



# 2013 TENANT STORM WATER POLLUTION PREVENTION AWARENESS TRAINING

MĀLAMA I KE KAI — PROTECT OUR OCEAN WATER

Hawaii Department of Transportation – Harbors Division

#### Introduction

- Hawaii Department of Transportation Harbors Division
  - Randy Grune Deputy Director
  - □ Carter Luke PE Engineering Program Manager
  - Randal Leong PE Environmental Engineer
  - □ Jim Galariada CSP Environmental Health Specialist
  - Joy Zhang Environmental Health Specialist
- Weston Solutions, Inc.
  - Mark Ambler PE, PMP
  - Joe Weidenbach, PE
  - Stacey Fineran, PMP
- Hawaii Department of Health
  - Matthew Kurano

#### **AGENDA**

- Regulatory Background
- Harbors (Small MS4) General Permit Requirements
  - Public Education and Outreach
  - Public Involvement/Participation
  - Illicit Discharge Detection and Elimination (IDDE) Program
  - Construction Site Run-Off Control
  - Post-Construction Stormwater Management
  - Pollution Prevention and Good Housekeeping
- Facility Inspections
- Video Presentation (14 mins) "A Grate Concern"
- Construction
- Pesticides
- Other 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 2009 (44)
- Inspection Reports 2010
- Stormwater Management Plan Revision Dec 2009
- Tenant Inspections 2010 (All)
- Deficiency Letters 2011
- Tenant Inspections 2011 (All)
- Deficiency Letters and Eviction Notices 2012
- EPA Audit May 2012
- Tenant Inspections 2012 (All)
- Deficiency Letters 2013
- Tenant Inspections 2013
- EPA/HDOH Review of Stormwater Program 2013



#### 2013 TENANT ENVIRONMENTAL MANAGER OF THE YEAR



for Exemplary Management of a Tenant Stormwater Program



Did the tenant manager or representative attend the stormwater training?



Did the tenant manager respond promptly to all communication when required?



Did the tenant manager or representative respond quickly to identified deficiencies from the inspection report?



Did deficiencies return upon follow up inspection?



Did the tenant manager or representative implement additional BMPs above and beyond what was required?



Did the tenant manager or representative have all the necessary permits onsite for review during the inspection and were they current?



Was the tenant manager or representative easy to work with and courteous during the inspections?



Does the tenant manager or representative have sufficient influence and budget to implement changes?



Does the tenant environmental manager or representative provide Storm Water Awareness or Environmental Training for all employees (i.e. Review TSI BMP Fliers)?



Has the tenant manager or representative taken steps to reduce the environmental risk of the activities of the company?



### 2013 TENANT ENVIRONMENTAL MANAGER OF THE YEAR CATEGORY A



for Exemplary Management of a Tenant Stormwater Program

# EDMARD AU

For management of GLP Asphalt, LLC dba Asphalt Hawaii



### 2013 TENANT ENVIRONMENTAL MANAGER OF THE YEAR CATEGORY B



for Exemplary Management of a Tenant Stormwater Program

# TOM GRESCENZI

For management of Aloha Cargo Transport



#### REGULATORY BACKGROUND



- Clean Water Act (40 CFR 100-149)
  - 1972 Clean Water Act— Swimmable, Fishable
  - 1987 Amendements NPDES (National Pollutant Discharge Elimination System) regulations
- NPDES Environmental Protection Agency Regulatory Authority
  - 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.
- Harbors Division Notice of General Permit Coverage (NGPC)
  - □ HI 03KB482 Honolulu Harbor MS4 Permit
  - HI 03KB488 Kalaeloa Barbers Point Harbor MS4 Permit

# Regulatory Background (Litter/Pollution)

#### □ HAR 19-42-126; Littering or Polluting Land Areas

- (a) No person shall throw, place, leave, deposit or abandon, or cause or permit to be thrown, placed, left, deposited or abandoned any litter within a state harbor, except in receptacles designated by the department for the disposal of such materials. "Litter" as used in this section includes any and all types of debris and substances, whether liquid or solid, and materials such as garbage, refuse, rubbish, glass, cans, bottles, paper, wrappings, fish or animal carcasses or any other substances which render harbor lands or facilities unsightly, noxious or otherwise unwholesome to the detriment of the public health and welfare and effective and safe operation of the harbor.
- (b) No person shall deposit oil, oily refuse, sludge, chemicals or other hydrocarbons on state property except in specially designated collection points. These items may not be left in or near standard refuse containers or anywhere else on harbors property. Penalties, including but not limited to the revocation of mooring permits and the right to use the facilities, may be invoked.

