

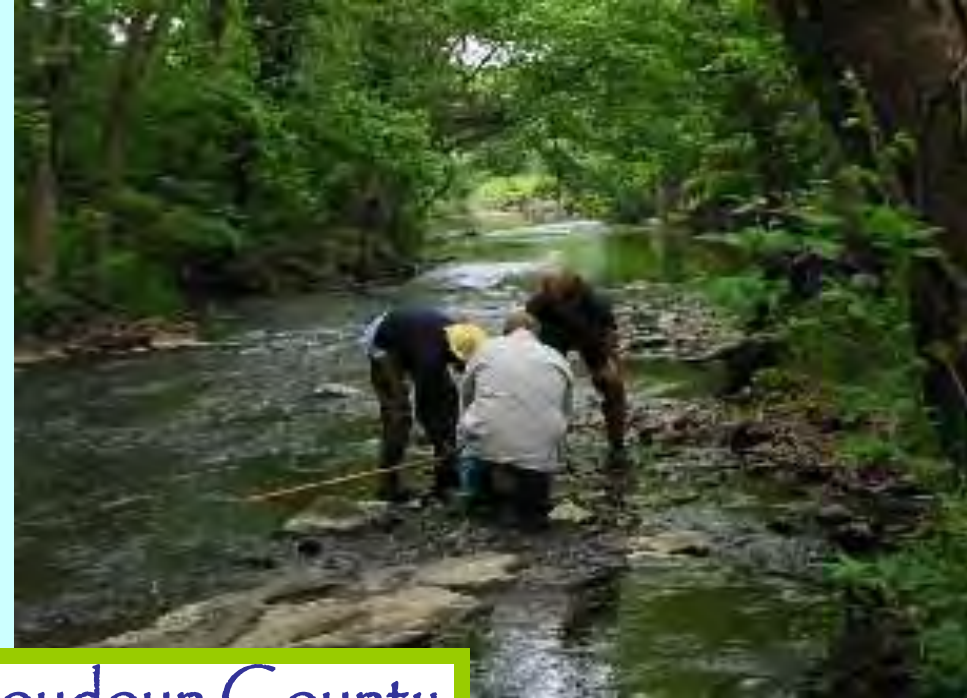
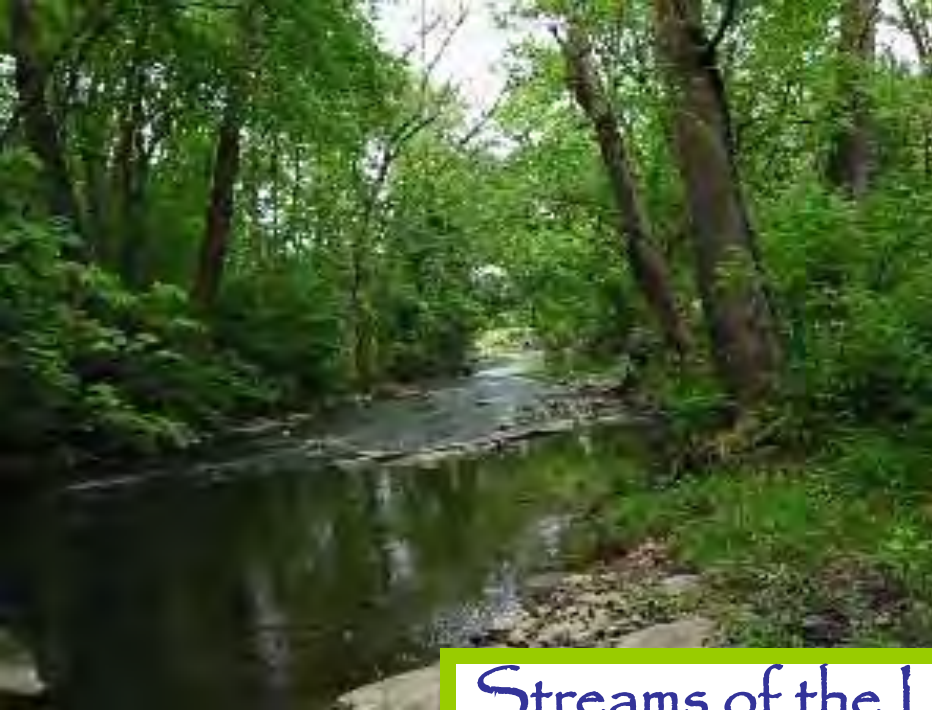
Drains for Rain

