

Proper Landscape Maintenance Helps Protect Water Quality in Urban Areas

When water falls on the land it will either infiltrate into the soil or runoff. Most of the activities associated with development and urbanization decrease infiltration and increase runoff. At the same time, the number of potential sources and types of pollutants increases. Storm water runoff can carry sediment, oil, grease, anti-freeze, fertilizers, pesticides, animal wastes, and many other potential contaminants directly into streams, rivers, lakes, and wetlands and can significantly impair water quality. Because most of this pollution comes from many dispersed sources throughout a watershed as opposed to a single, identifiable source, it is referred to as nonpoint source (NPS) pollution. Unlike point source pollution, which has been significantly reduced

through legislation and regulation, there are very few laws dealing with NPS pollution. In fact, it would be difficult to entirely address the problem of NPS pollution with laws and regulations. What is needed is a conscious, cooperative effort by everyone to take the steps necessary to reduce the impact of NPS pollution.

The most common nonpoint source pollutants in urban areas are plant nutrients, especially phosphorus, and the primary sources are leaves and grass clippings. When leaves and grass clippings are swept or washed into the street, they eventually make their way into the storm drains and are carried directly into our streams and lakes. As they decompose, they release plant nutrients into the aquatic environment and deplete oxygen supplies making it

difficult for many aquatic organisms to survive.

Proper handling and disposal of yard waste is essential to protecting water quality in urban areas. When possible, use a mulching mower to chop up grass clippings and return them to the lawn. Not only does this keep them out of the surface water it also reduces the need for fertilizer. If you must bag your clippings dispose of them properly or, better yet, put them in a compost pile. In the fall, leaves should be collected and composted or placed in paper bags for disposal.

While leaves and grass clippings are the primary source of plant nutrients in surface water, lawn and garden fertilizers also contribute to this problem. To minimize their impacts, apply lawn and garden

chemicals sparingly and according to label directions. Make sure your spreader is properly calibrated and sweep any excess off of driveways and sidewalks so it cannot be washed into the street. Time your applications to avoid periods of heavy rainfall and, if possible, lightly water the material into the soil following application.

Although soil erosion is not normally a problem in urban areas after they are developed, controlling soil erosion and minimizing runoff from your lot will also help protect water quality. Control erosion by planting ground covers or using mulch to stabilize erosion prone areas and minimize runoff by creating areas in your landscape that will slow water down and allow it to infiltrate.

Other things you can do to

help reduce the impact of NPS pollution are:

- Dispose of used oil, antifreeze, paints, and other household chemicals properly.
- Clean-up spilled brake fluid, oil, grease, and antifreeze by using an absorbent material, such as kitty litter, and disposing of it in a safe manner rather than washing it into the street.
- Clean up after your pets and place all pet waste in the garbage.
- Wash you car on the lawn where the detergent, road grime and excess water can infiltrate into the soil rather than running down the gutter and into the storm drain. Better yet, use a car wash. These facilities have traps for collecting the dirt, oil, and grease washed off of your car and the rinse water drains to the sanitary sewer system where it can be treated. (SCB)



Conservation Checklist

Things you can do to help save natural resources.

In your home...

- Recycle newspapers, cans, glass bottles, aluminum foil, and motor oil.
- Investigate local recycling centers that take items your garbage hauler does not.
- Use cold water in the washer, whenever possible.
- Do not use electrical appliances for things you can easily do by hand, such as opening cans.
- Store food in reusable containers instead of plastic wrap or aluminum foil.
- Do not leave water running needlessly.
- Turn off the lights, television, or other electrical appliances when you are out of the room.
- Install a water saving shower head.
- Take unwanted and reusable items to a charitable organization or thrift shop.
- During the winter months, turn your heat down and wear a sweater.
- Get an energy audit from your utility company.

In your yard...

- Start a compost pile.
- Put up birdfeeders, birdhouses, and birdbaths.
- Pull weeds instead of using herbicides.
- Use organic fertilizers.
- Compost your leaves and grass clippings.
- Use mulch to conserve water in your garden.
- Reuse plastic pots and containers.