# Regulatory Background (Litter/Pollution)

#### □ HAR 19-42-127; Littering or Polluting Water

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.

#### GENERAL PERMIT REQUIREMENTS

#### Minimum Control Measures

#### Each Mininum Control Measure Requires:

- Written Plan SWMP
- BMP Inplementation
- Training
- Reporting
- Enforcement

- Public Education & Outreach
- Public Participation & Involvement
- Illicit Discharge Detection & Elimination
- Construction Site Runoff Control
- Post-Construction StormwaterManagement
- 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
- Springs
- Lawn Watering Runoff
- Flows from Riparian Habitats and Wetlands

<sup>\*</sup> Unless discharges "Cause or contribute to water quality objective exceedances."

#### Minimum Control Measures 1&2

#### **Public Outreach & Participation**

http://hidot.hawaii.gov/harbors/library/storm-water-management/



#### Minimum Control Measure 3

#### Illicit Discharge Detection & Elimination (IDDE) Program









- 1. Vehicle Washing
- 2. Building Power Washing
- 3. Equipment Power Washing
- 4. Outdoor Sinks Draining to Ground
- 5. Outdoor Hand Wash Stations
- 6. Spills
- 7. Sheen During Rain

#### ILLICIT DISCHARGE DEFINITION

Non-Stormwater Discharge (NSWD)

A discharge that is not composed entirely of stormwater



Illicit Discharge
An NSWD that poses a risk to the environment





#### HAR 19-42-126; Littering or Polluting Land Areas

(a) ... all types of debris and substances, whether liquid or solid...













#### HAR 19-42-126; Littering or Polluting Land Areas

(b) No person shall deposit oil, oily refuse, sludge, chemicals or other hydrocarbons on state property except in specially designated collection points.































# BMP FLIERS ON THE WEBSITE

- Vehicle and Equipment Washing
- Vehicle and Equipment Fueling
- Material Storage
- Common Businesses
- Solid and Hazardous Waste Management
- Material Delivery and Handling
- Building and Remodeling
- Vessel Maintenance
- Building Power Washing
- Sidewalk and WalkwayPower Washing

#### Storm Water **BEST MANAGEMENT PRACTICES** Vehicle and Equipment Washing or in most where south water from your five ground non-generate day send that needly contentional with delegants, heavy motals, sits and grounds, being addresses, sediments, and after policiers. Street, Str. Street, Street, Square, or other Designation of the last of th Nation by refinite or equipment analysis is also for it for height Municipal Septimes Sterm Sewer Sprinter (MSA) Service Permit. Progres entitipies havings, SMP implementation, and proficien prevention markeds and required for completens with the height Sewer Sterm Sewer (March Sterm). Asseptioners as conditions with the Annual Publisher Desire Printers (NP Incomercation Score Metallians Printery Option, Off-site Warring the Steer of House Facilities with exact Bank Would receive contracting with a commenced on November Species east. Comments or east failtes often expositive water or an impated to your fast mad eater discharge prints witness into the parties, sever solver. Name about South MARKET NAME Promote charities and stoom choosing about the choice ob-side to another neitry Spring, Children Program, The Design of Indiana and in case seem the Transacting specifically designed to collect and both personnel wood and more wore. The analysis, been the area elementing the various and use a easitity request its capiture this would waiter for discharge its fire parties; except. For larger july, use a portal value of fairne and a vecupe that, but so from used to chian above and cardiary sower systems, to capture and safely dispose hts://kitchmet.por /belon/films/loom of water water. If altergants are used, often the provinced to provide the regional from being special to the other store during the resol assumers." content was not other shall be received ductored to be setter were committed for the regime, or collected of feels depose at a permitted facility. Assistancely, designated wash propor about the permitted purposes upon being a permitted of a surrey. Destrook recorder with authorative disof and to-depositive copy where appropriate. Property panel softens within the work eras and observationally to remove its diagraph polytopic motion or other polytopic. Various recommence, channel storage, and other polytopic. that could retenue policiants are prohibited to wanting detail. This printingers or proper channel, representation, and wash water chipmed procedures. Discoveriables of the country placed rectains to 60 phosphos. No claim, the took covered, and elutratures of attentions. (I'v turker time are parter transpilet for the

