

# HDOT – HARBORS TENANT STORM WATER TRAINING



Photo by: To-Hawaii.com



*MĀLAMA I KE KAI* –  
PROTECT OUR HARBOR WATERS



## Welcome!



- Introduction – Randy Grune, Deputy Director – Harbors and Randal Leong, Environmental Section Head.
- Program Goals.
- Applicable Regulations.
- Tenant Inspections.
- Best Management Practices.
- Spill Response.
- Illicit Discharge Detection and Elimination.
- Construction and Post-Construction Requirements.
- Volunteer Opportunities.
- Please turn in your tenant survey questionnaire.



**PLEASE ASK QUESTIONS AT ANY TIME!**

## Harbor Statistics



- Harbors are vital to Hawaii.
  - Every year:
    - More than 11 million tons of cargo are handled.
      - \$3.3 billion in imports.
      - \$200 million in exports.
    - 500,000 cruise ship passengers go through the harbor.
  - Hawaii imports over 80% of required goods and **98% of that comes through the harbor!**
- *It is crucial that we work together to protect our harbors while supporting our State's vital ocean commerce!*

## TEMY Award



- Tenant Environmental Manager of the Year Award.
  - Given to the tenant that has displayed excellence in environmental compliance.
  - Ranked based on specific criteria identified during inspection.
    - \*Note: In 2013 only medium & high risk tenants were inspected and considered for this award.

## TEMY Criteria



Stormwater Training Attendance	Timely Correction of Noted Deficiencies	Deficiencies Were Not Repeated
BMPs Were Implemented Beyond the Minimum	Necessary Permits Available for Review	Tenant Courteous During Inspection
Manager Has Ability to Implement Changes	All Employees Trained	Steps Taken to Reduce Risk to Environment from Activities
No Enforcement (Jan 2013 – July 2014)		Other Exemplary Actions

## TEMY Honorable Mention



- Mr. Nathan Kapule
  - Young Brothers, Ltd.
  - Moana Pa'a Kai, Inc.
- Mr. Edward Au
  - Asphalt Hawaii
- Mr. Frank Roznerski
  - Hawaii Stevedores, Inc.
  - Horizon Lines, LLC
- Mr. Marshall Joy
  - Jems Enterprises, LLC
- Mr. Ralph Dewitt
  - P&R Water Taxi, Ltd.



# 2014 TEMY Award Winner!

## **MR. STEPHEN HINTON**

of Marisco, Ltd.



## Program Goals

- Work together to:
  - Protect our Harbor waters.
    - For our own use.
    - For the local economy.
    - To protect the environment.
  - Comply with environmental laws.
    - Details for compliance per the Storm Water Management Plan (SWMP).



## Environmental Laws

	<p><b>Environmental Protection Agency</b></p> <ul style="list-style-type: none"> <li>• Code of Federal Regulations.</li> </ul>
	<p><b>State of Hawaii Department of Health</b></p> <ul style="list-style-type: none"> <li>• Hawaii Revised Statutes (HRS).</li> <li>• Hawaii Administrative Rules (HAR).</li> </ul>
	<p><b>HDOT, Harbors</b></p> <ul style="list-style-type: none"> <li>• HRS &amp; HAR for Harbors Division.</li> <li>• MS4 NPDES Permits &amp; Storm Water Management Plan.</li> </ul>
	<p><b>Tenant Facilities</b></p> <ul style="list-style-type: none"> <li>• Industrial NPDES permits.</li> <li>• Storm Water Pollution Control Plan.</li> </ul>

## NPDES Program



- National Pollutant Discharge Elimination System
  - 40 CFR 122 and HAR 11-54 & 55.
  - Goal is to ensure that waters remain swimmable and fishable.
  - Regulates storm water discharges.
- Types of NPDES permits:
  - Municipal Separate Storm Sewer System (MS4).
    - Required for discharges from storm drain system.
  - Industrial.
    - Required based on facility SIC code and activities conducted (e.g. maintenance, washing, fueling, etc.)
  - Construction.
    - Required for sites disturbing 1 or more acres of land.



