# General Permits 101:
## The LPDES General Permitting Program

**Kim Corts, Christy Clark, Bruce Fielding**
**Tom Killeen, Eura DeHart**

Water Permits Division
Louisiana Department of Environmental Quality

ENVIROSCHOOL FOR COMMUNITIES
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

# Louisiana Department of Environmental Quality

## Mission Statement

The Department's mission is to provide service to the people of Louisiana through comprehensive environmental protection in order to promote and protect health, safety and welfare while considering sound policies regarding employment and economic development.

## Vision

To be a respected steward of the State‘s environment**.**

ENVIROSCHOOL FOR COMMUNITIES
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

# LPDES PURPOSE AND SCOPE

- Louisiana Pollutant Discharge Elimination System

- A program that requires permits for the discharge of pollutants/wastewater from any point source into waters of the state.
  - Point Source – any discernable, confined, and discrete conveyance such as a pipe or a ditch.
  - Waters of the State - all surface waters within the state of Louisiana and, on the coastline of Louisiana and the Gulf of Mexico, all surface waters extending there from 3 miles into the Gulf of Mexico

ENVIROSCHOOL FOR COMMUNITIES
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

# WHY ARE LPDES PERMITS IMPORTANT?

The limitations and requirements imposed in the permits:

- help prevent deterioration of the quality of the State's water bodies.
- help prevent public health concerns associated with poorly treated wastewater.

# OTHER OPTION?

- Eliminate the discharge
  - How?
    - by connecting to a Publicly Owned Treatment Works (POTW)
    - Installing a no discharge system (usually not feasible)
  - The Problem
    - Most dischargers are not located in an area where community systems are available.

ENVIROSCHOOL FOR COMMUNITIES
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

# TYPES OF PERMITS

Individual Permits – one permit to authorize one facility

- Majors
- Minors

General Permits – one permit to authorize several similar facility types

- Storm water
- Non-storm water

# INDIVIDUAL PERMITS

- Majors - Characteristics
  - Industrial – determined by point system
  - Municipal – 1 million gallons/day or greater
  - Permit Writer (PW) prepares fact sheet
  - PW sends preliminary draft to permittee for review – 10 days
  - Preliminary Draft reviewed by EPA – 30 days
  - Examples: refineries, power plants, chemical plants, sewage treatment plants in large cities
    - ExxonMobil
    - Entergy
    - Dow Chemical
    - City of Baton Rouge

# INDIVIDUAL PERMITS

- Minors - Characteristics
  - Industrial – determined by point system
  - Municipal < 1 million gallons/day
  - PW prepares statement of basis
  - Examples: equipment rental companies, oilfield service facilities, seafood processors, barge cleaning and repair facilities, landfills, sewage treatment plants in smaller cities

# General Permits

- Authorized under LAC 33:IX.2515, which allows the state administrative authority to issue a general permit for discharges based on facility location and on facility type.
- A Notice of Intent (NOI) is generally required for coverage under a general permit.
- LDEQ may require a discharger authorized under a general permit to apply for and obtain an individual permit.

# Requiring an Individual Permit

- Noncompliance with the conditions in the general permit.
- Effluent limitation guidelines are promulgated with new limitations not addressed in the general permit.
- A change in the Water Quality Management Plan resulting in new limitations not addressed in the general permit.
- Circumstances at the facility have changed resulting in the facility not meeting the eligibility requirements of the general permit.
- The discharge is a significant contributor of pollutants.

# GENERAL PERMITS

## Storm Water General Permits (4)

- Storm Water Associated with Industrial Activity (Multi-Sector General Permit)
- Construction 5 acres or greater
- Construction < 5 acres
- Municipal Separate Storm Sewers Systems (MS4)

Requires Storm Water Pollution Prevention Plan (SWP3) – includes Best Management Practices (BMPs) and Activities

ENVIROSCHOOL FOR COMMUNITIES
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

# GENERAL PERMITS

## Non-Storm Water General Permits

- Cement, Concrete & Asphalt Facilities (LAG110000)
- Dewatering Petroleum Storage Tanks (LAG300000)
- Oil and Gas Exploration, Development and Production facilities in coastal waters (LAG330000)
- Potable Water Treatment Plants (LAG380000)
- Short-Term and Emergency Discharge (LAG420000)
- Auto Dealerships, Paint and Body Shops, Repair Shops (LAG470000)
- Light Commercial General Permit (LAG480000)
- Sand and Gravel Extraction (LAG490000)

ENVIROSCHOOL FOR COMMUNITIES
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

# GENERAL PERMITS

## Non-Storm Water General Permits

- Sanitary discharges less than 5000 GPD (LAG530000)
- Sanitary discharges less than 25,000 GPD (LAG540000)
- Sanitary discharges less than 50,000 GPD (LAG560000)
- Sanitary discharges less than 100,000 GPD (LAG570000)
- Hydrostatic Test Wastewater (LAG670000)
- Exterior Vehicle Washwater (LAG750000)
- Construction, Demolition Debris Landfills (LAG780000)
- Pesticides General Permit (LAG870000)
- Cleanup of Petroleum Underground Storage Tanks (LAG830000)
- Treated Ground Water Discharges (LAG940000)

ENVIROSCHOOL FOR COMMUNITIES
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

# PARTS OF AN LPDES PERMIT

- Title Page

- Part I: Effluent Limitations and Monitoring Requirements

- Part II: Specific Requirements – specific requirements designed for the general permit. Can include:
  - Reporting Periods
  - Due Dates
  - Where to submit your reports

- Part III: Standard Requirements – same in all permits

# PARTS OF AN LPDES PERMIT

- **<u>Appendix A</u> – Very Important!!**
- Summarizes which schedules from Part I that apply to your specific permit authorization.
- Most general permits contain several permit schedules to cover different possible scenarios.
  - Example: Multiple schedules have been included in the sanitary general permits to ensure TMDLs did not greatly impact the LDEQ's ability to authorize the very small treatment facilities in the state.
  - Example: The car wash general permit contains schedules for wash water, sanitary wastewater, and a third schedule that commingles wash water with sanitary wastewater.

# PARTS OF AN LPDES PERMIT

- Appendix A
  - Lists the outfall number
  - Outfall location
  - Discharge description – Treated Sanitary Wastewater
  - Final Effluent Limitations and Monitoring Requirements (Applicable Schedules, Interim Dates, etc.)

# PARTS OF AN LPDES PERMIT

- Appendices B & C
  - Only included in the Class I – IV Sanitary General Permits
  - List of subsegments (watersheds), designated uses, and applicable numeric criteria from LAC 33:IX.1123.Table 3.

# AUTHORIZATION PROCESS for COVERAGE UNDER A GENERAL PERMIT

- LDEQ public notices and issues 'Master' general permit
- EPA has 90 days to review/approve 'master" general permits
- Applicant submits Notice of Intent (NOI) – available electronically on LDEQ web page
- Authorization may be automatic or require specific authorization by LDEQ
  - If automatic, authorization is effective within a certain timeframe of submittal of a **complete** NOI
  - Specific authorization upon approval by the LDEQ after submittal of a **complete** NOI

ENVIROSCHOOL FOR COMMUNITIES
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

# General Permits Authorization Letter

- A copy of the Master General Permit will **NOT** be sent with the permit authorization. The cover letter will include a link and/or an EDMS Document Number to the general permit.
- The permit authorization letter acknowledges receipt of the permit NOI and the Department's decision to authorize coverage under a general permit
  - Date stamped on the letter of the permit is the date your permit coverage begins. **THIS IS VERY IMPORTANT!**

# Important Dates on General Permits

- Coverage Date: Found on the authorization letter and is the date that you were authorized by the Department to discharge wastewater into waters of the state.
- Effective Date: Found on the Main page of the Master General Permit and is the date the permit is valid. The permit expires five years from the effective date.
- *Your coverage date will usually fall sometime within the five year effective period, depending on when you initially applied for your permit.*

ENVIROSCHOOL FOR COMMUNITIES
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

# CLASS I SANITARY GENERAL PERMIT (LAG530000)

ENVIROSCHOOL FOR COMMUNITIES
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

# Class I Sanitary General Permit LAG530000

- The Class I Sanitary General Permit is the most widely issued non-stormwater general permit.
- Eligible facilities are discharges of treated sanitary wastewater totaling less than 5,000 GPD.
- Universe is approximately 3,500 facilities.
- Types of facilities covered under this permit: restaurants, gas stations, office buildings, laundromats, and small trailer parks, etc.

