

Let's Keep Chemicals Out of Drinking Water Sources

We all want clean, safe water for our future. Protecting our drinking water sources is the first step.

Our drinking water comes from water under the ground, called groundwater, or from water in lakes and rivers, called surface water.

Many products that we use in and around our homes may contain dangerous chemicals. Paints, furniture strippers, and automotive products are some examples.

We can all do our part to keep chemicals out of our drinking water sources.

What can you do?

Before you buy:

- ◆ Research 'green' product alternatives on the internet.
- ◆ Check product ingredient labels.
- ◆ Talk to your store or supplier. Ask about alternatives that do not contain harmful chemicals.
- ◆ Plan carefully and purchase only the amount you really need.
- ◆ Make a 'green' choice that has natural ingredients.

At home:

- ◆ Read labels carefully before using.
- ◆ Handle flammable, corrosive or other hazardous products with caution.
- ◆ Use and store only as directed.
- ◆ Store in locations away from wells, surface water and storm drains.
- ◆ **Round up the chemical products you no longer need. Take them to your municipal household hazardous waste depot for safe disposal.**

Why Protect Sources of Drinking Water?

- ◆ to protect public health
- ◆ to avoid the cost and need to clean up contaminated water
- ◆ to reduce the cost of water treatment
- ◆ to eliminate the need to search for new drinking water sources when existing ones become contaminated or depleted
- ◆ to ensure a long-term supply of clean water
- ◆ to ensure an adequate water supply for economic growth

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What are DNAPLs?

DNAPLs (dense non aqueous phase liquids) are chemicals that are heavier or denser than water and do not dissolve easily in water.

They are toxic to people and animals even at low levels. Many are known carcinogens.

If DNAPLs spill or leak onto the ground they sink down through the groundwater and can move around easily. This makes them almost impossible to clean up.

Contamination from DNAPLs can last for centuries.

Even small amounts of these dangerous chemicals pose a major drinking water threat when stored or used near wells.

Many industries use products that contain DNAPLs. Some common household products like adhesives, cleaners and even nail polish removers may have DNAPLs in them.

Common types of DNAPLs include timber treating oils such as creosote, transformer oils, and coal tar.

Products used to clean metal, degreasers, paint removers or strippers, varnishes, spot removers, dry cleaning chemicals and rug-cleaning fluids can also contain DNAPLs.

*Let's keep dangerous chemicals like **DNAPLs** and **organic solvents**, and other products like pesticides, fertilizers, fuel products and road salt out of drinking water sources.*

Help to Protect Groundwater

Never pour unwanted chemical products out onto the ground. They can sink into the groundwater and pollute drinking water sources.

Take care with oil, gasoline and home heating oil fuel. Very small leaks or spills of these can pollute vast quantities of water.

Maintain your well. Ensure it has a proper cap. See QuinteSourceWater.ca for more.

Take care to prevent spills and leaks of chemicals near a well. Wells can provide a direct path for pollutants down into the groundwater.

Have unused wells sealed up in a process called decommissioning. In Ontario this must be done by a licensed well contractor.

Let's keep chemicals out of our groundwater. That is what source water protection is all about.



These chemicals are not properly stored. Chemicals and liquid waste should be stored safely using a drip catching tray.

Check your municipality's website or
QuinteSourceWater.ca
for details about your local household
hazardous waste depot.

Help to Protect Surface Water

Never pour unwanted chemical products into streams, lakes, rivers or down a storm drain. This can pollute our drinking water sources.

Storm drains are for rain and melted snow only. Many lead directly to our rivers, lakes and streams. Keeping pollutants out of storm drains protects our drinking water sources and the environment.

Chemicals used outside our homes can easily get into storm drains and from there into our surface water sources.

Fertilizers, pesticides and car cleaners can be washed into storm drains with water from the hose or sprinkler. Rain and melting snow can carry chemical products and road salt with them into storm drains.

Let's keep chemicals out of storm drains and out of our surface water sources. That is what source water protection is all about.



Check labels carefully. Always dispose of hazardous waste at your municipal household hazardous waste depot.

What are Organic Solvents?

A solvent is a substance that can dissolve another substance to form a solution. Organic solvents have carbon as their base (petroleum based).

Many industries use organic solvents.

They are useful because they can dissolve oils, fats, resins, rubber, and plastics. For example, solvents can be used to dissolve dirt on machinery.

Organic solvents pose a danger to human and animal health. We need to keep them out of surface water and groundwater.

Storage, handling and use require care. The amount of organic solvent and the distance from the drinking water source determines how great a threat it poses.

Examples are chloroform, paint removers, and other chemicals used in fungicides and pesticides.

Organic solvents are found in paints, varnishes, lacquers, adhesives, glues, and degreasing/cleaning agents, and in the production of dyes, polymers, plastics, textiles, printing inks, agricultural products, and even a few pharmaceuticals.

Pesticides and Fertilizers

Choose 'green' lawn care products. Handle and store pesticides and fertilizers with care.

Pesticides and fertilizers can get washed into streams or groundwater. They contain chemicals that can contaminate drinking water sources, harm fish and other animals and help harmful algae to grow.

Some pesticides contain organic solvents and other harmful chemicals. Inorganic fertilizers contain synthetic chemicals. For example, synthetic nitrogen fertilizers are usually made from petroleum or natural gas.

Never dump unused pesticides down the sink or toilet. Make sure to dispose of unwanted or unused pesticides and fertilizers at your municipal household hazardous waste depot.



Fuel and Related Products

Home heating oil, gasoline and similar products can contaminate our drinking water sources. Handle and store them with care.

Have your home heating oil equipment inspected annually. This protects your personal property and drinking water sources too.

Waste liquids like used motor oil must be properly stored and disposed of to prevent pollution of water sources.

Some petroleum products contain BTEX, which stands for benzene, toluene, ethylbenzene, and xylenes. These chemicals have harmful effects on the central nervous system. Spills and leaks in and around storage tanks containing gasoline or other petroleum-related products can contaminate the soil and groundwater with BTEX.

Road Salt

Help to keep salt out of drinking water sources. Choose a 'green' de-icing product or use sand or kitty litter on slippery areas outside your home. Do not apply salt when the temperature falls below -10 degrees Celsius (14 degrees Fahrenheit) as no melting will occur.

DRINKING WATER
SOURCE PROTECTION
ACT FOR CLEAN WATER

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For more on safely disposing of household hazardous waste see QuinteRecycling.org

Approved Quinte Region Source Protection Plan

The Quinte Region Source Protection Plan contains policies designed to help keep dangerous chemicals and other pollutants out of our drinking water sources. For more:

QuinteSourceWater.ca