## MS4 NPDES Permits



- Storm drain system that conveys the runoff.
- Harbors MS4 Permits:
  - HI 03KB482: Honolulu Harbor.
  - HI 03KB488: Kalaeloa Barbers Point Harbor.
- Storm Water Management Plan (SWMP) describes how Harbors will comply with the permit.
  - Available on the website:
    - <http://hidot.hawaii.gov/harbors/library/storm-water-management/>
  - Will be updated near the end of 2014!
  - Will be posted on the website for comments.
- Annual report submitted to the EPA/DOH to describe compliance.



## Small MS4 Requirements





Public Education



Public Involvement



Illicit Discharge  
Detection and  
Elimination



Construction



Post-Construction



Pollution Prevention  
and Good  
Housekeeping

## Industrial NDPES Requirements




- Rules were updated by DOH on December 6, 2013.
- Keep a copy of Notice of General Permit Coverage (NGPC) from DOH on-site.
- Prevention violations of water quality.
- Implement the facility Storm Water Pollution Control Plan (SWPCP).
- Conduct storm water monitoring.
  - Goal is to measure potential pollutant load leaving the facility.
  - Provide the results to the DOH annually.



## Vessel General Permit (VGP)

- Covers discharges incidental to normal operations from commercial vessels.
  - Examples: ballast water or bilge water.
- Vessels may not violate water quality per HAR 11-54.
- Prohibited discharges include:
  - Sewage.
  - Garbage.
  - Used oil.
  - Degreasers.
  - Toxic chemicals.
  - Discharges that have a high or low temperature.
- Notify the National Response Center (1-800-424-8802), DOH, and Harbors Traffic Control in the event of a spill or release.
- Effective December 19, 2013:
  - Commercial vessels greater than 79 ft in length must apply for coverage under the DOH VGP.
  - Commercial vessels less than 79 ft in length must apply for coverage under the DOH Small VGP.



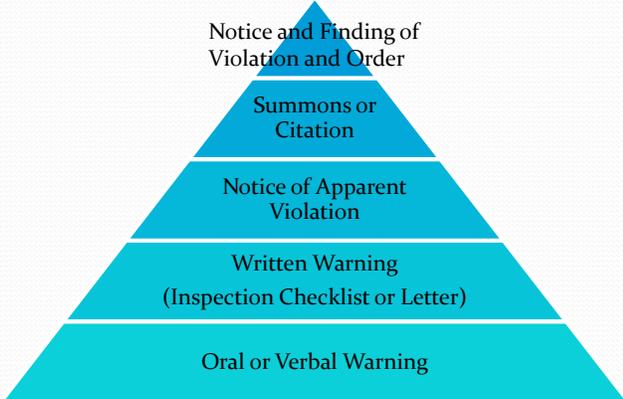


## Harbors Enforcement

- Failure to comply with environmental regulations, plans, and policies may result in enforcement.




