warnings</li> <li>Written Notices</li> <li>Citation with Monetary Fines</li> <li>Stop Work Orders</li> <li>Abatement by Harbors Division with Reimbursement by the Responsible Party</li> <li>Lease Termination</li> <li>Referral to HDOH or Other Appropriate Regulatory Agency</li> </ul>

### What Harbors Employees Can Do

Public Education and Involvement	Illicit Discharge Detection and Elimination
<ul style="list-style-type: none"> <li>Learn and spread environmental awareness</li> <li>Use the reporting hotline</li> <li>Volunteer for a Harbors-sponsored clean-up activity</li> <li>Read through and comment on SWMP when draft is posted</li> </ul>	<ul style="list-style-type: none"> <li>Illicit discharge awareness</li> <li>Report Illicit Discharges</li> </ul>

## What Harbors Employees Can Do

Construction Site Stormwater Runoff Control	Post-Construction Stormwater Control
<ul style="list-style-type: none"> <li>□ Report                             <ul style="list-style-type: none"> <li>□ Excessive Sediment runoff</li> <li>□ failed control measures (i.e. broken silt fence)</li> <li>□ Excessive dust</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>□ Plant vegetation in areas where with potential soil runoff</li> <li>□ Practice good housekeeping</li> </ul>

## What Harbors Employees Can Do

Pollution Prevention and Good Housekeeping

- Prevent trash from being exposed to rain by keeping lids closed and scheduling frequent pickups
- Keep oily equipment and parts covered
- Regular maintenance of vehicles
- Keep drip pans on-hand
- Proper use of fertilizer
- No washing of vehicles unless in approved facility
- Clean up stains, spills, oily spots immediately using dry cleanup methods
- Regular sweeping, no wet washing
- Regular trash pick up
- Regular maintenance of drainage systems

## Who Can You Call?

First Call Harbors Hotline

- Harbors Hotline @ (808) 587-1962

Discharges

- Marine Traffic Control Unit @ (808) 587-2076
- Harbor Police @ (808) 587-2006; (808) 587-2007

Serious Offenses

- Hawaii Department of Health, Clean Water Branch @ (808) 585-4309
- U.S. Coast Guard @ 1 (800) 424-8802
- USEPA @ (808) 541-2721

## Grounds Maintenance Records for 2009

Waste Type	Destination Facility	Amount
Lead Acid Batteries	Exide Technologies	1,328 ea.
Green Waste	Hawaiian Earth Product	13.2 tons
Refuse	Covanta Energy Honolulu Resource Recovery	107 tons
Refuse	Waimanalo Gulch	68.3 tons
Sweeper Waste	PVT Land Company, Ltd.	246.2 tons
Recycled Steel	Shnitzer Steel Hawaii Corp.	25.7 tons
Discarded Tires	Unitek Solvent Services, Inc.	1,826 ea.
Discarded Tires	Island Recycling Incorporated	26.3 tons



COVER IT! CLEAN IT! COLLECT IT!  
KEEP OUR WATERS CLEAN.....

- Questions?
- Comments?

Please fill out the provided survey.



A single tin of paint can contaminate millions of gallons of water!

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**APPENDIX L**

**CONSTRUCTION INSPECTION REPORTS**

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**SITE-SPECIFIC BEST MANAGEMENT PRACTICE PLAN**

**INSPECTION AND MAINTENANCE REPORT FORM**

(TO BE COMPLETED EVERY 7 DAYS AND/OR WITHIN 24 HOURS OF A RAINFALL EVENT OF 0.5 INCHES OR MORE)

Project Title: REPAIR BULLBOULS AT PIER P-7, KBRH NGPC No.: N/A

Project No.: HC 10392

Contractor: Haron Construction, INC.

Prepared By, Title: Andy Chan, P.E.

Date: 3/24/10 ; 10:45am  
Sunny ; 81°F.

**EROSION CONTROL - SLOPES/EXPOSED AREAS**

Location	Date Disturbed	Erosion Control Measure established	Type of Erosion Control used	Acceptable (yes/no)	Comments
<u>N/A</u>					<u>No ground <del>disturbed</del> today. disturbed</u>

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

**SEDIMENT CONTROL**

Location	Type of Control (Silt fence, inlet protection, etc.)	Acceptable? (Yes/No)	*Rate Effectiveness of Control	Comments
N/A				No ground <del>disturbed</del> disturbed today.
				All <del>disturbed</del> disturbed areas filled w/concrete.

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

**STABILIZED CONSTRUCTION ENTRANCE**

Location	Type of Stabilization	Acceptable? (Yes/No)	*Effectiveness of method used	Comments
N/A				N/A.

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

**STRUCTURAL CONTROLS (SEDIMENT BASINS)**

(Check for Condition of Basin and Condition of outfall)

Location	Type of Sediment Basin	Acceptable? (Yes/No)	*Effectiveness of Sediment Basin	Comments
N/A				N/A.

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

**OTHER CONSTRUCTION ACTIVITIES**

Activity	Adequate BMPs? (Yes/No)	Comments
Sawcutting	N/A	
Dust Control	YES	Fabrizz used with plywood frame during demo.
Material Storage	N/A	material on pick-up trucks. leave site everyday.
Dewatering	N/A.	

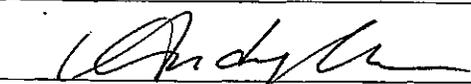
**CONTRACTOR ACTIVITIES**

Activity	Adequate BMPs? (Yes/No)	Comments
Concrete Washout/Waste	N/A	No concrete work today.
Vehicle/Equipment Fueling	N/A	No fueling on site
Vehicle/Equipment Cleaning	N/A	
Vehicle/Equipment Maintenance	N/A	No scheduled maintenance on site
Material Storage	N/A	No material store on site.
Spill Prevention/Control	YES	Contractor will provide drip pan for fork lift when equipment is idle.

**SITE-SPECIFIC COMPLIANCE, BMP, POLLUTION PREVENTION PLAN**  
**INSPECTION AND MAINTENANCE REPORT FORM**

(TO BE COMPLETED BEFORE COMMENCEMENT OF GRADING OR SITE-WORK AND THEN  
EVERY TWO WEEKS FROM OCTOBER THROUGH APRIL, OTHERWISE, BI-MONTHLY)

Harbors Division will not allow grading or site-work to commence until the project engineer or qualified project inspector have inspected the construction site to determine if the plans for site-specific compliance, BMPs and pollution prevention are implemented correctly and in the right locations.