ENVIROSCHOOL FOR COMMUNITIES
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

# LAG53 Schedules

- The general permit contains “schedules” of applicable permit limits and monitoring requirements
- **Not all schedules apply to every facility – see your Appendix A**
- Different schedules are included to accommodate facility types, sizes, and TMDL requirements

ENVIROSCHOOL FOR COMMUNITIES
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

## EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning with written notification of coverage under this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge treated sanitary wastewater and/or other accepted wastewater totaling less than 5,000 gallons per day maximum expected flow from the specified facility in accordance with the following limitations:

### SCHEDULE A[1] – FINAL EFFLUENT LIMITATIONS

| EFFLUENT CHARACTERISTICS | DISCHARGE LIMITATIONS | | MONITORING REQUIREMENTS | |
|---|---|---|---|---|
| | MONTHLY AVERAGE | WEEKLY AVERAGE | MEASUREMENT FREQUENCY | SAMPLE TYPE |
| FLOW – GPD | N/A | REPORT | 1/12 months | Estimate |
| $BOD_5$, mg/L | N/A | 45 | 1/12 months | Grab |
| TSS[2], mg/L | N/A | 45 | 1/12 months | Grab |
| FECAL COLIFORM[3&4], Colonies / 100 ml | N/A | 400 | 1/12 months | Grab |
| pH[5], standard units | --- | --- | 1/12 months | Grab |

1 Upon written notification of coverage under this permit, the permittee shall comply with the effluent limitations schedule(s) stated in Appendix A of this permit. Schedule A will apply to facilities that discharge less than 2,500 GPD and have no food service waste or Laundromat wastewater.

2 If the treatment unit is an oxidation pond, the weekly average limitation shall be 135 mg/L.

3 If chlorination is chosen as the disinfection method, see Part II, Section H.

4 If the discharge is located in an oyster propagation area, fecal coliform limitations will be 14 colonies/100 mL monthly average and 43 colonies/100 mL weekly average. Appendix A states if the more stringent limitations apply.

5 The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units. The permittee shall report on the Discharge Monitoring Reports both the minimum and maximum instantaneous pH values measured.

## EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning with written notification of coverage under this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge treated sanitary wastewater and/or other accepted wastewater totaling less than 5,000 gallons per day maximum expected flow from the specified facility in accordance with the following limitations:

### SCHEDULE B[1] – FINAL EFFLUENT LIMITATIONS

| EFFLUENT CHARACTERISTICS | DISCHARGE LIMITATIONS | | MONITORING REQUIREMENTS | |
|---|---|---|---|---|
| | MONTHLY AVERAGE | WEEKLY AVERAGE | MEASUREMENT FREQUENCY | SAMPLE TYPE |
| FLOW – GPD | N/A | REPORT | 1/6 months | Estimate |
| $BOD_5$, mg/L | 30 | 45 | 1/6 months | Grab |
| TSS[2], mg/L | 30 | 45 | 1/6 months | Grab |
| OIL & GREASE[3], mg/L | N/A | 15 | 1/6 months | Grab |
| FECAL COLIFORM[4&5], Colonies / 100 ml | 200 | 400 | 1/6 months | Grab |
| pH[6], standard units | --- | --- | 1/6 months | Grab |

1 Upon written notification of coverage under this permit, the permittee shall comply with the effluent limitations schedule(s) stated in Appendix A of this permit. Schedule B will apply to facilities with food service waste or Laundromat wastewater, or facilities discharging greater than 2,500 GPD and less than 5,000 GPD.

2 If the treatment unit is an oxidation pond, the month average limitation shall be 90 mg/l and the weekly average limitation shall be 135 mg/L.

3 Required only for discharges which include food service waste.

4 If chlorination is chosen as the disinfection method, see Part II, Section H.

5 If the discharge is located in an oyster propagation area, fecal coliform limitations will be 14 colonies/100 mL monthly average and 43 colonies/100 mL weekly average. Appendix A states if the more stringent limitations apply.

6 The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units. The permittee shall report on the Discharge Monitoring Reports both the minimum and maximum instantaneous pH values measured.

# Understanding Effluent Limitations

- Effluent Characteristic (Parameter) – the pollutants of concern that must be periodically monitored from the outfall.
- Discharge Limitations:
  - Monthly Average: the average of all the daily discharges measured in a calendar month.
  - Weekly Average: the highest average of all the daily discharges measured in a calendar week.
  - Daily Maximum: the highest allowable daily discharge.

ENVIROSCHOOL FOR COMMUNITIES
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

# Understanding Effluent Limitations

- Monitoring Requirements
  - Measurement Frequency:
    - How often a parameter must be monitored
    - Based on a calendar year
  - Sample Type:
    - Grab
    - Composite

ENVIROSCHOOL FOR COMMUNITIES
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

# Understanding Effluent Limitations

- General Permit vs. Individual Permit
  - Same limits would apply to a particular facility, whether covered under a general permit or an individual permit
  - Individual permits will have more flexibility on requirements such as monitoring frequency, sample type, etc.

ENVIROSCHOOL FOR COMMUNITIES
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

# GENERAL PERMIT FOR DISCHARGES FROM EXTERIOR VEHICLE AND EQUIPMENT WASHING (LAG750000)

ENVIROSCHOOL FOR COMMUNITIES
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

# LAG750000

Popular General Permit For:

- Commercial car washes
- Police stations and municipal facilities that wash vehicles
- Tractor or large equipment rental facilities with a wash rack

ENVIROSCHOOL FOR COMMUNITIES
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

# "Outfalls"

- Unlike the Class I Sanitary, the LAG750000 covers different types of wastewater discharges:
  - Exterior vehicle and equipment wash wastewater
  - Treated sanitary wastewater
  - Comingled discharges

**Each type of wastewater, with limits and monitoring requirements, is included in the general permit under "Outfalls"**

## RLP 1 OUTFALL 001: EXTERIOR VEHICLE AND EQUIPMENT WASH WASTEWATER [1]

Outfall numbers used in the NOI must correspond to the appropriate outfall numbers in the permit. The permittee shall designate an exterior vehicle and equipment wash wastewater discharge point as RLP1 Outfall 001. If more than one outfall **of this type** occurs at a facility, then each separate discharge point must be clearly identified as RLP1 Outfall 01A, RLP1 Outfall 01B, etc. Each outfall location for discharges of exterior vehicle and equipment wash wastewater shall be identified in the NOI and shall be monitored in accordance with the following table. In accordance with the Monitoring and Reporting Requirements section of the permit, DMRs shall be submitted for each outfall location.

| EFFLUENT CHARACTERISTICS | DISCHARGE LIMITATIONS | | MONITORING REQUIREMENTS | |
|---|---|---|---|---|
| | MONTHLY AVERAGE | DAILY MAXIMUM | MEASUREMENT FREQUENCY[2&3] | SAMPLE TYPE |
| Flow (GPD) | Report | Report | 1/3 months | Estimate |
| TSS | ---- | 45 mg/L | 1/3 months | Grab |
| COD [4] | ---- | 300 mg/L | 1/3 months | Grab |
| Oil and Grease | ---- | 15 mg/L | 1/3 months | Grab |
| pH - Allowable Range (Standard Units) | 6.0 (Minimum) | 9.0 (Maximum) | 1/3 months | Grab |
| Visible Sheen [5] | ---- | No Presence | 1/week | Observation |
| Soaps and/or Detergents | Report [6] | N/A | 1/3 months | Inventory calculation |