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#### Storm Water BEST MANAGEMENT PRACTICES



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#### Sidewalk and Walkway Power Washing

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Recommended Washing Procedure:

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- If any stating politicate senses in the months each users collect of water and puring this Are Caly's possible seried intelliged works. IFO/NII French is senting about smaller. Approved by the City is impaired.

#### Other Things To-Be-Considered.

- If there is no alone draw update rearby and discharge are a pared by in about sell create a scharge, or happening condition, the officers may be discussed of at a POTTO in billionist example Septimer Section.
- Discharge to a POTRY requires reprinted by the City.
- Extincel/impliency is partial and cover modifing has the potential to return the parts, observe who to the Building Preser Meaning GMP



MALAMA I SE KA: - Protect Our Green Water

## VEHICLE AND EQUIPMENT WASHING

- Program started Last Year
  - Two (2) permits Issued to Date



## VEHICLE AND EQUIPMENT WASHING

- Formal, written approval
- Contain Wash Water
- □ NO Wash Water → Storm Drain
- □ Example: 3.5 GPM Spray → 7
  GPM Vacuum
- Enough storage for job?
- Proper transport and disposal
- Is the rinsate staying onsite?



# BUILDING WASHING

- Primary Option
  - Wet rags or mopping
  - Dispose in Sanitary Sewer (with City approval)
- Secondary Option
  - Portable Containment
  - Holding Tank
  - Dispose in Sanitary Sewer (with City approval)





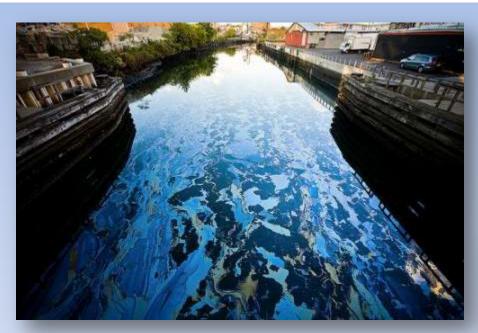
# SIDEWALK/WALKWAY WASHING

- Sweep/Dry Cleanup first
- Water Without Soap, Acid, etc.
- Wash Water ProperDisposal
- Dispose in SanitarySewer (with City approval)





# Illicit Discharges



LAND BASED SOURCES?
REPORT IT!!
Harbors Work Hour Hotline
587-1962

DISCHARGE FROM VESSEL OR ALREADY MADE IT TO WATER?

REPORT IT!!