Project Title: Repair Bullrails at Pier P-7, Kalaeloa Barbers Point Harbor NGPC No. N/A  
Project No.: HC10392 10:45AM  
Contractor: Haron Construction, Inc. SUNNY  
Verified By:  Date: 04/13/2010  
(HDOT Project Inspector/Engineer's Signature)

**EROSION CONTROL - SLOPES/EXPOSED AREAS**

Location	Date Disturbed	Erosion Control Measure established	Type of Erosion Control used	Acceptable (yes/no)	Comments
NONE					

Notes/Actions:

NO GROUND DISTURBANCE

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

**SEDIMENT CONTROL**

Location	Type of Control (Silt fence, inlet protection, etc.)	Acceptable? (Yes/No)	*Rate Effectiveness of Control	Comments
NONE				NO GROUND WORK ACTIVITIES

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

**STABILIZED CONSTRUCTION ENTRANCE**

Location	Type of Stabilization	Acceptable? (Yes/No)	*Effectiveness of method used	Comments
NONE				

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

**STRUCTURAL CONTROLS (SEDIMENT BASINS)**

(Check for Condition of Basin and Condition of outfall)

Location	Type of Sediment Basin	Acceptable? (Yes/No)	*Effectiveness of Sediment Basin	Comments
NONE				

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

**OTHER CONSTRUCTION ACTIVITIES**

Activity	Adequate BMPs? (Yes/No)	Comments
Sawcutting	N/A	No construction activity.
Dust Control	N/A	No construction activity.
Dewatering	N/A	No construction activity.

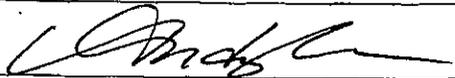
**CONTRACTOR ACTIVITIES**

Activity	Adequate BMPs? (Yes/No)	Comments
Concrete Washout/Waste	N/A	No construction activity.
Vehicle/Equipment Fueling	N/A	No equipment fueling on site.
Vehicle/Equipment Cleaning	N/A	No equipment cleaning on site.
Vehicle/Equipment Maintenance	N/A	No vehicle/equipment maintenance on site.
Material Storage	YES	Materials were hauled away from job site.
Spill Prevention/Control	N/A	No construction activity.
Waste Storage/Disposal	YES	No waste storage observed at job site.

## SITE-SPECIFIC COMPLIANCE, BMP, POLLUTION PREVENTION PLAN INSPECTION AND MAINTENANCE REPORT FORM

(TO BE COMPLETED BEFORE COMMENCEMENT OF GRADING OR SITE-WORK AND THEN EVERY TWO WEEKS FROM OCTOBER THROUGH APRIL, OTHERWISE, BI-MONTHLY)

Harbors Division will not allow grading or site-work to commence until the project engineer or qualified project inspector have inspected the construction site to determine if the plans for site-specific compliance, BMPs and pollution prevention are implemented correctly and in the right locations.

Project Title: Repair Bullrails at Pier P-7, Kalaeloa Barbers Point Harbor NGPC No. N/A  
 Project No.: HC10392 9:00AM  
 Contractor: Haron Construction, Inc. SUNNY  
 Verified By:  Date: 04/28/2010  
 (HDOT Project Inspector/Engineer's Signature)

**EROSION CONTROL - SLOPES/EXPOSED AREAS**

Location	Date Disturbed	Erosion Control Measure established	Type of Erosion Control used	Acceptable (yes/no)	Comments
NONE					

Notes/Actions:  
 NO GROUND DISTURBANCE

To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

**SEDIMENT CONTROL**

Location	Type of Control (Silt fence, inlet protection, etc.)	Acceptable? (Yes/No)	*Rate Effectiveness of Control	Comments
NONE				NO GROUND WORK ACTIVITIES

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

**STABILIZED CONSTRUCTION ENTRANCE**

Location	Type of Stabilization	Acceptable? (Yes/No)	*Effectiveness of method used	Comments
NONE				

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

**STRUCTURAL CONTROLS (SEDIMENT BASINS)**

(Check for Condition of Basin and Condition of outfall)

Location	Type of Sediment Basin	Acceptable? (Yes/No)	*Effectiveness of Sediment Basin	Comments
NONE				

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

**OTHER CONSTRUCTION ACTIVITIES**

Activity	Adequate BMPs? (Yes/No)	Comments
Sawcutting	N/A	No sawcutting involved today.
Dust Control	N/A	
Dewatering	N/A	No dewatering activity involved today.

**CONTRACTOR ACTIVITIES**

Activity	Adequate BMPs? (Yes/No)	Comments
Concrete Washout/Waste	N/A	No concrete work observed today.
Vehicle/Equipment Fueling	N/A	No equipment fueling observed on site.
Vehicle/Equipment Cleaning	N/A	No equipment cleaning observed on site.
Vehicle/Equipment Maintenance	N/A	No vehicle/equipment maintenance observed on site.
Material Storage	YES	Materials will be hauled away from job site each day.
Spill Prevention/Control	N/A	
Waste Storage/Disposal	YES	Waste will be hauled away each day.

SITE-SPECIFIC COMPLIANCE, BMP, POLLUTION PREVENTION PLAN

INSPECTION AND MAINTENANCE REPORT FORM

(TO BE COMPLETED BEFORE COMMENCEMENT OF GRADING OR SITE-WORK AND THEN EVERY TWO WEEKS FROM OCTOBER THROUGH APRIL, OTHERWISE, BI-MONTHLY)

Harbors Division will not allow grading or site-work to commence until the project engineer or qualified project inspector have inspected the construction site to determine if the plans for site-specific compliance, BMPs and pollution prevention are implemented correctly and in the right locations.

Project Title: Repair Bullrails at Pier P-7, Kalaehoa Barbers Point Harbor NGPC No. N/A

Project No.: HC10392 9:30AM

Contractor: Haron Construction, Inc. SUNNY

Verified By: [Signature] Date: 05/26/2010 (HDOT Project Inspector/Engineer's Signature)

EROSION CONTROL - SLOPES/EXPOSED AREAS

Table with 6 columns: Location, Date Disturbed, Erosion Control Measure established, Type of Erosion Control used, Acceptable (yes/no), Comments. Row 1 contains 'NONE' in the Location column.

Notes/Actions:

Final inspection on 5/26/10. Project closed.

