

# Better Backyards for Healthy Streams

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#### Water, Water Everywhere





- ô PA has 2<sup>nd</sup> most number of stream miles in the country
- ô Allegheny County
  - 90.5 miles of rivers (Allegheny, Monongehela, Ohio and Youghiogheny)
     2024 miles of streams



## Problems for Aquatic Environments

#### Allegheny County Conservation District

- Eroded Soils
  - Sediment is the #1 Pollutant by volume
- Toxic Chemicals
  - Antifreeze, motor oil, gasoline, solvents and pesticides can weaken or kill organisms and accumulate in the food chain.
- Excess Stormwater Flow
- Nutrients
  - In excess overloads aquatic systems causing algea blooms and fish kills

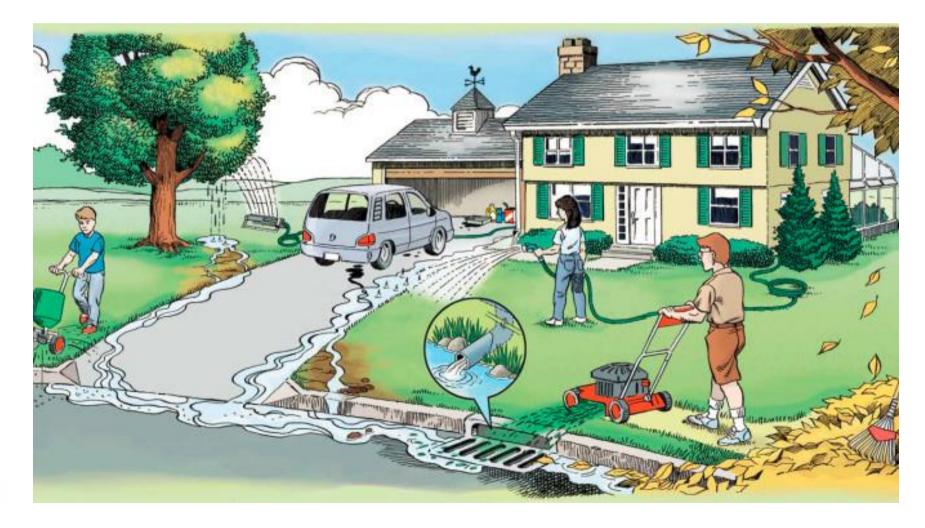




#### 2 Strategies



- Reduce volume
- Reduce the Amount of Pollutants



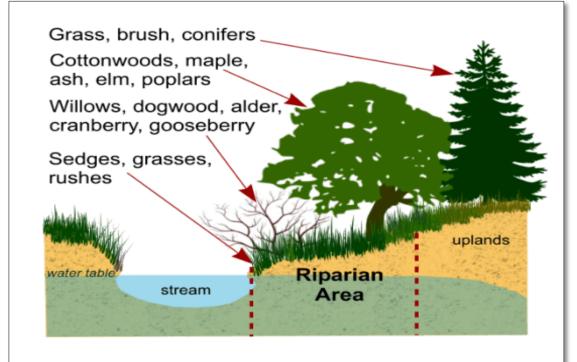






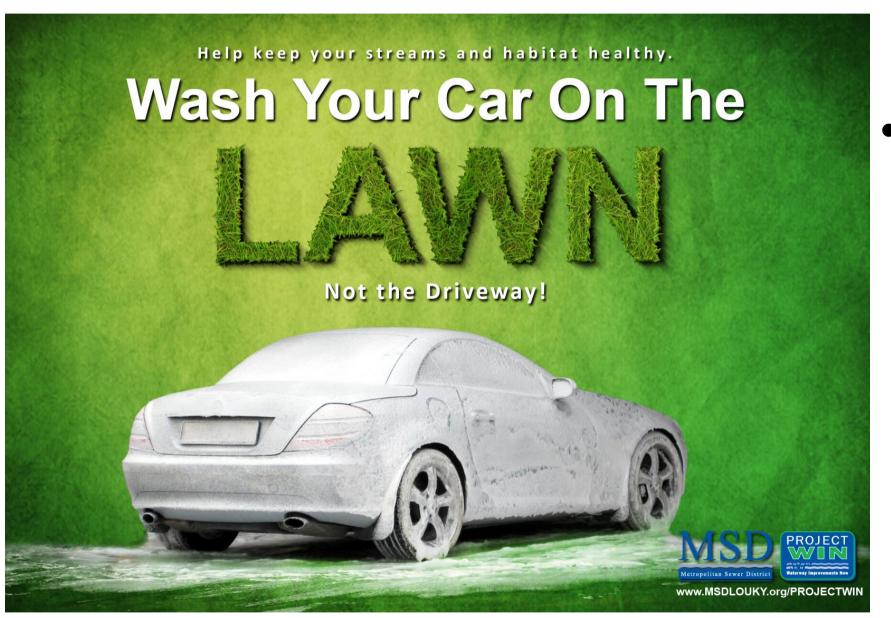
- Eroded Soils
  - Leave a buffer!
  - Benefits:
    - Provides wildlife habitat
    - Reduces water pollution
    - Protects water supplies
    - Minimizes impacts from storms, flooding, and droughts
    - Refreshes our air quality
    - Provides recreational opportunities
    - Provides aesthetic and economic values to the community











