

NPDES MS4 Progress Report

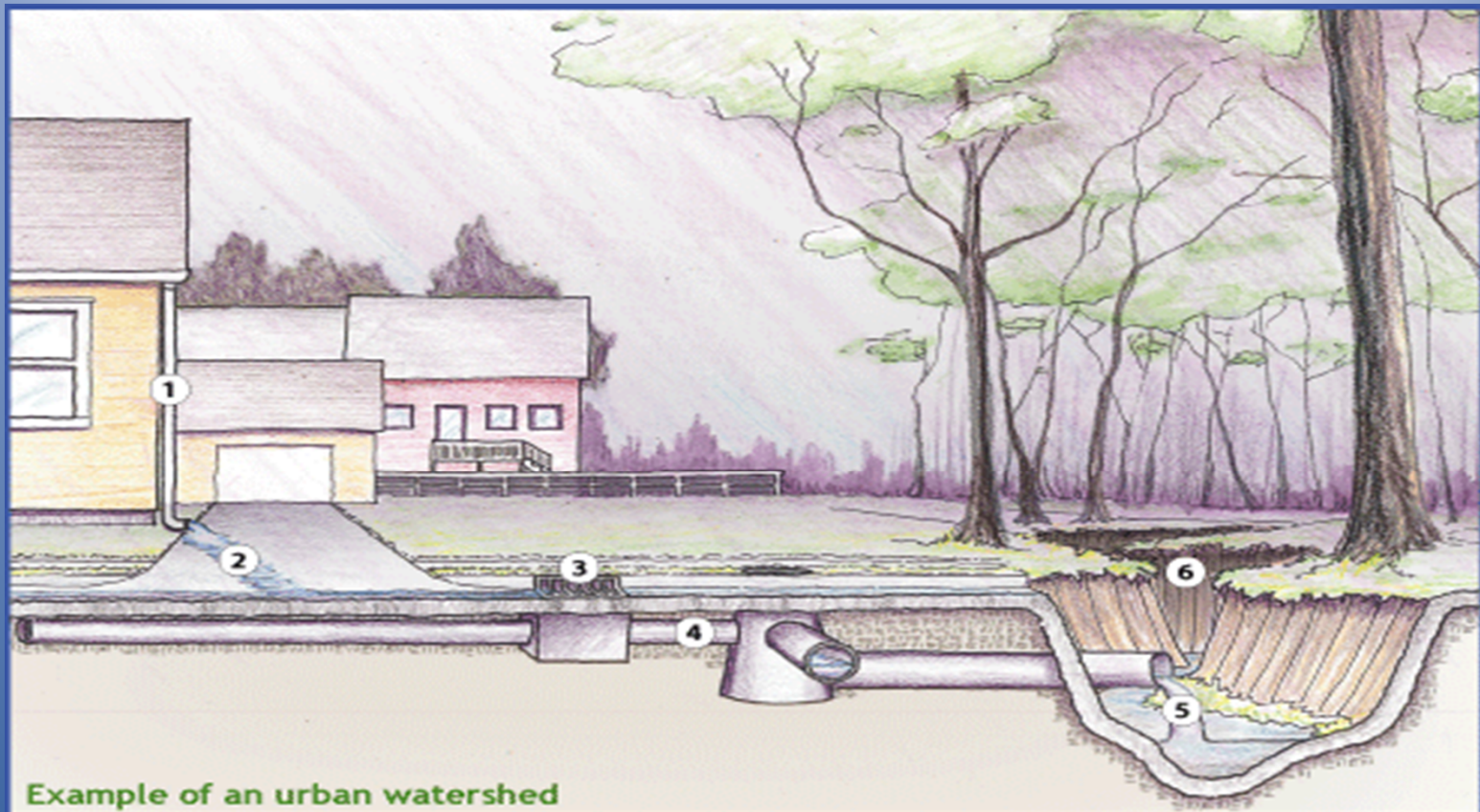
- 2013 PAG-13 General Permit – Years 2 & 3
- Reporting period is from 3/16/14 to 3/15/16
- Next report is due by 5/13/16
- G&A has been working with the Township during this 2 year reporting period to complete the DEP requirements.
- Conduct public meetings to discuss the on-going implementation of the Township's Stormwater Management Program

Stormwater Runs to Local Waterways Untreated



Houghs Creek

Storm Water Runoff Management



Example of an urban watershed

1. Downspout
2. Untreated runoff

3. Storm drain
4. Sewer system

5. Untreated stormwater discharge
6. Urban stream

Illustration from Mid America Regional Council

What is Storm Water Runoff?

Storm Water is:

- Rain events
- Snow melt
- Other surface runoff and drainage



Storm Water Runoff is:

- Storm water that travels over land
- Carried through municipal separate storm sewer system (MS4)
- Discharges into our waterways

Where does Storm Water Go?



Storm water goes into storm drains and pollutants flow untreated into local streams, rivers & lakes.

- Storm water flows to storm drains along streets.
- It may carry soil, pet waste, oil, pesticides, & other pollutants with it.
- This polluted runoff goes to streams, rivers & lakes untreated.