To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

**SEDIMENT CONTROL**

Location	Type of Control (Silt fence, inlet protection, etc.)	Acceptable? (Yes/No)	*Rate Effectiveness of Control	Comments
NONE				NO GROUND WORK ACTIVITIES

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

\_\_\_\_\_

\_\_\_\_\_

To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

**STABILIZED CONSTRUCTION ENTRANCE**

Location	Type of Stabilization	Acceptable? (Yes/No)	*Effectiveness of method used	Comments
NONE				

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

**STRUCTURAL CONTROLS (SEDIMENT BASINS)**

(Check for Condition of Basin and Condition of outfall)

Location	Type of Sediment Basin	Acceptable? (Yes/No)	*Effectiveness of Sediment Basin	Comments
NONE				

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

**OTHER CONSTRUCTION ACTIVITIES**

Activity	Adequate BMPs? (Yes/No)	Comments
Sawcutting	N/A	
Dust Control	N/A	
Dewatering	N/A	

**CONTRACTOR ACTIVITIES**

Activity	Adequate BMPs? (Yes/No)	Comments
Concrete Washout/Waste	N/A	No concrete work observed today.
Vehicle/Equipment Fueling	N/A	No equipment fueling observed on site.
Vehicle/Equipment Cleaning	N/A	No equipment cleaning observed on site.
Vehicle/Equipment Maintenance	N/A	No vehicle/equipment maintenance observed on site.
Material Storage	N/A	No materials stored at job site today.
Spill Prevention/Control	N/A	
Waste Storage/Disposal	YES	Waste hauled away each day.

# SITE-SPECIFIC COMPLIANCE, BMP, POLLUTION PREVENTION PLAN

## INSPECTION AND MAINTENANCE REPORT FORM

(TO BE COMPLETED BEFORE COMMENCEMENT OF GRADING OR SITE-WORK AND THEN EVERY TWO WEEKS FROM OCTOBER THROUGH APRIL, OTHERWISE, BI-MONTHLY)

Harbors Division will not allow grading or site-work to commence until the project engineer or qualified project inspector have inspected the construction site to determine if the plans for site-specific compliance, BMPs and pollution prevention are implemented correctly and in the right locations.

Project Title:	Relamp Floodlights, Kalaeloa Barbers Point Harbor		NGPC No. N/A
Project No.:	HC10387		11:00AM
Contractor:	Paul's Electrical Contracting LLC		SUNNY
Verified By:			Date: 04/13/2010
	(HDOT Project Inspector/Engineer's Signature)		

### EROSION CONTROL - SLOPES/EXPOSED AREAS

Location	Date Disturbed	Erosion Control Measure established	Type of Erosion Control used	Acceptable (yes/no)	Comments
NONE					

Notes/Actions:

NO GROUND DISTURBANCE

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

**SEDIMENT CONTROL**

Location	Type of Control (Silt fence, inlet protection, etc.)	Acceptable? (Yes/No)	*Rate Effectiveness of Control	Comments
NONE				NO GROUND WORK ACTIVITIES

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

**STABILIZED CONSTRUCTION ENTRANCE**

Location	Type of Stabilization	Acceptable? (Yes/No)	*Effectiveness of method used	Comments
NONE				

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

**STRUCTURAL CONTROLS (SEDIMENT BASINS)**

(Check for Condition of Basin and Condition of outfall)

Location	Type of Sediment Basin	Acceptable? (Yes/No)	*Effectiveness of Sediment Basin	Comments
NONE				

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

**OTHER CONSTRUCTION ACTIVITIES**

Activity	Adequate BMPs? (Yes/No)	Comments
Sawcutting	N/A	No construction activity.
Dust Control	N/A	No construction activity.
Dewatering	N/A	No construction activity.

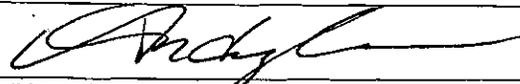
**CONTRACTOR ACTIVITIES**

Activity	Adequate BMPs? (Yes/No)	Comments
Concrete Washout/Waste	N/A	No construction activity.
Vehicle/Equipment Fueling	N/A	No equipment fueling on site.
Vehicle/Equipment Cleaning	N/A	No equipment cleaning on site.
Vehicle/Equipment Maintenance	N/A	No vehicle/equipment maintenance on site.
Material Storage	YES	Materials were hauled away from job site.
Spill Prevention/Control	N/A	No construction activity.
Waste Storage/Disposal	YES	No waste storage observed at job site.

## SITE-SPECIFIC COMPLIANCE, BMP, POLLUTION PREVENTION PLAN INSPECTION AND MAINTENANCE REPORT FORM

(TO BE COMPLETED BEFORE COMMENCEMENT OF GRADING OR SITE-WORK AND THEN EVERY TWO WEEKS FROM OCTOBER THROUGH APRIL, OTHERWISE, BI-MONTHLY)

Harbors Division will not allow grading or site-work to commence until the project engineer or qualified project inspector have inspected the construction site to determine if the plans for site-specific compliance, BMPs and pollution prevention are implemented correctly and in the right locations.

Project Title: <u>Relamp Floodlights, Kalaeloa Barbers Point Harbor</u>	NGPC No. <u>N/A</u>
Project No.: <u>HC10387</u>	9:30AM
Contractor: <u>Paul's Electrical Contracting LLC</u>	SUNNY
Verified By: <u></u>	Date: <u>04/28/2010</u>
(HDOT Project Inspector/Engineer's Signature)	

**EROSION CONTROL - SLOPES/EXPOSED AREAS**

Location	Date Disturbed	Erosion Control Measure established	Type of Erosion Control used	Acceptable (yes/no)	Comments
NONE					

Notes/Actions:  
NO GROUND DISTURBANCE

To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

**SEDIMENT CONTROL**

Location	Type of Control (Silt fence, inlet protection, etc.)	Acceptable? (Yes/No)	*Rate Effectiveness of Control	Comments
NONE				NO GROUND WORK ACTIVITIES

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

**STABILIZED CONSTRUCTION ENTRANCE**

Location	Type of Stabilization	Acceptable? (Yes/No)	*Effectiveness of method used	Comments
NONE				

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

**STRUCTURAL CONTROLS (SEDIMENT BASINS)**

(Check for Condition of Basin and Condition of outfall)

Location	Type of Sediment Basin	Acceptable? (Yes/No)	*Effectiveness of Sediment Basin	Comments
NONE				

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

**OTHER CONSTRUCTION ACTIVITIES**

Activity	Adequate BMPs? (Yes/No)	Comments
Sawcutting	N/A	No construction activity.
Dust Control	N/A	No construction activity.
Dewatering	N/A	No construction activity.

**CONTRACTOR ACTIVITIES**

Activity	Adequate BMPs? (Yes/No)	Comments
Concrete Washout/Waste	N/A	No construction activity.
Vehicle/Equipment Fueling	N/A	No equipment fueling on site.
Vehicle/Equipment Cleaning	N/A	No equipment cleaning on site.
Vehicle/Equipment Maintenance	N/A	No vehicle/equipment maintenance on site.
Material Storage	YES	Materials were hauled away from job site.
Spill Prevention/Control	N/A	No construction activity.
Waste Storage/Disposal	YES	No waste storage observed at job site.

