Nonpoint Source

PROGRAM

Greg Waldron – Environmental Scientist

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***Point* Source Pollution comes from an identified point or location, such as an industrial plant.**

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Point Source Pollution is regulated, which means you must have a permit in order to discharge it.

What is Nonpoint Source Pollution???

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Pollution that does not come from a point source, such as a pipe!

Nonpoint Source Pollution...

EPA testing Katrina floodwaters

can be water that falls on the ground and moves across the land, picking up pollutants along the way. This water is called runoff.

It may eventually end up in a river, lake, or ocean.

No permits are required.

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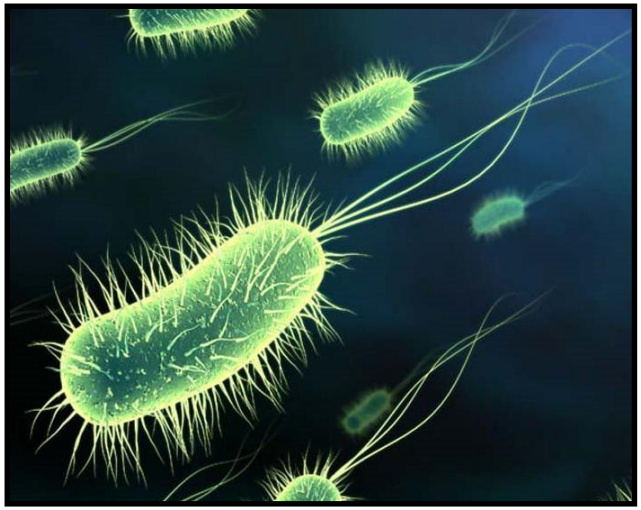
What kind of pollutants are picked up from the ground?



Nutrients
Pathogens
Sediment
Toxic substances
and many
others...

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Where do these pollutants come from?

Some of the pollutants are caused by human activities. Others occur naturally, such as waste from wildlife and types of erosion. There is virtually nothing we can do about this.

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Rain

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Irrigation

Farming

Fields and crops can contribute nutrients, sediment, pesticides, and herbicides.

Livestock

Contribute pathogens and nutrients, and can cause soil erosion.

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Urban Areas

Can contribute anything that washes off of yards and streets: chemicals, oil, gas, fertilizer, dog poop, soil, roadkill, food, trash …

Construction Sites

May contribute sediment, nutrients, metals, construction debris, and other pollutants.

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Harvesting Timber

Logging strips the land of vegetation, causing erosion.

Failing Septic Tanks

Nutrients and pathogens come from malfunctioning septic tanks.

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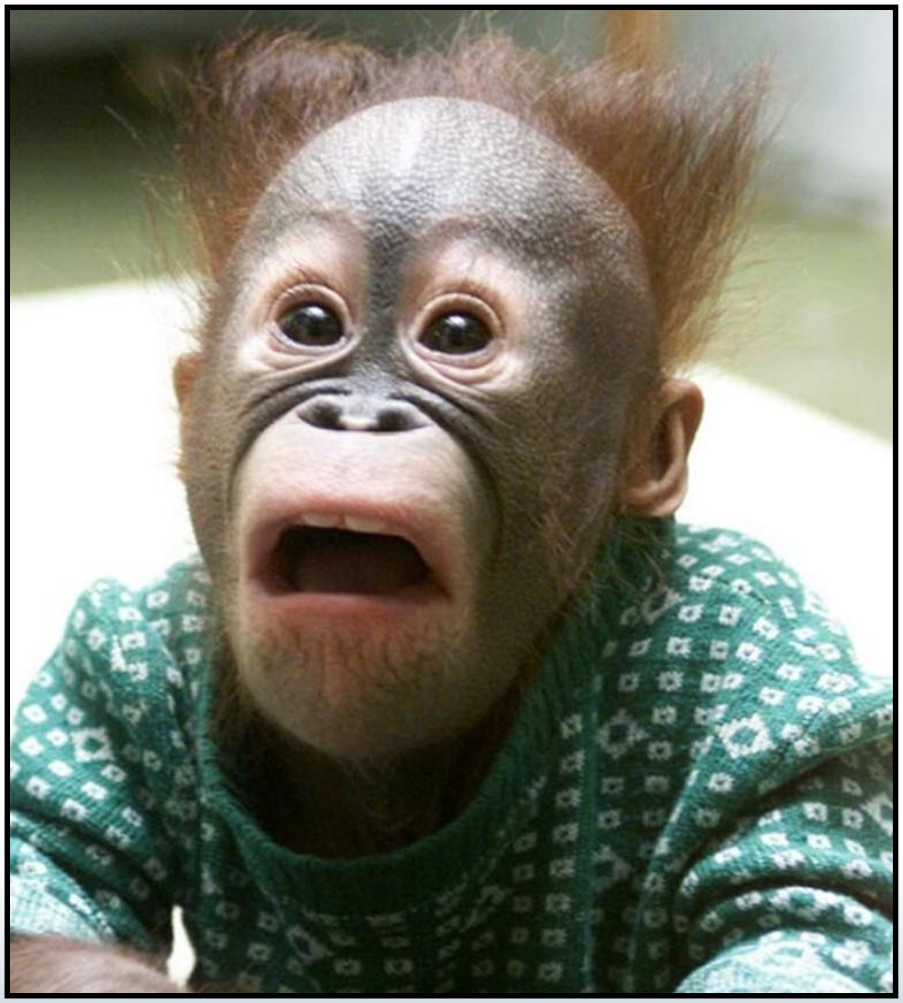
And many other ways water falls on the ground.....

