#### Welcome...



## 2015 IGP Storm Water Pollution Prevention Team Training

Environmental and Land Use Planning (ELUP) Division

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# Agenda

- Why We Are Here
- The New NPDES Permit
- Best Management Practices
- Things To Do
- What We Need

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- Consequences of Non-Compliance
- Resources
- Summary
- Q&A



# Why We Are Here

# **Why We Are Here**



# Why We Are Here

- Training Required by the New Permit

   NPDES General Permit Order 2014-0057-DWQ, H.1.f.i-v
- Better Operations
  - Cleaner, more organized facilities are better run.
- Saves Time

- Everything in its place; less hassle from us.



# Why We Are Here

Saves Money

- Less wasted materials; more efficient use of manpower; LAWA manages the Permit.
- Prevent Violations
  - 2000 2013 8419 Violations of NPDES Storm Water Permits Written in LA Region
- Protect the environment
  - It's the right thing to do.



# Background

 The New 2015 NPDES Industrial General Permit (IGP) for Storm Water Discharges Associated with Industrial Activities requires facilities to...



## **2015 IGP SWPPP Requirements**

- Submit a Storm Water Pollution Prevention Plan (SWPPP)
  - Facility Name and Contact Information
  - o Site Map
  - List of Industrial Materials
  - Description of Potential Pollution Sources
  - Assessment of Potential Pollutant Sources
  - Minimum BMPs
  - Advanced BMPs, if applicable
  - Monitoring Implementation Plan
  - Annual Comprehensive Facility Compliance Evaluation
- Amendments as Required



## **2015 IGP SWPPP Requirements**

- SWPPP must be Implemented and Continuously Revised as Needed (Quarterly for LAWA)
  - Submitted by July 1, 2015

- SWPPP must have Performance Standards to:
  - ID and evaluate all pollutant sources
  - ID and describe minimum BMPs (Section X.H.1) and advanced BMPs (Section X.H.2) implemented.
  - ID and describe conditions or circumstances which may require future revisions to be made to the SWPPP.



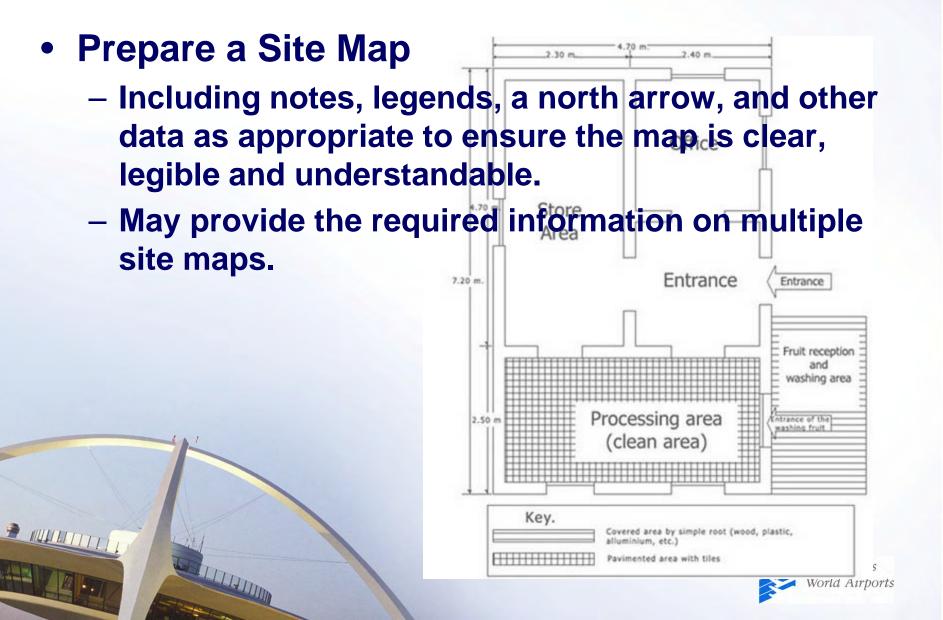
Create a Pollution Prevention Team
 – Order 2014-0057-DWQ X.D.1.

"Each facility must have a Pollution Prevention Team established and responsible for assisting with the implementation of the requirements in this General Permit. The Discharger shall include in the SWPPP detailed information about its Pollution Prevention Team"



- The Pollution Prevention Team Requirements
  - a. The team members will assist in:
    - implementing the SWPPP
    - conducting the routine inspection requirements
  - b. Describe the responsibilities, duties, and activities of each of the team members;
  - c. Identify alternate team members.



