Mālama I Ke Awa Kai
Protect Our Harbor Waters

Illicit Discharge Detection & Elimination Training

Department of Transportation – Harbors Division

Agenda

The purpose of this training is to discuss the fundamentals of environmental stewardship and the responsibilities that are required to achieve this.

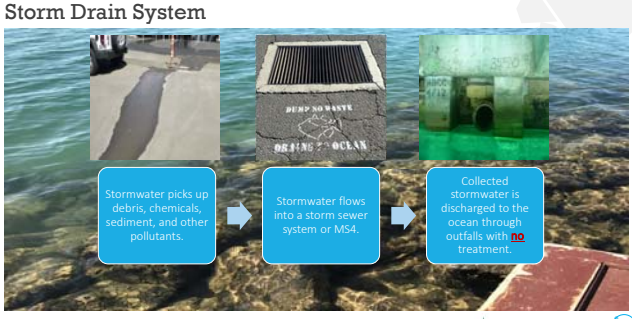
- Introduction
- Pollutants of Concern
- Allowable Non-Storm Water Discharges
- 2014 Consent Decree and Permit Requirements
- Review of Common Illicit Discharges
- Reporting Suspected Illicit Discharges
- Questions/Quiz/Survey

Environmental Goals

- Clean Water
- Healthy Reefs
- Sustainable Environment

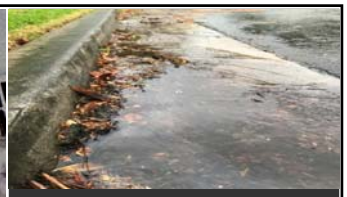
Can We Prevent This?

Storm Drain System



Illicit Discharge

Any non-stormwater discharge that poses threat to the environment.



Pollutant

Any type of material or waste that degrades water quality, public health, the environment or the beneficial uses of receiving waters.

Pollutants of Concern

- Sediment
- Nutrients (leaves, trash, etc.)
- Bacteria and other pathogens
- Debris and garbage
- Chemicals and Hydrocarbons (insecticides, pesticides, paints, solvents, oil, automobile fluids)
- Metals (zinc, iron, aluminum)

Pollutant Categories

Physical

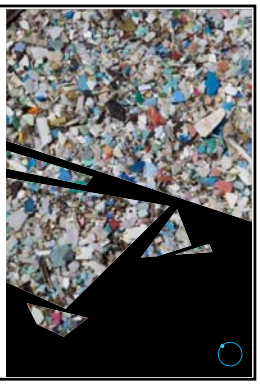
Sediment
Temperature
Gross Solids

Chemical

Nutrients
Metals
Hydrocarbons
Organic Compounds
Pesticides

Biological

Bacteria and Viruses



Physical Pollutants

Sediment

- Sources:
  - Construction Sites
  - Erosion
  - Urban Areas
  - Container Yards & Agricultural Practices
- Impacts:
  - Reduce light transmission
  - Smother habitat
  - Impair recreational use of water bodies
  - Also, transport other pollutants

Temperature

- Sources:
  - Power plants
  - Industries
  - Removal of trees along streams
  - Impervious areas (paved)
- Impacts:
  - Threat to stream insects & fish species

Gross Solids
Garbage, Trash, Plastics

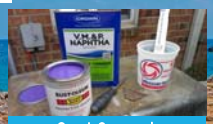
- Sources:
  - Human activities
- Impacts:
  - Major threat to aquatic life
  - Impairs recreational uses
  - Expensive to clean up

Chemical Pollutants

Nutrients

Nitrogen & Phosphorus

- Sources:
  - Atmosphere,
  - Fertilizers
  - Sewage leaks
- Impacts:
  - Toxic algae blooms
  - Nitrogen forms: Ammonia, Nitrate/Nitrite
  - Phosphorus forms: Orthophosphates, Total P



Organic Compounds

Paints & paint thinners, Solvents, Degreasing Agents, Curing Agents, Sealing Compounds, PCBs