On vacation...

- Carry reusable cups, dishes, and flatware.
- Do not pick flowers or keep wild creatures for pets, leave plants and animals where you find them.
- Watch out for wildlife, give consideration to all living things you see crossing the road.
- When hiking, stay on the trail, do not trample fragile undergrowth.

In your car...

- Keep your car tuned up.
- Carpool, if possible.
- Use public transportation, whenever possible.
- Recycle your engine oil.
- Keep your tires properly inflated to save gas.
- Keep your wheels properly aligned to save your tire.
- Buy a more fuel efficient model, when you are ready for a new car.
- Do not litter our roads and highways, save trash and dispose of it at a rest stop.

At your business...

- Recycle computer paper and cardboard.
- Use scrap paper for informal notes to yourself and others.
- Print or copy on both sides of the paper.
- Reuse manila envelopes and file folders.
- Use washable coffee mugs instead of throw away cups.
- Use the stairs instead of the elevator.

Spread the word...

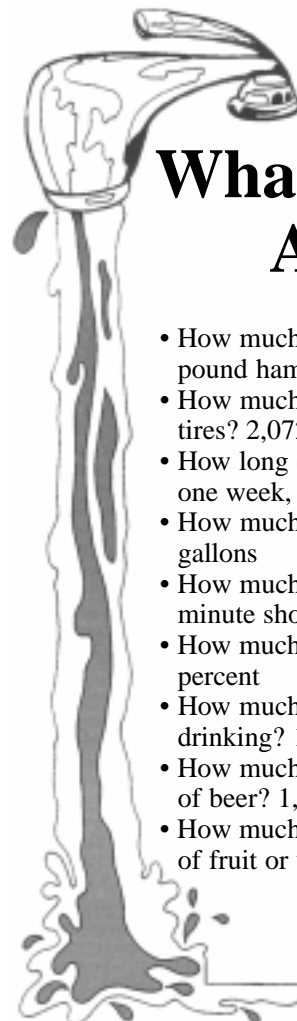
- Convert by example, encourage your family, friends, and neighbors to save resources, too.
- Learn about conservation issues in your community or state.
- Volunteer your time to conservation projects.
- Teach children to respect nature and the environment. (MJM)

Water Use in the Landscape

Every time you turn on a faucet, an important natural resource, water, goes down the drain. Unfortunately, more water than necessary. This check list will help you conserve water for lawn and garden use. Try to add these water conservation tips into your landscape and vegetable gardens. A few simple changes in your daily routine can conserve some of this important resource and help to avert waste.

- Mulch shrubs, perennials, annual flowers, and vegetable plants to retain moisture in the soil longer. Use shredded leaves, grass clippings, or chopped bark around the plants. Mulching also controls weeds that compete with garden plants for water.
- Vegetables that require more water should be grouped together in the garden to make maximum use of water applications.
- Collect rain water in a barrel or large bucket from down spouts. Use it to water container plants.
- Use a drip irrigation system in your gardens. This method uses 25 to 50 percent less water than a hose or sprinkler methods.
- Water the lawn during the morning hours. Avoid watering when it is windy or during the hottest part of the day. To avoid over watering, keep track of the time by setting a timer or alarm clock.
- When purchasing plants or developing a new landscape, select low water use plants.

By making these simple changes, you can pull the plug on unwise water use and help to conserve this precious resource. (MJM)



What Do You Know About H₂O?

- How much water does it take to process a quarter-pound hamburger? About one gallon
- How much water does it take to make four new tires? 2,072 gallons
- How long can a person live without water? About one week, depending on the conditions
- How much water is used to flush a toilet? 2-7 gallons
- How much water is used in the average five-minute shower? 25-50 gallons
- How much of the earth's surface is water? 80 percent
- How much of the earth's water is suitable for drinking? 1 percent
- How much water does it take to process one barrel of beer? 1,500 gallons
- How much water does it take to process one can of fruit or vegetables? 9.3 gallons (MJM)