Why Worry About It?



Excessive levels of pollutants in waterbodies can make them unhealthy and useless!

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How do you know if it's too polluted?

Water samples are collected and tested for many parameters, such as:

Dissolved oxygen

Fecal coliform bacteria

Phosphorus

Nitrogen

Temperature

Turbidity

pH…

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What do the lab tests tell us?

If the test results do not fall within a certain range, we say that waterbody is *"not meeting its criteria"* and it is *"not supporting its Designated Uses."*

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Types of Designated Uses

- **Primary Contact Recreation**
- **Secondary Contact Recreation**
- **Fish and Wildlife Propagation**
- Drinking Water Supply
- Oyster Propagation
- Agriculture
- Outstanding Natural Resource

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Primary Contact Recreation

Direct contact with the water, such as swimming and water skiing.

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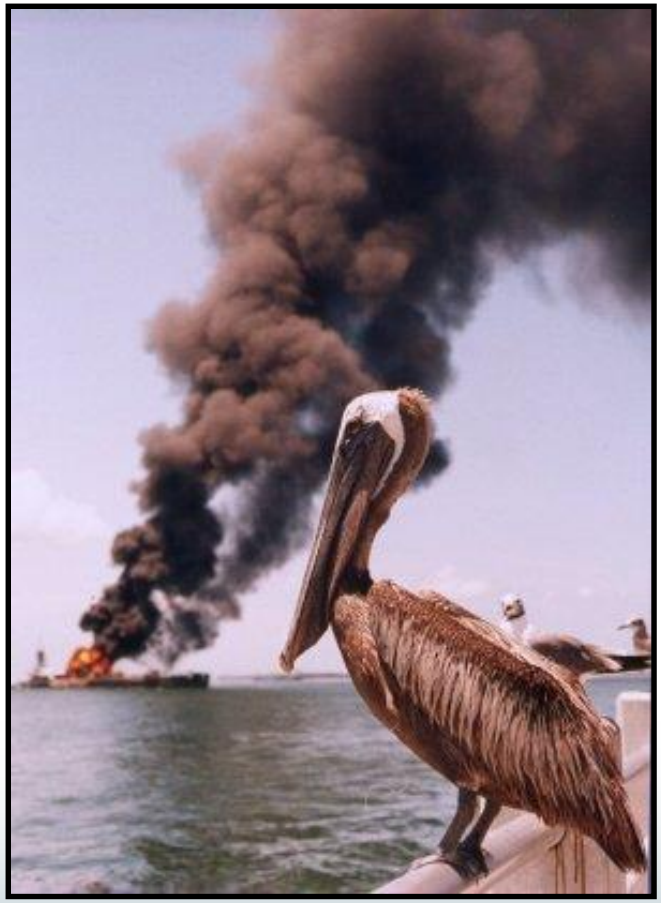
Secondary Contact Recreation

Occasional contact with water, such as: fishing, wading, boating, building sandcastles…

Fish and Wildlife Propagation

Fish and other animals use the water as a place to live, eat, and reproduce.

How do we stop all this pollution?



