



WATER PROTECTION FAST FACTS

FERTILIZERS & PESTICIDES

When spread over a field or green space, fertilizers and pesticides can be washed into water bodies, causing algae blooms, oxygen depletion and pathogenic diseases. Here are some tips to reduce the risk of this contamination:

Reduce the need for chemicals.

- Look for more natural products and strategies.
- Practice conservation tillage to minimize loss of soil and conserve water.
- **Integrated Pest Management (IPM)** takes into account specific soils, climate and weather patterns, pest history, and crop conditions and combines biological, physical, and chemical tools (for more information visit omafra.gov.on.ca)

Store & prepare chemicals responsibly.

- Purchase only the necessary amount for the job
- Mix concentrates 30m away from any water supply and take precautions to avoid spills when mixing and loading sprayers. Do not overfill sprayer tanks.
- Keep chemicals in a locked storage area out of the floodplain and regularly inspect for potential leaks.
- Never discard pesticides down the drain, toilet, sewer, or in the trash. In Southgate, chemicals can be brought to the Orange Drop container, which alternates between the two Transfer Stations throughout the year. Visit southgate.ca for details.
- Under no circumstances should a pesticide container be burned, reused, or filled with any other substance.

Farmers located near drinking water sources may be required to review and update their current regulatory approvals (e.g. Nutrient Management Strategies/Plans) or implement new management practices (e.g. Risk Management Plan) to ensure they are up to date and do not put drinking water at risk.

Apply chemicals properly.

- Always read the label before, use products immediately, and apply them exactly as instructed.
- Consider the wind and weather forecast before applying fertilizers, pesticides or irrigation water. Avoid spraying in windy conditions or too close to open water. Do not apply pesticides if rain is expected within 24 hours.
- Follow the setbacks listed on the pesticide label. Do not spray within 10m of shallow wells or other water supplies.

Create barriers around surface water.

- Use buffer zones and berms to avoid surface water contamination by spray drift or runoff waters. Plant native trees and shrubs along water courses.
- Do not allow livestock or animal waste to enter watercourses. Fence off or bridge streams and provide animals with alternate water sources.
- On sloping land, incorporate the pesticide into the soil or use a foliar application after the crop appears.

Many of the strategies used by farmers to reduce contamination of water sources also help to produce good crop yields and reduce costs by saving money spent on fertilizers and pesticides.

DRINKING WATER SOURCE PROTECTION

Under the **Lake Erie Region – Grand River Source Protection Plan** and **Ontario's Clean Water Act**, Southgate has the responsibility and authority to implement source protection policies aimed to restrict activities that pose a threat to the quality and quantity of our drinking water sources.

Find the Source Protection Plan at sourcewater.ca

Township of Southgate Risk Management Office

Jim Ellis

519-923-2110 ext. 224

jellis@southgate.ca

185667 Grey Road 9

Dundalk, ON N0C 1B0

www.southgate.ca





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PRIVATE WELLS

If you have a well, it's important to maintain it and test it regularly, or to close and abandon it to protect you and your neighbours' drinking water sources.

Well Maintenance

Maintaining a well is easy and prevents costly damage to our water sources. All well owners should do the following:

- Regularly perform a checkup that includes a flow test, equipment inspection, and water test.
- Test the water quality of your well at least three times a year and after major plumbing work. Testing for bacteria is free and results are available within 48 hours. Free testing kits are available from your local public health unit and at the Southgate Municipal Office.
- Immediately investigate any changes in the quality and quantity of water.

Preventing Contamination

To prevent contamination, **never** do the following:

- Allow liquid from garbage or manure piles to drain towards the well.
- Locate a dog run near the well.
- Treat the area near the well with pesticides or fertilizer (avoid shrubs or flower beds around the well that would require these chemicals).
- Flush oil, detergent, paint, medication, solvents, or other chemicals down the toilet.
- Drive or park vehicles near the well head.
- Ignore an abandoned well or put garbage in it.

Your well may be at a higher risk of contamination if it is shallow (less than 6m/20ft), a dug well, older, or if the soil between the surface and the aquifer is coarse, like sand or gravel. If your well has any of these characteristics, take extra precautions to avoid contamination.

If you have questions about your well contact the Ontario Ministry of the Environment and Climate Change Wells Help desk at wellshelpdesk@ontario.ca or 1-888-396-9355.

Abandoning a well

You may have to abandon a well if it produces mineralized water or water that is not potable; contains gas or permits the movement of gas, contaminants or other materials that may harm water sources; or is not constructed according to the Wells Regulation.

An improperly abandoned well may let bacteria, pesticides, fertilizers and other pollutants into our drinking water sources; allow mineralized water to mix with fresh water; let water escape the well, resulting in property damage, flooding and waste; be a danger to children, adults or animals that can fall into the well and become trapped; and cause damage to farm machinery and vehicles.

This risk can be prevented by making sure that unused and unmaintained wells on your property are plugged and sealed correctly. It is strongly recommended that you hire a licensed well contractor who uses licensed well technicians. A directory of licensed well contractors listed by location is available through Ontario.ca.