24/7 TOWER # 587-2076



# Report These



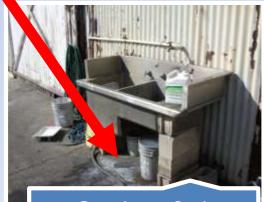
Uncovered Outdoor Petroleum Storage



Overflowing Trash
Bins



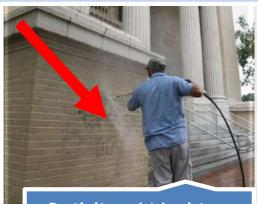
Leaking Drums or Rolloffs



Outdoor Sink Without Capture



Vehicle Washing without Capture



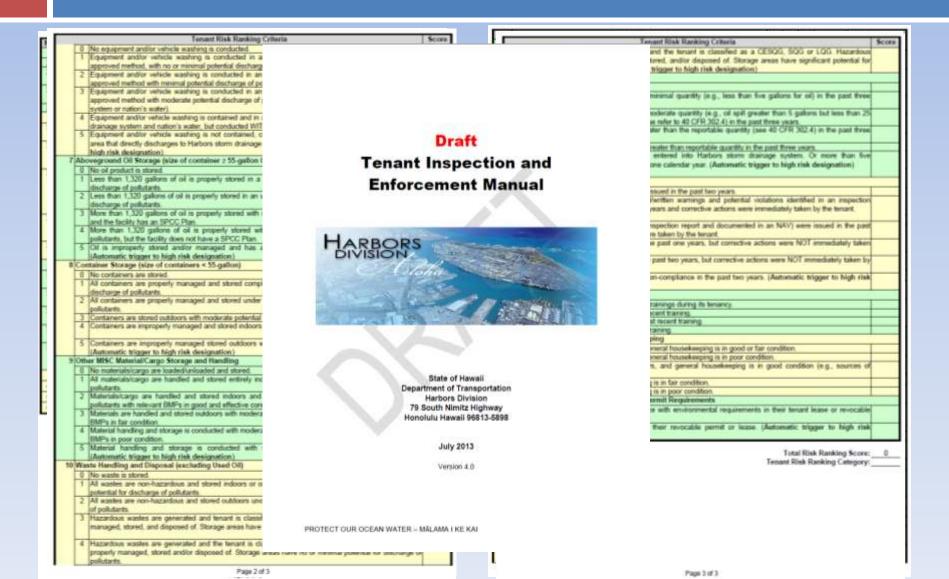
Building Washing without Capture

## **VIDEO** Presentation

# Illicit Discharge Detection and Elimination "A Grate Concern" Excal Visual



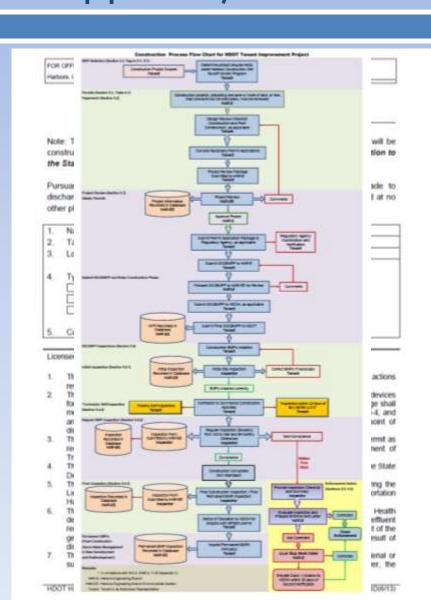
# TENANT FACILITY INSPECTIONS (draft Manual under EPA/HDOH review)



#### Minimum Control Measure 4

# CONSTRUCTION SITE RUNOFF CONTROL (required review and approval)

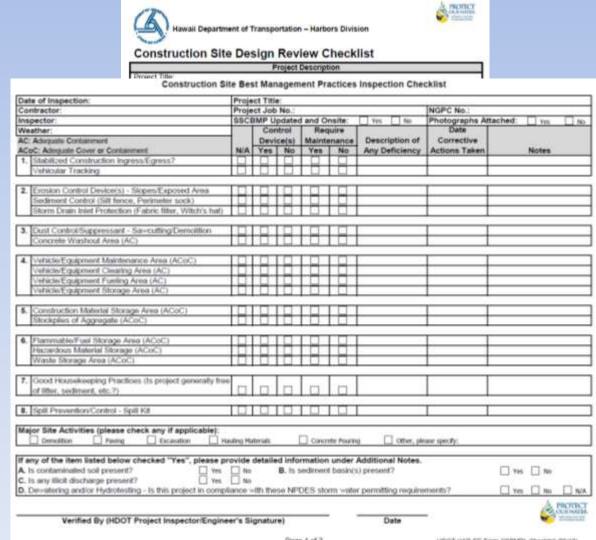
- Construction Site RunoffControl Program Manual
- Permit to Discharge (temporary)
- Permit for Connection (permanent)
- Construction Process Flow Chart