SITE-SPECIFIC COMPLIANCE, BMP, POLLUTION PREVENTION PLAN

INSPECTION AND MAINTENANCE REPORT FORM

(TO BE COMPLETED BEFORE COMMENCEMENT OF GRADING OR SITE-WORK AND THEN EVERY TWO WEEKS FROM OCTOBER THROUGH APRIL, OTHERWISE, BI-MONTHLY)

Harbors Division will not allow grading or site-work to commence until the project engineer or qualified project inspector have inspected the construction site to determine if the plans for site-specific compliance, BMPs and pollution prevention are implemented correctly and in the right locations.

Project Title: Relamp Floodlights at Kalaeloa Barbers Point Harbor NGPC No. N/A
Project No.: HC 10387 1:30PM
Contractor: Paul's Electrical Contracting, LLC SUNNY
Verified By: [Signature] ANDY CHAN Date: 12/8/2010
(HDOT Project Inspector/Engineer's Signature)

EROSION CONTROL - SLOPES/EXPOSED AREAS

Table with 6 columns: Location, Date Disturbed, Erosion Control Measure established, Type of Erosion Control used, Acceptable (yes/no), Comments. Row 1: N/A, No Ground Disturbance.

Notes/Actions:

Final Inspection on 12/8/10.

No work was performed in the last several months.

To be performed by: on or before:

**SEDIMENT CONTROL**

Location	Type of Control (Silt fence, inlet protection, etc.)	Acceptable? (Yes/No)	*Rate Effectiveness of Control	Comments
N/A				NO GROUND WORK ACTIVITIES

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

**STABILIZED CONSTRUCTION ENTRANCE**

Location	Type of Stabilization	Acceptable? (Yes/No)	*Effectiveness of method used	Comments
N/A.				No Ground Disturbance work

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

**STRUCTURAL CONTROLS (SEDIMENT BASINS)**

(Check for Condition of Basin and Condition of outfall)

Location	Type of Sediment Basin	Acceptable? (Yes/No)	*Effectiveness of Sediment Basin	Comments
N/A				

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

**OTHER CONSTRUCTION ACTIVITIES**

Activity	Adequate BMPs? (Yes/No)	Comments
Sawcutting	N/A	No sawcutting involved today.
Dust Control	N/A	No dust created today.
Dewatering	N/A	No dewatering activity involved today.

**CONTRACTOR ACTIVITIES**

Activity	Adequate BMPs? (Yes/No)	Comments
Concrete Washout/Waste	N/A	No concrete work observed today.
Vehicle/Equipment Fueling	N/A	No equipment fueling observed on site.
Vehicle/Equipment Cleaning	N/A	No equipment cleaning observed on site.
Vehicle/Equipment Maintenance	N/A	No vehicle/equipment maintenance observed on site.
Material Storage	YES	Material was stored inside contractor's van.
Spill Prevention/Control	N/A	No equipment on site.
Waste Storage/Disposal	Yes	Wastes were hauled away from job site each day.

**SITE-SPECIFIC BEST MANAGEMENT PRACTICE PLAN**

**INSPECTION AND MAINTENANCE REPORT FORM**

(TO BE COMPLETED EVERY 7 DAYS AND/OR WITHIN 24 HOURS OF A RAINFALL EVENT OF 0.5 INCHES OR MORE)

Project Title: REPAIR LIGHTING AT PERI 2, KBPIH NGPC No.: N/A

Project No.: H.C. 103B5

Contractor: Paul's Electrical Contracting, LLC

Prepared By, Title: Andy Chan, P.E.

Date: 3/24/10; 11:15 am  
Sunny; 81°F

**EROSION CONTROL - SLOPES/EXPOSED AREAS**

Location	Date Disturbed	Erosion Control Measure established	Type of Erosion Control used	Acceptable (yes/no)	Comments
<u>N/A</u>					<u>N/A. No ground work involved.</u>

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

**SEDIMENT CONTROL**

Location	Type of Control (Silt fence, inlet protection, etc.)	Acceptable? (Yes/No)	*Rate Effectiveness of Control	Comments
N/A				No ground works

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

**STABILIZED CONSTRUCTION ENTRANCE**

Location	Type of Stabilization	Acceptable? (Yes/No)	*Effectiveness of method used	Comments
N/A				N/A

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

**STRUCTURAL CONTROLS (SEDIMENT BASINS)**

(Check for Condition of Basin and Condition of outfall)

Location	Type of Sediment Basin	Acceptable? (Yes/No)	*Effectiveness of Sediment Basin	Comments
N/A				N/A

(\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor)

Notes/Actions:

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To be performed by: \_\_\_\_\_ on or before: \_\_\_\_\_

### OTHER CONSTRUCTION ACTIVITIES

Activity	Adequate BMPs? (Yes/No)	Comments
Sawcutting	N/A	
Dust Control	N/A	
Material Storage	N/A	No activity today.
Dewatering	N/A	No ground work involved.

### CONTRACTOR ACTIVITIES

Activity	Adequate BMPs? (Yes/No)	Comments
Concrete Washout/Waste	N/A	No conc. work involved.
Vehicle/Equipment Fueling	N/A	No equipment on site
Vehicle/Equipment Cleaning	N/A	No equipment on site
Vehicle/Equipment Maintenance	N/A	No equipment on site
Material Storage	N/A	No material stored on site
Spill Prevention/Control	N/A	No equipment on site

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**APPENDIX M**  
**HARBORS CONSTRUCTION PLAN REVIEWER/INSPECTOR TRAINING**  
**RECORDS**

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## EMPLOYEE STORM WATER MANAGEMENT TRAINING CONSTRUCTION INSPECTION

Hawaii Department of Transportation – Harbors Division

## Introduction

- Hawaii Department of Transportation – Harbors Division
  - Mr. Randal Leong – Environmental Engineer
  - Mr. Richard Min – Environmental Health Specialist
- Weston Solutions, Inc.
  - Mr. David Johnson
  - Mr. Joe Weidenbach
  - Mr. Mark Ambler

## Agenda

- Handouts
- Regulatory Background
- Purpose of NPDES
- Small MS4 General Permit Requirements
- Where do Construction Projects Originate?
- Construction Site Stormwater Runoff Control Plan
  - Plan Review
  - Site Inspections and Video: BMPs for Construction Sites in Hawaii
  - Enforcement Actions
  - Reporting
  - Educational Outreach
- Contact Information
- Question/Comments

