



CITY OF MARION

After The Storm



A Citizen's Guide to Understanding Stormwater

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What is stormwater runoff?

• Storm water runoff occurs when precipitation from rain or snow flows over the ground. Impervious surfaces like driveways, sidewalks, and streets prevent stormwater from naturally soaking into the ground.



WHY IS STORMWATER RUNOFF A PROBLEM?

Stormwater can pick up debris, chemicals, dirt, and other pollutants and flow into a storm sewer system or directly to a lake, stream, river, or wetland. Anything that enters a storm sewer system is discharged untreated into bodies of water we use for swimming, fishing, or drinking water.



The effects of pollution

Polluted stormwater runoff can have many adverse effects on plants, fish, animals, and people.

- Sediment can cloud the water and make it difficult or impossible for aquatic plants to grow. Sediment also can destroy aquatic habitats.
- Excess nutrients can cause algae blooms. When algae die, they sink to the bottom and decompose in a process that removes oxygen from the water. Fish and other aquatic organisms can't exist in water with low dissolved oxygen levels.
- Bacteria and other pathogens can wash into swimming areas and create health hazards, often making beach closures necessary.
- Debris— plastic bags, six pack rings, bottles, and cigarette butts—washed into water bodies can choke, suffocate, or disable aquatic life like ducks, fish, turtles, and birds.
- Household hazardous insecticides, pesticides, paint, used motor oil, and other wastes like solvents, fluids can poison aquatic life. Land animals die from eating diseased fish or ingesting polluted water.
- Polluted stormwater often affects drinking water sources. This, in turn, can affect drinking water treatment costs.



Stormwater Pollution Solutions Residential

Recycle or properly dispose of household products that contain chemicals, such as insecticides, pesticides, paint, solvents, and used motor oil and other auto fluids by calling the Pollution Prevention Center at 373-4771 to arrange an appointment to dispose of these items.

Lawn Care.

Excess fertilizers and pesticides applied to lawns and gardens wash off and pollute streams. In addition, yard clippings and leaves can wash into storm drains and contribute harmful nutrients and organic matter to streams.

- Don't over water your lawn. Consider using a soaker hose in stead of a sprinkler. A slow trickle reduces runoff.

- Use pesticides and fertilizers sparingly. When use is necessary, use these chemicals in the recommended amounts. Use organic mulch or safer pest control methods whenever possible.

- Compost or mulch yard waste. Don't leave it in the street or sweep it into storm drain.

- Cover piles of dirt or mulch used in landscaping projects.



Auto Care



Washing your car and degreasing auto parts at home can send detergents and other contaminants through the storm sewer system. Dumping automotive fluids into storm drains has the same result as dumping the materials directly into a body of water.

- Use a commercial car wash that treats or recycles its wastewater, or wash your car on your yard so the water infiltrates into the ground.
- Repair leaks and dispose of used auto fluids and batteries at the Pollution Prevention Center 377-4771.

Pet Waste

Pet waste can be a major source of bacteria and excess nutrients in local waters.

- When walking your pet, remember to pick up the waste and dispose of it properly. Flushing pet waste is the best disposal method. Leaving pet waste on the ground increases public health risks by allowing harmful bacteria and nutrients to wash into the storm drain and eventually into local bodies of water.



Construction

Erosion controls that aren't maintained can cause excessive amounts of sediment and debris to be carried into the stormwater system. Construction vehicles can leak fuel, oil, and other harmful fluids that can be picked up by stormwater and deposited into local water bodies.

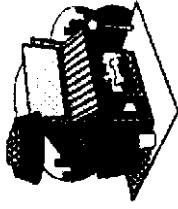
- Divert stormwater away from disturbed or exposed areas of the construction site.

- Install silt fences, vegetative cover, and other sediment and erosion controls and properly maintain them, especially after rain storms.

- Prevent soil erosion by minimizing disturbed areas during construction projects. Seed and mulch bare areas as soon as possible.



Commercial:



Dirt, oil, and debris that collect in parking lots and paved areas can be washed into the storm sewer system and eventually enter local bodies of water.

- Sweep up litter and debris from sidewalks, driveways, and parking lots, especially around storm drains.
- Cover grease storage and dumpsters and keep them clean to avoid leaks.
- Report any chemical spill to the local fire department. They'll know the best way to keep spills from harming the environment.

Education is essential to change people's behavior.

For more information visit:

www.epa.gov/npdes/stormwater

www.epa.gov/nps



Or check out the city's stormwater website at:
www.cityofmarion.org/engineering/stormwater