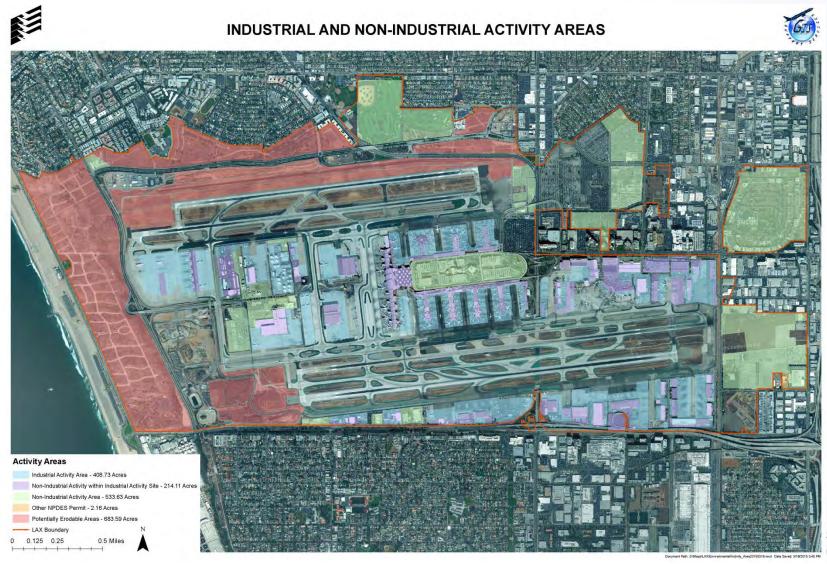


#### – Include the following information on the site map:

- Boundaries; Drainage areas (w/ potentially impacted portions IDed); Flow direction; Water Bodies with soil erosion areas identified; storm drain inlets
- Storm water collection and conveyance systems, discharge locations, flow direction, and sample locations.
- Structural control measures affecting storm water discharges.
- Impervious Areas

- Exposed Materials and Sites of Past Spills.
- Areas of Industrial Activity





orts

- Maintain a List of Industrial Materials
  - Handled at the facility
  - Locations where each material is stored, received, shipped, and handled (also to be depicted on site map)
  - Typical quantities
  - Handling frequency

Table 2



- Must List Potential Pollutant Sources
  - Industrial Processes (Table 2)
  - Material Handling and Storage Areas (Table 2)
  - Dust and Particulate Generating Activities
  - Significant Spills and Leaks

 Evaluate the facility for areas where spills and leaks can likely occur



- Ensure the SWPPP includes (Table 3):
  - A list of past spills that entered the SD system
  - A list of any toxic chemicals
  - A list of spills with potential discharge to the SD system
- Must include the following information:
  - location, characteristics, quantity spilled;
  - quantity discharged;
  - cleanup actions;

- the remaining quantity with potential to be discharged;
- preventive measures to future spills
   New LAWA SPILL REPORTING FORM for 2015



- Must List Potential Pollutant Sources
  - Non- Storm Water Discharges (NSWDs)
    - ID all NSWDs, sources, and drainage areas;
    - Evaluate all drains
    - Eliminate unauthorized NSWDs
    - Describe all NSWDs in the SWPPP.
  - Erodible Surfaces



- Must Assess Potential Pollutant Sources
  - Narrative assessment of all areas with potential pollutant sources. At a minimum, shall include:
    - Areas of potential sources;
    - Potential pollutants in discharges;
    - Quantity, characteristics and locations of material;
    - Degree of storm water exposure;
    - Potential pollutant pathways;

- Sampling, observation, and inspection records;
- Effectiveness of Existing BMPs;
- Effectiveness of Implementing Minimum BMPs;
- ID pollutants contributing to 303(d) receiving waters impairment.



## Authorized Non-Storm Water Discharges

• Fire Hydrant Flushing

- Potable Water System Testing
- Drinking Fountain and Atmospheric Condensates
- Irrigation/Landscape Drainage
- Uncontaminated Ground Water

If you have one of the above discharges LAWA needs to know to have it properly reported.

If you have a discharge into the storm drain system that is not listed above, it is a violation.



- ID areas where the minimum BMPs will not adequately reduce or prevent pollutants in storm water. Advanced BMPs must be prescribed.
- ID drainage areas with no exposure (in accordance with the definitions in Section XVII).
- ID additional parameters that indicate the presence of pollutants in industrial storm water discharges.



Best Management Practices (BMPs)
 – Minimum BMPs

"The Discharger shall, to the extent feasible, implement and maintain all of the following minimum BMPs to reduce or prevent pollutants in industrial storm water discharges."



- Good Housekeeping
  - » Inspect/observe all outdoor areas;
  - » Minimize or prevent material tracking;
  - » Minimize dust generation;
  - » Wash areas maintained clean after all wash activities;
  - » Cover all materials to protect from rain and wind.
- Preventive Maintenance

- » ID all outdoor equipment and systems that may spill or leak;
- » Observe equipment for leaks or conditions that may result in leaks;
- » Schedule routine maintenance for equipment;
- » Establish procedures for prompt repair when conditions exist that may result spills or leaks.