- Sources:
  - Construction sites
  - Industrial & Maintenance Facilities
  - Illegal Dumping
  - Poor Storage & Handling of Materials
- Impacts:
  - Threat to aquatic life
  - Bioaccumulation
  - Human health risks

Pesticides, Herbicides, Rodenticides and Insecticides

- Sources:
  - Agriculture
  - Urban landscaping
- Impacts:
  - Threat to aquatic life
  - Bioaccumulation
  - Human health risk

Chemical Pollutants (Continued)

Metals

- Sources:
  - Streets & highways
  - Buildings
  - Materials
  - Industrial activities
  - Container yards
  - Atmospheric deposition
- Impacts:
  - Toxic to aquatic life
  - Bioaccumulation
  - Human health
- Forms of Metal Pollutants (Can be dissolved or solid)
  - Copper, Zinc, Lead, Chromium, Cadmium, Iron, Aluminum, Others

Hydrocarbons

- Sources
  - Streets, highways, container yards
  - Fueling sites, emissions
  - Illegal dumping
  - Leakages (vehicles & equipment)
- Impacts
  - Threat to aquatic life
  - Threat to human health
- Forms of Hydrocarbons
  - Oil and Grease
  - Fuels
  - Hydraulic Fluids

Biological Pollutants

Bacteria and Viruses

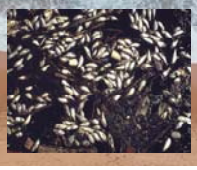
(E. coli, Fecal coli, Enterococci, etc.)

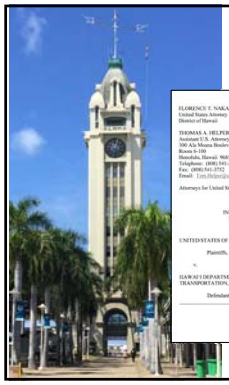
- Sources:
  - Dumping human wastes in harbors
  - Leaking septic/sewer systems
  - Illicit connections
  - Animal wastes
- Impacts:
  - Human health risk of diseases
  - Threat to aquatic life

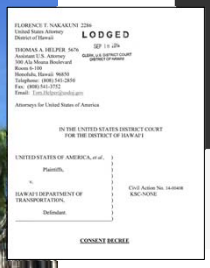
Additional Pollutants

Oxygen Demand, pH, Algae, Chlorophyll

- Oxygen Demand Sources:
  - Sediment
  - Nutrients
  - Organics
  - Other Particles and Soluble Phases (e.g. Molasses and AFFF)
- Oxygen Demand Impacts:
  - Reduced Dissolved Oxygen levels harm aquatic life
  - Fish kills







FLORENCE T. NAKAKUNI 2266
United States Attorney
District of Hawaii

LODGED

THOMAS A. HELPER 5476
Assistant U.S. Attorney
300 Ala Moana Boulevard
Room 6-100
Honolulu, Hawaii 96850
Telephone: (808) 541-2850
Fax: (808) 541-3752
Email: Tom.Helper@usdoj.gov

Attorneys for United States of America

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF HAWAI'I

UNITED STATES OF AMERICA, *et al.*,
Plaintiffs,
v.
HAWAI'I DEPARTMENT OF TRANSPORTATION,
Defendant.

Civil Action No. 14-00408
KSC-NONE

CONSENT DECREE

2014 Consent Decree and NPDES Permit Requirements

A discussion on rules and regulations.

