



Nonpoint Source
P R O G R A M

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**POINT SOURCE POLLUTION COMES
FROM AN IDENTIFIED POINT OR
LOCATION, SUCH AS AN INDUSTRIAL
PLANT.**





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



WHAT IS NONPOINT SOURCE POLLUTION???



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





**EPA testing Katrina
floodwaters**

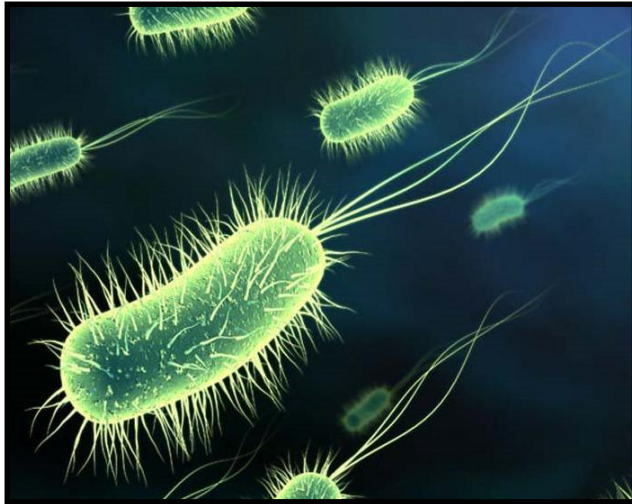
NONPOINT SOURCE POLLUTION...



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.

WHAT KIND OF POLLUTANTS ARE PICKED UP FROM THE GROUND?



Nutrients
Pathogens
Sediment
Toxic substances
and many
others...

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.



Rain



Irrigation



Farming

A wide-angle photograph of a large agricultural field. The foreground and middle ground are filled with rows of young green crops, likely corn, planted in dark, tilled soil. The rows recede into the distance, creating a strong sense of perspective. In the background, a dense line of green trees marks the horizon. To the left, a utility pole with power lines is visible. The sky is overcast with soft, grey clouds.

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



Livestock



Contribute pathogens
and nutrients, and can
cause soil erosion.



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.

HARVESTING TIMBER

Logging strips the land of vegetation, causing erosion.



FAILING SEPTIC TANKS

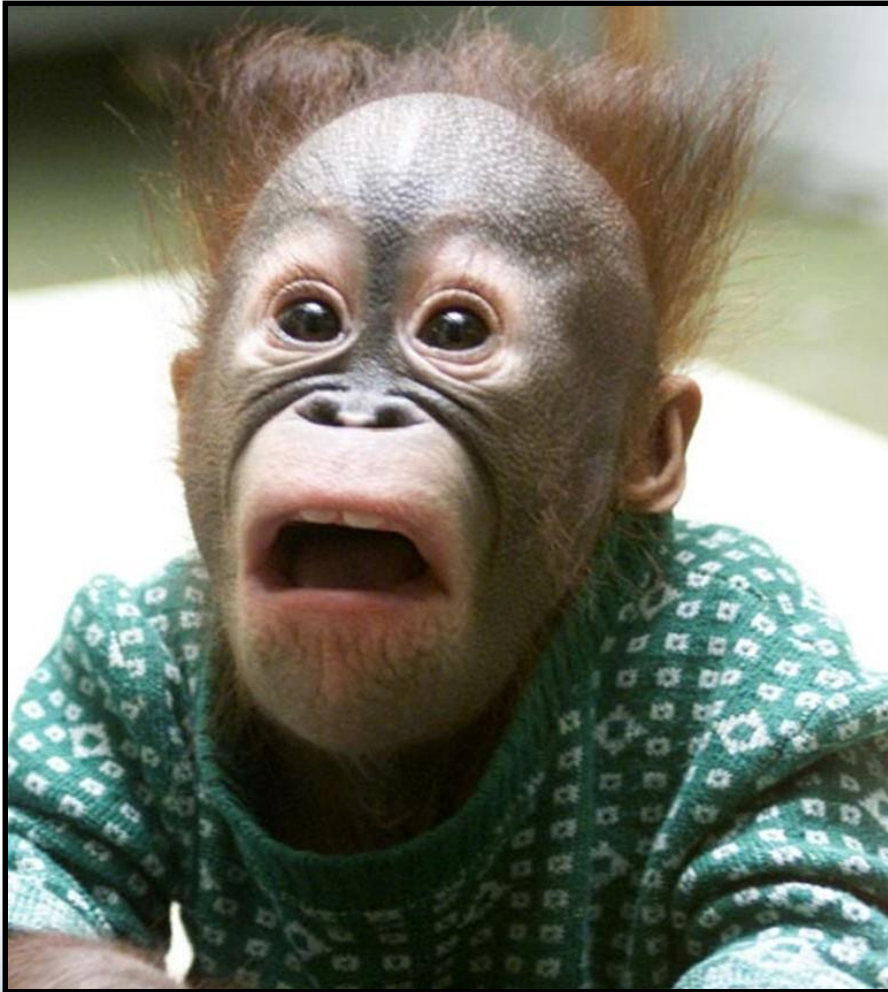
Nutrients and pathogens come from malfunctioning septic tanks.