## RLP 2 OUTFALL 002: TREATED SANITARY WASTEWATER (Less Than 5,000 GPD)

Outfall numbers used in the NOI must correspond to the appropriate outfall numbers in the permit. The permittee shall designate a treated sanitary wastewater discharge point as RLP2 Outfall 002. If more than one outfall **of this type** occurs at a facility, then each separate discharge point shall be clearly identified as RLP 2 Outfall 02A, RLP 2 Outfall 02B, etc. Each outfall location for discharges of treated sanitary wastewater shall be identified in the NOI and shall be monitored in accordance with the following table. In accordance with the Monitoring and Reporting Requirements section of the permit, DMRs shall be submitted for each outfall location.

| EFFLUENT CHARACTERISTICS | DISCHARGE LIMITATIONS | | | MONITORING REQUIREMENTS | |
|---|---|---|---|---|---|
| | DAILY MAXIMUM | MONTHLY AVERAGE | WEEKLY AVERAGE | MEASUREMENT FREQUENCY | SAMPLE TYPE |
| Flow (GPD) | ---- | Report | Report | 1/6 months | Estimate |
| $BOD_5$ | ---- | ---- | 45 mg/L | 1/6 months | Grab |
| TSS [1] | ---- | ---- | 45 mg/L | 1/6 months | Grab |
| Oil & Grease [2] | ---- | ---- | 15 mg/L | 1/6 months | Grab |
| Fecal Coliform [3&4] Colonies/100 ml | 400 | ---- | --- | 1/6 months | Grab |
| pH - Allowable Range (Standard Units) | ---- | 6.0 (Minimum) | 9.0 (Maximum) | 1/6 months | Grab |

# Basis for GP Limits

- Effluent Limit Guidelines (if applicable)
- Best Conventional Pollutant Control Technology (TSS, BOD)
  - LAC 33:IX.711 and LAC 33:IX.5905.B
- Water Quality Standards (pH, Fecal Coliform)
  - LAC33:IX.1113
- BPJ (Best Professional Judgment)

# Other Things…

- LAG750000 also includes requirements for maintaining records, inventories of soaps, detergents, etc.
- Includes portable washing operations, but a Pollution Prevention Plan is required
- GP may NOT be used if a TMDL requires more stringent limits

ENVIROSCHOOL FOR COMMUNITIES
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

# Similar General Permits

- Light Commercial (LAG480000)
  - Equipment wash; vehicle wash; cooling tower blowdown; storm water; sanitary waste water; hydrostatic test wastewater
- Automotive Dealerships, Paint and Body Shops, Automotive Repair (LAG470000)
  - Vehicle wash; shop floor wash water; paint booth wash water; sanitary waste water; **requires pollution prevention plan**

# Multi-Sector General Permit (MSGP) for Industrial Storm Water Discharges

ENVIROSCHOOL FOR COMMUNITIES
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY


4
2
0


STORM DRAIN

# Applicability

- Storm water discharges from industrial facilities, as defined in LAC 33:IX.2511.B.14
- Industry-specific requirements under 28 Sectors
- Based on SIC Code
- Contains requirements similar to EPA's MSGP Permit

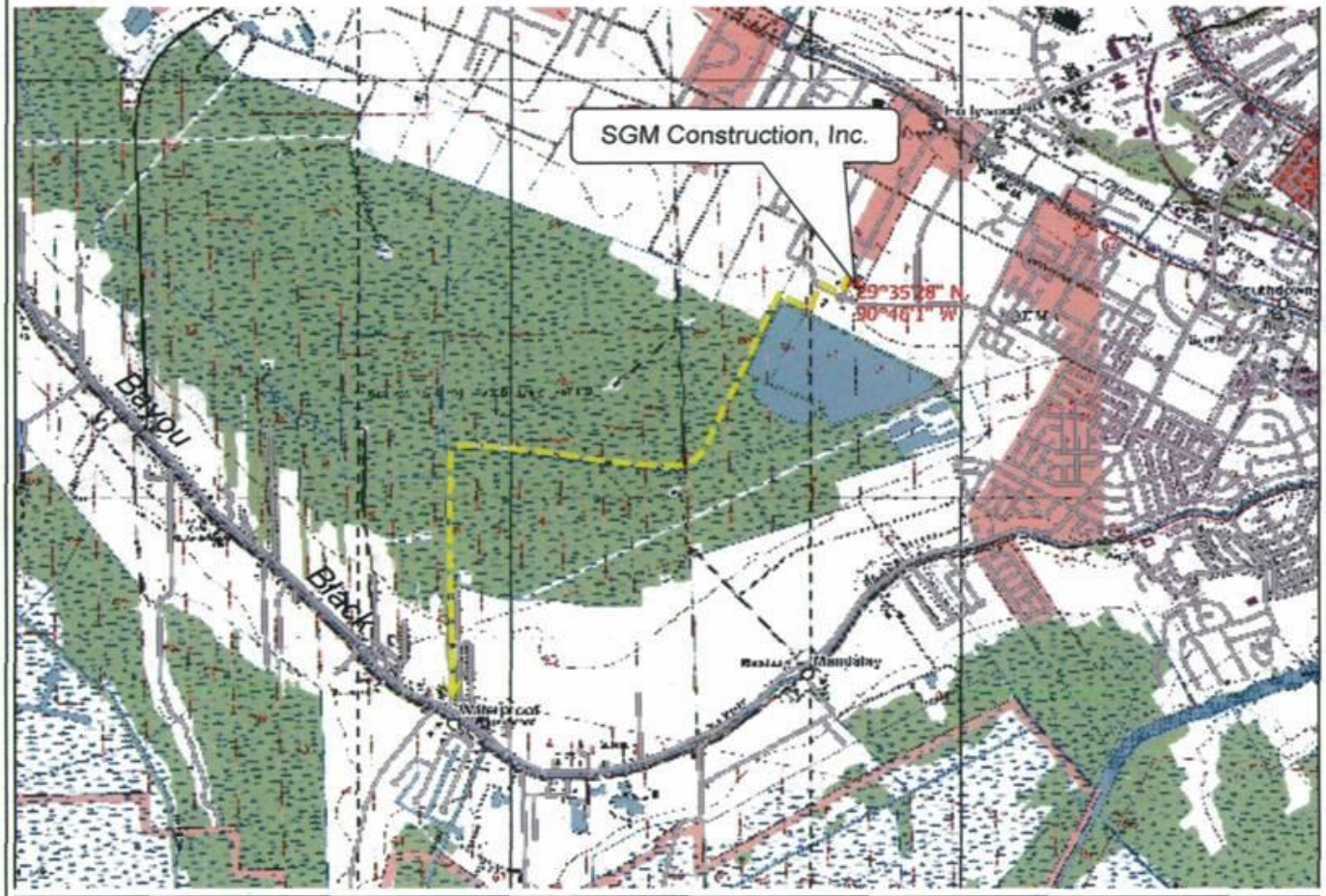
# Basics

- The MSGP is self-implementing – permittees may discharge 48 hours after submitting a complete and accurate NOI to LDEQ.
- The MSGP is essentially a “Best Management Practice” permit.
- A SWPPP is required and must be developed **prior** to submitting an NOI to LDEQ.
- The permit includes general requirements for all facilities as well as sector-specific requirements.

# Notice of Intent

- New applicants are now required to submit **topographic maps** and **facility diagrams**.
- The purpose of this requirement is to help LDEQ permit writers evaluate the size of the facility and extent of possible discharges, as well as determine if any other water discharge permits may be necessary (i.e. process waste, sanitary discharge, etc.).