Consent Decree

- In November 2014, Harbors Division entered into a Consent Decree with DOJ/EPA/DOH
- Consent Decree available on Harbors website

http://hidot.hawaii.gov/harbors/files/2013/01/Consent-Decree.pdf

Consent Decree Requirements

- No.16.b.i Conduct Site Assessments (or Harbor patrols) of High-Risk Areas. Site Assessments are intended to:
  - Identify active or recent illicit discharges
  - Increase the field presence of HDOT-Harbors Personnel
  - Defer illicit discharges
- No.16.b.ii Provide Outreach Activities During Site Assessments and Assess Locations for Signage.
  - BMP fliers and other materials
  - Schedule training and outreach activities

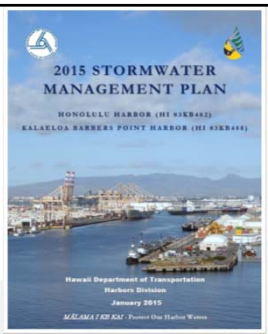
Controlling Vessel Discharges
BEST MANAGEMENT PRACTICES

Small Vessel Maintenance Activities

Available online - http://hidot.hawaii.gov/harbors/malamaikeawakai/

Illicit Discharge Prevention Signage

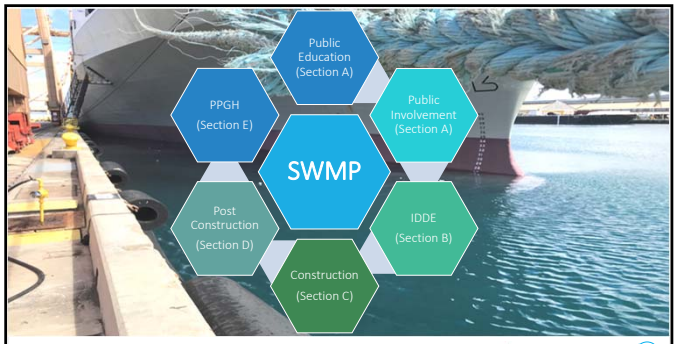
- CD No. 16.b.ii
  - Recommendations for signs shall be made based on patterns of illicit discharges observed
- CD No. 14.c.i
  - Install signs no later than 90 days after entry of the CD
  - Evaluate the need for additional signs annually
    - Tenant use
    - Report information in ACR
  - Determine if signs will be effective in other areas.



Regulatory Requirements

NPDES Permit Requirements

SWMP Implementation and Revisions



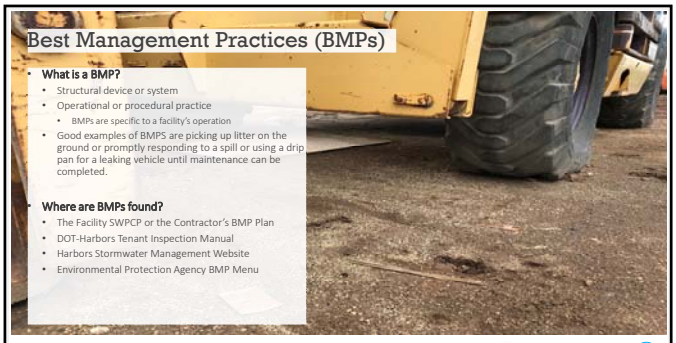
Allowable Non-Stormwater Discharges

- Daily Operations
  - Water line flushing
  - Air conditioning condensate
  - Landscape irrigation
  - Discharges from potable water sources and foundation drains
- Groundwater
  - Rising groundwater
  - (tidal intrusion)
  - Uncontaminated groundwater infiltration
  - Uncontaminated pumped groundwater
- Natural Origin
  - Springs
  - Riparian habitat and wetland flows
  - Diverted stream flows
- Emergencies
  - Discharge from fire fighting activities

Common Illicit Discharges:

- Washing Machines, Outdoor Hand Wash Stations, and Sinks Draining to Ground
- Building/Equipment Power Washing – Unpermitted and Improperly Contained
- Vehicle Washing – Unpermitted and Improperly Contained
- Large Spills – Vehicle Maintenance, Material Storage, Fueling Operations
- Petroleum Sheen During Rain Events and Debris from Painting Operations
- Sediment Discharge Due to Construction Activities

Best Management Practices (BMPs)



- **What is a BMP?**
  - Structural device or system
  - Operational or procedural practice
    - BMPs are specific to a facility's operation
  - Good examples of BMPS are picking up litter on the ground or promptly responding to a spill or using a drip pan for a leaking vehicle until maintenance can be completed.
- **Where are BMPs found?**
  - The Facility SWPCP or the Contractor's BMP Plan
  - DOT-Harbors Tenant Inspection Manual
  - Harbors Stormwater Management Website
  - Environmental Protection Agency BMP Menu

Common Illicit Discharges

Common Illicit Discharges: Building and Equipment Power Washing

Common Illicit Discharges: Vehicle Washing

Can you identify the potential pollution problem?