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!

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...

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.*”



TYPES OF DESIGNATED USES



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



PRIMARY CONTACT RECREATION

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



Secondary Contact Recreation



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

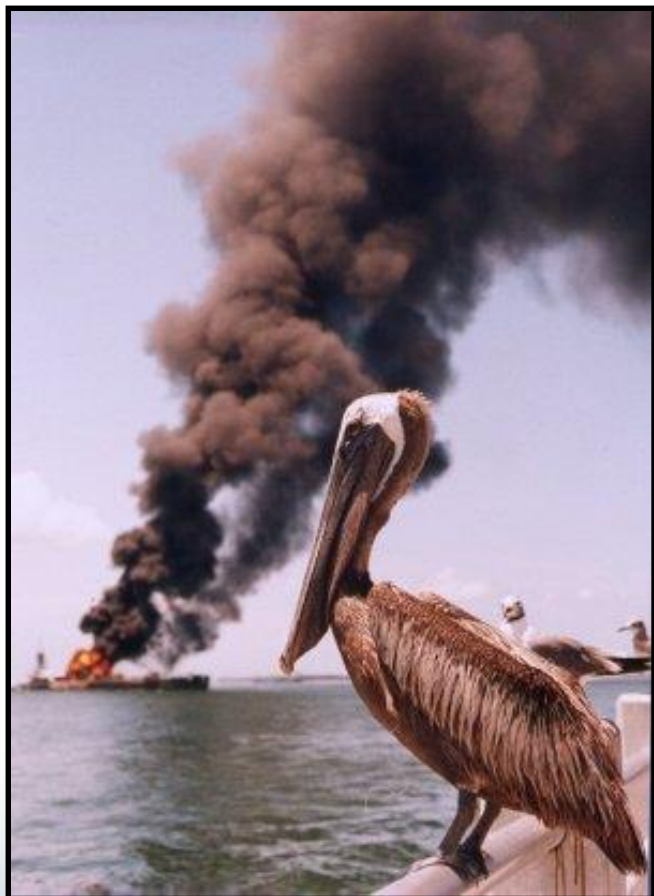
FISH AND WILDLIFE PROPAGATION



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.



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.



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!

Clean up pet waste



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



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.



