

# 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 pickup debris, chemicals, dirt, and other pollutants and flow into a storm sewer system or directly to a lake, stream, river, wetland, or coastal water. Anything that enters a storm sewer system is discharged untreated into the waterbodies we use for swimming, fishing, and providing drinking water.

**Check out**

[www.norwoodma.gov/](http://www.norwoodma.gov/departments/engineering)

[departments/engineering](http://www.norwoodma.gov/departments/engineering)

To learn more about stormwater and what you can do to help.

# The Effects of Pollution

**Polluted storm water 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 dies, 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, and 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.

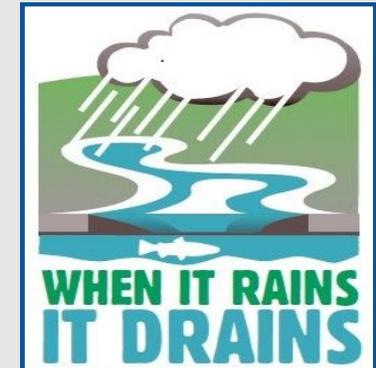


[WWW.EPA.GOV/NPDES/STORMWATER](http://WWW.EPA.GOV/NPDES/STORMWATER)  
[WWW.EPA.GOV/NPS](http://WWW.EPA.GOV/NPS)



**Norwood**  
MASSACHUSETTS  
02062

## After the Storm



**A CITIZEN'S GUIDE TO  
UNDERSTANDING  
STORMWATER**

# 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. Do not pour them onto the ground or into storm drains.

**For proper disposal, check out The Norwood Board of Health web page for scheduled household hazardous waste days.**



## 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 waterbody.



- 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.

## 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 after the waste and dispose of it properly. Leaving pet waste on the ground increases public risks by allowing harmful bacteria and nutrients to wash into the storm drain and eventually into local waterbodies.



## LAWN CARE

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



- Do not 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. Do not leave it in the street or sweep it into storm drains and streams.
- Cover piles of dirt or mulch being used in landscaping projects.

## 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



- Inspect your system every 3 years and pump your tank as necessary (every 3 to 5 years).
- Do not dispose of household hazardous waste in sinks or toilets.

## RESIDENTIAL LANDSCAPING

**Permeable Pavement**—Traditional concrete and asphalt do not allow water to soak into the ground. Instead these surfaces rely on stormwater runoff.

**Rain Barrels**—You can collect rainwater from rooftops in mosquito proof containers. The water can be used later on lawn or garden areas.



**Rain Gardens and Grassy Swales**—Specifically designed areas planted with native plants can provide natural places for 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 grass or plants created along roadways or streams. They trap the pollutants stormwater picks up as it flows across driveways and streets.