## Handouts

- 10 Elements of a Successful Review
- DOH-CW-NOI General Form
- DOH-CWB-NOI Form C
- EMS Manual Appendix G – Inspection and Enforcement Manual
- EMS Manual Appendix H – Construction Program

## Regulatory Background - Federal

- Clean Water Act (40 CFR 100-149)
  - 1972 Clean Water Act– Swimmable, Fishable
  - 1987 Amendments – NPDES (National Pollution Discharge Elimination System) regulations
- Effluent Limitation Guidelines and Standards for the Construction and Development Point Source Category (40 CFR 450)
- NPDES – Environmental Protection Agency Regulatory Authority
  - Phase I issued in 1990 – Individual Permit
    - Industrial Facilities
    - Construction Sites > 5 acres
    - Medium and Large Munciple Separate Storm Sewer System (MS4)
  - Phase II issued in 1999 – General Permit
    - Small MS4
    - Construction Sites > 1 acre < 5 acres
- MS4 – conveyance that is owned by a state, city, town, village, or other public entity that discharges to waters of the U.S.; designed or used to collect or convey stormwater; and not combined with sewer.



## Regulatory Background - Hawaii

- NPDES regulatory authority is issued to Hawaii Department of Health by the EPA
- Hawaii Administrative Rules (HAR)
  - Title 11 Chapter 55 (11-55)
    - Water Pollution Control
    - **Appendix C**
      - Storm Water Associated with Construction Activity
    - Appendix K
      - NPDES General Permit Authorizing Discharges of Storm Water and Certain Non-Storm Discharges from Small MS4s
  - Harbors Division – Notice of General Permit Coverage (NGPC)
    - HI 03KB482 – Administratively extended in October 2007
    - HI 03KB488 – Administratively extended in October 2007



### Purpose of NPDES

- NPDES ensures that no Non-Storm Water Discharge (NSWD) is allowed into the ocean
- Exceptions include:
  - Water Line Flushing
  - Landscape Irrigation
  - Diverted Stream Flows
  - Rising Ground Water
  - Uncontaminated Ground Water Infiltration
  - Uncontaminated Pumped Ground Water
  - Discharges from Potable Water Sources
  - Air Conditioning Condensate
  - Crawl Space Pumps and Footing Drains
  - Dechlorinated Swimming Pool Water
  - Discharges from Fire Fighting Activities

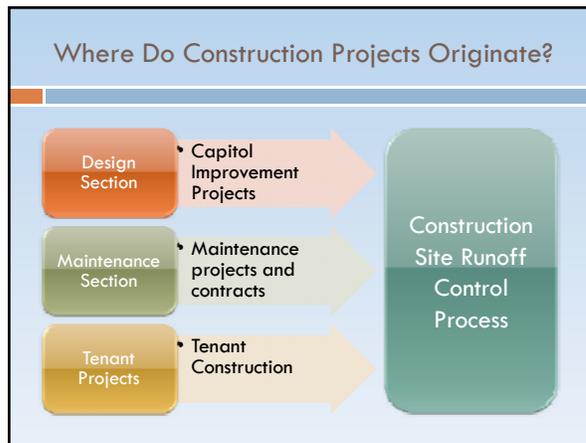
### Small MS4 General Permit Requirements

#### Minimum Control Measures

- Public Education & Outreach
- Public Participation & Involvement
- Illicit Discharge Detection & Elimination
- **Construction Site Runoff Control**
- **Post-Construction Runoff Control**
- Pollution Prevention & Good Housekeeping

### Construction Site Runoff Control Plan

- The purpose of the CSRPC is to prevent construction projects from polluting storm water during and after construction
- The CSRPC includes:
  - Plan Review
  - Site Inspections
  - Enforcement
  - Reporting
  - Educational Outreach
- Defined in Section 5.0 of the Storm Water Management Plan



### Construction Plan Review

Construction Site Runoff Control Plan:

- Plan Review
- Site Inspections
- Enforcement Actions
- Reporting
- Educational Outreach

- A tracking form will be developed to specify the responsibility of review
- Review will focus on storm water quality impacts, drainage connection and discharge permit applications
- Construction plan review includes post-construction consideration

### USEPA: 10 Elements of an Effective Review

Construction Site Runoff Control Plan:

- Plan Review
- Site Inspections
- Enforcement Actions
- Reporting
- Educational Outreach

1. Minimize Clearing and Grading
2. Protect Waterways
3. Phase Construction to Limit Soil Exposure
4. Immediately Stabilize Exposed Soils
5. Protect Steep Slopes and Cuts
6. Install Perimeter Controls to Filter Sediments
7. Employ Advanced Sediment Settling Controls
8. Certify and Train Contractors on Stormwater Site Plan Implementation
9. Control Waste at the Construction Site
10. Inspect and Maintain BMPs

<http://cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfm?action=browse&Rbutton=detail&bmp=116&minmeasure=4>

## Construction Discharge Permit

Construction Site Runoff Control Plan:

Plan Review

Site Inspections

Enforcement Actions

Reporting

Educational Outreach

- Construction site operators must submit a CWB-NOI Form when a construction activity results in the disturbance of greater or equal to 1 acre
- The form must be submitted at least 30 calendar days prior to construction
- Both the General Form and the Form C must be filled out
- See handouts for further submission requirements

<http://hawaii.gov/health/environmental/water/cleanwater/forms/cwb-index.html>

## CWB-NOI General Forms

Construction Site Runoff Control Plan:

Plan Review

Site Inspections

Enforcement Actions

Reporting

Educational Outreach

- Owner information
- Owner Type
- Operator Information
- Facility/Project Information
- List of Receiving Waters
- Authorized Representatives

<http://hawaii.gov/health/environmental/water/cleanwater/forms/cwb-index.html>

## CWB-NOI Form C

Construction Site Runoff Control Plan:

Plan Review

Site Inspections

Enforcement Actions

Reporting

Educational Outreach

- Construction Site Information
- Storm Water Quantities
- Non-Storm Water Quantities
- Location Map
- Flow chart showing storm water routes, treatments, BMPs, drainage, etc.
- Permits, licenses, and approvals
- Site characteristics
- Prior land use
- Existing pollution sources
- Pollution source corrective measures
- Construction BMP Plan

<http://hawaii.gov/health/environmental/water/cleanwater/forms/cwb-index.html>

## Construction BMP Plan (BMP Plan)

Construction Site Runoff Control Plan:

Plan Review

Site Inspections

Enforcement Actions

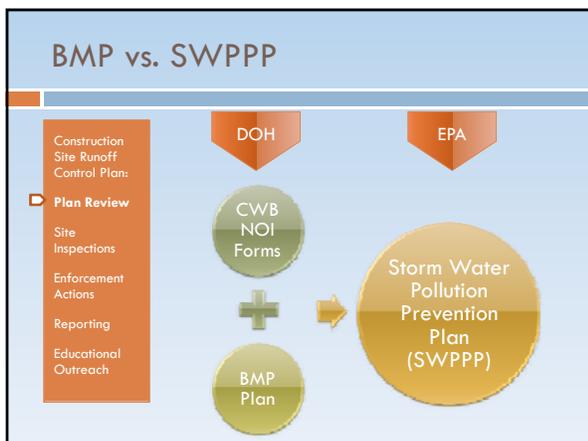
Reporting

Educational Outreach

- Project site maps
- Phasing maps
- Construction plans
- Construction activity
- Quality of discharge
- Potential pollutants
- Controls for land disturbances
- Erosion and Sediment Control Requirements
- Site-Specific BMPs Plan\*
- Post-Construction Pollution Control Measures

\*The BMP Plan can be site specific or kept general with a site-specific plan to be submitted separately at least 30 days prior to start of construction.

<http://hawaii.gov/health/environmental/water/cleanwater/forms/cwb-index.html>



## EMS Manual as a Tool for Plan Review

Construction Site Runoff Control Plan:

Plan Review

Site Inspections

Enforcement Actions

Reporting

Educational Outreach

- Harbors' Environmental Management System Manual Appendix H Contains tools for managing internal and tenant construction activities
  - Plan Review checklist
  - Plan Amendment and Review Form



### Site-Specific Compliance, BMP, Pollution Prevention Plan Review Checklist

- Construction Site Runoff Control Plans:
- Plan Review
- Site Inspections
- Enforcement Actions
- Reporting
- Educational Outreach

- For review of Construction Plan, NOI Forms, Site-Specific BMP Plan
- Harbors to develop procedures for use of checklist
- No grading or site work will commence until Harbors has verified that regulations are met
- Retain checklist and plans in tenant file



### Site-Specific Compliance, BMP, Pollution Prevention Plan Amendment Review Form

- Construction Site Runoff Control Plans:
- Plan Review
- Site Inspections
- Enforcement Actions
- Reporting
- Educational Outreach

- For amendment of Construction Plan, NOI Forms, Site-Specific BMP Plans
- Responsibility depends on phase of process
  - Planning
  - Construction
  - Post-Construction Controls
- No grading or site work will commence until Harbors has verified that regulations are met.
- File with Review Checklist



### EMS Manual as a Tool for Construction Site Inspection



- Appendix G: Inspection and Enforcement Manual
  - Section 5.0 Inspection Procedures
- Appendix H: Construction Program
  - Inspection and Maintenance Report Form

### Construction Site Inspections

- Construction Site Runoff Control Plans:
- Plan Review
- Site Inspections
- Enforcement Actions
- Reporting
- Educational Outreach

- Construction Site Inspections are dictated by Harbors EMS Manual Appendices G & H
- Inspections will occur after approval of plans to ensure that BMPs have been installed and maintained
- Contractor will not be allowed to begin grading or site work until Harbors has documented inspection.
- Inspections will continue throughout the life of the project.
  - Rainy season (Oct-Apr): every two weeks
  - Dry Season (May-Sept): every two months

### Inspector Roles and Responsibilities

- Construction Site Runoff Control Plans:
- Plan Review
- Site Inspections
- Enforcement Actions
- Reporting
- Educational Outreach

- Professional Responsibility – Show common courtesy toward facility personnel by
  - Scheduling inspections ahead of time
  - Giving a courtesy call at least 20 minutes before inspection
  - Asking permission to take photos
  - Providing introductions and credentials
  - Providing facility with copy of findings
  - Thanking facility personnel

### Inspector Roles and Responsibilities

- Construction Site Runoff Control Plans:
- Plan Review
- Site Inspections
- Enforcement Actions
- Reporting
- Educational Outreach

- Safety Responsibility – Protect yourself from accidents
  - Wearing appropriate gear (hard hat, steel-toed shoes)
  - Assessing hazards in surroundings and acting appropriately
  - Ensure you have proper safety for hazards known at the site (i.e. HAZWOPER requirements for environmentally impaired sites)
- Documentation Responsibility
  - Take photos
  - Take complete notes with locations, dates, and times
  - Obtain contact information for representative for follow up or future inspections

## Construction Pre-Inspection

- Construction Site Runoff Control Plan:
- Plan Review
- Site Inspections
- Enforcement Actions
- Reporting
- Educational Outreach

- Collect and analyze background information on tenant/construction site
  - Records of environmental assets
  - Past inspection records
  - Property management files
  - Maps
  - Plans
  - NOI Review
- Develop strategy for inspection. What are the specific concerns/goals?
- Prepare safety equipment
- Unannounced inspections are allowed, but only recommended for higher levels of enforcement
- Announced inspections allow time for gathering of records and making appropriate representative available

## Construction Pre-Inspection

- Construction Site Runoff Control Plan:
- Plan Review
- Site Inspections
- Enforcement Actions
- Reporting
- Educational Outreach

- If tenant or contractor is hostile, Harbor police can escort
- A conference may allow tenant/operators to locate additional documents or key personnel
- A site representative must accompany the inspector to answer questions and describe operations

## Site Inspections

- Construction Site Runoff Control Plan:
- Plan Review
- Site Inspections
- Enforcement Actions
- Reporting
- Educational Outreach

- Inspection procedures will follow Section 5.0 of IEP. Substitute reporting requirements with:
- Site Specific Compliance, BMP, Pollution Prevention Plan Inspection and Maintenance Report Form
- Sections covered:
  - Erosion control
  - Sediment controls
  - Stabilized construction entrance
  - Structural controls
  - Other construction activities
  - Contractor activities



## Video: BMPs for Constructions Sites in Hawaii

## Video Review

- 1<sup>st</sup> Priority – Minimize erosion
- 2<sup>nd</sup> Priority – Prevent pollution runoff from leaving site
- Update BMPs when there is a change in
  - Construction process
  - Environment
- Erosion Control Measure – Source prevention
- Sediment Control Measure – Stops pollution after it has eroded
- Tracking Controls – Prevents/minimizes sediments from leaving site on vehicles

## Stockpiling

Improper Stockpiling





Insufficient Containment of Stockpile

### Stockpiling




**Use Silt Fences to Contain Stockpiles**

**Cover Stockpiled Material**  
\*Covers provide dust suppression and prevent polluted runoff.

### Silt Fencing




Inspection and maintenance of BMP's is as important as installing them. Improperly maintained silt fences are ineffective.