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- Spill and Leak Prevention and Response
  - » Establish SOP and/or controls to minimize spills and leaks;
  - » Develop and implement spill and leak response procedures.
  - » Spilled/leaked materials shall be cleaned promptly.
  - » Spilled/leaked materials shall be disposed properly;
  - » ID and describe all spill and leak response equipment, location(s) and maintenance procedures;
  - » Identify and train appropriate spill and leak response personnel;
  - » Formal Spill Prevention and Response Plan for each facility is required.



- Material Handling and Waste Management
  - » Prevent or minimize handling of industrial materials or wastes that can be readily mobilized by contact with storm water.
  - » Contain all stored non-solid industrial materials or wastes that can be transported/dispersed by wind or storm water;
  - » Cover waste and material storage containers when not in active use;
  - » Divert run-on and storm water from all stockpiled materials;
  - » Clean all spills

 » Observe and clean any outdoor material or equipment/containers that can be contaminated by materials or wastes.



- Erosion and Sediment Controls
  - » Implement effective wind erosion controls;
  - » Stabilize inactive areas effectively prior to a forecasted storm event;
  - » Maintain effective perimeter controls;
  - » Divert run-on and storm water generated from within the facility away from all erodible materials;
  - » If sediment basins are implemented, ensure compliance with the design storm standards in Section X.H.6.;
  - » All construction projects that disturb an acre or more of soil must file for a Construction General Permit with LAWA as the Legally Responsible Party.



#### Employee Training Program

- » At a minimum, train all team members in BMP implementation, BMP effectiveness evaluations, visual observations and monitoring activities.
- » Prepare or acquire appropriate training manuals or training materials;
- » ID personnel that need to be trained, their responsibilities, and the type of training they shall receive;
- » Provide a training schedule;
- » Maintain documentation of all completed training classes and the personnel that received training in the SWPPP;
- » LAWA will hold annual trainings for PPT, mandatory attendance by each leasehold.



- Quality Assurance and Record Keeping The Discharger shall:
  - » Develop and implement procedures to ensure that staff implements all elements of the SWPPP
  - » Track and Record the implementation of BMPs identified in the SWPPP;
  - » Maintain records for BMP implementation, training, spills and clean-up response activities for a minimum of five (5) years.



- Must Develop, Implement, Document, and Assess Best Management Practices (BMPs)
  - Advanced BMPs

 "In addition to the minimum BMPs described in Section X.H.1, the Discharger shall, to the extent feasible, implement and maintain any advanced BMPs identified in Section X.G.2.b, necessary to reduce or prevent discharges of pollutants in its storm water discharge in a manner that reflects best industry practice considering technological availability and economic practicability and achievability."



#### – Advanced BMPs

- Advanced BMPs may include one or more of the following BMPs:
  - » Exposure Minimization BMPs
    - » Roofs, Enclosures
  - » Storm Water Containment and Discharge Reduction BMPs
    - » Basins, Infiltration Wells
  - » Treatment Control BMPs
    - » Biofilters, Treatment Systems
  - » Other Advanced BMPs



#### – BMP Descriptions

- The Discharger shall ensure that the SWPPP identifies each BMP being implemented at the facility (Table 4), including:
  - » The pollutant(s);
  - » The frequency;
  - » The locations;
  - » The individual and/or position responsible for implementing the BMP;
  - » The procedures to implement the BMP effectively;
  - » The equipment and tools to implement BMPs;
  - » BMPs that require more observations beyond the monthly inspection requirement.



- Identify and justify Minimum and/or Advanced BMPs not implemented.
- ID BMPs implemented in lieu of any Minimum or Advanced BMPs.



#### Prepare Monitoring Implementation Plan

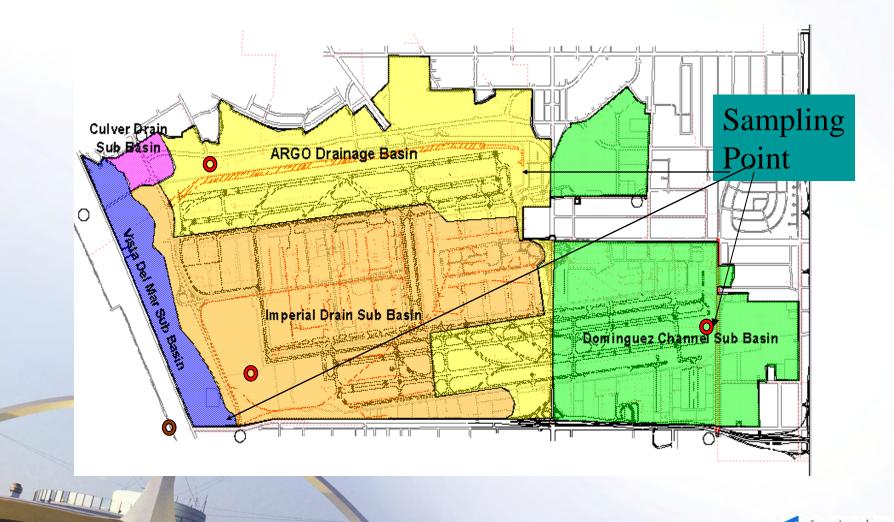
• Discharge locations;

- Visual observations of facilities;
- Visual observations response.