# LDEQ Interactive Mapping Application (LIMA)




**Legend**

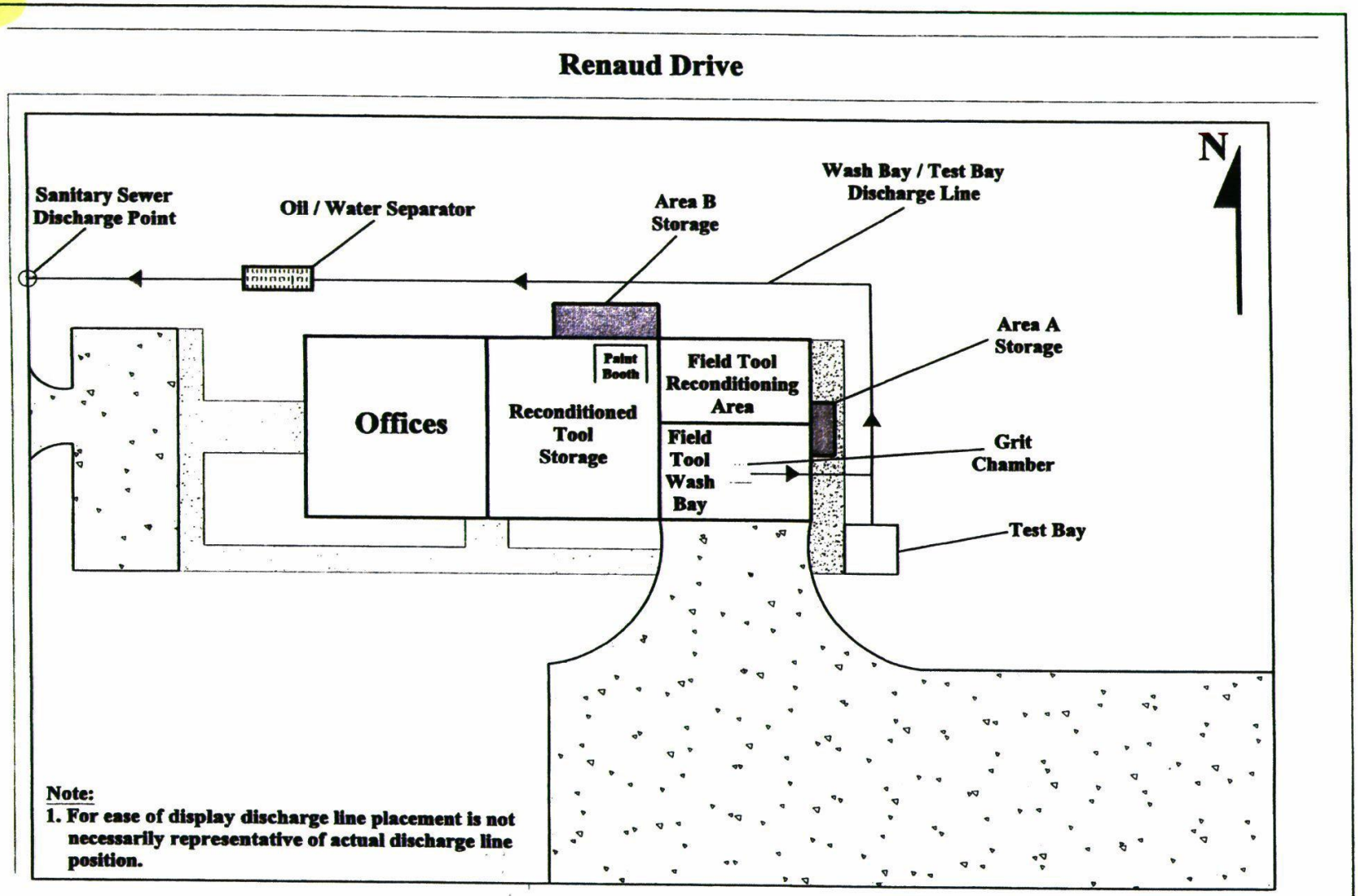
- Population > 70,000
- Population < 69,999 > 5,000
- Population < 5,000
- GDT Major Roads
- GDT Local Roads
- LDOTD Parishes
- FED_USGS_DRG24K_8BIT
  - Red: Band_1
  - Green: Band_2
  - Blue: Band_3
- FED_USGS_DRG24K_24BIT
  - Red: Band_1
  - Green: Band_2
  - Blue: Band_3
- FED_USGS_DRG24K_24BIT_
  - Red: Band_1
  - Green: Band_2
  - Blue: Band_3
- USGS_DRG100K_8BIT
  - Red: Band_1
  - Green: Band_2
  - Blue: Band_3
- LA_LDEQ_NED_HILLSHADE
  - Red: NONE
  - Green: NONE
  - Blue: NONE
- LA_LDEQ_NED_HILLSHADE
  - Red: NONE
  - Green: NONE
  - Blue: NONE
- LDOTD State Boundary

1:40,580

1.3 0 0.64 1.3 Miles

This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.

THIS MAP IS NOT TO BE USED FOR NAVIGATION




BAKER HUGHES

Baker Hughes Oilfield Operations, Inc.
17021 Aldine Westfield
Houston, TX 77073

# Attachment 1: Facility Layout

| | | | |
|---|---|---|---|
| Lafayette Through Tubing Services<br>101 BJ Services Drive<br>Lafayette, LA 70507 | Not to Scale | REVISION DATE:<br>05/13/11 | DRAWN BY:<br>JCM |

# SWPPP

Elements of a SWPPP include:

- Site description
- Summary of pollutant sources
- Description of controls (BMPs)
- Schedules for monitoring and inspection
- Good housekeeping measures
- Spill prevention and response procedures
- Erosion and sediment controls

ENVIROSCHOOL FOR COMMUNITIES
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

# Sector-Specific Requirements

- May include:
  - Benchmark monitoring for pollutants of concern
  - Numeric limitations monitoring
  - Additional inspection requirements
  - Definitions
  - Prohibitions

**6.C.4 Monitoring and Reporting Requirements** (See also Part 5)

**Table C-3. SECTOR-SPECIFIC NUMERIC EFFLUENT LIMITATIONS AND BENCHMARK MONITORING**

**Part of Permit Affected/Supplemental Requirements**

***Note: In addition to the following requirements, you must also comply with the requirements listed in Part 5 of the MSGP. If your SIC Code is not listed below then numeric limitations and benchmark monitoring do not apply except as otherwise noted below.***

| Subsector (You may be subject to requirements for more than one sector/subsector.) | Parameter | Benchmark Monitoring Concentration[1] | Numeric Limitation |
|---|---|---|---|
| Runoff from phosphate fertilizer manufacturing facilities that comes into contact with any raw materials, finished product, by-products or waste products (SIC 2874) | Total Phosphorus (as P) | --- | 105 mg/L, daily max.[3] |
| | | | 35 mg/L, 30-day avg.[3] |
| | Fluoride | --- | 75 mg/L, daily max.[3] |
| | | | 25 mg/L, 30-day avg.[3] |
| | Total Organic Carbon (TOC) | --- | 50 mg/L, daily max.[2] |
| | Oil & Grease | --- | 15 mg/L, daily max.[2] |
| Agricultural Chemicals (SIC 2873-2879) | Nitrate plus Nitrite Nitrogen | 0.68 mg/L | --- |
| | Total Lead[4] | Hardness Dependent | --- |
| | Total Iron | 1.0 mg/L | --- |
| | Total Zinc[4] | Hardness Dependent | --- |
| | Phosphorus | 2.0 mg/L | --- |
| | Total Organic Carbon (TOC) | --- | 50 mg/L, daily max.[2] |
| | Oil & Grease | --- | 15 mg/L, daily max.[2] |

# Important

**Numeric Limits and Benchmark Values have different requirements.**

**Benchmark values are used to determine the effectiveness of BMPs. Exceedances of benchmark values are NOT permit violations, but do require corrective action.**

# Reauthorization

- The permit is reauthorized every 5 years.
- The current permit was issued with an effective date of May 4, 2011.
- All permittees previously covered were mailed an automatic reauthorization letter.
- The permittee is responsible for reviewing the applicable sections of the MSGP and updating the SWPPP accordingly.
- Numerous changes occurred from the 2006 MSGP, both in general requirements and sector-specific requirements.