By using Best Management Practices!

BMPs can reduce the amount of nonpoint pollution that is being carried into the waterbodies.

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How can BMPs control nonpoint source pollution?

- Decrease the amount of runoff by retaining stormwater until it evaporates, soaks into the ground, or is absorbed by plants.

- Increase the quality of runoff by filtering out pollutants.

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A Streamside Management Zone (aka Riparian Buffer Zone) is a strip of vegetation along the bank of a stream.

This zone slows down the runoff before it enters the stream - reducing erosion, and absorbing water and nutrients.

It can be used in different locations – urban areas, forestry, agriculture…

Urban BMPs

Rain Garden

Rain Barrels - save the rain for a sunny day!

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Clean up pet waste

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Urban BMPs

If you have a septic tank, make sure it works properly!

Toilet paper from the absence of a septic tank.

CONSTRUCTION BMPs

SILT FENCE

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Forestry BMPs

- Roads should not be built on highly erodible soils or steep slopes.
- When roads are no longer needed, they should be closed and revegetated.

Fencing

Livestock can cause serious erosion of stream banks, and also deposit fecal matter in the water. If you fence animals out of the stream, you must provide them with an alternate source of water and shade.

Concrete Water Trough

Installing a water trough with a concrete pad will help prevent the surrounding soil from eroding.

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Cover Crops

Cover crops grow when fields would otherwise be bare. They reduce the amount of soil and nutrients that are washed away.

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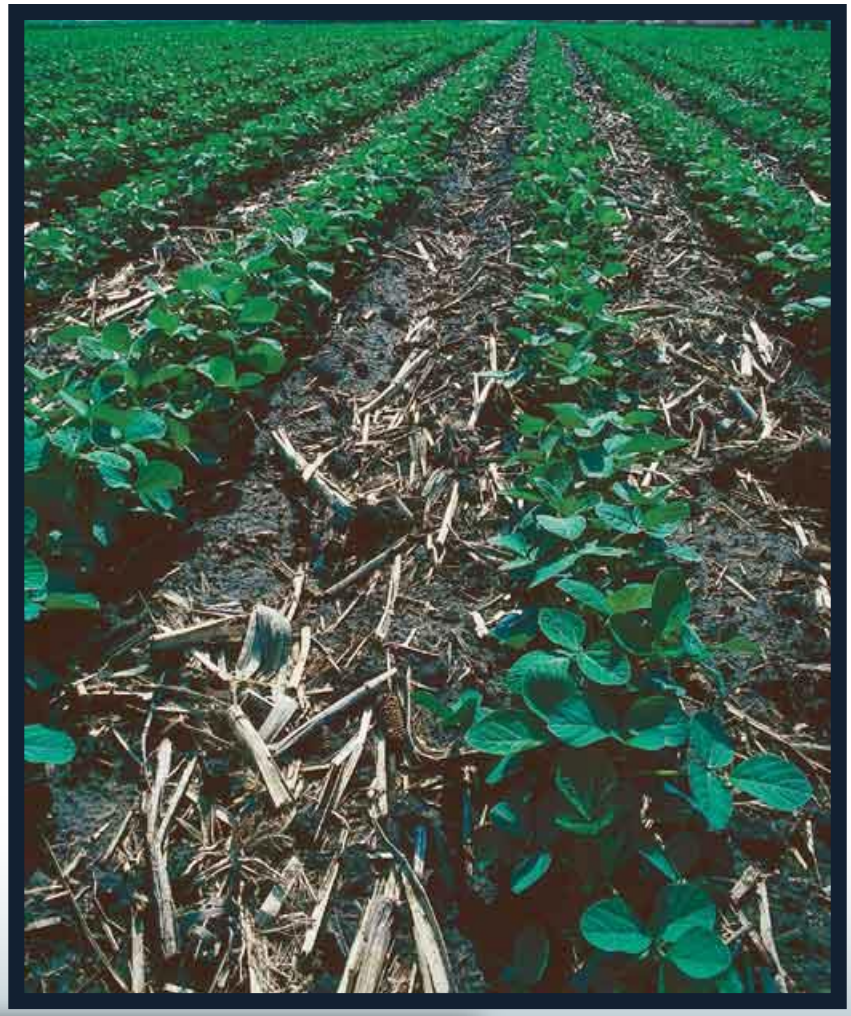
Conservation Tillage



- Residue from the previous crop is left on the ground.
- New crops are planted with minimum tillage of the soil.

