

## WHAT CAN YOU DO TO REDUCE STORM WATER POLLUTION?

If you own a car, maintain it so it does not leak oil or other fluids.

Wash your car on the grass or at a car wash so the dirt and soap do not flow down the driveway and into the nearest storm drain.

Do not over fertilize your grass. Never apply fertilizers or pesticides before a heavy rain. If fertilizer falls onto driveways or sidewalks, sweep it up instead of hosing it away.

Mulch leaves and grass clippings or place bagged leaves and clippings at the curb, not in the street. Doing this keeps leaves out of the gutter and from washing into the nearest storm drain.

Turn your gutter downspouts away from hard surfaces and seed bare spots in your yard to avoid erosion.

If have a septic system, maintain it properly by having it pumped every 3 to 5 years. If it is an older system, be sure it can still handle the volume placed on it today. Never put chemicals down septic systems, they can harm the system and seep into the groundwater.

If you own a pet, pick up after your pets and dispose of pet waste in the garbage or by flushing.

Keep lawn and household chemicals tightly sealed and in a place where rain cannot reach them.

Dispose of old or unwanted chemicals at the Fort Bend County hazardous waste collection facility.

Participate in the next Rosenberg Spring Clean-Up.

Attend public hearings or meetings on the topic so you can express your concerns.

Report storm water violations when you spot them.

Keep learning about polluted storm water runoff and tell a friend.

But most importantly... **LEAD BY EXAMPLE.**

This publication is provided to educate Rosenberg's residents on the issue of storm water pollution and what YOU can do to help.



## ROSENBERG STORM WATER MANAGEMENT PROGRAM

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FOR MORE INFORMATION ON  
STORM WATER POLLUTION, VISIT  
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WWW.EPA.GOV/NPS

## PREVENTING STORM WATER POLLUTION

Everyone plays a role in creating the pollution in storm water runoff and everyone has a role in cleaning it up. Learn how you can make a difference.



FREQUENTLY ASKED QUESTIONS

## STORM WATER RUNOFF IS OUR MOST COMMON CAUSE OF WATER POLLUTION.

Storm water pollution is a challenging water quality problem. Unlike pollution from industry or sewage treatment facilities, storm water pollution is caused by the daily activities of people everywhere. The following information is provided to educate Rosenberg's residents on the issue of storm water pollution and what you can do to help.

## FREQUENTLY ASKED QUESTIONS

### WHAT IS STORM WATER RUNOFF?

Storm water runoff is water from rain that "runs off" across the land rather than being absorbed into the ground. As this water flows toward the nearest low spot such as a storm sewer, ditch, stream, river, or other body of water, it picks up pollutants such as pesticides, fertilizers, oil, pet waste, leaves, and more that can harm our water and environment. The runoff is not treated in any way.

### WHAT IS POLLUTED RUNOFF?

Water from rain either seeps into the ground or "runs off" to lower areas, making its way into storm sewers, ditches, streams, rivers, or other bodies of water. On its way, runoff water can pick up and carry many substances that pollute water. Some – like pesticides, fertilizers, oil and soap – are harmful in any quantity. Others – like sediment from construction, bare soil, or agricultural land, or pet waste, grass clippings and leaves – can harm streams, rivers and other bodies of water if in sufficient quantities. In addition to rain, various human activities like watering, car washing, and malfunctioning septic tanks can also put water onto the land surface. Here, it can create runoff that carries pollutants to creeks, rivers and lakes.

Polluted runoff generally happens anywhere people use or alter the land. For example, in developed areas, none of the water that falls on hard surfaces like roofs, driveways, parking lots or roads can seep into the ground. These impervious surfaces create large amounts of runoff that pick up pollutants. The runoff flows from gutters and storm drains to streams. Runoff not only pollutes, but erodes stream banks. The mix of pollution and eroded dirt muddies the water and causes problems downstream.

### WHAT IS NONPOINT SOURCE POLLUTION?

This is another term for polluted runoff and other sources of water pollution that are hard to pinpoint. The term "nonpoint source pollution" comes from the federal Clean Water Act of 1987. There, it is used as a catch-all for all kinds of water pollution that are not well-defined discharges (point sources) from wastewater plants or industries.

Many state agencies have nonpoint source (NPS) management programs that address polluted runoff. Texas NPS program is part of the Texas Commission on Environmental Quality's Division of Water Quality. It serves as the central coordinating agency for the many NPS-related programs operated by various agencies.

### WHAT CAUSES POLLUTED STORM WATER RUNOFF?

Polluted storm water runoff generally happens anywhere people use or alter the land. People going about their daily lives are the number one source of storm water pollutants. Most people are unaware of how they impact water quality. Some common examples include over fertilizing lawns, excessive pesticide use, not picking up pet waste, using salt or fertilizer to de-ice driveways, letting oil drip out of their vehicles and littering. Developed areas in general, with their increased runoff, concentrated numbers of people and animals, construction and other activities, are a major contributor to NPS pollution, as are agricultural activities. Other contributors include forest harvesting activities, roadways, and malfunctioning septic systems.

