The Dirt on Water Pollution
What will we talk about?

- What is a Watershed?
- Stormwater in our Watersheds
- Water Pollutants
- Effects of Pollution
- Solutions
What is a Watershed?

All the water and the land area that “sheds” its water into a particular river, bay, or ocean

What are Delaware's Watersheds?
According to the State of Delaware’s 2000 Watershed Assessment Report...

“96% of Delaware’s rivers and streams do not fully support the swimming use and 71% do not fully support the fish and wildlife use.”
Impervious Surfaces
Consider This…

- 50%
- 0-10%
- 15%
- 55%
The Effect of Impervious Surfaces

10% Impervious Cover

Less than 5% Impervious

25-60% Impervious Cover
How does stormwater in my neighborhood affect streams?
Stormwater Contributes to Water Pollution
Wait!
Storm drains filter and clean the water before they go into streams…
… right??
Storm drains **do not** filter water runoff before they empty into local waterways.
Common Water Pollutants Found in Stormwater

- Nutrients (nitrogen & phosphorus)
- Pesticides/Herbicides
- Sediments
- Bacteria
- Oil and Greases
Nutrients

Causes of nutrient pollution

"GRASSCYCLE!"

Leave grass clippings on your lawn for free natural fertilizer.
Nutrients act as “vitamins” for plant and algae growth in the water.
Common sources of sedimentation are erosion from unprotected stream banks and having bare soils exposed.
Suspended sediment gives waterbodies a brownish color. This reduces amount of sunlight in the water that is important to aquatic life.
Bacteria

Animal waste and human waste get washed into rivers and streams by stormwater flows.
Bacteria found in waste material can be harmful to humans and wildlife.
Pesticides and Herbicides

Just like fertilizers, applying too much pesticide and herbicide can contribute to water pollution.
Oils, Greases and Household Chemicals
A Common Theme…
Look at it this way…
Water Pollution is Everyone’s Problem

So, Be Part Of The Solution!

What are some things that I can do that will make a big difference?
Report Illegal Storm Drain Dumping

To Report Call:

DNREC 800-662-8802
DelDOT 800-652-5600
To Report a Stormwater Maintenance Concern

- DNREC Stormwater Help Line: 800-464-4357
- DelDOT General Information: 800-652-5600
Dispose of Hazardous Waste Properly

Hazardous materials should never be poured down storm drains or buried.
Clean up After Your Pet
Maintain Cars

- **Check** for drips and leaks of automotive fluids
- **Clean up** all spills immediately
- **Recycle** your car’s oil
- **Properly dispose** of other automotive fluids as household hazardous waste
- **Wash** your car on a grassy area or use a carwash (they recycle water!)
Aim downspouts into a vegetated, or grassy area (away from the house), instead of the driveway, so that the water will be absorbed into the ground.
Plant Native Plants

Native trees and plants slow down water runoff and their deep root structure stabilizes soils.

Since they are used to local weather, they need little or no maintenance and can add a great look to your yard!
Have your Soil Tested…

…Before adding fertilizer

New Castle Cooperative Extension
(302) 831-2667

Kent Cooperative Extension
(302) 730-4000

Sussex Cooperative Extension
(302) 856-2585
Yard and Gardening

- Start a compost pile. It is a great way to cut back on waste and fertilizer use (and save money)!
More Yard and Gardening

- Let your grass clippings lay on your yard (they work as fertilizer for the soil) or use them as compost!
- Mow your yard to no shorter than 2 or 3 inches high and never cut along stream banks
- During a drought, water your lawn infrequently. Your lawn will naturally recover from a drought period and frequent watering encourages shallow roots and weeds.
Control Sediment

- Control sediment by protecting exposed soil when digging on your property, terracing steep slopes, and planting native trees and shrubs along stream banks.
Maintain Septic Systems Properly

Remember to have your septic inspected every 3-5 years
Helping to Solve the Problem

- DelDOT’s Stormwater Quality Program works to prevent harmful pollutants from being washed by stormwater runoff (or dumped) into the storm sewer system and then discharged from the storm sewer system into local waterbodies.

- What specifically does the Stormwater Quality and the NPDES Program do?
The Stormwater Quality Program Includes

- Performing illicit discharge investigation and remediation
- Controlling construction site stormwater runoff
- Managing post-construction stormwater in new developments
BMP retrofits, structural controls and operations, spill prevention and response, and flood control projects...
And…

Public education and training
For more information...

About stormwater issues and what we discussed in this presentation, you can:

- Visit our website at: www.deldot.gov/stormwater
  or
Thank you
Do you have any Questions?

ONE WORLD • ONE WATER SUPPLY

Please DO YOUR PART TO KEEP IT CLEAN!