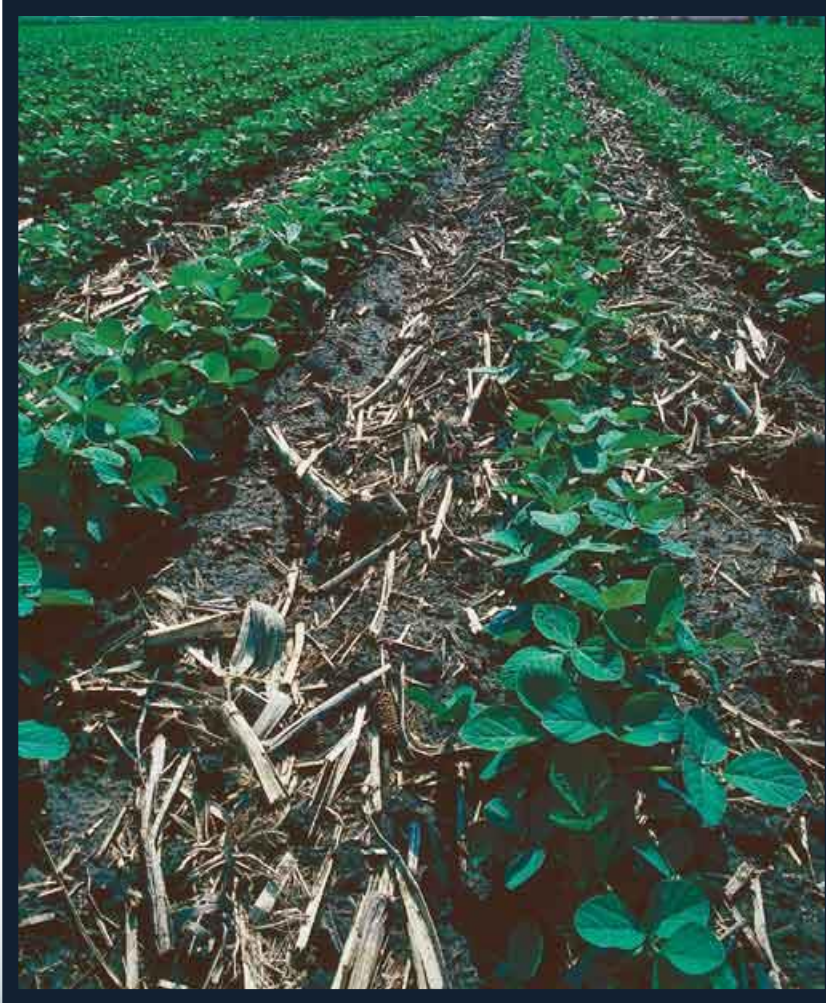
COVER CROPS



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



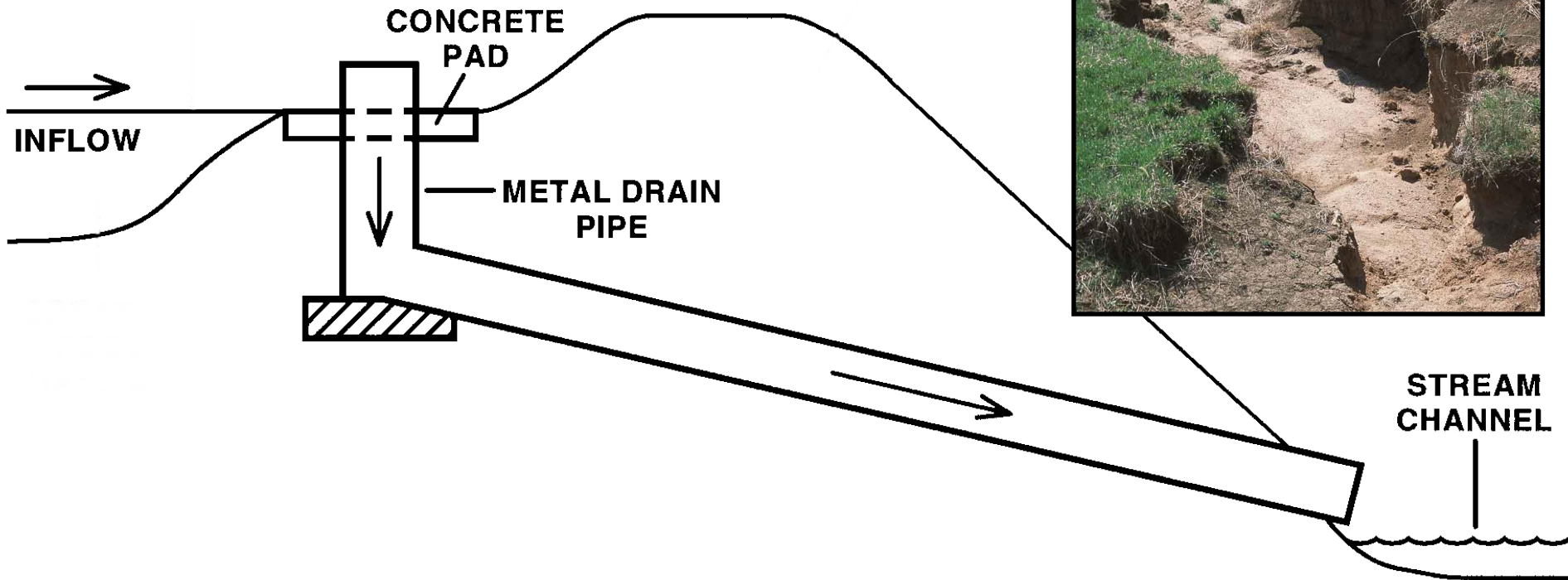
CONSERVATION TILLAGE



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

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.



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.



MEETING WITH STAKEHOLDERS



LDAF EDUCATION OUTREACH



DEQ NPS EDUCATION OUTREACH



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