Types of Storm Water Pollutants

- Lawn Chemical Pollution
- Yard Waste Pollution
- Pet Waste Pollution
- Car Wash Pollution
- Sediment Pollution
- Litter & Trash Pollution
- Oil & Auto Fluid Pollution
- Septic System Pollution

Lawn Chemical Pollution



Would you walk with bare feet in your lawn?

- Lawn chemicals are fertilizers, herbicides, & insecticides.
- Over application can cause toxic levels of chemicals & excessive nutrient runoff.

How Can I Reduce Lawn Chemical Runoff?



Consider using compost on your lawn

- Conduct a soil test.
- Don't over fertilize.
- Use chemicals according to the instructions.
- Landscape with native plants.

Yard Waste Pollution



Leaves blocking flow of water into storm drain.

- Leaves & grass clippings are blown into the streets.
- Water & wind carry them to storm drains.
- Not only can they clog drains, they adversely affect oxygen levels in local waterways.

How Can I Reduce Yard Waste Runoff?



Consider Using a Mulch Mower

- Never blow leaves or grass clippings into street.
- Consider using a mulch mower and leave clippings and leaves on the yard.
- Compost your yard waste

Pet Waste Pollution



- Each rain, thousands of pounds of pet waste flows into local streams.
- Bacteria in streams can be caused by pet waste.

How Can I Reduce Pet Waste Runoff?



Pet Waste Sign.

- Pickup pet waste from your yard.
- When walking your pet pickup after them.

Car Wash Pollution



Water flows to storm drains

- If you wash your car on your driveway, polluted water flows to storm drain.
- Pollutants can include soap, detergents, salt, rust, motor oils, and fluids.

How Can I Reduce Car Wash Runoff?



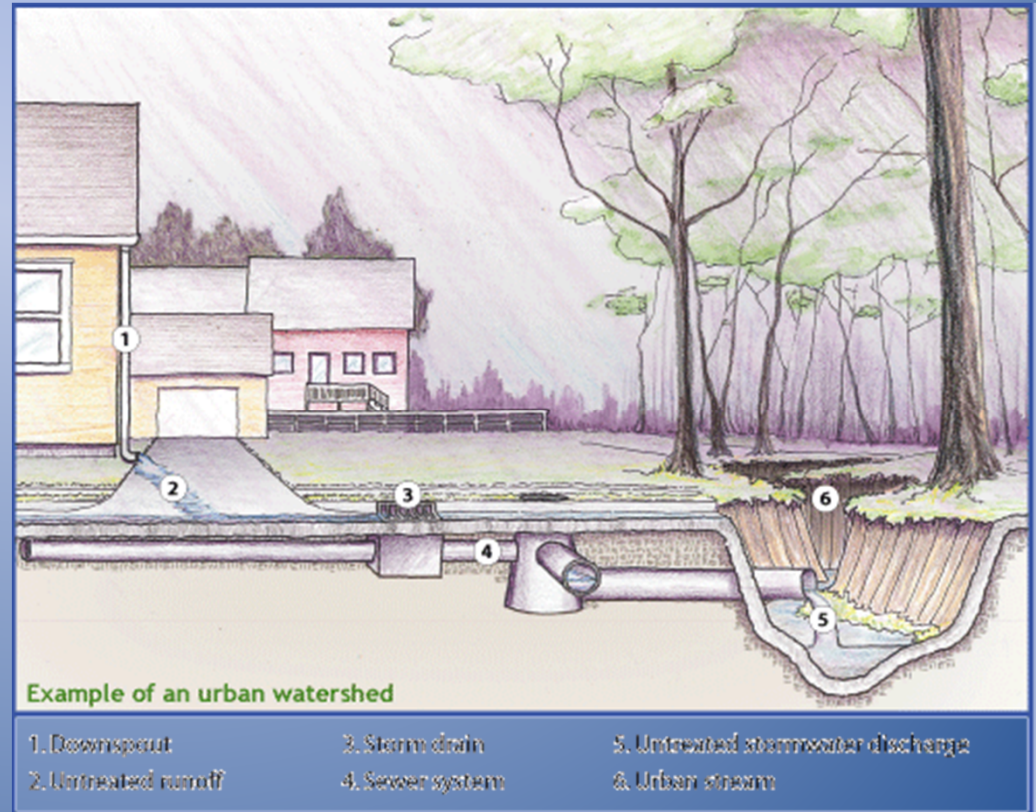
Use a Commercial Car Wash

- Use commercial car wash.
- If you wash car at home, wash on area that will absorb water.
- Use biodegradable, phosphate-free, water based cleaners.
- Empty wash bucket into sink or toilet.

Stormwater Runoff Management

What Can I Do To Help?

- Don't blow yard clippings and leaves into the streets.
- Don't over fertilize yard.
- Pickup pet waste
- Use a commercial car wash.
- Pick up litter and trash.
- Dispose of oil & automotive fluids proper and legally.



How Can You Get Involved?

- Visit the Township's website under Preservation
-> Stormwater for Volunteer Opportunities at:
<http://www.uppermakefield.org/preservation/stormwater>
- Pass on information about the storm water program to other community residents
- Report any storm water issues to Upper Makefield Township
- Join the volunteer program "Inlet Inspector"

Help Keep our Waterways Cleaner



Delaware River



Building On A Foundation Of Excellence