- Car Maintenance
  - Use designated car-washing facilities
  - "Biodegradable"
     Cleansers
    - https://www.epa.g ov/saferchoice







- Car Maintenance
  - Recycle used motor oil
    - Just 1 gal of motor oil can contaminate 1 million gal of water
    - Where?
      - Pennsylvania Resources Council
      - Ms. Joy Smallwood Recycling Coordinator, Allegheny County Health Dept. Div. of Waste Mgmt. 412-578-8390













- Lawn & Garden Watering
  - Properly directed sprinkler instead of hand-held hose
    - Measure application by placing shallow containers within the field of spray



- Water thoroughly and Less often
- Avoid watering sidewalks and streets
- Water Early Morning or Late Evening





- Lawn Practices to Retain/Infiltrate Rain Water
  - Leave Grass Higher & Mow More Frequently
  - Leave Grass Clippings on the Lawn
    - Grass Clippings are 75-85% water and rich in Nitrogen
    - Do NOT throw yard debris into the stream or the street
  - Create Raised Planting Beds
  - Convert your lawn to a mulched landscape area with shrub and tree plantings.







#### Nutrient Management

- Controlling the flow of nutrients from your yard to surface water sources.
- Understanding the nutrient needs of your trees, flowers, vegetables and turf.
- Being an active participant in maintaining ecosystem health.



#### Why does it matter?



- Lawns contain large amounts of nitrogen and phosphorus.
- Bound up in plant material as well as attached to soil particles and in soil solution.
- Excessive N and P can cause eutrophic conditions in ponds, lakes, rivers, and streams.
- Too much algae growth and decay uses up O2 and can kill off aquatic organisms.



#### Mowing Your Lawn



- Grass clipping contain surprisingly large amounts of N and P.
- One bushel of grass clippings can equal enough Phosphorus to feed 35 lbs of algae.
- Collect clippings and compost or leave in yard.
- Keep grass out of streets, driveways and drains.
- Keep grass at leas 2-2 ½" tall to prevent erosion.
- Seed and straw bare areas.





#### <u>Fertilizer</u>



- Don't over apply: Get a soil test (PSU Ext.) and follow recommendations for adding N-P-K.
- Don't spray or spread fertilizer prior to rain (24-48hrs).
- Don't mow right after application.
- Do rinse out sprayers in lawn.
- Don't pour leftovers into drains, streets, etc.





#### Manure?



- Manure not just a farm concern.
- Small amounts but...
- Dispose properly and avoid overaccumulation.
- Bare areas worse than lawn.

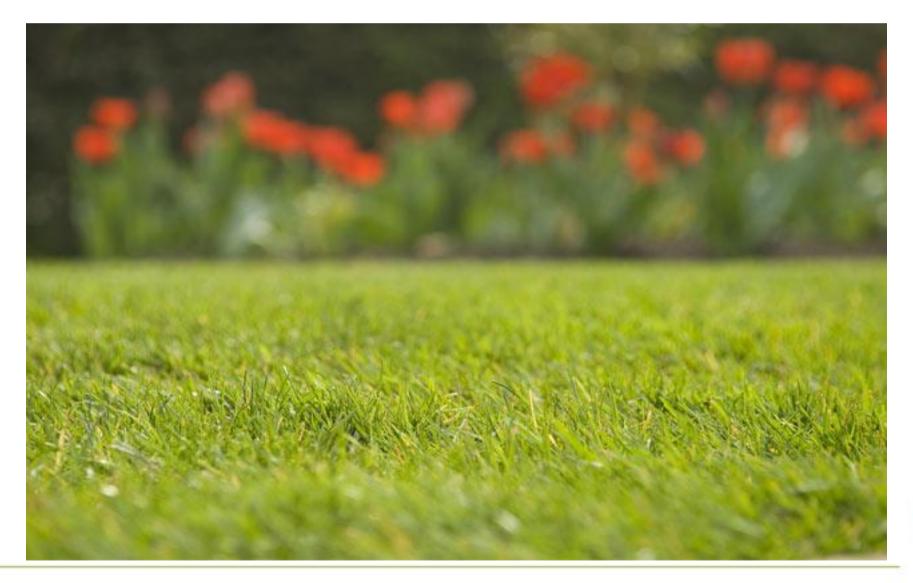








### QUESTIONS?







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