EDUCATIONAL INFORMATION AVAILABLE THROUGH LDEQ



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



Nonpoint Source
PROGRAM





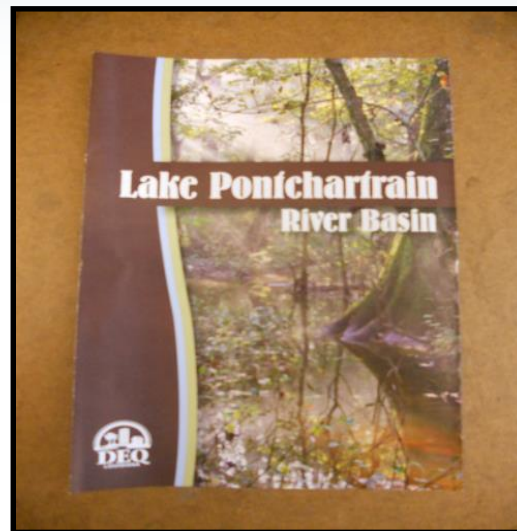
MAKE CHANGES! BE THE SOLUTION!

Everything you blow, spray, pour or throw on the ground can get washed down the storm drain – polluting Louisiana's waters

- Recycle oil
- Use less fertilizer and pesticides
- Mulch or bag grass clippings
- Bag pet waste
- Don't litter