#### Minimum Control Measure 4

# CONSTRUCTION SITE RUNOFF CONTROL (after review and approval)

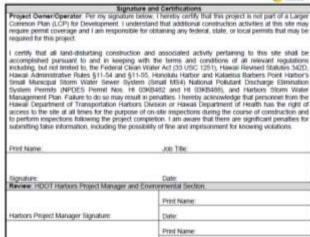
- ConstructionSite DesignReviewChecklist
- □ ConstructionSite BMPInspectionChecklist



# Minimum Control Measure 4 CONSTRUCTION SITE RUNOFF CONTROL (< 1 acre)

NotificationForm forProjects < 1</li>acre

Project Title:   Project Add No.     Name of Design Film:     Project Add Constitution   Tenethane:     Description of Project	Acreage of Silv:
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Otain Connections	
Description of Storm Drams, On or Adjacent to F	Yoged Ansa (e.g., Xxxabon or KW)



#### Note

- This form is for the use on projects that will disturb less than 1 axis and are not a part of Larger Common Plan ILCP) for development. If this project is part of a LCP for sale or development this form may not be used.
- 2. You must type or print egitty. You must exclude the original, signed notification form and fee (2) copies of a shetched plan outlining the anticipated activities and the location of all proposed sediment and evision control.
- The following activities, if they do not effect the Harbors storm disarrage cyclens, are everythine any turned project review and construction site-imperisor inquestions under the Marbors Construction Site Plannell Convoil Frogram.
   Many land disfurturance activities performed by a property center or employee on a smooth for cruch permisor.
  - tendscaping schildren). Activities must distuts no more than 10 cubic yards or % scre.
  - Post and pole installation (less than 2 cutic yards excavation at any one configuous project location).
  - Utility repair work data than 2 batter yants excavation at any one configural project location.
- Parking lot, division, and other paved surfaces repair (less than % acre distarted and no sediment leaves.
   the emperty.
- . At repair and maintenance activities.

Harbors Environmental Section Signature

HD07 Harhors Division - Balthosius Frenche Fage 2 of 2 Veneor 2.8 Frager 5 Stee Distributing Leek Trian One Age HD07 HAR-EE French 50-1\_MFT (Skrt1)

#### Minimum Control Measure 4

# CONSTRUCTION SITE RUNOFF CONTROL (BMP Specification Documents)

- City and Countyof HonoluluConstructionBMPs
- HDOT HarborsWater PollutionControl Spec

#### ARTICLE XXX – TEMPORARY WATER POLLUTION, DUST, AND EROSION CONTROL

XXX.XX Description. This section is required for all work and describes the following:

- (A) A detailed site-specific Best Management Practices (BMP) Plan including diagrams and narratives; constructing, maintaining, and repairing temporary water pollution, dust, and erosion control measures at the project site including local material sources, work areas and access roads, removing and disposing of wastes and hazardous wastes, and control of fugitive dust (defined as uncontrolled emission of solid airborne particulate matter from any source other than combustion). For projects that require a National Pollutant Discharge Elimination System (NPDES) Appendix C General Permit from the Department of Health (DOH), the Site-Specific Construction Best Management Practices (SSCBMP) Plan required for the permit shall satisfy this requirement.
- (B) Compliance with applicable State and Federal permit conditions.
- (C) Work associated with dewatering and hydrotesting activities and compliance with conditions of the NPDES general permit coverage authorizing discharges associated with construction activity dewatering and hydrotesting.

Requirements of this section also apply to the Contractor's storage sites.

XXX.XX General Requirements. In order to provide for the control of water pollution, dust, and erosion arising from the construction activities of the Contractor and his subcontractors in the performance of this contract, the work performed shall comply with the intent of applicable Federal, State and local laws and regulations concerning water pollution control including, but not limited to, the following regulations:

- (A) State of Hawaii, Department of Health, Administrative Rules, Chapter 54, Water Quality Standards and Chapter 55, Water Pollumon Control.
- 49 Code of Federal Regulations 171, Department of Transportation Hazardous Materials Regulations.
- (C) 40 Code of Federal Regulations 261, Environmental Protection Agency Identification and Listing of Hazardoss Waste.

XXX.XX Materials. Materials shall conform to the following:

(A) Slope Drains. Slope drains may be constructed of pipe, fiber, mats, erosion control fabric, geotextiles, rubble, Portland cement concrete, bituminous concrete, plastic sheets, or other materials acceptable to the Engineer.