Enforcement Escalation



Notice and Finding of Violation and Order

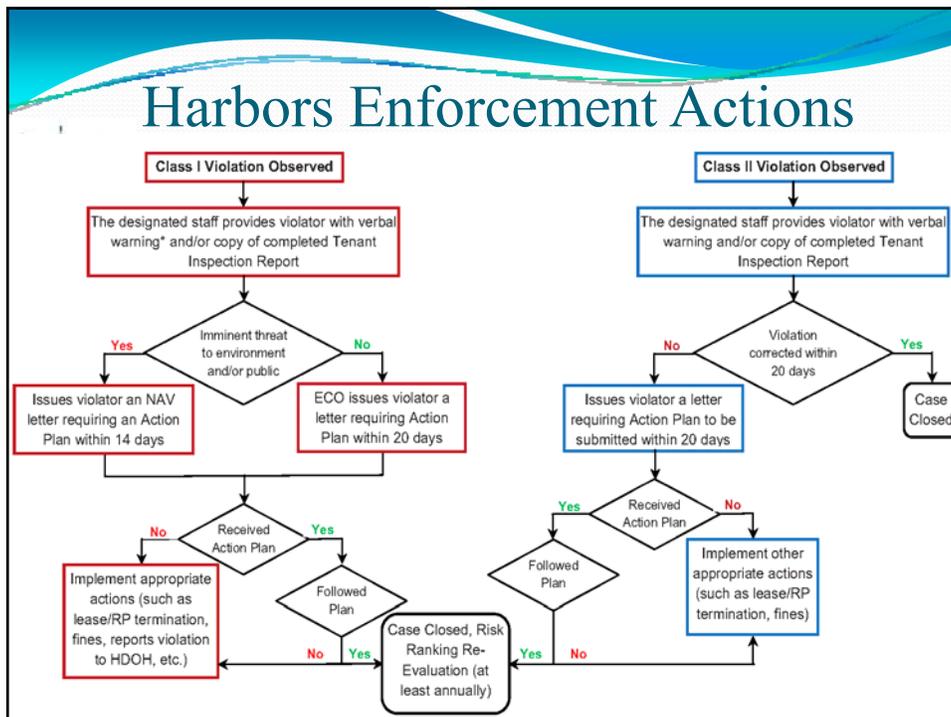
Summons or Citation

Notice of Apparent Violation

Written Warning (Inspection Checklist or Letter)

Oral or Verbal Warning

**New Administrative Rules are being created which will add civil fines.**



## Regulatory Enforcement



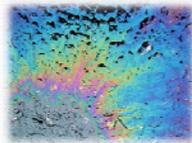

- Enforcement may be applied by the EPA and DOH.
- Fines are accrued **per offense per day**.
- Types of fines from DOH:
  - Civil - up to \$25,000.
  - Administrative.
    - Negligent- \$2,500 to \$25,000 (may include up to 1 year imprisonment).
    - Knowing- \$5,000 to \$50,000 (may include up to 3 years imprisonment).
    - Knowing Endangerment- up to \$250,000 and 15 years imprisonment for a single party. Organizations can be fined up to \$1 million.



## Stormwater Discharges



- Stormwater carries pollutants generated during outside activities to the nearest storm drains or waterways.
- Stormwater is **not** treated before it is discharged to the ocean.
- Therefore, it is critical that we control our pollutant sources **before** stormwater carries them into our harbor waters.



## Common Activities



- Maintenance.
- Fueling.
- Washing.
- Aboveground Storage Tanks (AST).
- Hazardous Materials Use and Storage.
- Wastes Handling and Disposal.
- Ground Disturbance.
- Spills.



## Common Pollutants



		
Trash	Sediment / Aggregate	Paints / Solvents
		
Wastewater / Detergents	Vehicle Fluids	Chemical Storage

## Stormwater Impacts



## Best Management Practices






- What is a best management practice (BMP)?
  - Structural device or system.
  - Operational or procedural practice.
  - Designed to prevent the release of pollutants to harbor.
    - BMPs are **specific** to a facilities' operations.
- Where are BMPs found?
  - Facility SWPCP Plan.
  - Harbors Website:
    - <http://hidot.hawaii.gov/harbors/library/storm-water-management/>.
  - Environmental Protection Agency BMP Menu.
    - <http://cfpub.epa.gov/npdes/stormwater//menuofbmps>.

## Harbors Environmental Inspections




- Purpose:
  - Ensure BMPs are implemented.
  - Ensure compliance with environmental laws.
- Per lease agreement or revocable permit, tenant is responsible for:
  - Complying with all environmental laws (e.g. obtaining NPDES permits).
  - Obtaining Harbors approval prior to:
    - Bringing any EPA regulated hazardous substance or chemical on-site.
    - Washing vehicles and equipment.
    - Any substantial site improvements.

## Inspection Types and Frequency



- New tenants:
  - Within 3 months of tenant occupancy.
- Routine inspections per risk ranking:
  - High = Every 6 months.
  - Medium = Annual.
  - Low = Every 5 years and an annual reconnaissance.
- Follow-up:
  - When corrective actions must be confirmed.
- Investigation inspections:
  - For suspected illicit discharges.
- Final inspections:
  - Prior to lease/RP termination.