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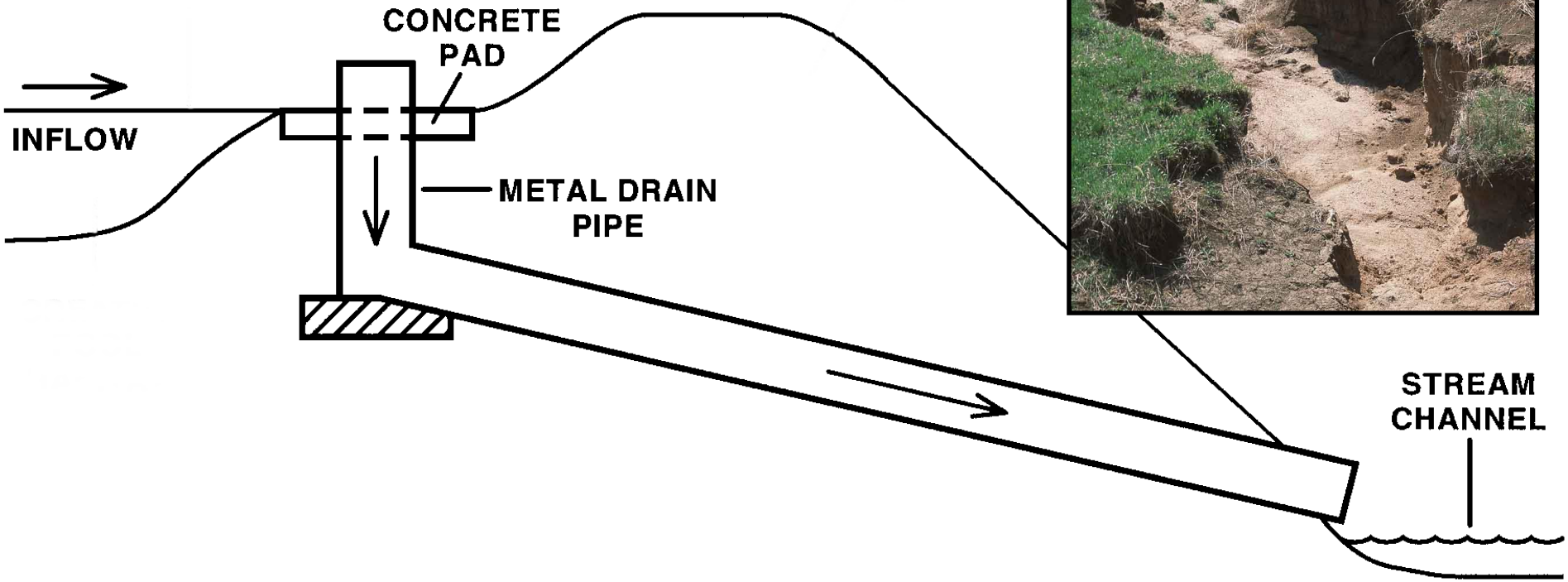
Pipe Drop Structures

Safely deliver water down a stream bank without causing sheet and rill erosion and deep gullies.



Outreach in Watershed Restoration and Protection Efforts

- By engaging local citizens and water protection organizations (Lake Pontchartrain Basin Foundation, Bayou Vermilion District, Soil and Water Conservation Districts, etc.) it is hoped that more support for water pollution control efforts can be generated.

- As the process is developed, LDAF and LDEQ plan to incorporate media and web-based outreach efforts to encourage local participation in NPS-related water quality improvement efforts.

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Master Farmer Program

The Louisiana Master Farmer Program focuses on helping agricultural producers voluntarily address environmental concerns and enhance the production of Louisiana agriculture. It teaches them more about environmental stewardship, conservation-based production techniques and resource management.

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LSU AgCenter Research & Extension

Meeting with Stakeholders

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LDAF Education Outreach

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DEQ NPS Education Outreach

DEQ NPS staff travel to events around the state to promote environmental awareness and education.