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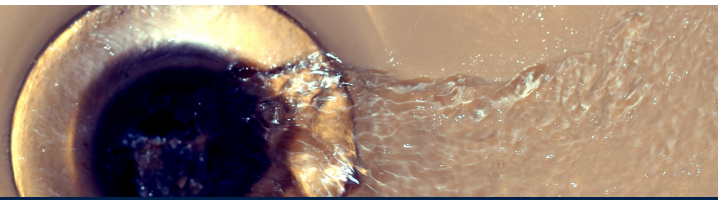
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SEPTIC SYSTEMS

A septic system treats sewage right in your own yard and releases treated effluent back into the groundwater. Most rural homes and cottages use them, and when working properly, they provide a safe and reliable way to treat your household wastewater. However, if not properly cared for, your septic system could contaminate the environment and put your family and neighbour's health at risk.

Keep your septic system in good working order by:

- Having it inspected every three years.
- Pumping the septic tank as needed (every 3 to 5 years).
- Changing effluent filters according to manufacturer instructions.
- Replacing a damaged tank.
- Increasing the size of the tank if sewage flow increases (for example, if you install additional toilets, showers, hot tubs or other water uses).
- Putting an effluent filter on the outflow pipe leading from the tank to the leaching bed.
- Making sure all pumps and alarms are working (if the system has them).
- Avoid parking vehicles on or driving over your tank and leaching bed, and do not construct driveways, buildings, or pools on or near any part of the septic system.
- Keep trees and shrubs away from the leaching bed.

Never inspect or pump out a septic tank yourself! The tank has virtually no oxygen and contains deadly gases that can kill in a matter of seconds.

Warning Signs

Get an inspection if you are experiencing any of the following warning signs:

- Slow or backed up drains in your house.
- Spongy and/or lush spots on or near the leaching bed.
- A sewage smell in the basement or outside.
- Poor quality of water in nearby wells or surface water.

Be careful what goes in

Be aware of what goes into your system.

- Avoid putting grease, food, compost, wet naps, etc. down the drain or toilet.
- Avoid excessive use of anti-bacterial soaps, bleaches, and harsh cleansers, and do not put paints, solvents, or other toxic chemicals down the drain.
- Be water smart by conserving and spreading out your water use.

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REDUCING WATER USE

Water quality and quantity are closely linked; as the amount of water decreases, there is less water to dilute contaminants. Small changes to your water use can make a big difference for our community.

Save water **INSIDE**

- Immediately fix water leaks. A leaking tap wastes 25L of water a day.
- Use a basin to wash your fruit and vegetables and give the leftover water to your potted plants.
- Turn the tap off when brushing your teeth. A running tap loses 6L of water per minute.
- Have short showers and use a low-flow showerhead. A 5 minute shower with a low-flow showerhead uses 65L LESS than a standard showerhead, and less than 25% of what is needed for a bath.
- Install low-flush toilets. Standard toilets use about 40% more water per flush than necessary.
- Wait until your dishwasher or clothes washing machine is full before using it. A traditional washing machine uses 130-250L of water to clean one large load.

Save water **OUTSIDE**

- Dry sweep outside instead of using a hose.
- Spread mulch around the base of plants.
- Use a rain barrel to collect water for plants.
- Water plants thoroughly in the early morning or evening once a week. One lawn sprinkler spraying 19L per minute uses 50% more water than 10 toilet flushes, two 5 minute showers, two dishwasher loads, and a full load of laundry *combined*.
- Plant native and/or drought-tolerant grasses, ground covers, shrubs and trees. Once established, they do not need water as frequently and usually will survive a dry period without watering.
- Wash your car with a bucket and sponge, or use a commercial car wash. A running hose uses 500L of water in an hour.

Did you know? Ontarians use an average of 225L of water a day. That is 50% more than residents of the United Kingdom and nearly twice as much as people in Germany.

Save water AT WORK

All businesses use water directly or indirectly and water is vital for our local economy. Bring your water saving habits to work and spread the message:

- Set a conservation goal, develop a plan and share it with staff.
- Conduct a facility audit to quantify water use.
- Look for and repair leaky faucets and pipes.
- Install water efficient fixtures and equipment.
- Dry sweep instead of using a hose to clean floors.
- Make sure all hoses have automatic shut-off nozzles.
- Educate employees about the importance of using less water.
- Post reminders to conserve water in places where it is used most.
- Design landscaping to be water efficient.
- Re-use water for landscaping.
- Compare water use to industry benchmarks.
- Learn from success stories of industry peers.
- Have a friendly competition with similar businesses to see which can reduce water use the most.

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ROAD SALT

Using too much salt on our roads, driveways and walkways can impact our drinking water, affecting its taste and our health. To protect our water supplies, it's important that we follow these best practices for using road salt.

Road Salt Best Practices

Prevent snow and ice from accumulating by shoveling and sweeping as soon as possible after or during a snowfall.

Divert snow away from storm sewers. Pile snow so that it will not run across paved surfaces when it melts. Snow may melt during the day and freeze on the pavement at night requiring more salt.

Look for calcium chloride or magnesium chloride salt products, which are the most effective.