# **LAX Drainage Basins**

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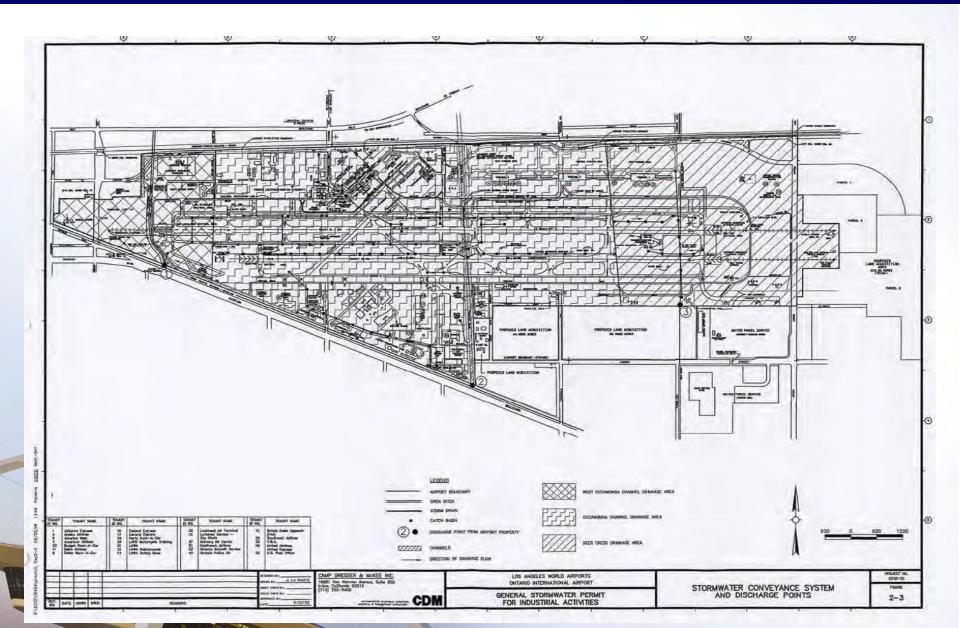
# **VNY Drainage Basins**



**Sampling Location** 



## **ONT Drainage Basins**



#### Facility SWPPPs





LOS ANGELES WORLD AIRPORTS STORM WATER MONITORING PROGRAM PLAN VAN NUYS AIRPORT

September, 2013

#### Storm Water Pollution Prevention Plan (SWPPP)

Associated with Industrial Activities 2012 – 2013

Storm Water Pollution Prevention Plan (SWPPP) Storm Water Monitoring Program Plan (SWMPP) Associated with Industrial Activities 2012 – 2013

September 2013

September 2013

Prepared by:

Los Angeles World Airports Environmental Services Division 7301 World Way West 'Los Angeles, CA 90045



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#### **Break – 15 Minutes**





# Best Management Practices (BMPs)



#### **BMPs**

• LAX Rules & Regulations

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- <u>http://www.lawa.org/airops.aspx?id=862&linkident</u> <u>ifier=id&itemid=862</u>





#### **BMPs**



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#### ELIMINATION OF NON-STORM WATER DISCHARGES TO STORM DRAINS

#### PURPOSE:

SC1

*Existing discharges:* Eliminate non-storm water discharges to the storm water collection system. Non-storm water discharges can be classified as follows: 1) *Activity-based* (subtle), and 2) *Overt* (hard pipe connection). Activity-based non-storm water discharges may include: wash water, deicing fluids, and spillage. Overt non-storm water discharges may include: process wastewater, treated cooling water, and sanitary wastewater.

**Prevention of illicit connections:** Prevent improper physical connections to the storm drain system from sanitary sewers, floor drains, industrial process discharge lines, and wash racks through education, developing project approval conditions, and performing both construction phase and post-construction inspections.