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Educational Information Available Through LDEQ

- Basin Brochures
- Fact Sheets
- Storm Drain Markers
- Presenters for workshops
- Watershed plans
- www.ldeq.org

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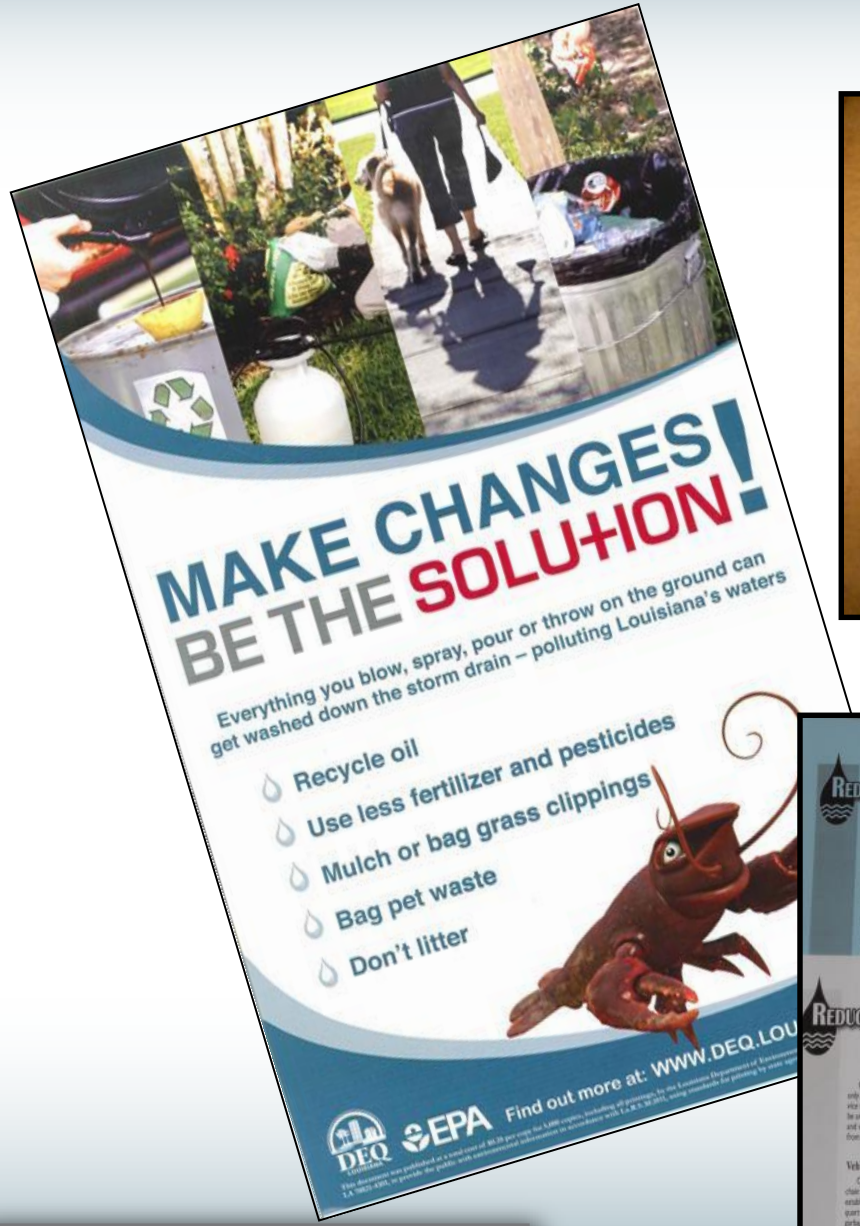