**EROSION CONTROL - SLOPES/EXPOSED AREAS**

Location	Date Disturbed	Erosion Control Measure established	Type of Erosion Control used	Acceptable (yes/no)	Comments
North perimeter	2/18/10	yes	Silt Fence	No	Fence is damaged and maintenance records not provided.

**Notes/Actions:**  
Damaged area of silt fence is allowing sediment to leave property. Contractor must repair silt fence.

To be performed by: ABC Construction on or before: 3/4/10

### Silt Fencing




**Vegetated Swale!!**

### Storm Drain Inlet Protection





**SEDIMENT CONTROL**

Location	Type of Control (Silt fence, inlet protection, etc.)	Acceptable? (Yes/No)	*Rate Effectiveness of Control	Comments
Nimitz Gate	Drain Inlet Protection	No	Poor	Not maintained, breached control.

\* Effectiveness Rating: Excellent, Very Good, Good, Fair, Poor

**Notes/Actions:**  
Drain inlet protection is insufficient. Immediate replacement/repair required.

To be performed by: ABC Construction on or before: 3/4/10

### Storm Drain Inlet Protection



This slide illustrates storm drain inlet protection. It features three images: a green metal grate installed in a concrete storm drain, a large pile of brown sediment, and a green plastic sediment filter. A central orange checkmark icon indicates that these practices are approved.

### Cleaning Equipment



This slide shows various cleaning equipment. It includes images of a red excavator, a yellow forklift, a yellow backhoe loader, and a person using a high-pressure water hose. A central black 'X' icon indicates that these practices are disapproved.

### Equipment Cleaning



This slide depicts equipment cleaning. It shows a white truck on a gravel pad, a green tractor, a car on a wash rack, and a gravel filter. A central orange checkmark icon indicates that these practices are approved.

### Vehicle and Equipment Washing



This slide shows vehicle and equipment washing. It includes a person washing a car with a high-pressure hose and a yellow backhoe loader. A central black 'X' icon indicates that these practices are disapproved.

### Vehicle and Equipment Washing



No Containment means metals, greases, oils, and other contaminants are being directly discharged into the waterway.



Containment is required!

This slide shows a person washing a large piece of equipment without any containment measures. A black 'X' icon is placed over the image, and a pink arrow points from the text 'Containment is required!' to the equipment.

### Vehicle and Equipment Washing



Permitted Vehicle Wash Rack



Temporary Only: Wash water and debris require off-site disposal; Minimize detergents and overspray



This slide shows a permitted vehicle wash rack. It includes an image of a car on a wash rack and a green tractor. An orange checkmark icon is placed over the images. Text on the right explains that for temporary use, wash water and debris require off-site disposal, and that detergents and overspray should be minimized.

### Pollution Prevention & Good Housekeeping



Drums should be stored properly, not open or leaking, and not scattered on the ground.

### Pollution Prevention & Good Housekeeping



Stocked metals should be covered to prevent heavy metal intrusion into waterways.



### Pollution Prevention & Good Housekeeping



All drums should be in good, working condition. Inspections should be held regularly and any drums with damage should be replaced immediately.



### Trash Bins



Do not overfill



Trash bin kept covered when not in use

Keep trash and debris from accumulating around the bin, because storm water will carry it out to the ocean

### Secondary Containment



Illicit Discharges!!



### Secondary Containment



### Secondary Containment

- Keep locked to prevent unwanted discharge
- If excess storm water collects, inspect for sheen and/or test storm water to determine whether there are contaminants present



- If no contaminants present, supervise and document discharge of clean storm water and relock valve

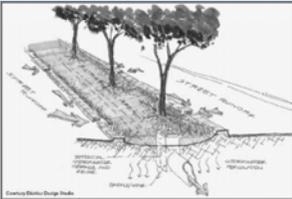
### Spill Prevention and Response



Procedures should focus on prevention first. Then clean up if spills still occur

### Post-Construction Controls

Post-Construction Storm Water Management starts early on in the design process! Tools like Low-Impact Development and Green Design can be used to create a cost effective system for managing runoff from your sites.



Create a Hydrologically Functional Site!!!



### Post-Construction Controls

Considering water quality impacts early in the design process can provide long-term water quality benefits.

**Options you can use to manage your site:**

- Low-Impact Development
- Green Design
- Site Specific/Innovative BMPs
- Infiltration
- Filtration
- Retention/Detention
- Isolation/Separation of Runoff from Processes

- Retention of Solids and Sediment
- Green Parking
- Green Roofs
- Protection of Natural Features
- Urban Forestry
- Grassed Swales
- Infiltration Basin/Trench
- Permeable Pavement
- Porous Asphalt Pavement
- Sand and Organic Filters
- Vegetated Filter Strip
- Dry Detention Ponds
- In-Line Storage
- Storm Water Wetland

### Post-Construction Controls



Drainage Swales

Storm Water Retention Ponds

Porous Pavement & Storm Water

Green Roofs

### EMS Manual as a Tool for Enforcement



- Appendix G: Inspection and Enforcement Manual
  - Section 6.0 Enforcement Procedures
- Appendix H: Construction Program
  - Inspection and Maintenance Report Form
  - Plan Amendment Review Form

