Stormwater Construction
General Permits

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Presentation Acronyms

- LDEQ – Louisiana Department of Environmental Quality
- SB/SCAP – Small Business & Small Community Assistance Program
- NPDES – National Pollutant Discharge Elimination System
- NOI – Notice of Intent
Presentation Acronyms

- LPDES - Louisiana Pollutant Discharge Elimination System
- SWPPP – Stormwater Pollution Prevention Plans
- BMPs – Best Management Practices
- MS4s – Municipal Separate Storm Sewer Programs
Agenda

- LDEQ and SB/SCAP Overview
- Clean Water Act
- NPDES/LPDES Program
- Stormwater Permits
- Stormwater Pollution Prevention Plans
- BMPs and Other Issues
LDEQ & SB/SCAP OVERVIEW
DEQ in 2010
Organizational Structure

OFFICE OF THE SECRETARY

LEGAL AFFAIRS & REGULATION DEVELOPMENT

COMMUNICATIONS

BUSINESS & COMMUNITY OUTREACH

CRIMINAL INVESTIGATIONS

OMBUDSMAN

ENVIRONMENTAL SERVICES

WATER PERMITS

WASTE PERMITS

AIR PERMITS

PERMITS SUPPORT SERVICES

REMEDIATION SERVICES

UNDERGROUND STORAGE TANKS

ENVIRONMENTAL COMPLIANCE

SURVEILLANCE

ENFORCEMENT

EMERGENCY RESPONSE & RADIOLOGICAL SERVICES

WATER QUALITY ASSESSMENT

AIR QUALITY ASSESSMENT

MANAGEMENT & FINANCE

FINANCIAL SERVICES

INFORMATION SERVICES

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Water Quality in Louisiana
CLEAN WATER ACT
Clean Water Act

- Passed in 1972 to restore and maintain the quality of the nation’s waterways
- The ultimate goal is to make sure that the rivers and streams are fishable, swimmable, and drinkable
- Provisions to govern stormwater discharges from construction activities were added in 1987
NPDES & LPDES PROGRAMS
National Pollutant Discharge Elimination System (NPDES)

- Under the Clean Water Act, the NPDES permit program controls water pollution by regulating sources of pollution that discharge into waters of the United States.
- NPDES permits are issued through the U.S. Environmental Protection Agency (EPA) or a delegated state.
Louisiana Pollutant Discharge Elimination System (LPDES)

- In August of 1996, the state of Louisiana was delegated the NPDES program from EPA
- LDEQ is now responsible for issuing all water discharge permits in the state of Louisiana (except those retained by EPA)
Common Terms in the Stormwater Program

- Land disturbance
  - Clearing
  - Grading
  - Excavation
Common Terms in the Stormwater Program

• Operator – An operator is someone who has control over and the ability to modify construction plans and specifications (such as the owner, developer and/or general contractor) or someone who has control over the day-to-day operations at the site that are necessary to ensure compliance with the permit requirements.
Common Terms in the Stormwater Program

- Best Management Practices (BMPs) – a BMP is a method used to prevent or control storm water runoff and the discharge of pollutants, including sediment, into local waterbodies. Silt fences, inlet protection, and site-stabilization techniques, are typical BMPs on a construction site.
Stormwater Permits

• The LPDES stormwater permit program requires operators of construction projects to obtain authorization to discharge stormwater under an LPDES construction stormwater permit.

• Since 1990, any project 5 acres or greater has been covered.

• Since March 2003, any project from 1 acre to less than 5 acres is also covered.
Goals of the Construction Stormwater Program

- Prevent or minimize impact of construction
  - Deterioration of the receiving stream’s water quality (TSS, Oil and Grease, pH, floatables, etc.)
  - Sediment and debris in roadways and local stormwater drainage systems
  - Minimize erosion during construction
  - Violations of LPDES and local stormwater regulations
Goals of the Construction Stormwater Program

• Consider post-construction stormwater management
  ➢ Decrease the volume of rainfall that runs off a site
  ➢ Decrease the speed or rate at which runoff flows off the site
  ➢ Decrease the amount of pollutants carried off a site by runoff
Regulated Storm Water Discharges from Construction Activities

- Clearing, Grading, and Excavation Activities
- Land Disturbance of Between One (1) and Five (5) Acres
- Land Disturbance of Five (5) or More Acres of Total Land Area - Including Areas that are Part of a “Larger Common Plan of Development or Sale”
Exempt Stormwater Activities

• Clearing of land solely for agricultural purposes
• Projects on cultivated croplands
• Repaving of roads and reworking of utility lines or pipelines unless one or more acres of underlying and/or surrounding soil are cleared, graded or excavated as part of the operation
LPDES Permit Program for Stormwater

Does not override more stringent local requirements.
Can being located within a MS4 Impact Construction Activity? **YES!!**

- **Municipal Separate Storm Sewer Systems (MS4s):**
  - have requirements for controlling construction storm water discharges
  - have requirements for development and redevelopment
  - have requirements for public involvement and participation in MS4 Stormwater Management Program
  - may require more stringent actions for controlling stormwater and may even require the use of certain BMPs
Who Needs a Permit? Operators

Any party associated with the construction project that meets the following conditions:

- The party has operational control over project specifications (including the ability to make modifications in specifications),
- or
- The party has day-to-day operational control of those activities at a project site which are necessary to ensure compliance with the SWPPP or other permit conditions (e.g., they are authorized to direct workers at the site to carry out activities identified in the storm water pollution prevention plan or comply with other permit conditions).
Construction General Permits

1. LAR100000 – Large Construction Sites
2. LAR200000 – Small Construction Sites
LAR100000 - Large Construction

- Construction Activities 5 acres or more and smaller sites if part of a larger common plan of development
- Also authorizes discharges from support activities related to a construction site (concrete or asphalt batch plants, equipment staging yards, material storage areas, etc.)
LAR100000 – Large Construction

- Requires development of a SWPPP
- Submittal of NOI at least 48 hrs prior to commencement of construction/ground disturbing activities
- Application made by party having operational control over construction plans and specs and/or party having day-to-day operational control over activities on site
LAR200000 – Small Construction

- Activities greater than one acre, but less than five acres
- No NOI required - automatically covered
- Requires Development of a SWPPP
- When project is complete and the site has been stabilized, the permittee submits a Completion Report to Permits and the Regional Office
Stormwater Permit Process

- Determine which permit you need
- Obtain a copy of the permit
- Read and understand the permit requirements
- Develop a Pollution Prevention Plan
- Apply for coverage/submit an NOI
- Implement the Pollution Prevention Plan
- Final stabilization
- Terminate coverage under the permit when completed
Obtaining a Copy of the Permit

You can download a copy of LAR100000 (Large Construction Permit) at:
http://www.deq.louisiana.gov/portal/Portals/0/permits/LAR100000.pdf

You can download a copy of LAR200000 (Small Construction Permit) at:
Obtaining a Copy of the Permit

- www.deq.la.gov
  - Tabs on top of page
  - Divisions
    - Water Permits
    - LPDES Permits
  - Scroll down: LPDES General Permits
  - Scroll down: LAR100000 (application on same page, CSW-G) or LAR200000
SWPPPs, Tips, and Common Problems
Construction SWPPPs – What Should be in the Plan

- Site Description
  - Description of the nature of the construction activity
  - Description of the sequence of major activities
  - Estimates of the total area of the site, and the total area to be disturbed
  - Estimate of the runoff coefficient for both pre- and post-construction
  - General location map
  - Location and description of any discharge associated with industrial activity other than construction
  - Name of the receiving waters
  - Copy of the permit requirements
  - Endangered Species & Historic Preservation Statements
Construction SWPPPs – What Should be in the Plan

• Controls
  – Erosion and Sediment Controls
  – Stormwater Management Controls
  – Other Controls

• Maintenance

• **Inspections!!!!!!**
Construction SWPPPs – What Should be in the Plan

- Non-Stormwater Discharges
- Contractor and Subcontractor Responsibilities
- Templates are available through LDEQ SB/SCAP personnel or on the EPA website
Soil Erosion Control Tips

- Design the site to infiltrate stormwater into the ground and to keep it out of storm drains.
- Minimize the amount of exposed soil on site.
- Reduce the velocity of stormwater both onto and away from the project area.
- Protect defined channels immediately with measures adequate to handle the storm flows expected.
- Keep sediment on site.
- Maintaining all BMPs is critical to ensure their effectiveness during the life of the project.
Other Tips

• Keep potential sources of pollution out of the rain as practicable.
• Clearly identify a protected, lined area for concrete truck washouts.
• Park, refuel, and maintain vehicles and equipment in one area of the site to minimize the area exposed to possible spills and fuel storage.
• Practice good housekeeping.
• Never hose down paved surfaces to clean dust, debris, or trash.
• Dispose of hazardous materials properly.
Common Compliance Problems at Construction Sites

- Not all “operators” have submitted NOIs
- Project does not have stormwater permit coverage, SWPPP and proper BMPs
- Have an “erosion control plan” on the engineering design map but not a SWPPP
- Operators have not posted their permit notice of coverage at the entrance
Common Compliance Problems at Construction Sites (cont.)

- Have failed to conduct and document required inspections - are part of the SWPPP
- Have prepared an inadequate SWPPP
- There are no narrative descriptions
- Have failed to install or maintain proper BMPs
  - BMPs wrong type or location for the site
- SWPPP is not updated to reflect changes in BMPs or site conditions
Common BMPs for Erosion and Sediment Control and General Housekeeping
Controls to Reduce “Runoff”

- stabilized construction entrances, curbing, silt fences, and sediment traps
Structural Controls
Mulch, Grass, Mesh Screens, and Hay Bales
Recycle - Reuse

• Recycling and reuse programs designed by developers and construction operators.
Common Best Management Practices

Good Housekeeping
Preserving Natural Vegetation
Minimizing Disturbance
Good Housekeeping
Minimizing Disturbance

• Scraping, clearing, grading only that area which will be actually constructed on.
• Causes less harm to environment.
Preserving Natural Vegetation
A well constructed Sediment Fence
A not so well constructed silt fence.
Another not so well constructed silt fence.
Proper storage of construction waste...

Building waste should be stored in designated area and in a manner that will prevent it moving off site by either wind or water.
Not good use of a debris roll-off box.
Not a good way to keep your construction debris...
How not to keep construction debris on your site...
Stabilized construction entrances allow dirt to be removed from tire treads and collected as trucks leave construction sites.
Not a good construction entrance...
Decent construction entrance...
Good use of sod

Correct use of erosion and sediment controls means that sediment does not enter the stormwater system.
Inlet Protection

Coarse gravel and cinder blocks are often used to keep sediment and other pollutants out of storm drains.
Inlet Protection

A well constructed sediment trap constructed around an inlet pit.
When is the BEST time to do stormwater inspections?
Resources

• EPA Guidance for SWPPP
  http://cfpub.epa.gov/npdes/stormwater/swppp.cfm

• LDEQ Water Permits

• EPA Stormwater Program for Construction Activities
  http://cfpub.epa.gov/npdes/stormwater/const.cfm
Resources

- 9.27.10 Stormwater Presentation
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