# Key Dates

- Your permit authorization has an effective date of three days after the postmark date of your reauthorization letter
- Permittees are required to update the SWPPP's 30 days after the effective date (above)
- Sectors with applicable Benchmark Monitoring:
  - Monitor in 2012 and 2014 (years 2 and 4)
  - Submit monitoring results in one DMR package by January 28 of the following year

# Key Dates

- Sector Specific Numeric Limits Monitoring (Table 5.2) – DMRs due annually by the 28th day of the month following the first full quarter after May 1st
  - **This means October 28th, beginning in 2011**

ENVIROSCHOOL FOR COMMUNITIES
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

# Significant Changes from 2006 MSGP

- Notice of Intent requirements
- Hardness-based metals benchmark values
- Phasing out of TOC and oil & grease numeric limitations
- Impaired waters/TMDL monitoring
- Clarification – SIC Code 1389 (Sector I) is NOT exempt from coverage
- Stronger antidegradation language
- Natural Background Condition Waivers

# Metals Benchmark Values

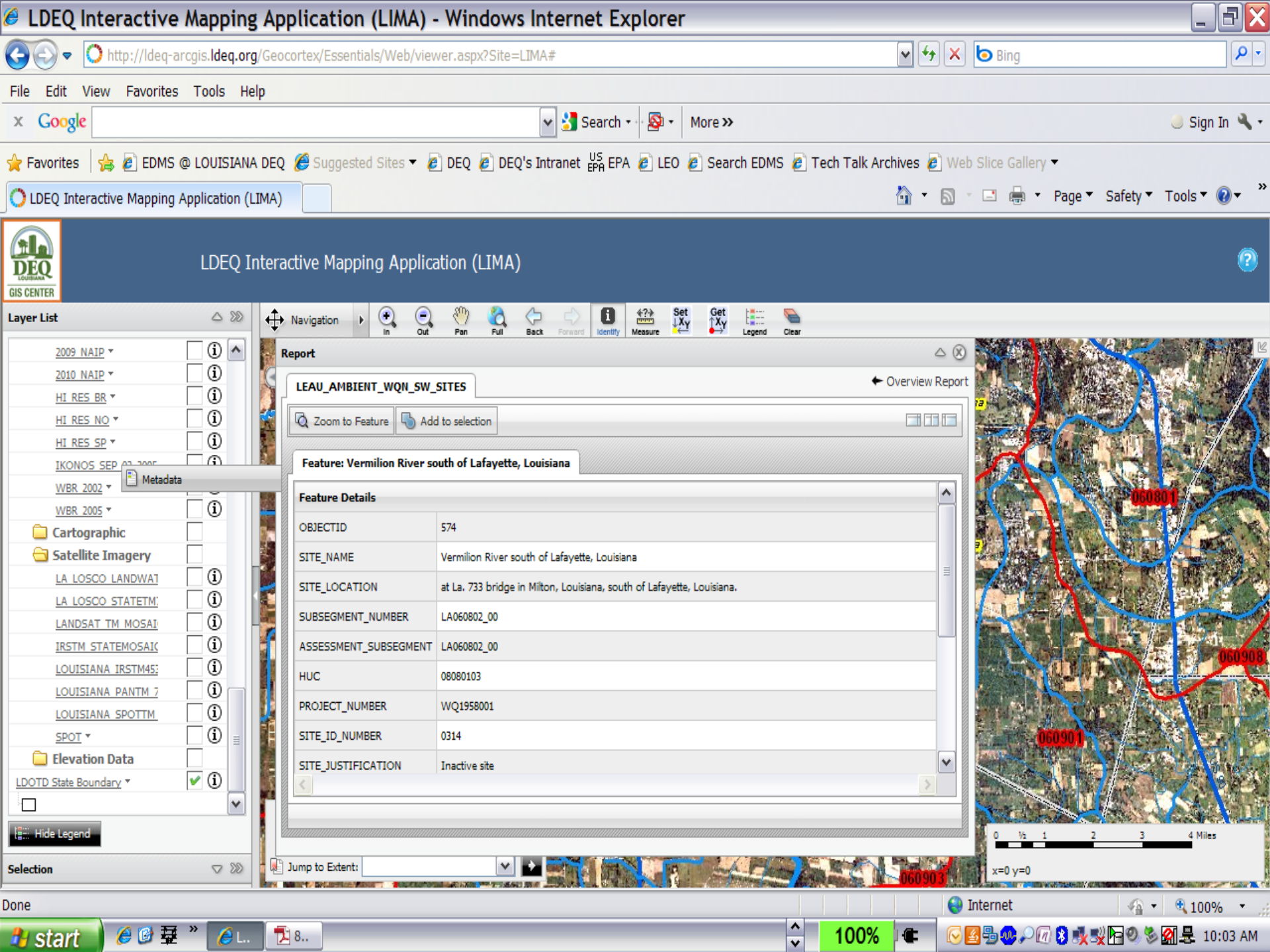
- Hardness-based metals benchmark values
  - Permittee can sample receiving stream hardness from the nearest water body downstream of the discharge
  - Permittee can coordinate with neighboring facilities to collect hardness samples
  - Permittee may use third-party hardness data less than 10 years old

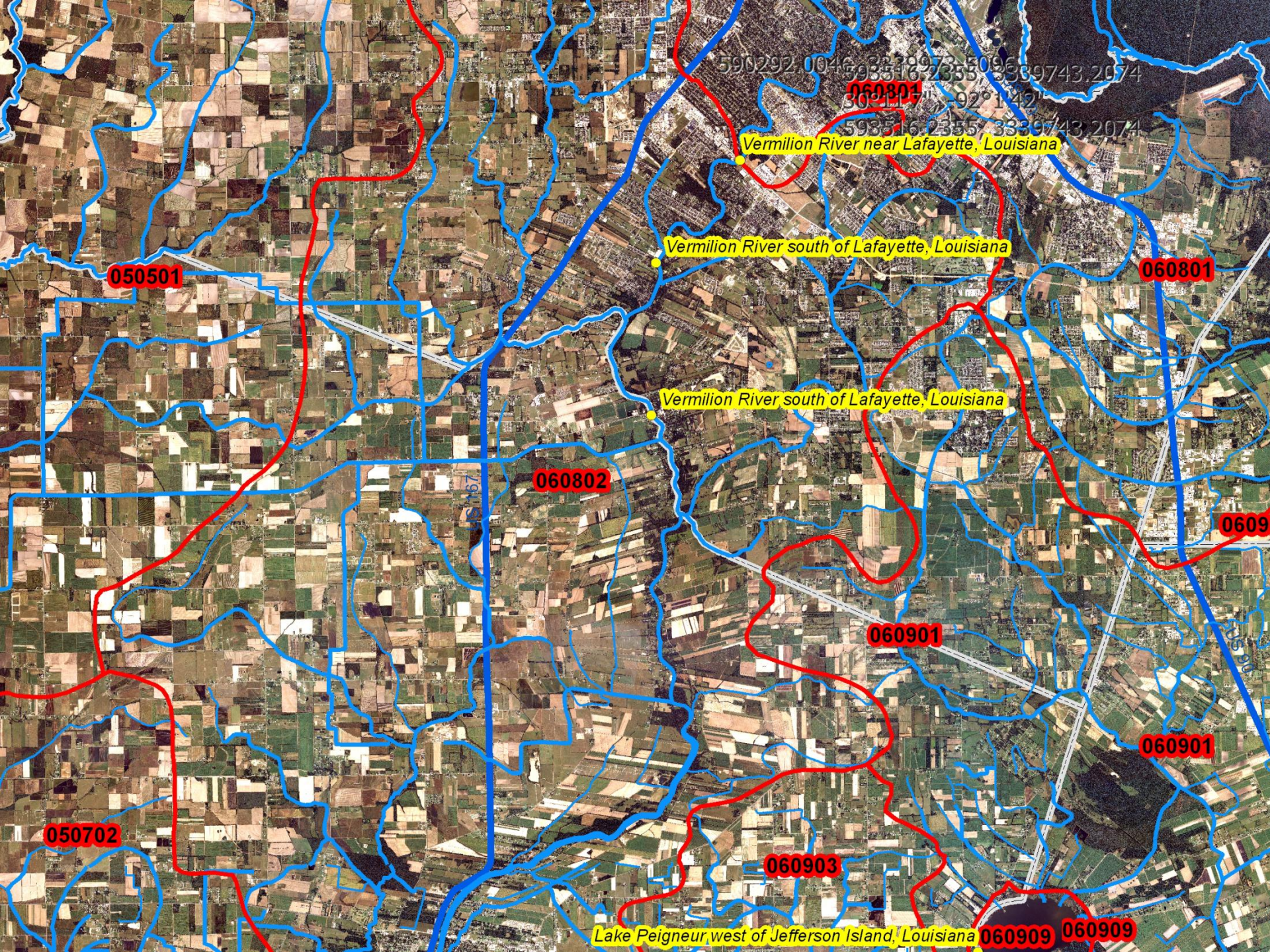
ENVIROSCHOOL FOR COMMUNITIES
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

