

Cleaning supplies:

<u>Instead of:</u>	<u>Use:</u>
Air Freshener	<i>A small dish of vinegar or lemon juice set out in a warm area</i>
Bleach	<i>Borax</i>
Glass Cleaner	<i>Two tablespoons of vinegar to 1 quart of water</i>
Pest Control	<i>Make chili powder packets to keep ants out of kitchen</i>
Grease Remover	<i>Baking soda paste</i>
Floor Cleaner	<i>Mix 1 vinegar to 2 gallons of water. Linoleum floors can be mopped with skim milk</i>
Disinfectant	<i>Ammonia</i>
Drain Cleaner	<i>Plunger, followed by a hand full of baking soda and a half cup of vinegar. Cover and allow to sit for 15 minutes. Pour in 2 quarts of boiling water, and clog should disappear.</i>
Stain Remover	<i>Cornstarch paste</i>
Window Cleaner	<i>Mix 1/4 cup of white vinegar or 2 tablespoons of lemon juice and a quart of warm water</i>

Pest Control:

<u>Pest:</u>	<u>Plant Repellent:</u>
Ant	<i>Mint, tansy, pennyroyal</i>
Aphids	<i>Mint, garlic, chives, anise</i>
Japanese Beetle	<i>Garlic, larkspur, tansy, rue, geranium</i>
Mice	<i>Onion</i>
Slugs	<i>Prostrate rosemary, wormwood</i>
Spider Mites	<i>Onion, garlic, cloves, chives</i>
Stink Bug	<i>Radish</i>
Potato Bug	<i>Green beans, coriander, nasturtium</i>

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Geauga SWCD Mission:

"To conserve, protect, and enhance the resources of Geauga County by providing leadership, education, and assistance to all."

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All services are provided without regard to race, religion, gender, age, physical or mental handicap, national origin or politics.



**Geauga Soil and Water
Conservation District**

Home Owners Guide to Nonpoint Source Pollution

*What you can do around
the home to help*

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What is Nonpoint Source Pollution?

Did you know that approximately 40% of our lakes, rivers, and estuaries are not clean enough for fishing or swimming? Did you know that two-thirds of the nation's polluted runoff comes from highways and roads (the same roads that run through our neighborhoods)?

This is due to water pollution. When we think of pollution, we often think of *point source* pollution, which enters the water through an easily identifiable source (like a factory or sewage treatment plant). However, *Nonpoint Source* pollution is not as easily identifiable. This type of pollution comes from many different sources, over a large area. This is why Nonpoint Source pollution is extremely difficult to trace and hard to control.

Nonpoint Source pollution is created when rainwater, melted snow, or irrigation moves over the land and through the ground, collecting impurities as it travels. This water, called runoff, deposits these pollutants into streams, rivers, lakes, wetlands, and some underground sources of drinking water.



Four Types of Nonpoint Source Pollution

There are four major types of nonpoint source pollution, which enter into our waterways and inhibit the quality of our streams and rivers.

1. **Sediment**: Sediment is the most prevalent type of water pollution. Over one billion tons of sediment pollutes the nation's water each year! Sediment is very detrimental- once in water it can clog fish gills, cause cloudiness in the water, can fill in stream beds, and change the shape and flow rate of a stream or river.
2. **Bacterial Pollution**: Bacteria are responsible for decomposing organic material in water. Oxygen is required for this process to occur, and bacteria will compete with other aquatic life for limited dissolved oxygen. Along with this depletion of dissolved oxygen comes the problem of bacterial pollution. Primary sources of this pollution are animal feed lots, runoff from livestock waste, slaughter houses, and improperly installed sewage systems. This pollution can contaminate both ground and surface water supplies, and may spread diseases including hepatitis, cholera, and salmonella.
3. **Nutrient Pollution**: Nutrients are a necessity in order to sustain life; however, too much of a good thing can be quite harmful. Nutrients such as phosphorous and nitrogen, which are the main components of fertilizers, stimulate plant growth. A large amount of these nutrients enter lakes and streams through sewage and septic runoff, fertilizers, detergents, livestock waste, and industrial waste.
4. **Toxin Pollution**: Toxic water pollution is a major health concern. Chemicals are used constantly in industry, agriculture, and around the home. Even safe chemicals can become toxic if disposed of improperly. Nonpoint source toxic pollution can be produced in both rural and urban areas. Roads and parking lots collect lead, oil, and other pollutants that are washed into streams directly or via storm drains.



Excess nutrients can cause algae blooms in lakes and ponds

In rural areas, pesticides are applied to crops to rid of insects. These pesticides can pollute both ground and surface water. Household chemicals such as cleaners, dyes, and paints are also a large source of toxic pollution. Many times these chemicals are poured down drains and toilets. This is especially harmful in areas such as Geauga County, where most homes obtain their water from wells.

Things You Can Do Around the Home

So what can we do around the home to help protect our surface and ground water resources? You may be surprised- being a part of the solution is easier than you think! Here are some tips to help you become part of the pollution solution:

Household Chemicals

- Take unwanted household chemicals to hazardous waste collection centers; do not pour them down the drain. This can disrupt your septic system
- Never pour unwanted chemicals on the ground; this will contaminate runoff and ground water
- Use low phosphate or phosphate-free detergents
- Use only enough of the product to get the job done

Landscaping and gardening

- When landscaping your yard, select plants that have low requirements for water, fertilizers and pesticides
- Preserve existing trees, and plant trees and shrubs to help prevent erosion
- Try to decrease impervious surfaces by installing wood decks, bricks, or stones instead of cement walkways (a one-acre impervious surface produces 25, 806 gallons of stormwater for every inch of rain, compared to 1,630 gallons form a one-acre meadow) Impervious surfaces speed up flowing water in drainage ditches, causing severe stream bank erosion in the receiving waters
- Compost your yard trimmings; compost is a valuable soil conditioner which gradually releases nutrients to your lawn and garden
- Spread mulch on bare ground to help prevent erosion and runoff

Septic Systems

- Inspect and pump your system regularly
- Do not divert storm drains or basement pumps into septic systems
- Do not use toilets as trashcans! Excess solids can clog the drain field

Water Conservation

- Repair leaking faucets, toilets and pumps which can waste hundreds of gallons of water a week
- Use dishwashers and washing machines only when fully loaded
- Take short showers instead of baths
- Turn off water when you are not using it. Don't let it run while brushing teeth or shaving
- Do not over-water your lawn or garden. This may increase leaching of fertilizers into groundwater, and excess water will evaporate