#### GENERAL APPROACH:

#### Identification of Activity-Based (Subtle) Discharges:

The following techniques may be used to identify activity-based non-storm water discharges to the storm water collection system:

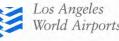
Perform frequent activity inspections to identify non-storm water discharges -

#### TARGETED ACTIVITIES

All Maintenance All Fueling All Washing Equipment Cleaning Cargo Handling All Storage Painting/Stripping Floor Washdowns Aircraft Deicing/Anti-Icing Garbage Collection Aircraft Lavatory Service Fire Fighting Equip. Testing Potable Water System Flush Runway Rubber Removal

#### TARGETED POLLUTANTS

Oil and Grease Vehicle Fluids Fuel Solvents/Cleaning Sol.



#### **BMPs**

## **Storm Water Control**

SC1	ELIMINATION OF NON-STORM WATER DISCHARGES TO STORM DRAIN
SC2	AIRCRAFT, GROUND VEHICLE AND EQUIPMENT MAINTENANCE
SC3	AIRCRAFT, GROUND VEHICLE, AND EQUIPMENT FUELING
SC4	AIRCRAFT, GROUND VEHICLE AND EQUIPMENT WASHING
SC5	AIRCRAFT DEICING/ANTI-ICING
SC6	OUTDOOR MATERIAL HANDLING
SC7	OUTDOOR STORAGE OF SIGNIFICANT MATERIAL
SC8	WASTE/GARBAGE HANDLING AND DISPOSAL
SC9	BUILDING AND GROUNDS MAINTENANCE
SC10	STORM WATER POLLUTION PREVENTION EDUCATION
SC11	LAVATORY SERVICE OPERATIONS
SC12	OUTDOOR WASHDOWN/SWEEPING
SC13	FIRE FIGHTING FOAM DISCHARGE
SC14	POTABLE WATER SYSTEM FLUSHING
SC15	RUNWAY RUBBER REMOVAL





### **Treatment Control**

TC1 OIL/WATER SEPARATORS

## **Spill Response**

SR1 EMERGENCY SPILL CLEANUP PLANS



## **Good Housekeeping** BMP Examples

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#### Monthly Visual Observation/ Inspection



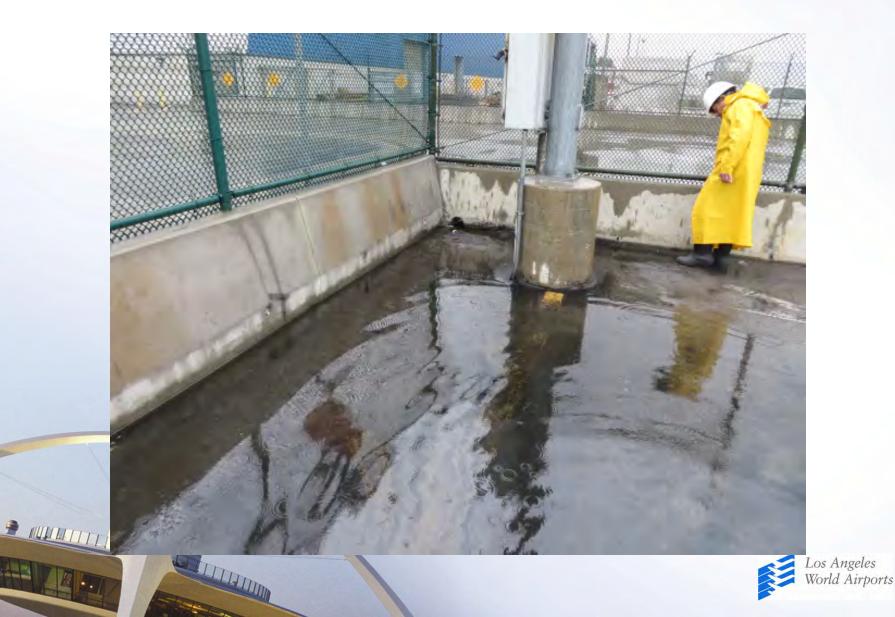


# **Facility Equipment Inspections**<sup>45</sup>



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### **Drainage Area Inspections**

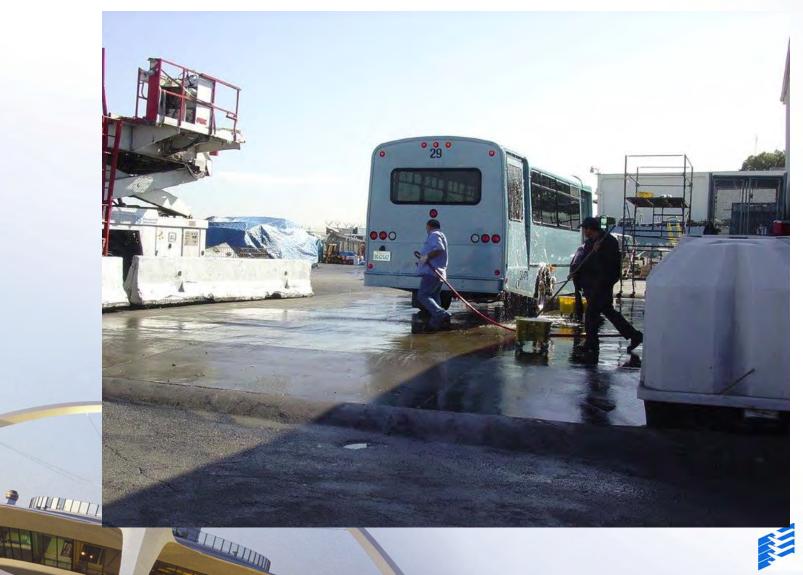


#### **Inlet Protections**



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#### **Vehicle Washing Areas**