Medium / High Risk  
Tenant Inspections  
coming up this Fall

## Risk Ranking Categories



Vessel Maintenance or Repair	Vessel Fueling	Vessel Rinsing	Vehicle / Equipment Maintenance or Repair
Vehicle / Equipment Fueling	Vehicle / Equipment Washing	Aboveground Oil Storage (≥ 55-gal)	Container Storage (< 55-gal)
Waste Handling and Disposal (excluding Used Oil)	Spill History	Enforcement History	Training Attendance
	Site Condition and General Housekeeping	Lease Agreements and/or Revocable Permit Requirements	



## Inspection Process

- Harbors inspector will contact tenant to schedule an inspection.
- Tenant representative should accompany inspector.
- Inspector will review conditions at the facility with a focus on areas exposed to stormwater runoff.
- Inspector will hold a conference, as needed:
  - Review applicable paperwork.
  - Share educational materials, where appropriate.
  - Verbally summarize findings.
- Written inspection report will generally be provided within 20 days.




## Good Housekeeping BMPs

Keep wastes away from storm water.

### Cover Dumpsters

- Use lids or tarps to keep storm water out of waste bins.



### Do Not Overfill Dumpsters

- Ensure that bins are regularly emptied.





## Good Housekeeping BMPs

Keep storm drains and waterways clean.





Pick up trash around the facility.



Clean debris from drain or waterway.





Regularly inspect, repair, replace, and/or reposition drain protection devices.

Stencil drains in your facility area.

## Good Housekeeping BMPs

- Remove accumulated debris.
  - Sweep areas and pick up debris daily.
  - Use appropriate cleaning tools such as a broom or vacuum.






## Washing Requirement



- Approval from Harbors is required for on-site washing.
- Submittal should include:
  - What is being washed.
  - Pressure sprayer flow rate.
  - Vacuum rate.
  - Schematic of containment and drains.
  - Holding container capacity.
  - Waste disposal plan.
- No wash water shall enter the storm drain.
- Example: Will this set-up be sufficient to capture a 1 hour wash?
  - 4 GPM sprayer, 7 GPM vacuum, 300 gal tote.



## Hand Washing BMPs



- Ensure that washwater from sinks is contained or discharged to the sanitary sewer.



## Building Washing BMPs

- Primary option:
  - Use a wet rag or mop.
  - Dispose of wash water in the sanitary sewer.
- Harbors Division must approve any other building washing processes. Such BMPs could include:
  - Containment system.
  - Holding tank or system.
  - Dispose of wash water in sanitary sewer (with City and County of Honolulu approval).





## Vehicle and Equipment Washing BMPs

- Use designated wash racks with an oil water separator or other treatment system.
  - Minimize the amount of water used.
  - Ensure that wash water is contained.
  - Use non-emulsifying and phosphate-free detergents.





## Vehicle and Equipment Washing BMPs

- If wash rack not available:
  - Contain wash area.
    - Collect water used or allow to evaporate and clean area.






- If containment is not available:
  - Bucket and sponge (no water hose).
  - Consider dry washing with chemicals.



## Vessel Washing BMP

- Dry Dock Cleaning Filtration System





## Maintenance and Repair BMPs

- Keep vessels, vehicles, and equipment in good condition.
  - Inspect for leaks.
  - Use drip pans where necessary.
    - Ensure drip pans are regularly emptied.







## Maintenance and Repair BMPs

- Conduct maintenance in designated areas.
  - Indoors or covered area.
  - Away from storm drains.
- Transfer fluids to designated storage containers promptly.
  - Label and close all containers.
  - Store liquids within secondary containment.







## Auto, Vessel, and Equipment Repair BMPs

- Conduct body repair operations in a covered / contained area.
- Conduct painting operations inside a paint booth.
- Ensure that leaks are contained until repairs are made.
- Vacuum or sweep sanding debris.
  - Consider using tools with filter bags.
  - Ensure paint chips and sanding debris do not enter harbor.