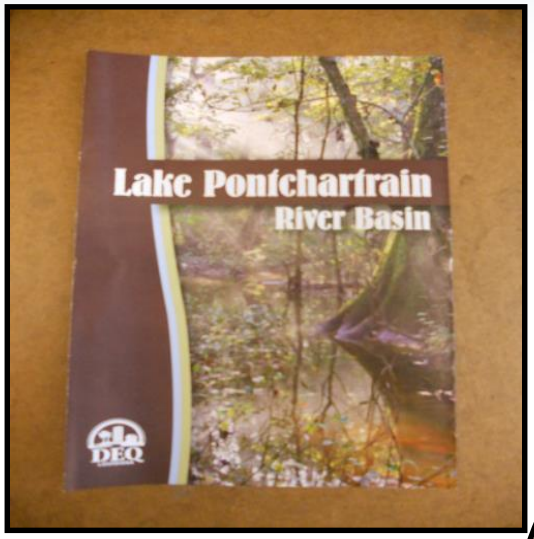

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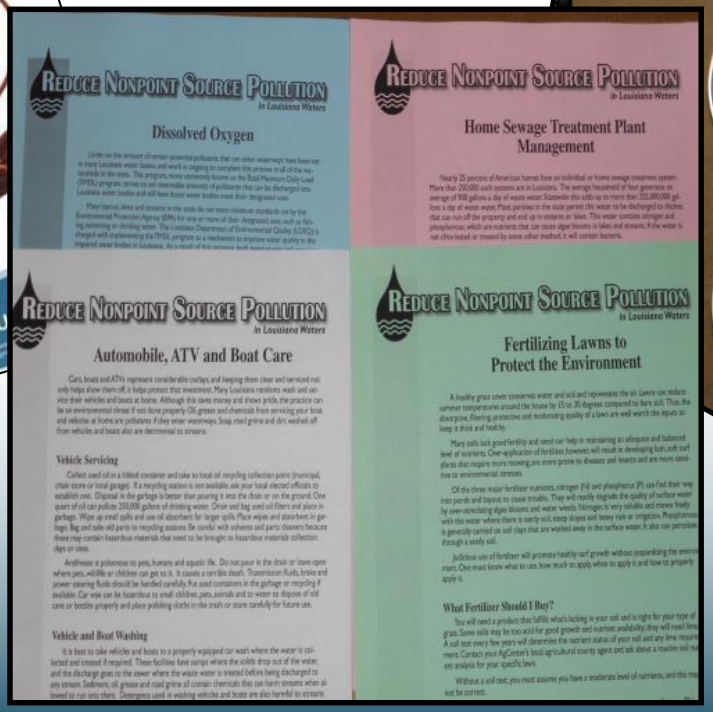

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ENVIROSCAPE MODEL

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DEQ's Be the Solution! campaign is emphasized in our outreach work. The idea behind this campaign is that each citizen can be part of the solution to pollution of Louisiana's waters by performing simple tasks such as recycling oil, bagging pet waste, using less fertilizer and pesticides, mulching or bagging grass clippings, and not littering.

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Storm Drain Marker Program

- LDEQ can supply citizens with storm drain markers for their community.

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Bayou Clean-Ups

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Watershed Coordinators

Facilitate and conduct activities in watersheds for the purpose of reducing NPS sources.

- Participate and conduct workshops.
- Coordinate education outreach activities with the public.
- Participate in trash cleanups.
- Meet with stakeholders in the community to discuss ways of reducing NPS.
- Watershed monitoring.

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LDEQ Watershed Coordinators

- Trailblazer RC&D
- Capital RC&D

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Capital RC&D

- Lake Pontchartrain, Terrebonne, Pearl and Mississippi Basins Pontchatoula Creek & Yellow Water River, Selsers Creek, and Comite River, and Tunica watersheds

- Education and outreach
  - Home Sewage
  - Recycling events
  - BMPs
  - Watershed Cleanup

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- Red River and Ouachita River Basins.
- Education and outreach
  - Forestry Workshops
  - Area school workshops

TRAILBLAZER
RESOURCE CONSERVATION & DEVELOPMENT

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Now for a little more about the LDEQ NPS 319 Program…

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Section 319 of the Clean Water Act

- Amendments in 1987 established the Section 319 Nonpoint Source Management Program.
- “Under Section 319, states, territories and tribes receive grant money that supports a wide variety of activities including technical assistance, financial assistance, education, training, technology transfer, demonstration projects and monitoring to assess the success of specific nonpoint source implementation projects.”
- https://www.epa.gov/polluted-runoff-nonpoint-source-pollution/319-grant-program-states-and-territories

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Louisiana NPS Program

- Federally supported by Clean Water Act section 319 funding
- Funds are divided equally between LDEQ and LDAF
- LDEQ provides planning, assessment, monitoring, sampling, inspections and education and outreach
- LDAF provides conservation planning, BMP implementation and education and outreach

The overall goal of the 319 NPS program is to restore and protect the State's waters

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LDEQ NPS Unit Contact Information

Cris Adams
Environmental Scientist manager
Crisalda.Adams@la.gov

John Sheehan
Environmental Scientist Senior
John.Sheehan@la.gov

Greg Waldron
Environmental Scientist
Gregory.Waldron@la.gov

http://deq.louisiana.gov/page/nonpoint-source

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