Girl Scout Gold Award Project

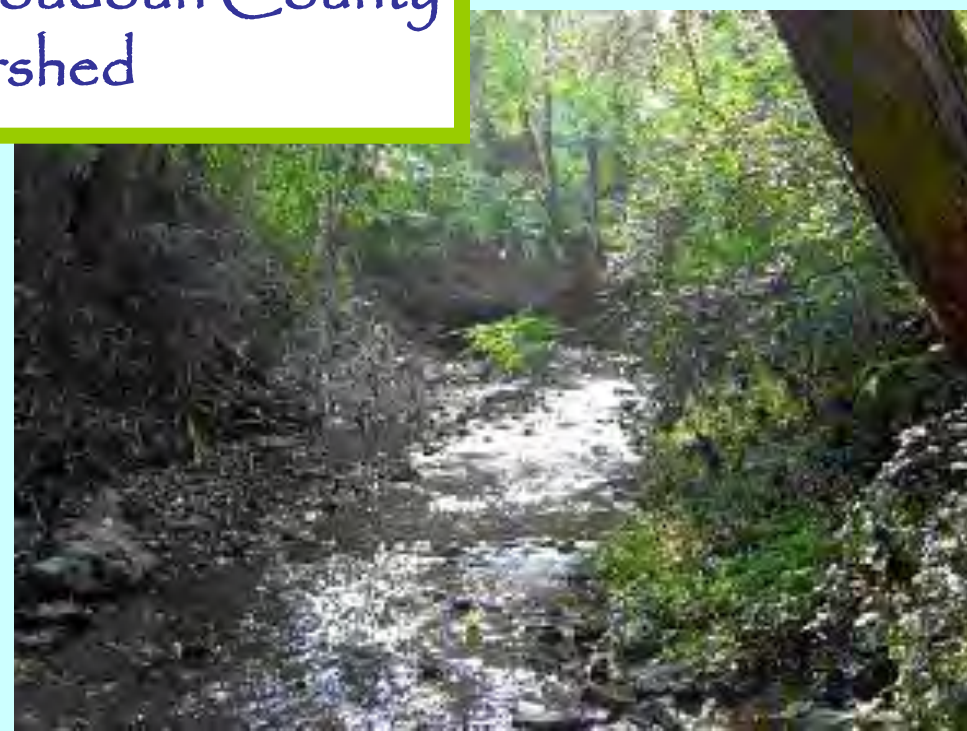
Loudoun County Watershed

- Local streams and ponds all eventually discharge (empty) into the Chesapeake Bay
 - Purcellville's storm drains eventually empty into...
 - Goose Creek
 - South Fork Catoctin Creek
 - Potomac River
 - » Chesapeake Bay
 - » → Atlantic Ocean



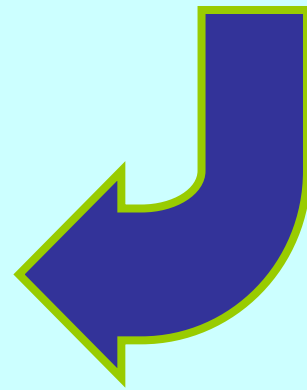


Streams of the Loudoun County Watershed





ANOTHER
Stream of the
Loudoun County
Watershed





Potomac River



Chesapeake Bay

Algae Blooms...

- Caused when excessive nutrients from leaves, grass clippings, and detergents cause algae to grow rapidly
- Reduce oxygen levels in water
- Block sunlight
- Harm aquatic plants and wildlife (fish...) because THEY CAN'T BREATHE!



Algae Bloom in the Chesapeake Bay →



Algae Bloom in Loudoun County →

What is Storm Water?

- “Storm water runoff is created when precipitation from rain and snowmelt flows over land or impervious (impenetrable, paved) surfaces and doesn’t soak into the ground. This runoff flows over the land or impervious surfaces (such as paved streets, parking lots, and building rooftops) and accumulates debris, chemicals, sediment, and pollutants that can hurt local waterways if untreated.”