## Painting BMPs

- Use tarps to contain paint drips.
- Mix and store paint within secondary containment.






- Clean painting equipment by:
  - Scraping off excess paint.
  - Wash in a contained area (bucket or sanitary sewer).
- Dispose of paints properly.

## Fuel Transfer BMPs



- Inspect hoses and nozzles before use.
- Remain vigilant for releases during filling.
- Do not top off tank.
- Fill small equipment and containers within secondary containment.



- Respond to spills promptly.
  - Keep spill kit near the fueling area.
  - Test emergency shut-off for tanks.

## SPCC Requirements



- SPCC Plan required when the aboveground storage capacity is greater than **1,320 gallons**.
  - For containers that are **55-gallons and larger**.
  - Per requirement of 40 CFR 112.
- Common containers include:
  - Aboveground Storage Tanks (ASTs).
  - Mobile fuel tankers.
  - Emergency generators.
  - Oil-filled operational equipment (OFOE).
    - Transformers.
    - Hydraulic systems.
  - Drums.



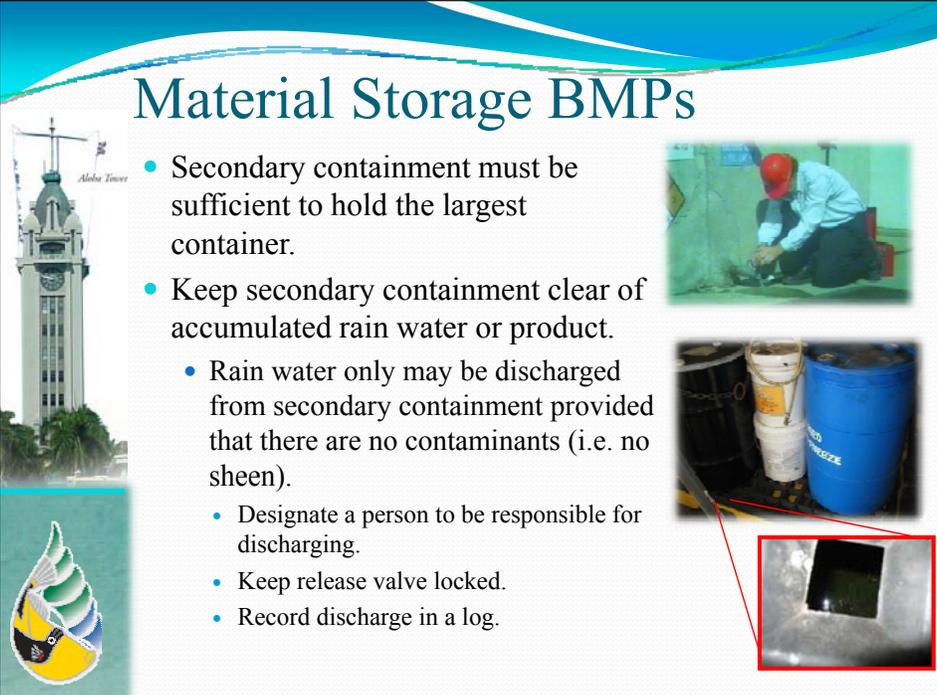
## Material Storage BMPs

- Store materials indoors or under cover, if possible.
- Use secondary containment.
  - Double-walled tanks.
  - Flammable storage locker.
  - Spill pallet or contained area.



## Material Storage BMPs

- Secondary containment must be sufficient to hold the largest container.
- Keep secondary containment clear of accumulated rain water or product.
  - Rain water only may be discharged from secondary containment provided that there are no contaminants (i.e. no sheen).
    - Designate a person to be responsible for discharging.
    - Keep release valve locked.
    - Record discharge in a log.



## Material Storage BMPs

- An inventory of chemicals should be compiled with MSDS.
- Ensure container is in good condition:
  - No leaks, dents, corrosion, chemical discoloration.
- Ensure container is closed and properly marked.
- Clean spills properly.







