

Pet Waste and Water Quality

Are You Polluting Our Lakes and Streams and the Chesapeake Bay?

Pet waste left to decay on the sidewalk or on grass near the street may be washed into storm sewers by rain or melting snow. Storm sewers usually do not empty into a sewage treatment plant. Instead, most storm sewers drain directly into our waterways, carrying many pollutants along with the water. Most of the drainage in Maryland eventually enters the Chesapeake Bay.

Many substances deposited on the land cause pollution in urban lakes, streams, and rivers. They include the following:

- Pesticides
- Household chemicals
- Fertilizers
- Oil and antifreeze
- Pet waste

When pet waste is washed into lakes or streams, the waste decays, using up oxygen and sometimes releasing ammonia. Low oxygen levels and ammonia combined with warm temperatures can kill fish.

Pet waste also contains nutrients that encourage weed and algae growth. Overly fertile water becomes cloudy and green—unattractive for swimming, boating, and fishing. Excess nutrients are a major cause of the decline of the Chesapeake Bay.

Perhaps most importantly, pet waste may carry disease-causing organisms, which make water unsafe for swimming or drinking.

Are You Risking Your Health?

When pet waste is disposed of improperly, not only does water quality suffer, your health may be at risk, too. Pets, children playing outside, and adults gardening are most at risk for infection from some of the bacteria and parasites found in pet waste. Flies may also spread diseases from animal waste. Diseases that can be transmitted from pet waste to humans include the following:

Campylobacteriosis. A bacterial infection carried by dogs and cats, which often causes diarrhea in humans.

Salmonellosis. The most common bacterial infection transmitted to humans by other animals. Symptoms include fever, muscle aches, headache, vomiting, and diarrhea.

Toxocariasis. Roundworms, usually transmitted from dogs to humans, often without noticeable symptoms; may cause temporary vision loss, a rash, a fever, or a cough.

Toxoplasmosis. A protozoan parasite carried by cats. It can cause birth defects such as mental retardation and blindness if a woman becomes infected during pregnancy. It is also a problem for people with depressed immune systems. Symptoms include headache, muscle aches, and lymph node enlargement.

Pet waste is one of the many small sources of pollution that add up to a big problem for water quality. Fortunately, there are some simple things pet owners can do to help keep our water clean.

You Can Make a Difference

Cleaning up after your pet can be as simple as taking a plastic bag or pooper-scooper along on your next walk. What should you do with waste you pick up? No solution is perfect, but here are four choices:

1. Flush pet waste down the toilet.

The water from your toilet goes to a sewage treatment plant that removes most pollutants before the water reaches a lake or stream. This is the best solution because the waste is treated.

Pet waste may carry disease-causing organisms, which make water unsafe for swimming or drinking.

To prevent plumbing problems, don't try to flush debris such as rocks, sticks, or cat litter. Cat feces may be scooped out and flushed down the toilet, but put used litter in a securely closed bag and then put in the trash.

2. Bury pet waste in the yard.

Dig a hole or trench that is:

- at least 5 inches deep;
- away from vegetable gardens;
- away from any lake, stream, ditch, or well.

Microorganisms in the top layer of soil will break down the waste and release nutrients to fertilize nearby plants. However, unused nutrients can reach our groundwater.

Be cautious. To prevent disease, keep pet waste away from vegetable gardens and water supplies. Don't add pet waste to your compost pile. The pile will not get hot enough to kill disease organisms in pet waste.

3. Put pet waste in the trash.

Check local ordinances first. Make sure it is legal to dump pet waste in the trash. If it is legal, wrap your pet waste carefully so it will not spill and place it in your trashcan. The waste will be taken to a landfill or incinerator. Still, buried or burned waste can potentially cause pollution.

4. Deposit pet waste in a digester.

Install an underground pet waste digester that works like a small septic tank. Pet waste deposited in a digester will decompose. Before buying one, check local laws or neighborhood covenants that may restrict its use, design, or location.

Be sure to place the digester in loose soil. It will not work properly in heavy clay or compacted soil. In choosing a location for a digester, follow the precautions mentioned in the section about burying pet waste.

A Few Words of Caution

Around Your Home

If you leave pet waste to decay in your yard, be sure it does not become a problem. To prevent water pollution, clean up areas near wells, sewer inlets, ditches, and waterways. Always remove waste from areas where children play. They are the most frequent victims of diseases from pet waste. Of course, excellent protection for children and adults is to wash hands with soap and water.

In Your Community

Many communities have "pooper-scooper" laws that govern pet waste cleanup. These laws require people who take an animal off their property to immediately clean up waste left by the animal. Call your local government or community association to find out more about pet waste laws in your neighborhood.

Never dump your pet waste into a storm drain or catch basin.

Adapted from "Pet Waste and Water Quality," University of Wisconsin-Extension, 1993.

Pet Waste and Water Quality

by

Peter J. Ricciuti

Faculty Extension Assistant

Home and Garden Information Center

Revised by

Wanda MacLachlan

Extension Educator

Environmental Management

Issued in furtherance of Cooperative Extension work, acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, University of Maryland, College Park, and local governments. Thomas A. Fretz, Director of Maryland Cooperative Extension, University of Maryland.

The University of Maryland is equal opportunity. The University's policies, programs, and activities are in conformance with pertinent Federal and State laws and regulations on nondiscrimination regarding race, color, religion, age, national origin, gender, sexual orientation, marital or parental status, or disability. Inquiries regarding compliance with Title VI of the Civil Rights Act of 1964, as amended; Title IX of the Educational Amendments; Section 504 of the Rehabilitation Act of 1973; and the Americans With Disabilities Act of 1990; or related legal requirements should be directed to the Director of Human Resources Management, Office of the Dean, College of Agriculture and Natural Resources, Symons Hall, College Park, MD 20742.

The Chesapeake Bay Trust provided total funding for this publication.

V2003