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### **Equipment Washing Area**





#### Wash Water Disposal

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#### **Outdoor Storage Area**







#### **General House Keeping**









### **Outdoor Loading Area**









### Material/Waste Storage

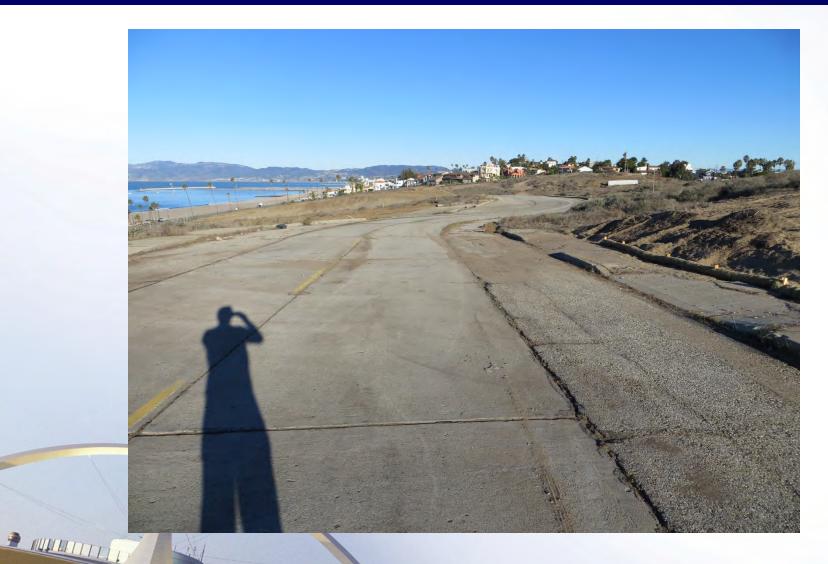








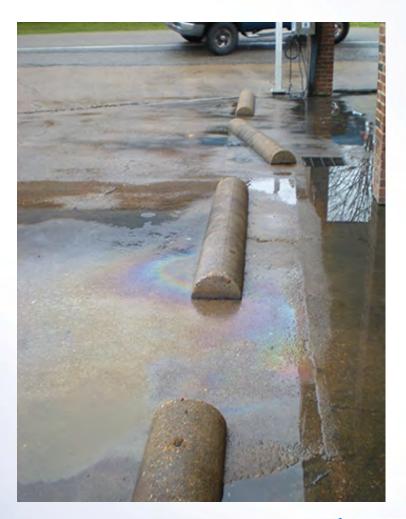
### **Non-Industrial Area Discharge**





### **Non-Industrial Area Discharge**







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# Preventive Maintenance- Examples

Vehicle/Equipment Hoses/Belts Replacement **Oil Changes Tire Changes Exercising Valves Scheduled Storm Drain Filter** Replacement



# **ID Relevant Equipment & Systems** <sup>58</sup>





#### Observe Relevant Preventative Maintenance Schedules





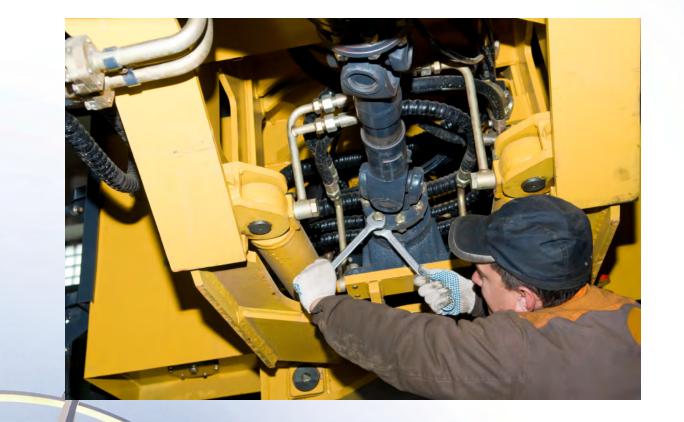
#### **Schedule Maintenance**

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#### **Prompt Repair**

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# Spill and Leak Prevention and Response BMP Examples



#### **Procedures and Controls**

- A Formal Written Plan is required by the Permit
  - Post and Educate Employees On Your Facility Procedures.