← Storm Water



Storm water
carries trash
from
sidewalks,
roads, and
ditches into
nearby
streams

Where does it come from?

- As society becomes more urbanized, impervious materials such as concrete and asphalt become more common. Since water cannot soak through concrete, more runoff occurs.
- Because of these surfaces like pavement and rooftops, a typical city block generates more than 5 times the runoff of a woodland area of the same size

A Disastrous Food Chain...

- Once chemical pollutants enter an ecosystem through contaminated water they are spread through the food chain...
 - Small bottom-dwelling organisms take up contaminants in bottom sediments while feeding/through skin contact
 - Larger fish get toxins into their tissues when they eat these contaminated organisms
 - Birds/wildlife/humans eat fish and are contaminated



Owls eating
contaminated insects and
rodents become sick.



Thousands of fish die due to lack of oxygen from algae blooms or a contaminated food supply.



Decaying fish then
continue to contaminate a
body of water.





Young amphibians and insect larva (as well as other species) are easily harmed by contaminated water. An overly polluted area can cause rapid decline in the population of a species.

HOW YOU CAN HELP...

- Dispose of used motor oil, used auto fluids (antifreeze, oil, etc), batteries, and other household hazardous waste through your local Hazardous Waste collection program or at a local oil disposal station
 - 2 or 3 quarts of oil can contaminate enough creek water to fill 4 or 5 Olympic-sized swimming pools!
 - Repair auto leaks
- Wash your car at a commercial carwash or in a location where soapy water WILL NOT run into a storm drain
 - (on an unpaved surface such as in your yard: soap will be naturally filtered through the grass and soil)
- Direct sprinklers away from streets and sidewalks



Household Hazardous Waste (HHW) Disposal for Loudoun County, VA

- **Visit:**

<http://www.loudoun.gov/default.aspx?tabid=742#schedule>

- For information on what materials qualify as HHW
- For a schedule of Household Hazardous Waste Collection Events

(held on Saturdays from 8:30 a.m. to 2:30 p.m.)

- **For more information, call:**

Loudoun County Division of Waste Management,
(703)-777-0187

GRASS, GRASS, GRASS, GRASS, GRASS

- Avoid excess fertilizer or pesticide use (too much fertilizer is as bad as too little)
 - “Fertilize in the Fall...If at All” (September and October)
- Sweep up dirt, grass clippings, and yard waste instead of washing them down your driveway into the gutter
 - Grass takes a LOOOONG time to decompose
 - Clippings clog storm drains and sewers, causing backups and flooding
 - Recycle clippings in brown, paper yard waste bags that can be found at your local Home Depot
 - Use a mulching mower and leave clippings on your lawn: they will provide 25% of your fertilizer needs
- Compost!
- Choose the right species of grass for your region
 - (In Virginia, Kentucky Bluegrass, Tall Fescue, or a mixture of the two)
 - Cover bare spots

SCOOP THE POOP!

Pet waste left on the ground (especially on streets and sidewalks)... → IS NOT THE SAME AS FERTILIZER!

- Is washed into storm drains and drainage ditches/soaks into the ground...**
- Flows into local waterways**
- Contains bacteria, parasites, and viruses that breed in and contaminate water and endanger both human and animal health**
- With more than ½ million dogs in Northern Virginia, a few ounces of poop per day adds to more than 50 MILLION POUNDS PER YEAR!**

More Information and Fun Stuff!

- The “Northern Virginia Clean Water Partners” put out a useful newsletter with...
 - Money-saving coupons
 - Tips for...
 - Green thumbs
 - Dog owners
 - Car owners



Drains for Rain

Chemical pollution of Purcellville's local waterways is a growing problem. Help prevent the contamination of our local streams due to uninformed dumping of chemicals down storm drains.



SEP 5 2003

**HELP APPLY
“NO DUMPING”
MARKERS
THROUGHOUT
PURCELLVILLE!**

“NO DUMPING”
MARKER





“No Dumping” markers on storm
drains in Purcellville