## Material Storage BMPs

- Outdoor material storage:
  - Place on a pallet and cover.
  - Ensure it is away from drainage ways and downspouts.
  - Rusting items should be covered or disposed.
  - Aggregate piles require containment / cover if not used that day.






## Material Storage BMPs

- **Pop Quiz: Which of these are stored properly?**



## Pesticide Usage

- Store sprayer in secondary containment.
- Follow manufacturer's instructions.
- Do not apply in high winds or prior to rain.
- Triple rinse containers prior to disposal.
  - Reuse the rinse water.



- **Do not** spray in or near water bodies without permit from DOH!

## Solid Waste BMPs



- Make determination about type of waste.
  - Solid waste (40 CFR 262 & HAR 11-262).
  - Used oil (40 CFR 279 & HAR 11-279).
  - Hazardous waste (40 CFR 261 & HAR 11-261).
    - Universal waste (40 CFR 273 & HAR 11-273).
- Separate regulations apply to each type of waste. Ensure you are familiar with requirements.
- Retain disposal documentation.

## Solid Waste BMPs



- Used oil:
  - Store within secondary containment.
  - Remove all other markings and label "used oil."
  - Keep closed when not in use.
  - Store indoors or under cover.



## Solid Waste BMPs

- Hazardous Wastes.
- Do not mix wastes.
- Store indoors or under cover.
  - Keep liquids in secondary containment.
  - Label properly.
- Properly dispose within designated timeframe.
- Maintain disposal manifest for three years.




## Solid Waste BMPs

- Universal waste:
  - Examples batteries and fluorescent lamps.
- Store in structurally sound container.
- Label each container as “Universal Waste - Batteries” or “Universal Waste – Lamps” and accumulation start date.
- Recycle within 1 year.



## Which Lamps Are Not UW?



Philip Alton  
Green caps



Fluorescent



Incandescent Lamps



Mercury Vapor



Halogen Lamp



High Pressure Sodium



Metal Halide



Neon



High Intensity Discharge

**KEEP FLUORESCENT TUBE BOXES; USE FOR SHIPPING TO RECYCLER.**

## Solid Waste BMPs

- Oil water separator:
  - Inspect at least semi-annually.
  - Remove accumulated grease and debris.
  - Maintain and inspection and maintenance log.





Needs Maintenance

## Video Break!

- Spill Drill by New Pig
  - Provides a 7-step approach to help workers prepare for spills.



## Spill Response Preparation

**Ensure that there is a spill kit nearby!**

- Items typically found in spill kits include:
  - Absorbent (Pads, Booms, Granular)
  - Broom
  - Plastic Shovel
  - Garbage Bags
  - PPE (Gloves, Safety Glasses)
  - SDS (formerly MSDS)
    - Keep nearby for reference.
  - Emergency Contact Info
    - Who is the emergency coordinator?



## Spill Response Procedures

- How should you respond to this situation?





## 7 Steps of Spill Response

1. Assess the risk.
2. Select PPE.
3. Confine the spill.
4. Stop the source.
5. Evaluate the incident and implement cleanup.
6. Decontaminate the site and properly dispose of wastes.
7. Complete required report.





## Spill Notifications



- Regulatory reportable quantity:  
(Oil spill =  $\geq 25$  gallons, not cleaned within 72 hours, enters drainageway)
  - Notify Harbors of spills.
    - 24/7: 808-587-2076 (Harbor Traffic Control Unit).
  - National Response Center
    - 800-424-8802.
  - Department of Health, HEER
    - 586-4249.
    - Written follow-up within 30 days.
  - Department of Health, CWB
    - 586-4309.
    - If enters surface water body.



## Illicit Discharge Definition



- Illicit Discharge:
  - **Any non-storm water discharge that poses a risk to the environment.**

## Illicit Discharge Examples



- Fuel spills.
- Leaking vehicles or equipment where a sheen is visible on the ground.
- Washwater from handwashing or vehicle washing activities that is not contained.
- Paint chips for sanding or grinding operations that is not contained.
- Materials stored improperly outdoors.
- Leaking trash bins.
- Sediment laden water from construction activities that is not contained.