#### **Spill Response Procedures**



#### **Spill Response Equipment**



#### **ID & Train Personnel**

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### Post the Spill Prevention Plan

- Where Contact Numbers Should Be Posted:
  - Chemical Storage Areas (all of them);
  - Guard Posts;

- Company Information Boards;
- With SPCCC Plans;
- With the SWPPP;
- Any Other Location Where It Will Be Beneficial.



# Material Handling and Waste Management BMP Examples



#### Materials & Waste Storage



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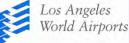




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#### **Prevent Storm Water Contact**





#### **Cover Materials & Wastes**



### **Clean Spills**







# Erosion and Sediment Controls BMP Examples



# **Erosion and Sediment Controls**<sup>74</sup>

#### - For OVER 1 Acre of Disturbed Soil

- Submit a SWPPP that is in compliance with the California Construction General Permit and the LAWA Rules and Regulations Handbook Guidelines (coming in 2015).
- LAWA ERC will approve the SWPPP and file for the Permit as the Land Owner.
- For UNDER 1 Acre of Disturbed Soil
  - Comply with all Municipal Water Code Regulations for discharging Storm Water;
  - Comply with the IGP requirements.



# Advanced BMPs BMP Examples

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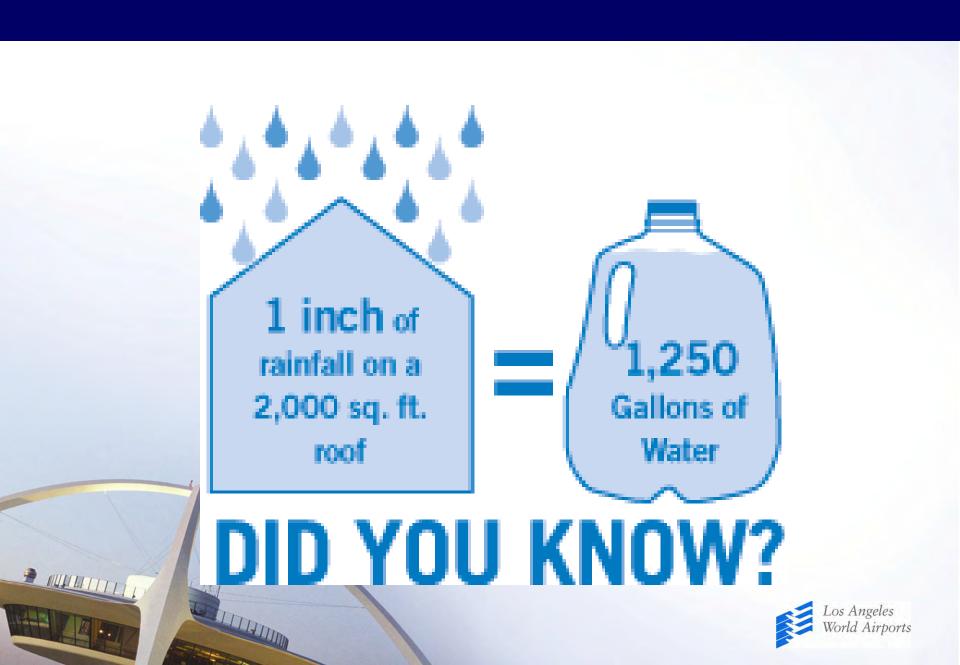


#### **Exposure Minimization**

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#### Divert, Infiltrate, Reuse, Contain, Retain, or 78 Reduce Storm Water Runoff (LID Requirements)





#### **Other Treatment Control Tech**

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#### **BMPs**

- BMP Fact Sheets in LAWA Rules and Regulations
  - Appendix 2

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- http://www.lawa.org/uploadedfiles/airops/pdf/ru les/17\_Appendix\_02-Best\_Management\_Practices-September\_2010.pdf
- Photos of BMP Implementation
   The Good
   The Bad
   The Ugly



#### **Stained/Impacted Pavement**



#### Improper Storage









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#### **Waste Containers**









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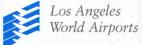






#### **Tire Storage**



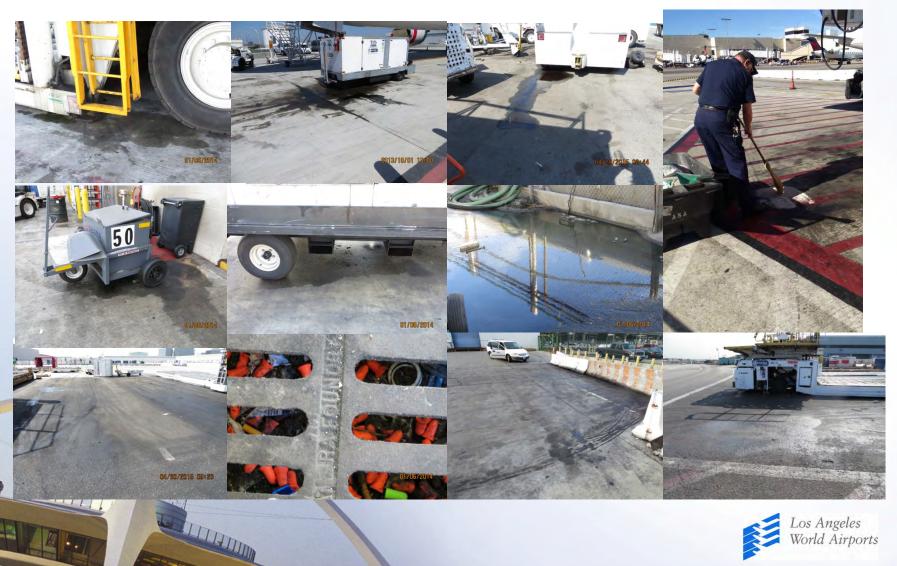


#### **Drain Inlets**





#### **Miscellaneous**





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# What You Need to Do

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#### What YOU Need to Do

- Train Your Employees
  - Content

- BMPs Use the SWPPP as a Guide
- Visual Inspection of Work Areas
- Document the Training
  - Attendance
  - Educational Materials Provided



#### What YOU Need to Do

• Implement BMPs discussed earlier





#### What YOU Need to Do

- Clean Up AND Report ALL Spills

   FOLLOW YOUR COMPANY'S SPILL RESPONSE PROTOCOLS
  - As a general guideline...
    - Secure the area.

- Identify the spilled chemical.
- Notify spill response personnel.
- MORE IMPORTANTLY...

#### COMPLETE THE LAWA FORM. TURN IT IN.



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- Two People for the Pollution Prevention Team (PPT)
  - The Primary Pollution Team Member
    - Name, Title, Phone Number, Email
  - The Alternate PPT Member

Name, Title, Phone Number, Email



Facility Map – Due Friday May 29th
 – See Slides 11-12 for required map elements





- Documents & Information
  - Chemical Inventory List
  - Monthly Visual Inspection Reports
  - Annual Training Records
  - Spill Reports When It Occurs
  - Any changes to facility operations Monthly
    - Facility Layout
    - Materials/Wastes used or stored on site
    - Implemented BMPs
    - Others?





# **Consequences of Non-Compliance**

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### **Consequences of Non-Compliance**<sup>96</sup>

#### NOTIFICATION TO CDG THAT YOUR LEASEHOLD BE REMOVED FROM OUR PERMIT

- \$1,791.00/Year Permit Fee\*
- <\$30,000/Year for Monitoring Requirements</p>
- \$10,000/Year Consultant Fees for Annual Reporting
- \$20,000 For a Facility SWPPP
- ->\$3,000/serious violation/day\*
- Potential Criminal Penalties

\* Regional Water Quality Control Board

### **Consequences of Non-Compliance**<sup>97</sup>

- Dirty Shop → Unsafe Work Conditions
- Inefficient Operations
- Vehicle and Equipment Impoundment
- Operation Shutdowns
- Regulatory Oversight

- Non-Renewal of Leases
- Expensive Advanced BMPs to be Installed and Maintained



#### Resources

#### • LAWA SWPPPs

# -https://www.lawa.org/welcom e\_lawa.aspx?id=1864

#### • BMP

- LAX Rules & Regulations
  - http://www.lawa.org/airops.aspx?id=862&linkidentifier=id&itemid=862
- ONT Rules & Regulations
  - http://www.lawa.org/welcome\_ont.aspx?id=2874
- California Storm Water Quality Association
  - BMP Handbooks
  - https://www.casqa.org/resources/bmp-handbooks/industrial-commercial
- Forms DUE THE 10<sup>TH</sup> OF EACH MONTH
  - Training Attendance

- Monthly Inspection Form
- Spill & Response Form



#### Summary

- Compliance with LAWA's program will SAVE you time and money.
- Routine maintenance and housekeeping will SAVE time and money.
- LAWA ERC is a resource at your disposal.
- Compliance is mandatory, and fun.



#### **Contact Information**

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- Matt Renaud LAX Inspector
  - 424-646-9044 mrenaud@lawa.org
- Somvang Meksavanh LAX/ONT Inspector
   424-646-6492 <u>smeksavanh@lawa.org</u>
- Sam Yang VNY Inspector

- 424-646-6494 <u>syang@lawa.org</u>
- Environmental General Number 424-646-6500



