

STORMWATER RUNOFF

What is stormwater runoff?

Stormwater runoff occurs when precipitation from rain or snowmelt 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, river or wetland. Anything that enters a storm sewer system is discharged untreated into the waterbodies we use for swimming, fishing and providing drinking water.

The effects of pollution

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

- Sediment can cloud water and make it difficult or impossible for aquatic plants to grow. Sediment can also 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 waterbodies can choke, suffocate, or disable aquatic life like ducks, fish, turtles, birds.
- **Household hazardous wastes** like insecticides, pesticides, paint, solvents, used motor oil, and other auto fluids can poison aquatic life. Land animals and people can become sick or die from eating diseased fish, and shellfish or ingesting polluted water.
- **Polluted stormwater** often affects drinking water sources. This in turn, can affect human health and increase drinking water treatment costs.

STORMWATER POLLUTION SOLUTIONS

Recycle or properly dispose of household products that contain chemicals, such as insecticides, pesticides, paint, and solvents, and used motor oil and other auto fluids. **Don't** pour them onto the ground or into storm sewers.

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 nutrients and organic matter to streams.

- Don't overwater your lawn. Consider using a soaker hose instead of a sprinkler.
- 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 drains or streams.
- Cover piles of dirt or mulch being 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 water body.

- 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 designated drop-off or recycling locations.

SEPTIC SYSTEMS

Leaking and poorly maintained septic systems release nutrients and pathogens (bacteria and viruses) that can be picked up by stormwater and discharged into nearby waterbodies. Pathogens can cause public health problems and environmental concerns.

- Inspect your system every 3 years and pump your tank as necessary (every 3 – 5 years).
- Don't dispose of household hazardous waste in sinks or toilets.

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 on the ground increases public health risks by allowing harmful bacteria and nutrients to wash into the storm drain and eventually into local waterbodies.

RESIDENTIAL LANDSCAPING

Permeable Pavement – Traditional concrete and asphalt don't allow water to soak into the ground. Instead these surfaces rely on storm drains to divert unwanted water. Permeable pavement systems allow rain and snowmelt to soak through, decreasing stormwater runoff.

Rain Barrels - you can collect rainwater from rooftops in mosquito-proof containers. The water can be used later for lawn or garden areas.

Rain Gardens and Grassy Swales – Specially designed areas planted with native plants can provide natural places of rainwater to collect and soak into the ground. Rain from rooftop areas or paved areas can be diverted into these areas rather than into storm drains.

Vegetated Filter Strips - Filter strips are areas of native grasses or plants created along roadways or streams. They trap pollutants stormwater picks up as it flows across driveways and streets.

For more information about reducing storm water pollution you can go to www.epa.gov