# TENANTS

# Minimum Control Measure 4 CONSTRUCTION SITE RUNOFF CONTROL

(Inspection Frequency: Construction Project Subject to NPDES Permit)

INSPECTION WITHIN 24-HOURS OF ANY RAINFALL ≥ 0.5"

**WEEKLY SELF-INSPECTION** 

**BIWEEKLY** (OCTOBER through MARCH)

**BIMONTHLY** (APRIL through SEPTEMBER)

# Construction Equipment Cleaning



# Construction Equipment Cleaning















#### Minimum Control Measure 5

# POST-CONSTRUCTION STORMWATER MANAGEMENT (1 or more acres)

#### DRAFT



Post-Construction Storm Water Management in New Development and Redevelopment Honolulu and Kalaeloa Barbers Point Harbors



Small Municipal Separate Storm Sewer Systems File Nos, HI 03KB482 and HI 03KB488



Prepared For:

State of Hawaii Department of Transportation. Harbors Division 79 South Numitz Highway Honolulu, Hawaii 96813

June 2013

Version 2.0

#### **NEW DEVELOPMENT**

Land disturbing activities; structural development, including construction or installation of a building or structure, and the creation of impervious surfaces;

#### **REDEVELOPMENT**

Development that would create or add impervious surface area on an already developed site.

Redevelopment includes, but is not limited to:

- Expansion of a building footprint;
- Addition to or replacement of a structure;
- Replacement of an impervious surface that is not part of a routine maintenance activity; and
- Land disturbing activities related to structural or impervious surfaces.

#### OTHERS (<1 acre)

If potential to discharge pollutants

## 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

Protection of Natural Features

**Urban Forestry** 

**Grassed Swales** 

Infiltration Basin/Trench

Permeable Pavement

**Porous Asphalt Pavement** 

Vegetated Filter Strip

**Dry Detention Ponds** 

Storm Water Wetland

# Examples of Post-Construction BMPs TRENCH DRAIN FILTER





Examples of Post-Construction BMPs
RAIN BARRELS



PERMANENT DRAIN INLET FILTERS







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 combatibility

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

## HERBICIDES AND PESTICIDES

- Appendix M of HAR, Chapter 11-55 is the NPDES
   General Permit authorizing point source discharges from the application of pesticides.
- □ These are covered:
  - Section 1(a)(1): Mosquito and Other Flying Insect Pest Control
    - Into or over State Waters.
  - Section 1(a)(2): Weed and Algae Pest Control
    - In State Waters and at water's edge, including ditches or canals
  - Section 1(a)(3): Animal Pest Control
    - Into State Waters
  - Section 1(a)(4): Forest Canopy Pest Control
    - In, over or to forest canopy when State waters are below

# HERBICIDES AND PESTICIDES



GENERA

#### Read/Follow the Label

- Use manual or mechanical methods before chemical and use least toxic chemical
- Use biodegradable chemical



#### • Read/Follow the Label

Mix over

- secondary containment
- Designated mixing spot
- Label all containers
- Make just enough for the job
- Use rinse water as dilution for next batch



**PPLICATION** 

#### • Read/Follow the Label Don't apply in wind or

- rain Choose spot application rather than broadcast
- Have No **Spray Zones** near water
- Avoid spraying near water unless approved



# CLEAN-UP

#### • Read/Follow the Label

- Follow manufacturer clean-up quidance
- Sweep sidewalks
- Clean-up immediately
- Labels
- Proper disposal (use it all)
- Triple Rinse
- Rinse water to application area
- Proper disposal



# STORA

- Read/Follow the Label
- Secondary Containment
- Designated Location
- Clearly and Correctly Marked