Common Illicit Discharges: Spills

Common Illicit Discharges:

Can you identify the potential pollution problem?

Common Illicit Discharges: Good Housekeeping

- Staining observed.
- Facility should implement proper BMPs to prevent staining and should remove stains.

- Utilizing a containment device, however, the size of the applied device was not large enough.

Common Illicit Discharges: Construction Activities, Sediment

When observed, you can reach out to the following offices:

Environmental Section	(808) 587-1962
Construction Section	(808) 587-1866
Special Projects Section	(808) 586-2455

For Tenant Projects:

Environmental Section	(808) 587-1962
Property Management Section	(808) 587-1944

Vehicle and Equipment Washing

WHO IS APPROVED?

1. McCabe, Hamilton & Renny (Pier 23)
2. Young Brothers (Pier 40)
3. Matson (Pier 52)
4. Hawaii Stevedores (Pier 1 and Pier 51A)
5. UHMC

Suspected Illicit Discharge and Spill Reporting

Notify Harbors Contacts of spills:

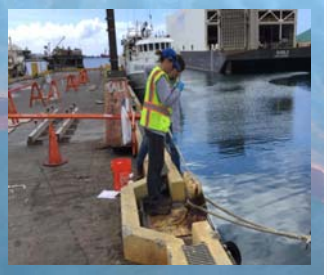
- Harbor Traffic Control Unit (24/7): 808-587-2076

What to report:

- Location of incident, date and time
- Description of incident & the media into or on to discharged
- Responsible party & cause of discharge
- Clean-up actions (if any) & notifications made

Further Investigation:

- Harbors Environmental Hotline: 808-587-1962



Suspected Illicit Discharge Investigation & Reporting Steps:

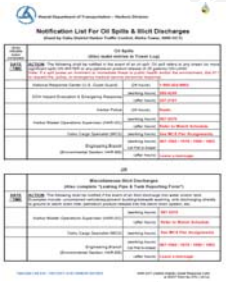
Observe
- If a suspected illicit discharge is observed, **STOP** and **investigate**.
- Take **notes** and **photos** of what you observe!

Trace
- **Follow** the discharge to locate the **source**.
- **Speak** with local representatives (employees and tenant representatives) about the suspected illicit discharge.

Report
- **Call** Harbors Traffic Control.

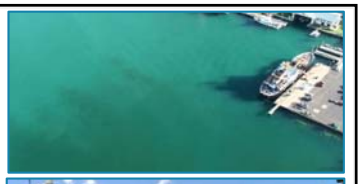
Document
- **Fill out** and **submit** Suspected Illicit Discharge Reporting form to HAR-EE for follow-on investigation (if warranted) and for recording in our Cityworks AMS.

Suspected Illicit Discharge Reporting Forms



Illicit Discharge Reporting

If you see something, report it to Harbor Traffic Control Unit (24/7) at **808-587-2076**



Escalating Enforcement

An environmental violation may lead to penalties:

- Oral or Verbal Warning
- Written Warning (Inspection Report + Letter)
- Notice of Apparent Violation
- Notice of Finding of Violation and Order
- Termination of Lease / Revocable Permit