Use only what you need to melt the snow or ice on your driveway or sidewalk. Do not over salt.

Salt is best used between 0° and -12° C. Below -18° C, salt does not work.

Road Salt Best Practices

(cont'd)

Do not apply salt if it is raining or if rain is expected. It will only wash away.

Sweep up loose salt, sand and de-icer to stop it from being washed into water sources when a melt occurs. (Return salt to your salt storage. It is still useful and effective for melting ice).

Facilities with bulk salt storage on site (e.g. malls; parking lots) should store salt on waterproof pads with a cover to protect it from being washed into the environment.

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FUEL TANKS

Whether for heating your home or fueling vehicles at your business, fuel tanks can pose a risk to our drinking water sources in the event of a spill or leak.

The following is required to prevent spills/leaks:

- All fuel storage tanks must be installed by a TSSA licensed contractor.
- Fuel tanks must be placed at least 15m from a drilled well and 30m from a dug well or watercourse.
- All fuel storage tanks must be clearly marked to identify what is inside.
- Every storage tank, piping system and sump must be tested and monitored for leaks.
- Underground fuel storage tanks that are no longer in use are to be removed.
- **Fuel spills and leaks must be reported to the Spills Action Centre at 1-800-268-6060 (24 hours a day).**
- If your property is located near a municipal water supply and has on-site fuel storage, you will also be required to develop a Risk Management Plan.

Requirements for the safe storage and use of fuel in Ontario are provided in the Technical Standards and Safety Authority (TSSA) Liquid Fuels Handling Code 2007. It is important that all tanks adhere to all requirements in the code, adoption document, and the regulations.

Fuel Tank Warning Signs

Contact your oil/gas supplier if you notice:

- Fuel tank legs are unstable or on a shaky foundation.
- Using more fuel than normal.
- Signs of oil in nearby streams, wetlands, or ditches.
- Dead vegetation near or down slope of the tank.
- Evidence of rust, weeping, wet spots, or excessive dents on your tank.
- Drips or signs of leaking around the filter or valves.
- Clogged tank vent or restrictions because of ice, snow, or insect nests.
- Overfill whistle is silent when tank is being filled.
- Spills around the fill or vent pipes.

Handling Spills & Leaks

Take the following steps as soon as you find out that your fuel tank has leaked or spilled oil:

- Eliminate all sources of ignition.
- Attempt to eliminate the risk if you can do so safely.
- Contact your fuel supplier or registered contractor.
- Contain the spill using whatever materials are available (pails, rags, newspapers, kitty litter, absorbent pads, plastic sheeting). Do not flush any oil or contaminated material down sewers or drains.
- **Fuel spills and leaks must be reported to the Spills Action Centre at 1-800-268-6060 (24 hours a day).**
- Place spilled oil and any contaminated soil or materials into garbage bags or plastic pails. For larger spills, you may need the services of a professional cleanup contractor.
- Properly dispose of any recovered oil, contaminated soil and/or materials. In Southgate, hazardous waste can be brought to the Orange Drop container, which alternates between the two Transfer Stations throughout the year. Check southgate.ca for details.
- Contact your insurance agent.

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CHEMICAL STORAGE

Hazardous chemicals are common in our workplaces and homes. It's important that we store them safely to prevent spills and leaks that could contaminate our water sources.

What is a hazardous chemical?

Here are a few common products that would be considered hazardous:

- paints, stains and coatings
- paint removers or strippers
- wood treatment products
- nail polish removers
- spot removers and rug-cleaning fluids
- adhesives
- batteries
- printing inks
- cleaning and degreasing products
- pesticides

Many businesses also use hazardous chemicals for specialized applications, such as dry cleaning, metal degreasing, pharmaceutical production, timber treatment, pesticide formulations, transformer coolants, and other chemical applications.

Ontario's Clean Water Act identifies two groups of hazardous liquids that may put our drinking water sources at risk: **dense non-aqueous phase liquids (DNAPLs)** and **organic solvents**. DNAPLs are liquids that are denser than water and sink down into the ground, polluting water sources. The most common type of DNAPL are organic solvents, which are liquids made from oil and are used to dissolve other substances (e.g., paint remover).

A spill or leak from the handling or improper storage of hazardous liquids could contaminate our drinking water sources, be difficult and costly to clean up (or complete cleanup is considered impossible) or could cause short and long term health effects.

Best practices

- Read the label. Look for words that indicate the product may contain harmful substances (e.g. danger, caution, poison).
- Try to choose products without warnings. Look for products containing naturally occurring or plant-based materials.
- Choose water-based, heavy duty detergent cleaners for the removal of dirt and grease on mechanical equipment and parts.
- Hazardous liquids should be stored in sealed containers with secure lids.
- A lot of cleaning products can be replaced with plain vinegar, baking soda and/or borax.
- If alternative products cannot be found, only buy the amount you need.
- Do not dispose of hazardous liquids down the drain or in the garbage. In Southgate, hazardous waste can be brought to the Orange Drop container, which alternates between the two Transfer Stations throughout the year. Visit southgate.ca for details.

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