LEAD ACID BATTERY LEAKING – IMPROPER MATERIAL STORAGE



FINE MATERIAL FROM SAND BLAST MACHINE NOT CONTAINED





LEAKING DRUM / NO SECONDARY CONTAINMENT



PAINT CHIPS IN THE WATER





## Signs of Illicit Discharge



- Activity-Based:

- Identify facility areas exposed to storm water which are wet during dry periods or stained.
- Inspect discharge points for:
  - Uncharacteristic volume.
  - Color.
  - Turbidity.
  - Odor.
  - Floatables.
  - Foam.



## Signs of Illicit Discharge



- Overt Discharges:

- Connections to the MS4.
- Ensure that discharge pathways of all floor and facility drains is known.
  - Harbors is working with the Army Corps of Engineers to update MS4 drainage system maps.
- Could be identified by Harbors inspectors during dry weather outfall screening.





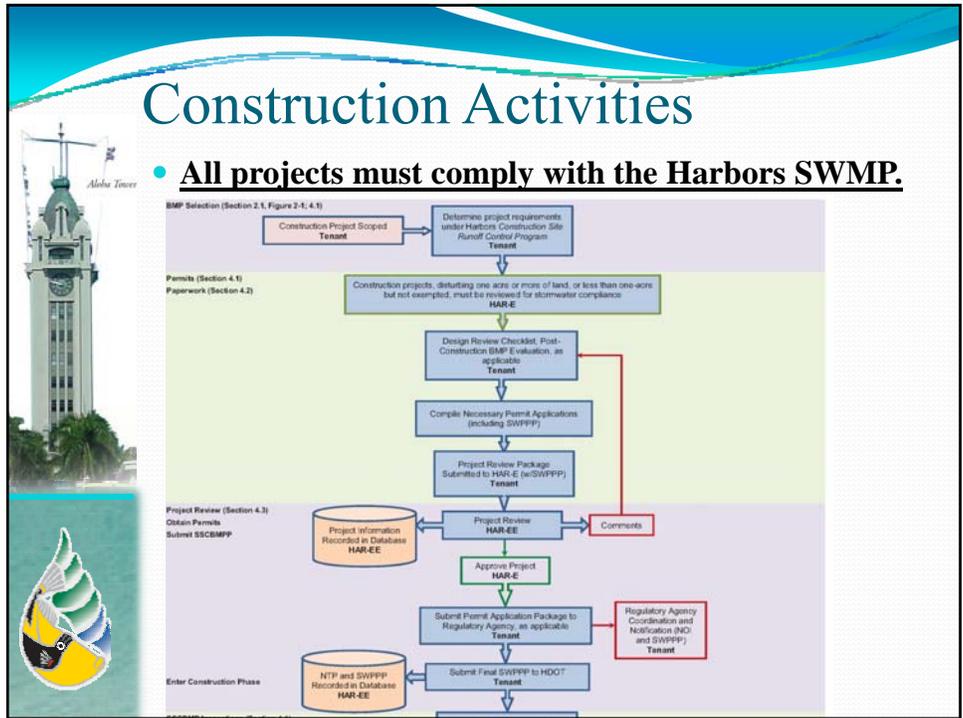
## Illicit Discharge Actions

- We need your help to identify illicit discharges!
- If it is on your facility, stop the source and clean up pollutants.
- Make the proper notifications:
  - Call the Stormwater Reporting Hotline: 808-587-1962 (working hours only).
  - Call Harbor Traffic Control Unit: 808-587-2076 (24/7).