# Utilizing DEQ Hardness Data

- Guidance is not specific as to distance to site location or amount of data needed
  - Should be within same subsegment/watershed
  - Consistent with LDEQ water quality standards, use the most recent 2-year average
- Use LIMA to determine nearest ambient site
  - http://map.deq.louisiana.gov/index2.htm
- Utilize LEDC (Environmental Data Center) to obtain hardness data
  - http://www.deq.louisiana.gov/portal/tabid/2739/Default.aspx

ENVIROSCHOOL FOR COMMUNITIES
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY


LDEQ Interactive Mapping Application (LIMA) - Windows Internet Explorer
http://ldeq-arcgis.ldeq.org/Geocortex/Essentials/Web/viewer.aspx?Site=LIMA#
File Edit View Favorites Tools Help
Favorites
LDEQ Interactive Mapping Application (LIMA)
LDEQ Interactive Mapping Application (LIMA)
Layer List
Navigation
Report
LEAU_AMBIENT_WQN_SW_SITES
Overview Report
Zoom to Feature
Add to selection
Feature: Vermilion River south of Lafayette, Louisiana
Feature Details
OBJECTID 574
SITE_NAME Vermilion River south of Lafayette, Louisiana
SITE_LOCATION at La. 733 bridge in Milton, Louisiana, south of Lafayette, Louisiana.
SUBSEGMENT_NUMBER LA060802_00
ASSESSMENT_SUBSEGMENT LA060802_00
HUC 08080103
PROJECT_NUMBER WQ1958001
SITE_ID_NUMBER 0314
SITE_JUSTIFICATION Inactive site
Metadata
Cartographic
Satellite Imagery
Elevation Data
LDOTD State Boundary
Hide Legend
Selection
Jump to Extent:
060801
060908
060901
060903
0 ½ 1 2 3 4 Miles
x=0 y=0
Done
Internet
100%
start
10:03 AM


060801
Vermilion River near Lafayette, Louisiana
Vermilion River south of Lafayette, Louisiana
050501
060801
Vermilion River south of Lafayette, Louisiana
060802
0609
060901
060901
050702
060903
Lake Peigneur west of Jefferson Island, Louisiana
060909
060909

# Search Ambient Water Quality Data

Enter A Whole Or Partial Site Name

Data By Subsegment

Data By Site: Vermilion River Cutoff southwest of Abbeville, Louisiana:0(

Data By Date: Start: 11/1/2009 End: 11/1/2011

Search Clear

# Ambient Water Quality Data

**Records Per Page:** 250

Click an option to export the data: Excel

Total Records: 198

| Site | Subsegment | Analytical Fraction | Site# | Collection Date | MDL | Result | Validation Comments | Validation Qualifier | Parameter | Filtration Method |
|---|---|---|---|---|---|---|---|---|---|---|
| Vermilion River Cutoff southwest of Abbeville, Louisiana | LA060803_00 | M | 0678 | 4/7/2011 10:15:00 AM | | 1.51 ug/L | | | NICKEL | |
| Vermilion River | LA060803_00 | M | 0678 | 10/6/2010 | | 1.05 ug/L | | | NICKEL | |

# TOC/Oil and Grease Numeric Limitations

**What does "Footnote 3" mean?**

**(The most asked question)**

- Previous issuances of the Louisiana MSGP contained numeric limits for TOC and oil & grease, which requires annual monitoring
- EPA's 2008 MSGP did not contain these limits
- To phase out limits that are not necessary, LDEQ does not require regular monitoring of these parameters

ENVIROSCHOOL FOR COMMUNITIES
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

# Unless…

- Table 5.2 (industries with effluent guidelines) requires your facility type to conduct annual monitoring

OR

- The water body into which a facility discharges is impaired for dissolved oxygen or oil & grease
  - TOC is an indicator parameter for DO based on: Boyles, Wayne. *The Science of Chemical Oxygen Demand: Technical Information Series, Booklet No. 9*. Hach Company; 1997.

OR

- A TMDL has been established for the specified parameter AND a waste load allocation has been assigned to storm water

# Impaired Waters/TMDL Monitoring

- Section 5.10.2 of the MSGP:
  - Impaired Waters – Monitor once per year at each outfall IF
    - the water body is impaired for a pollutant for which the facility has reasonable potential to discharge AND
    - A standard analytical method exists
    - Sector-specific benchmark parameters and numeric limits can be used to establish "reasonable potential"

# Impaired Waters/TMDL Monitoring

- Water Bodies with Completed TMDLs – monitor once per year at each outfall IF
  - The TMDL assigns a Waste Load Allocation to specific pollutant(s) in storm water permitted under the MSGP
  - May discontinue after the first year if the pollutant is not detected in any samples

# How do I figure this out?

**The second most asked question.**

- Use LIMA to determine subsegment in which the facility is located
  - http://map.deq.louisiana.gov/index2.htm
- Look for the subsegment number on the most recent, EPA-approved Integrated Report
  - LDEQ →Divisions → Water Permits → Water Quality Standards and Assessment → Water Quality Inventory Section 305(b) → 2010 Integrated Report
  - Make sure to open Appendix A in Excel format

ENVIROSCHOOL FOR COMMUNITIES
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

State of Louisiana Water Quality Management Plan
Water Quality Inventory: Integrated Report
Section 305(b) and Section 303(d) of Clean Water Act

2008

FINAL 2008 Louisiana Water Quality Inventory: Integrated Report (305(b)/303(d))– The FINAL 2008 Louisiana Water Quality Inventory: Integrated Report was approved by EPA Region 6 on September 28, 2011.

Full Text of 2008 Integrated Report

Appendix A: 2008 Integrated Report of Water Quality in Louisiana

- The preceding files contain Louisiana's FINAL 2008 Integrated Report-Water Quality Assessments.