## Enforcement Actions

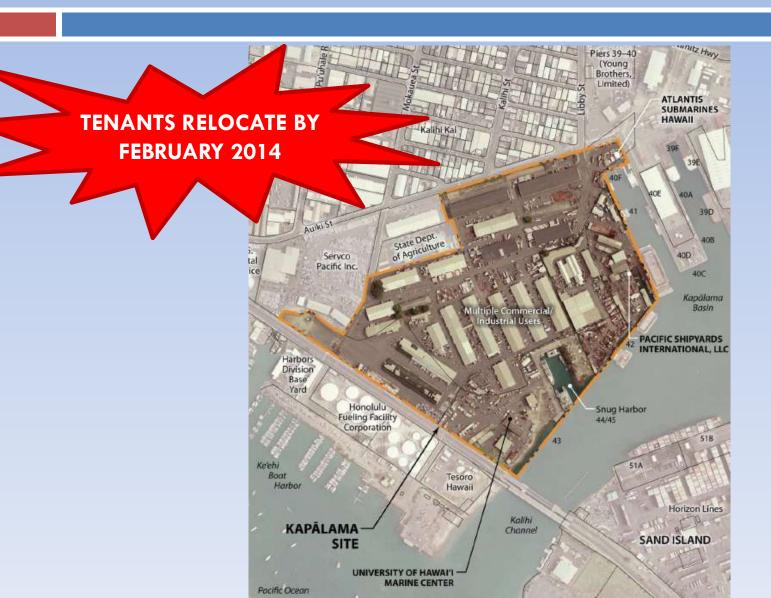
## Regulatory Mechanisms

- 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 OR RP TERMINATION (TENANT)
- Referral to HDOH or Other Appropriate Regulatory Agency

# KMR Renovation



## Vessel s

## Small Vessel General Permit - General Requirements



Minimize the potential for substances or pollutants to accidentally enter the effluent, including spills.



The discharge of antifreeze into waters subject to this permit must be minimized. For vessel engines that have been winterized, minimization can be achieved by draining antifreeze from the engine prior to startup or capturing antifreeze when discharged from the engine upon startup. The discharge of antifreeze with toxic or known carcinogenic additives, such as ethylene glycol and methanol, is prohibited.



May not contain visible garbage in the effluent.



When feasible, cleaning, maintenance, and repair jobs should be done while the vessel is out of the water or in drydock.



May not use any dispersants, cleaners, chemicals, or other materials or emulsifiers that would remove the appearance of a visible sheen.



Any soaps, detergents or cleaners used must be non-toxic, phosphate-free, and biodegradable. Phosphate-free soap contains by weight 0.5% or less of phosphates or derivatives of phosphates.



Minimize the introduction of constituents of concern or pollutants, such as foam or floating solids.



Oil, including oily mixtures, may not be discharged in quantities that may be harmful or cause a visible sheen.



Any spill of oil or other harmful chemicals that are discharged in a quantity that may be harmful or cause a visible sheen as established under 40 CFR Part 110, 40 CFR Part 117, or 40 CFR Part 302, must be reported immediately to the National Response Center at 1-800-424-8802. The National Response Center can also be contacted through their website at:

www.nrc.usca.mil.

## FOR MORE INFORMATION...



http://cfpub.epa.gov/npdes/vessels/vgpermit.cfm



http://hidot.hawaii.gov/harbors/library/storm-water-management/

## STORM WATER CONTACTS

#### DISCHARGES ON LAND - HARBORS HOTLINE (WORK HOURS)

Harbors Hotline @ (808) 587-1962

#### DISCHARGES OVER WATER (24 HOURS / 7 DAYS A WEEK)

Harbor 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



## MĀLAMA I KE KAI – PROTECT OUR OCEAN WATER

# PLEASE SHARE THIS PRESENTATION WITH ALL YOUR EMPLOYEES (ON WEBSITE BELOW)

http://hidot.hawaii.gov/harbors/library/storm-water-management/

#### **QUESTIONS OR COMMENTS?**

- http://megi.bz/wp-content/uploads/2009/04/oil-runoff-into-storm-drain.jpg
- http://www.octopuscarwash.com/IMG\_0014.jpg
- http://www.californiagreensolutions.com/images/Parker-powerwash328.jpg
- http://s3.images.com/huge.70.351214.JPG
- http://www.pneac.org/stormwater/pg-stockpiles.cfm
- http://www.victorystore.com/signs/property\_management/images/dumping-1.gif
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