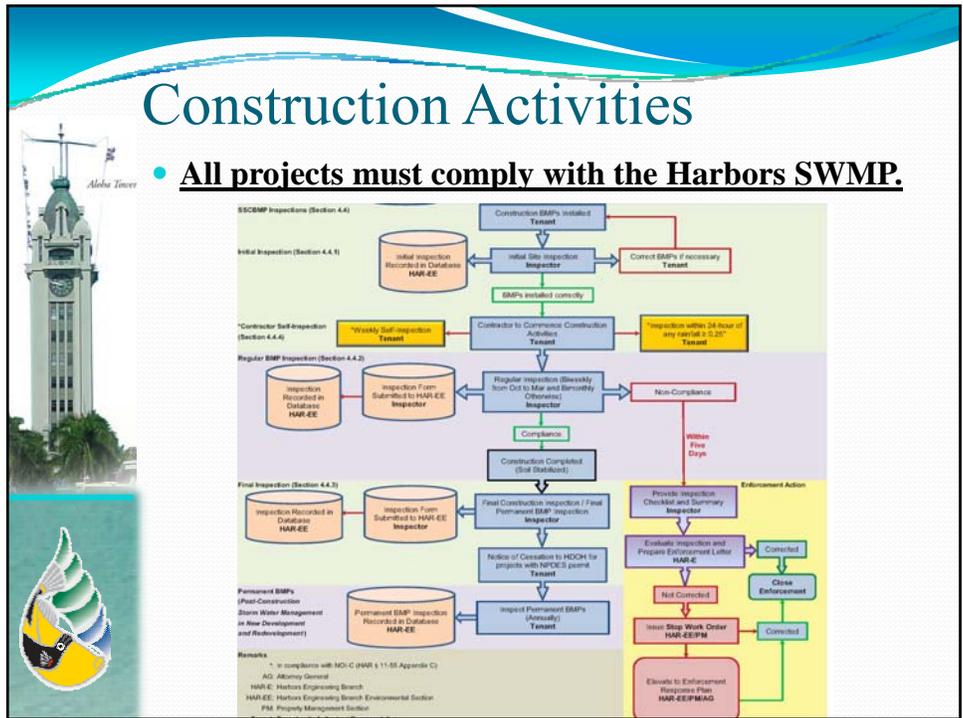
# Construction Activities

- All projects must comply with the Harbors SWMP.**



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- All projects must comply with the Harbors SWMP.**





## Construction Requirements

- Plan Review.
  - Submit forms, BMPs, construction plans, and permits to Harbors Division for review.
  - Post-Construction BMPs required for sites over 1 acre.
- Initial Inspection.
  - Temporary BMPs must be properly installed prior to start.
- Periodic Inspections.
  - Wet Season (October – March): Every two weeks.
  - Dry Season (April – September): Every two months.
- Final Inspection.
  - Site must be stabilized and permanent BMPs installed prior to removal of temporary BMPs.
- For more information on the construction program visit the Harbors website.




## Temporary Construction BMPs



## Permanent BMPs

- Implement for construction sites of 1 or more acres.
- Common types:
  - Add or conserve existing green space.
  - Green parking / permeable pavers.
  - Rain barrels.
  - Grassed swale.
  - Rain garden / vegetated filter strip.
  - Filtration products.



## Permanent BMPs



## Volunteer Opportunities




- International Coastal Clean-up Day.
- “Get the Drift and Bag It!”
  - September 20, 2014
  - Wikoliana Educational Excursions will be kicking off the “Adopt-A-Harbor program.”
    - Remove debris and stencil drainageways.
  - If you would like to volunteer, please contact:
    - Captain Jeff Lansdown at 230-0940.



## Conclusion



- Implement BMPs to:
  - Protect our Harbor waters and our ocean environment.
  - Comply with Harbors requirements.
  - Comply with regulatory requirements.
  - Avoid enforcement and fines.

## Questions



- Harbors' Website:  
<http://hidot.hawaii.gov/harbors/library/storm-water-management/>.
- Harbor's Contacts:
  - Stormwater Reporting Hotline: 587-1962.
  - Randal Leong, PE: 587-1962, [randal.leong@hawaii.gov](mailto:randal.leong@hawaii.gov).
  - Joy Zhang: 587-1960, [ying.j.zhang@hawaii.gov](mailto:ying.j.zhang@hawaii.gov).
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