



Water Quality

Clean Water...It Starts with You

Urban Runoff

We depend on clean water. Not only does it provide a home for plants and animals, and drinking water for people, but it provides recreation, tourism and job opportunities. Many of us don't realize how our daily activities affect the water quality in our local marine and fresh water bodies.



Did You Know?

- **If you live in an area with storm drains...** when you wash your car, the soapy water and debris can run off your driveway into a storm drain that empties directly into local water bodies.
- **If you have an onsite sewage system such as a septic system...** that is not properly sized, constructed or maintained, the drainfield can become plugged which can cause partially treated wastewater to surface on your lawn or in ditches which lead to local water bodies.
- **If you live on a farm or ranch...** livestock manure, sediments and improperly applied pesticides and fertilizers can contaminate local water bodies.
- **If you are a boater...** the dumping of sewage, leaking fuel and oil and using toxic cleaning products can threaten water quality, especially near the shoreline.

These are just a few examples of nonpoint source pollution. It is different from point source pollution which comes from well defined sources, such as a sewage pipe or industry pipe. Nonpoint source

pollution comes from many places. It's not easy to identify or control, and all of us, often without knowing, contribute to it. Although progress has been made in reducing nonpoint and point source pollution, *nonpoint* source pollution remains a leading threat to water quality in BC.

It All Adds Up

Small amounts of nonpoint source pollution from each one of us may not seem to be a problem. But the combined effects of pollutants from almost four million British Columbians is threatening our clean water resources. Closed beaches, contaminated shellfish beds, fish kills and unsafe drinking water are just some of the environmental impacts.

We can reduce nonpoint source pollution. You can make a difference as an individual or by joining or forming a community stewardship group which cares for a local waterbody. BC Environment (now called Ministry of Water, Land and Air Protection) has produced five **CLEAN WATER** brochures: nonpoint source pollution, urban runoff, onsite sewage systems, agriculture and pleasure boating. All provide tips that people can follow to reduce or prevent nonpoint source pollution. This brochure focuses on **urban runoff** and water quality.

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The Natural Flow of Water

In the natural environment, rain and melted snow run over the land into surface waters or seep down through the soil to become ground water. As the water seeps down it is absorbed and cleansed by soil, plants and bacteria. Surface runoff and ground water feed our streams, rivers and lakes.

How Do Urban Areas Affect This Flow?

Urban areas have large surfaces (both paved areas and roofs) which block the natural passage of water into the soil. As water runs the land and paved surfaces, debris and pollutants are picked up. They flow into storm drains and ditches which lead to local streams, lakes or coastal water bodies.

Imagine the Effects...

- Excessive amounts of fertilizers and debris such as leaves and grass clippings from our lawns and gardens carried by urban runoff can cause excessive plant growth in local ponds and lakes. When this vegetation dies and rots, it uses up oxygen that fish and other aquatic life need to survive.
- Harmful bacteria and viruses from pet wastes carried by urban runoff to a waterbody, can contribute to shellfish contamination, harm other aquatic life and threaten human health.
- Many other pollutants in urban runoff are harmful to aquatic life, such as:
 - pollutants from car exhaust and backyard burning which are deposited on the ground;
 - oil, antifreeze and other fluids leaking from vehicles; and

- other hazardous products which are washed or dumped directly into storm drains.

What Can You do About It?

One person on the front cover is using a drop cloth while fixing a car, the other is picking up a pet's waste off the sidewalk. You too can do your part to prevent nonpoint source pollution. Follow these tips to keep water clean.

Around your home

- Pave as little of your property as possible. Use gravel, interlocking stone or brick instead of concrete or asphalt.
- Direct roof drains or gutter systems over lawns (but not over onsite sewage systems) where bylaws allow-not into storm drains or ditches.
- Reduce your use of environmentally harmful products. Use alternatives such as baking soda, vinegar and hot water as a drain cleaner or vinegar and hot water as an all-purpose cleaner.
- Dispose of household hazardous waste such as paint at collection or recycling depots; never dump them directly into storm drains.
- If you have oil heating, regularly check your fuel storage tank for leaks and replace or repair the tank if necessary.
- Drain your hot tub and swimming pool water slowly onto your lawn (but not your drainfield), not into storm drains. Where possible, dechlorinate the water before draining.
- Sweep driveways and sidewalks instead of hosing them off.

Around your yard

- Collect pet wastes and bury them or flush them down the toilet (if you have an onsite sewage system, bury waste away from the drainfield instead).
- Prune infested vegetation and use natural predators to keep pests in check. Pesticides can kill beneficial and desirable insects, such as ladybugs, as well as pests.
- Compost yard and kitchen waste and use it to boost your garden's health as an alternative to chemical fertilizers.
- Grow native plants in your garden — they require less water, fertilizer and pesticides.
- Plant trees and shrubs to slow water running off your property. This helps to prevent soil erosion and to increase water absorption.
- Set your mower to cut only the top 1/3 of the grass blade. Your lawn will be healthier, absorb more rain and filter sediments.

Around your car

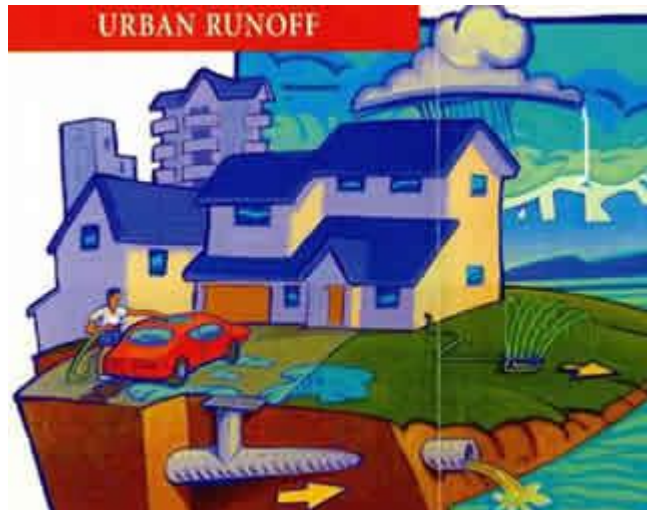
- Check your car's fuel, oil, brake, transmission, exhaust and cooling systems regularly. Fix leaks or problems immediately.
- Use a drop cloth if you choose to fix it yourself.

- Recycle used motor oil, antifreeze and batteries at collection centres.
- Use your car less often. Walk, bike, carpool or take public transit.

Around your community

Children are painting yellow fish beside storm drains through the Storm Drain Marking Program. A bright yellow fish reminds everyone that what enters these drains flows directly to the nearest stream.

Community groups throughout BC are participating in public education programs, stream habitat monitoring, restoration projects and watershed planning. Join a community group that is working to keep our water bodies healthy and clean for the benefit of us all.



Our individual actions add up!

You Can Make a Difference!

Protect clean water supplies by preventing nonpoint source pollution in the first place. It will take all of us working together cooperatively with neighbours, in our communities and with all levels of government to keep water clean.

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