## Enforcement Actions

Construction Site Runoff Control Plans

Plan Review

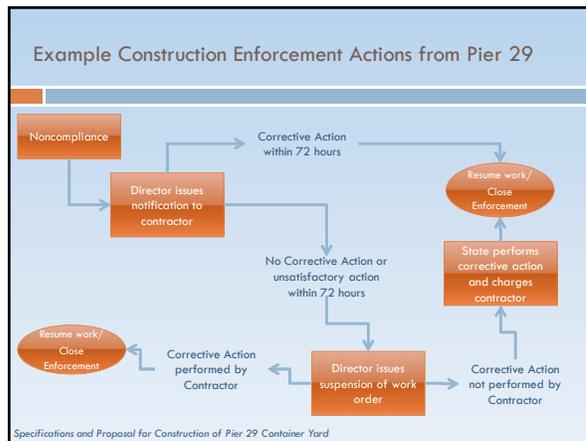
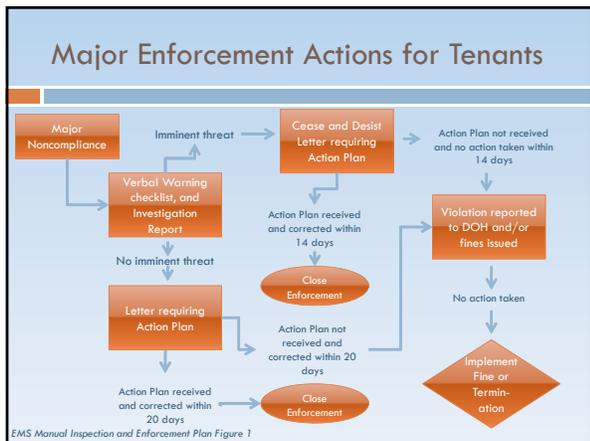
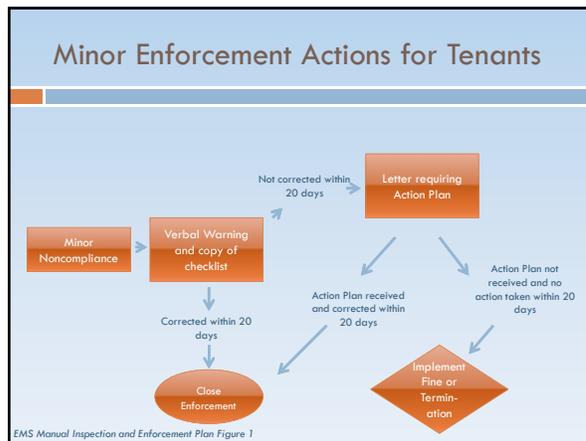
Site Inspections

**Enforcement Actions**

Reporting

Educational Outreach

- EMS Manual Appendix G Inspection and Enforcement Plan Section 6.0 directs tenant enforcement
- Contract language directs construction operator enforcement



## Enforcement Actions

Construction Site Runoff Control Plans

Plan Review

Site Inspections

**Enforcement Actions**

Reporting

Educational Outreach

- Recommended enforcement actions can be noted on the Inspection and Maintenance Report Form

Writes Actions: \_\_\_\_\_

To be performed by: \_\_\_\_\_ on or before \_\_\_\_\_

File: Site specific: EMS Inspection and Enforcement Report Page 1 of 4

- Letter of Action will be submitted by Harbor Administrator or Director

## Enforcement Actions

**Regulatory Mechanisms**

- Hawaii Administrative Rules (HAR)
- Hawaii Revised Statutes (HRS)
- Tenant Leases/Revocable Permits / Construction contracts
- 40 CFR - Clean Water Act & NPDES
- Other Applicable State & Federal Regulations

**Penalties for Lack of Compliance (dependant on severity of violation)**

- Verbal Warnings
- Written Notices
- Citation with Monetary Fines
- Stop Work Orders
- Abatement by Harbors Division with Reimbursement by the Responsible Party
- Lease Termination
- Referral to HDOH or Other Appropriate Regulatory Agency





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## Ten Elements of an Effective Stormwater Site Plan



Plan review staff should check site plans to ensure they address common, critical elements. The following ten elements of an effective stormwater site plan (adapted from Brown and Caraco, 1997) present a comprehensive approach to addressing construction site runoff. These elements include:

### **1. Minimize Clearing and Grading**

Construction site operators should take all measures possible to avoid clearing/grading stream buffers; forest conservation areas; wetlands, springs and seeps; highly erodible soils; steep slopes; environmental features; and stormwater infiltration areas. In addition, site fingerprinting should be employed and limits of disturbance (LOD) should be mapped, clearly delineated on site with flags and conveyed to personnel.

### **2. Protect Waterways**

Construction site operators should identify waterbodies on site and adjacent to the site. If construction activities occur near a waterbody, clearing/grading activities should be minimal and silt fencing and/or earthen dikes should be installed.

### **3. Phase Construction to Limit Soil Exposure**

Prior to construction initiation, activities should be broken into phases. Grading activities should be limited to the phase immediately under construction to decrease the time that soil is exposed, which, in turn, decreases the potential for erosion. Additional phases should begin only when the last phase is near completion and preferably exposed soil has been stabilized. Construction scheduling should facilitate installation of erosion and sediment control measures prior to construction start, detail time limits for soil stabilization after grading occurs, and schedule BMP maintenance.

### **4. Immediately Stabilize Exposed Soils**

Exposed soils should be stabilized within two weeks of the onset of exposure. The long-term goal is to establish permanent vegetation after each phase of construction; however, mulch, hydroseeding, or other means of soil coverage may protect exposed soil while facilitating vegetation growth. The stormwater site plan should detail appropriate plant species to be seeded, as well as weather and climactic conditions necessary for germination and successful vegetation establishment.

### **5. Protect Steep Slopes and Cuts**

Cutting and grading of steep slopes (>15 percent) should be avoided wherever possible. If a steep slope exists, all water flowing onto the slope should be redirected with diversions or aslope drain. Silt fence at top and toe of the slope must be anchored well, although this measure may not provide adequate protection by itself. On steep slopes, jute netting and erosion control blankets (geotextiles) should be used in conjunction with seeding or mulching, as seeding alone may not be effective.

## **6. Install Perimeter Controls to Filter Sediments**

Silt fence should be properly installed around the perimeter of the construction site. A fiber roll on the inside (site-facing) of the silt fence works to provide additional filtration. In areas of heavy flows or breach concern, a properly sized earthen dike with a stabilized outlet should be created. In addition, catch basin inlets receiving stormwater flows from the construction site must be protected with adequate inlet controls.

## **7. Employ Advanced Sediment Settling Controls**

Sediment Basins should be created where space is available; however, discharge from basins must be non-turbid. The use of skimmers and multiple cell construction of basins assist in sediment drop-out.

## **8. Certify and Train Contractors on Stormwater Site Plan Implementation**

Contractors and/or construction staff should be trained in erosion and sediment control practices and procedures to effectively install and manage erosion and sediment control features. Meetings and site inspections by municipal staff provide opportunities for discussion of effective BMPs with site staff. Inspectors should make a strong commitment to contractor education to develop a constructive and responsive relationship.

## **9. Control Waste at the Construction Site**

The site plan should describe the type of construction site waste found at the site (such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste) and how that waste will be controlled to minimize adverse impacts to water quality. For example, concrete washout and trash storage areas should be clearly labeled on the plan and should be located away from water bodies and catch basin inlets.

## **10. Inspect and Maintain BMPs**

Each stormwater site plan should clearly describe the construction site operator's BMP inspection and maintenance, including who will inspect the site and how often. Ideally, an example inspection form should be included with the plan. Inspections should occur at a regular interval and should also occur immediately before and after rain events. The plan should also describe how BMPs will be maintained.

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