Find out more at: WWW.DEQ.LOUISIANA.GOV

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<h3>REDUCE NONPOINT SOURCE POLLUTION in Louisiana Waters</h3> <h4>Dissolved Oxygen</h4> <p>Limits on the amount of certain potential pollutants that run waterways have been set in many Louisiana water basins and ways to improve the quality of the water are being developed. This program, more commonly known as the Total Maximum Daily Load (TMDL) program, allows us to monitor the amount of pollutants that can be discharged into Louisiana water bodies and set limits on those water bodies that are designated uses.</p> <p>Many people live and operate in the state in our most important water bodies. The Louisiana Department of Environmental Quality (DEQ) is charged with implementing the TMDL program as a mechanism to improve water quality in the designated water bodies in Louisiana. As a result of this program, the water quality in the state will be improved.</p>	<h3>REDUCE NONPOINT SOURCE POLLUTION in Louisiana Waters</h3> <h4>Home Sewage Treatment Plant Management</h4> <p>Nearly 23 percent of American homes have an individual or home sewage treatment system. More than 32,000 such systems are in Louisiana. The average household of four generates an average of 100 gallons a day of water waste. Sewerage this adds up to more than 32,000 gallons a day of water waste. These wastes in the state prevent this water to be discharged to rivers that can sink off the property and end up in streams or lakes. This water contains sewage and phosphorus, which are nutrients that can cause algae blooms in lakes and streams. If the water is not discharged or treated by some other method, it will cause harm.</p>
<h3>REDUCE NONPOINT SOURCE POLLUTION in Louisiana Waters</h3> <h4>Automobile, ATV and Boat Care</h4> <p>Cars, boats and ATVs represent considerable wealth, and keeping them clean and well-maintained not only helps show them off, it helps protect that investment. Many Louisiana residents wash and service their vehicles and boats at home. Although this saves money and shows pride, the practice can be an environmental threat if not done properly. Oil, grease and chemicals from servicing your boat and vehicle at home are pollutants if they enter waterways. Soap, road grime and dirt washed off from vehicles and boats also are detrimental to rivers.</p>	<h3>REDUCE NONPOINT SOURCE POLLUTION in Louisiana Waters</h3> <h4>Fertilizing Lawns to Protect the Environment</h4> <p>A healthy grass cover conserves water and soil and represents the six laws can reduce summer temperatures around the house by 15 to 20 degrees compared to bare soil. Thus, the advantage of having a healthy lawn is not only in the shade, but also in the water. The water in the lawn is generally carried on soil clay that is washed away in the surface water. It also can percolate through a sandy soil.</p> <p>Many soils have good fertility and need not be fertilized. However, if the soil is not fertile, the level of nutrients, over application of fertilizers, however, will result in developing lush, soft turf plants that require more watering, are more prone to diseases and insects and are more susceptible to environmental stress.</p> <p>Of the three major fertilizer nutrients, nitrogen (N) and phosphorus (P) can feed their way into ponds and streams to cause trouble. They will readily degrade the quality of surface water with the water where there is sandy soil, steep slopes and heavy rain or irrigation. Phosphorus is generally carried on soil clay that is washed away in the surface water. It also can percolate through a sandy soil.</p> <p>Producers use of fertilizer will promote healthy turf growth without jeopardizing the environment. One must know what to use, how much to apply when to apply it and how to properly apply it.</p>
<h3>REDUCE NONPOINT SOURCE POLLUTION in Louisiana Waters</h3> <h4>Vehicle Servicing</h4> <p>Collect used oil in a labeled container and take to local oil recycling collection points (auto parts, chain stores or local garages). If a recycling station is not available, ask your local sheriff's office to establish one. Dispose of the oil in the proper way. Do not pour it into the drain or on the ground. One quart of oil can pollute 250,000 gallons of drinking water. Clean and bag used oil filters and place in garbage. Wipe up small spills and use oil absorbents for larger spills. Place wipes and absorbents in garbage. Bag and take old parts to recycling centers. Do not mix with solvents and parts cleaners because these mixtures contain hazardous materials that need to be brought to hazardous materials collection sites or incinerators.</p> <p>Antifreeze is poisonous to fish, humans and aquatic life. Do not pour in the drain or leave open where your vehicle or children can get to it. It causes a terrible death. Transmission fluid, brake and power steering fluids should be handled carefully. Put used containers in the garbage or recycling if available. Car wax can be hazardous to small children, pets, animals and to water to dispose of old cans or bottles properly and place polluting liquids in the trash or store carefully for future use.</p>	<h3>REDUCE NONPOINT SOURCE POLLUTION in Louisiana Waters</h3> <h4>Vehicle and Boat Washing</h4> <p>It is best to take vehicles and boats to a properly equipped car wash where the water is collected and reused if required. These facilities have sumps where the suds drop out of the water, and the discharge goes to the sewer where the water is treated before being discharged to any stream. Sediment, oil, grease and road grime will cause damage to the water quality when it is discharged to any stream. Car washes used in washing vehicles and boats are also harmful to streams.</p>



ENVIROSCHOOL FOR COMMUNITIES

LOUISIANA DEPARTMENT OF
ENVIRONMENTAL QUALITY

ENVIROSCAPE MODEL





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.



STORM DRAIN MARKER PROGRAM



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



BAYOU CLEAN-UPS



ENVIRO SCHOOL
FOR COMMUNITIES

LOUISIANA DEPARTMENT OF
ENVIRONMENTAL QUALITY

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.





LDEQ WATERSHED COORDINATORS

- TRAILBLAZER RC&D
- CAPITAL RC&D





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



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





***Now for a little more about the
LDEQ NPS 319 Program...***



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>



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



LDEQ NPS UNIT CONTACT INFORMATION



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