Mālama I Ke Awa Kai
Protect Our Harbor Waters
37

Resources & Contacts

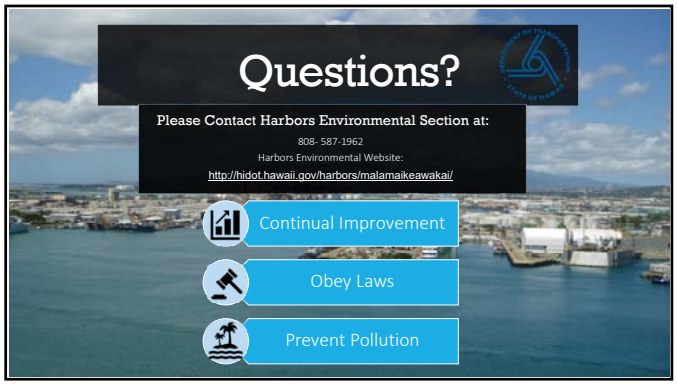
Harbors Stormwater Website:

http://www.hidot.hawaii.gov/harbors/malamaikeawakai

Harbors Division Environmental Contacts:

- Report Suspected Illicit Discharge: 587-2076 (Harbor Traffic Control)
- Environmental Hotline: 587-1962
- Joy Zhang, P.E.: 587-1960; ying.j.zhang@hawaii.gov
- Michele Freitas: 587-1976; michele.gn.freitas@hawaii.gov
- Mitchell Martello: 587-1969; mitchell.a.martello@hawaii.gov

Mālama I Ke Awa Kai
Protect Our Harbor Waters
38



Questions?

Please Contact Harbors Environmental Section at:

808- 587-1962

Harbors Environmental Website:

http://hidot.hawaii.gov/harbors/malamaikeawakai/

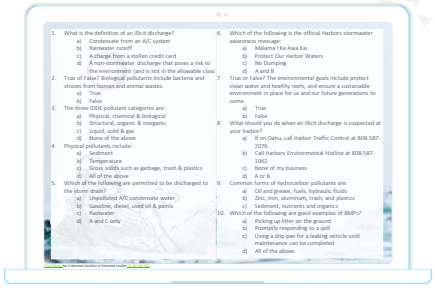
Continual Improvement

Obey Laws

Prevent Pollution

IDDE Training Quiz

Please complete the training quiz and provide to HAR-EE personnel.



1. What is the definition of an illicit discharge?
   a) Condensate from an A/C system
   b) Rainwater runoff
   c) A charge from a stolen credit card
   d) A non-stormwater discharge that poses a risk to the environment (and is not in the allowable class
2. True or False? Biological pollutants include bacteria and viruses from human and animal wastes.
   a) True
   b) False
3. The three IDDE pollutant categories are:
   a) Physical, chemical & biological
   b) Structural, organic & inorganic
   c) Liquid, solid & gas
   d) None of the above
4. Physical pollutants include:
   a) Sediment
   b) Temperature
   c) Gross solids such as garbage, trash & plastics
   d) All of the above
5. Which of the following are permitted to be discharged to the storm drain?
   a) Unpolluted A/C condensate water
   b) Gasoline, diesel, used oil & paints
   c) Rainwater
   d) A and C only
6. Which of the following is the official Harbors stormwater awareness message:
   a) Mālama I Ke Awa Kai
   b) Protect Our Harbor Waters
   c) No Dumping
   d) A and B
7. True or False? The environmental goals include protect clean water and healthy reefs, and ensure a sustainable environment in place for us and our future generations to come.
   a) True
   b) False
8. What should you do when an illicit discharge is suspected at your harbor?
   a) If on Oahu, call Harbor Traffic Control at 808-587-2076.
   b) Call Harbors Environmental Hotline at 808-587-1962
   c) None of my business
   d) A or B
9. Common forms of hydrocarbon pollutants are:
   a) Oil and grease, fuels, hydraulic fluids
   b) Zinc, iron, aluminum, trash, and plastics
   c) Sediment, nutrients and organics
10. Which of the following are good examples of BMPs?
   a) Picking up litter on the ground
   b) Promptly responding to a spill
   c) Using a drip pan for a leaking vehicle until maintenance can be completed
   d) All of the above

Copyright © Michael Baldwin's Licensed Leaflet

Mālama I Ke Awa Kai
Protect Our Harbor Waters
40