Appendix B: 2008 Integrated Report of Water Quality in Louisiana - Addendum

Appendix C: 2008 Integrated Report of Water Quality in Louisiana - Category 1 Addendum

- Appendix C contains water bodies and suspected causes of impairment that were formally considered impaired in previous Integrated Reports. They are no longer considered to be impaired by Louisiana. More recent data or information was used to make this determination during the 2008 Integrated Report assessment process. Appendix C is used here as a tool to track changes to the Integrated Report over time.

Appendix D: Complete list of suspected causes of impairment

Appendix E: Complete list of suspected sources of impairment

Appendix F: Complete listing of Louisiana's Ambient Surface Water Quality Network Sites

Appendix G: Public Comments on the 2008 Integrated Report and LDEQ's Response to Comments

- Appendix G is a compilation of all comments received regarding the 2008 Integrated Report, along with LDEQ's response to those comments. Any changes made to the 2008 Integrated Report based on public comments are noted in the column entitled, Summary of LDEQ Responses.

| Subsegment Number | Subsegment Description | Type | Size | PCR | SCR | FWP | DWS | ONR | OYS | AGR | LAL | DO CM Full? | Impaired Use for Suspected Cause | Suspected Causes of Impairment | IR Category for Suspected Causes | TMDL Due Date | TMDL Priority | Suspected Sources of Impairment | Interim Changes Between Public Notice and Final Version |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LA060101_00 | Spring Creek-From headwaters to Cocodrie Lake (Scenic) | R | 30 | F | F | F | | F | | | | | | | | | | | |
| LA060102_00 | Cocodrie Lake | L | 6,099 | F | F | N | | | | | | | FWP | Ammonia (Total) | IRC 4a | | | Source Unknown | |
| LA060102_00 | Cocodrie Lake | L | 6,099 | F | F | N | | | | | | | FWP | Mercury in Fish Tissue | IRC 5 | TBD | L | Atmospheric Deposition - Toxics | Added Mercury in Fish Tissue due to new advisory |
| LA060102_00 | Cocodrie Lake | L | 6,099 | F | F | N | | | | | | | FWP | Mercury in Fish Tissue | IRC 5 | TBD | L | Source Unknown | Added Mercury in Fish Tissue due to new advisory |
| LA060102_00 | Cocodrie Lake | L | 6,099 | F | F | N | | | | | | | FWP | Non-Native Aquatic Plants | IRC 4a | | | Introduction of Non-native Organisms (Accidental or Intentional) | |
| LA060102_00 | Cocodrie Lake | L | 6,099 | F | F | N | | | | | | | FWP | Oxygen, Dissolved | IRC 4a | | | Natural Conditions - Water Quality Standards Use Attainability Analyses Needed | |
| LA060201_00 | Bayou Cocodrie-From US-167 to Bayou Boeuf-Cocodrie Diversion Canal (Scenic) | R | 50 | F | F | N | | F | | | | | FWP | Oxygen, Dissolved | IRC 4a | | | Source Unknown | |
| LA060201_00 | Bayou Cocodrie-From US-167 to Bayou Boeuf-Cocodrie Diversion Canal (Scenic) | R | 50 | F | F | N | | F | | | | | FWP | pH, Low | IRC 5RC | 2021 | L | Natural Sources | |
| LA060201_00 | Bayou Cocodrie-From US-167 to Bayou Boeuf-Cocodrie Diversion Canal (Scenic) | R | 50 | F | F | N | | F | | | | | FWP | pH, Low | IRC 5RC | 2021 | L | Runoff from Forest/Grassland/Parkland | |
| LA060202_00 | Bayou Cocodrie-From Cocodrie Diversion Canal to Bayou Boeuf | R | 18 | F | F | N | | | | | | | FWP | Nitrate/Nitrite (Nitrite + Nitrate as N) | IRC 4a | | | Source Unknown | |

# Interpreting the IR

- Category 4a – A TMDL has been completed
- To review the TMDL, go to: http://iaspub.epa.gov/tmdl_waters10/attains_impaired_waters.tmdls?p_state=LA
- Category 5 or 5RC – Impaired, no TMDL has been developed; monitor based on reasonable potential to discharge pollutant

# No Exposure Certification

In lieu of obtaining a permit, a facility may certify no exposure if certain requirements are met:

- All processes, raw materials, intermediate materials, chemicals, etc. are under cover and not exposed to storm water at all times.
- Loading/unloading of products are done under cover.
- Waste materials in covered dumpsters
- No leaking drums or containers

**See No Exposure Certification Checklist for more details.**

ENVIROSCHOOL FOR COMMUNITIES
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

# Help

- EPA Storm Water Industrial Sector Fact Sheets: http://cfpub.epa.gov/npdes/stormwater/swsectors.cfm
- SWPPP Templates: http://www.epa.gov/npdes/pubs/industrial_swppp_guide.pdf
- LDEQ Small Business Assistance:
  - 1-800-259-2890 or sbap@la.gov

ENVIROSCHOOL FOR COMMUNITIES
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

# Contact Information

Kimberly Corts – kimberly.corts@la.gov

Debbie Bissett – debbie.bissett@la.gov

Water Permits Division

Municipal and General Group 1

(225) 219-9371

ENVIROSCHOOL FOR COMMUNITIES

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

# STORM WATER GENERAL PERMITS FOR CONSTRUCTION ACTIVITIES

ENVIROSCHOOL FOR COMMUNITIES
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

# Why Do We Have Storm Water Permits for Construction Activity?

- Clean Water Act
- Code of Federal Regulations (40 CFR 122.26)
- State Regulations 2511

# Acronyms/Definitions

- **BMP**-Best Management Practice (i.e. good housekeeping, silt fences, catch basins, etc.)
- **Common Plan of Development** – contiguous area where multiple separate and distinct construction activities may be taking place at different times on different schedules under one plan (i.e. subdivisions, office parks, retail developments)
- **NOI** – Notice of Intent to discharge (application)
- **SWPPP** – Storm Water Pollution Prevention Plan
- **NOT** - Notice of Termination (end of discharge)

# LAR100000

- Storm Water General Permit for Construction Activities 5 Acres or More
- Available on the LDEQ website at:
  - http://www.deq.louisiana.gov/portal/Portals/0/permits/lpdes/pdf/FINAL%20LAR100000.pdf
- LPDES Water Discharge General Permits
  - LAR100000

ENVIROSCHOOL FOR COMMUNITIES
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

# LAR200000

- Storm Water General Permit for Small Construction Activities
  - Available on the LDEQ website at:
    - http://www.deq.louisiana.gov/portal/Portals/0/permits/lpdes/LAR200000.pdf
  - LPDES Water Discharge General Permits
    - LAR200000

# Important

Before beginning any construction activity where more than one acre of land will be disturbed OR less than one acre that is part of a common plan of development, a Storm Water Pollution Prevention Plan must be developed and available on site.

ENVIROSCHOOL FOR COMMUNITIES
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

# Elements of a SWPPP

- Site Description – nature of activity; maps with drainage patterns; sequence of activities; etc.
- Controls – describe erosion and sediment controls; stabilization practices; structural controls;
- Maintenance procedures
- Inspections – at least one every 7 days

ENVIROSCHOOL FOR COMMUNITIES
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

# SMALL CONSTRUCTION ACTIVITIES LAR200000

- Applicable to construction projects that will disturb at least **one acre of land but less than five acres of land**; and
- Construction projects that will disturb less than **one acre of land but are part of a common plan of development**

# LAR200000…

- No Notice of Intent (NOI) (automatically regulated); No fees
- Post a Notice near the main entrance of the construction site
- Storm Water Pollution Prevention Plan (SWPPP) Requirements are found in Part III of the permit
- SWPPP must be in writing, signed, certified and implemented when earth disturbing activities begin
- Certification statements are found in Part V.G of the permit

# LAR200000…

- SWPPP is a living document:  Must be updated as necessary (see permit Part III.C)

- Completion Report:  Addendum B of the permit
  - Submit when the site meets the definition of "Final Stabilization" (see Part VII of permit)

# BMPs – An Important Element of the SWPP

Riprap can be used to stabilize drainageways and outlets to prevent erosion

www.epa.gov/npdes/stormwater

Sediment traps are used to collect sediment-laden runoff from disturbed areas on construction sites

A simple silt fence can prevent a large amount of sediment from washing into the stream.