### WHY DO WE NEED TO MANAGE STORM WATER AND POLLUTED RUNOFF?

Polluted storm water runoff is the number one cause of water pollution in Texas. In most cases, storm water either does not receive any treatment before it enters our waterways or is inadequately treated. Polluted water creates numerous costs to the public and to wildlife. As the saying goes, "we all live downstream." Communities that use surface water for their drinking water supply must pay much more to clean up polluted water than clean water. Polluted water hurts the wildlife in streams, rivers and other bodies of water. Dirt from erosion, also called sediment, covers up fish habitats, and fertilizers can cause too much algae to grow, which also hurts wildlife by using up the oxygen they need to survive. Soaps hurt fish gills and fish skin, and other chemicals damage plants and animals when they enter the water.

The quantity of storm water is also a problem. When rain water falls on hard surfaces like roads, roofs, driveways and parking lots, it cannot seep into the ground, so it runs off to lower areas. To understand the difference a hard surface makes, consider the difference between one inch of rain falling onto a meadow and a parking lot. The parking lot sheds 16 times the amount of water that a meadow does! Because more water runs off hard surfaces, developed areas can experience local flooding. The high volume of water also causes stream banks to erode and washes the wildlife that lives there downstream.

### HOW ARE STORM WATER AND RUNOFF "MANAGED"?

"Best management practices" (BMPs) is a term used to describe different ways to keep pollutants out of runoff and to slow down high volumes of runoff. Preventing pollution from entering water is much more affordable than cleaning polluted water.

Educating residents about how to prevent pollution from entering waterways is one best management practice. Laws that require people and businesses involved in earth disturbing activities – like construction and agriculture – to take steps to prevent erosion are another way to prevent storm water pollution. There are also laws about litter, cleaning up after pets and dumping oil or other substances into storm drains. Education and laws are just two best management practice examples. Some BMPs are constructed to protect a certain area. Some are designed to slow down storm water; others help reduce the pollutants already in it. There are also BMPs that do both of these things. Detention ponds, built to temporarily hold water so it seeps away slowly, fill up quickly after a rainstorm and allow solids like sediment and litter to settle at the pond bottom. Then, they release the water slowly. These ponds are one constructed BMP example. Green roofs, storm drain grates, filter strips, sediment fences and permeable paving are other examples.

### WHY ALL THE FUSS ABOUT STORM WATER?

The federal Clean Water Act requires large and medium sized towns across the United States to take steps to reduce polluted storm water runoff. The law was applied in two phases. The first phase addressed large cities. The second phase, often referred to as "Phase II," requires medium and small cities, fast growing cities like Rosenberg, and those located near sensitive waters to take steps to reduce storm water. In Texas, Phase II laws took effect on August 13, 2007. These laws require the City of Rosenberg to do six things:

- 1) Conduct outreach and education about polluted storm water runoff.
- 2) Provide opportunities for residents to participate and be involved in conversation and activities related to reducing polluted storm water runoff.
- 3) Detect illicit discharges (e.g. straight piping or dumping).
- 4) Control construction site runoff.
- 5) Control post-construction runoff.
- 6) Perform municipal housekeeping (e.g. take steps to prevent runoff from city buildings and activities.)

### IF IT ONLY AFFECTS STREAMS AND CREEKS, WHY SHOULD YOU CARE?

Storm sewers, ditches, and streams feed into rivers, lakes and the ocean. We all drink water, so we are all affected when our water is polluted. When water treatment costs rise, the price of drinking water goes up. If you like to fish, swim or boat, you may have heard or been affected by advisories warning you not to swim, fish or boat in a certain area because of unhealthy water or too much algae. Shellfish like oysters and clams cannot be harvested from polluted waters, so anyone that enjoys these foods or makes a living from the shellfish industry is affected. Money made from tourism and water recreation can also be impacted, as are businesses and homes flooded by storm water runoff. When we pollute our water, everyone is affected!

### HOW DOES THIS BENEFIT THE AVERAGE TAXPAYER?

When our water is polluted, we all pay in one way or another. Damage from urban flooding can raise merchant prices and insurance rates. Sediment and pollution laden water takes more money to treat before it can be used for drinking water. Tourism and recreation businesses suffer along with residents when swimming, fishing and boating are curtailed. Shellfish become more expensive and harder to harvest when shellfish beds close. And the list goes on.

### EVERYONE PLAYS A ROLE IN CREATING THE POLLUTION IN STORM WATER RUNOFF.

WHEN WE POLLUTE OUR WATER,  
EVERYONE IS AFFECTED.

WE ALL HAVE A ROLE IN CLEANING IT UP.

LEAD BY EXAMPLE