Mud washed into storm drain; trash blocking flow

**Not good…no silt fence; sediment is washing into the street.**

**Properly installed and maintained silt fence**

# CONSTRUCTION ACTIVITIES FIVE (5) ACRES OR MORE LAR100000

- Applicable to construction projects that will disturb at least five or more acres of land; and
- Construction projects that will disturb less than five acres of land but are part of a common plan of development that will disturb five or more acres of land

ENVIROSCHOOL FOR COMMUNITIES
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

# LAR100000…

- Authorized to discharge after submitting a complete and accurate NOI form:
  - 48 hours after mailing the form to LDEQ; or
  - Upon receipt of a hand-delivered NOI to the LDEQ Galvez Building

**Important: If one or more entities (persons, contractors, developers, etc.) will have operation control, ALL must submit a NOI.**

# LAR100000…

- Submit NOI form CSW-G
  - Available on the LDEQ website at:
    - http://www.deq.louisiana.gov/portal/Default.aspx?tabid=245
    - LPDES Water Discharge Permit Applications
    - Stormwater Permit Notices of Intent
    - CSW-G
- Post a Notice near the main entrance of the construction site
- Storm Water Pollution Prevention Plan (SWPPP) Requirements are found in Part IV of the permit
- SWPPP must be in writing, signed, certified and implemented when earth disturbing activities begin

ENVIROSCHOOL FOR COMMUNITIES
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

# LAR100000…

- Certification statement found in Part VI.G.2.e of the permit
- SWPPP is a living document:  Must be updated as necessary (see permit Part IV.C)
- Notice of Termination (NOT) form CSW-T
  - Available in Addendum C of the permit
  - Available on the LDEQ website at:
    - http://www.deq.louisiana.gov/portal/Default.aspx?tabid=2562
  - LPDES Water Discharge Permit Applications
    - Stormwater Permit Notices of Intent
    - CSW-T

# LAR100000…

Annual permit fee ($264)

**Permittee is responsible for the annual permit fee and permit compliance until a NOT is received by the Water Permits Division**

ENVIROSCHOOL FOR COMMUNITIES
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

# NONTRANSFERRABLE LPDES GENERAL PERMITS (LAR)

- Louisiana Pollutant Discharge Elimination System (LPDES) Storm Water General Permits are nontransferable
  - LAR100000 (Large construction projects)
  - LAR200000 (Small construction projects)
  - LAR050000 (Multi-Sector General Permit for Storm Water Discharges Associated with Industrial Activities (MSGP)

# NONTRANSFERRABLE LPDES GENERAL PERMITS (LAR)

- Current permittee must submit the correct Notice of Termination (NOT) form

- New owner/operator must submit the correct Notice of Intent (NOI) form

ENVIROSCHOOL FOR COMMUNITIES
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

# Resources

- www.deq.louisiana.gov

  – Small Business Assistance program can help with NOIs, SWPPPs, etc.

- www.epa.gov

  – Storm Water Pollution Prevention Plan (SWPPP) Guide www.epa.gov/npdes/pubs/sw_swppp_guide.pdf

ENVIROSCHOOL FOR COMMUNITIES
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

# Contact Information

Kimberly Corts

Louisiana Department of Environmental Quality

Office of Environmental Services

Water Permits Division

P. O. Box 4313

Baton Rouge, LA  70821-4313

(225) 219-3074

kimberly.corts@la.gov

# Short-Term and Emergency General Permit (LAG420000)

ENVIROSCHOOL FOR COMMUNITIES
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

# LAG420000 Applicability

Types of situations in which this general permit may be utilized include, but are not limited to:

- Abnormal discharges associated with natural disasters;
- discharges associated with or resulting from fires, explosions, or similar emergency events; and
- discharges that will occur one-time or for a limited duration.

# LAG420000 Definitions

Short term discharges are discharges that will occur one-time or for a limited duration.

Emergency discharges are abnormal discharges associated with natural disasters; discharges associated with or resulting from fires, explosions, or similar emergency events.

# LAG420000
# Who is covered

The general permit is not intended to cover facilities with existing LPDES permits. All LPDES permits have upset and bypass provisions in the Standard Conditions of the permit. Therefore, facilities with existing LPDES permits should not need to be covered under this general permit.

# LAG420000 Authorization

Persons who are eligible for coverage under the general permit may be authorized to discharge upon the receipt of a hand-delivered, correctly completed Notice of Intent (NOI) or 72 hours after the postmark date on the envelope that contains the correctly completed NOI.

The general permit authorization expires 180 days after authorization. Emergency discharges authorized under the general permit may be granted one 180-day extension. Short term discharges authorized under the general permit may have authorizations with durations less than 180 days.

ENVIROSCHOOL FOR COMMUNITIES
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

# Short Term and Emergency General Permit Contact

**Yvonne Baker**

Environmental Scientist Senior

Office of Environmental Services

Water Permits Division

(225)219-3193

Yvonne.baker@la.gov

# Pesticide General Permit (PGP) LAG870000

ENVIROSCHOOL FOR COMMUNITIES
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

# What is it?

General Permit for discharges associated with the application of pesticides associated with the following four use categorizations:

1. Mosquito and Other Flying Insect Pest Control
2. Aquatic Weed and Algae Control
3. Aquatic Nuisance Animal Control
4. Forest Canopy Pest Control

ENVIROSCHOOL FOR COMMUNITIES
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

# Who Is Covered?

- Primarily affects state, parish, and local pest control authorities, such as mosquito control districts,  DOTD roadside weed control, utility rights-of-ways etc.
- Individual small applicator continue to follow FIFRA label instructions.
- Commercial applicators – follow LDAF rules.
- Non-commercial applicator – follow LDAF rules.
- LDAF rules are embedded in the PGP.
- 100% coordination of LDAF/LDEQ PGP requirements between LDEQ and LDAF.

ENVIROSCHOOL FOR COMMUNITIES
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

# How Do I Obtain Coverage?

- Apply pesticides in accordance with the FIFRA label
- Certification and Licensing under LDAF regulations at LAC 7:XXIII, Subchapters F and H will provide coverage under LDEQ's PGP.
- LDEQ's PGP requirements will be covered via LDAF certification and licensing – no need for PGP NOI (application) to be submitted to LDEQ.

ENVIROSCHOOL FOR COMMUNITIES
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

# How Do I Comply?

- Follow the requirements in the PGP.
- Comply with all state pesticide regulations, statutes, FIFRA labeling, and other conditions listed in the PGP.
- Note:
  - The PGP lists Louisiana Department of Agriculture and Forestry (LDAF) regulations incorporated by reference.

ENVIROSCHOOL FOR COMMUNITIES
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

# Pesticides General Permit Contact

**Bruce Fielding**

Environmental Scientist Manager

Office of Environmental Services

Water Permits Division

(225)219-3231

Bruce.fielding@la.gov

# Speaker Contact Information


**Kim Corts**
Environmental Scientist Supervisor
Office of Environmental Services
Water Permits Division
(225)219-3208
Kimberley.corts@la.gov

**Tom Killeen**
Environmental Scientist Manager
Office of Environmental Services
Water Permits Division
(225)219-3207
Tom.killeen@la.gov

**Christy Clark**
Environmental Scientist
Office of Environmental Services
Water Permits Division
(225)219-3528
Christy.clark@la.gov

**Eura DeHart**
Environmental Scientist Staff
Office of Environmental Services
Water Permits Division
(225)219-3213
Eura.dehart@la.gov


ENVIROSCHOOL FOR COMMUNITIES
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY