

Appendix 'A'

Residential Best Practices Pamphlets

DID YOU KNOW?

EVERYTHING PUT IN YOUR TOILET GOES TO A WASTEWATER TREATMENT FACILITY

DRAINS AND SEWERS ARE DESIGNED FOR HUMAN WASTES, TOILET PAPER AND WASTEWATER ONLY

FLUSHING PAPER TOWELS AND OTHER GARBAGE DOWN THE TOILET CAN CREATE SEWER BACKUPS AND OVERFLOWS

FOOD WASTE SHOULD BE PUT IN YOUR COMPOSTER OR GREEN BIN

SPECIAL WASTES DEPOTS WILL TAKE MANY HOUSEHOLD CHEMICALS AND WASTES

DISPOSING OF MEDICINE

- Medicines flushed down toilets can end up in streams, rivers and lakes
- Low concentrations of medicines are being found in sewage and surface waters
- Remember to always dispose of medicines by taking them to your pharmacy
- Never flush medicine down the toilet

DISPOSING OF HOUSEHOLD SPECIAL WASTE (HSW)

HSW is any material that is corrosive, flammable, ignitable or reactive – and includes household items such as bleach, cleansers, nail polish and paint. Items considered HSW should never be put down the sink or flushed down the toilet. Instead, it should be taken to the City's Household Special Waste depot - at the W12A Landfill site, 3502 Manning Drive - for proper disposal.

PROTECT OUR ENVIRONMENT

TOILETS ARE NOT GARBAGE CANS



DON'T FLUSH OTHER STUFF



Contact information:
Wastewater Treatment Operations
City of London
519-661-5701
london.ca

HOW THE SANITARY SEWER SYSTEM WORKS

Everything flushed down your toilet or household sinks goes to our sanitary sewer system.

The sanitary sewer system is a series of underground pipes that transport sewage to a wastewater treatment facility. There, the sewage is treated to a regulated standard and then released into local rivers or lakes.

HELP MINIMIZE IMPACTS ON THE ENVIRONMENT

Sometimes waste items can pass through the sewage treatment plant and end up in streams, rivers and lakes. It's extremely important to keep medicines and household wastes out of the toilet and dispose of them properly.

WHAT SHOULD I DO?


FLUSH THE RIGHT STUFF

Make sure you only flush toilet paper down your toilet. Our sewage system isn't designed to handle anything else.

Even items that claim to be flushable should be disposed of in another manner.

HELP PREVENT BACK-UPS AND OVERFLOWS

Flushing the wrong things down your toilet can block sewer pipes. This may create sewer backups and lead to basement flooding. It can also cause sewage overflows into local rivers and lakes.



KNOW HOW TO CORRECTLY DISPOSE OF ITEMS

PUT IN THE GARBAGE	
✓ Baby wipes	✓ Food waste
✓ Bandages, bandage wrappers	✓ Hair
✓ Cigarettes	✓ Kitty litter
✓ Cleaning wipes	✓ Newspaper
✓ Colostomy bags	✓ Rags, cloths
✓ Combs or brushes	✓ Rubber or plastic items (eg. Latex gloves)
✓ Razors	✓ Sanitary pads
✓ Condoms	✓ Sanitary tampon applicators
✓ Cotton balls, swabs or pads	✓ Tights and pantyhose
✓ Dental floss	✓ Toothbrushes
✓ Disposable diapers	
✓ Fats, oils and grease	

PUT IN THE COMPOSTER/GREEN BIN	
✓ Food waste	✓ Hardened fats, oils and grease
✓ Paper towels	

TAKE TO A SPECIAL WASTE DEPOT	
✓ Antifreeze	✓ Paint, solvents
✓ Motor oil	✓ Used deep fryer oil

THE DON'TS

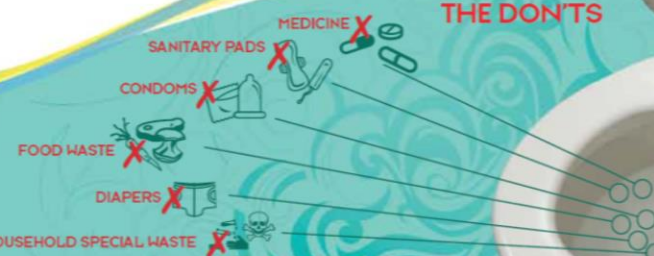


Figure A1: Toilets are Not Garbage Cans

DID YOU KNOW?

STORM SEWER WATER IS NOT TREATED

POURING ANY CHEMICALS IN THE STORM SEWER POLLUTES RIVERS AND LAKES

DISPOSING OF POLLUTANTS INTO A STORM SEWER IS ILLEGAL

ANY AMOUNT OF CONTAMINANT INTO OUR WATER IS CONSIDERED A SPILL

ONE LITRE OF MOTOR OIL CAN CONTAMINATE ONE MILLION LITRES OF WATER

THE DIFFERENCE IN SEWER SYSTEMS

SANITARY SEWER
This system collects sewage and wastewater from toilets and sinks in your home. This water goes to a wastewater treatment plant where it is treated and released back into the Thames River.

STORM SEWER
This system collects rainwater, melted snow, and surface water through storm grates that drain directly into the nearest creek, river or lake. This water is **NOT** treated.

REGULATIONS

Spills are regulated under the Environmental Protection Act (EPA) R.S.O. 1990 – Section 92.2, 93.1 and the Clean Water Act. As well, many towns and cities have their own enforceable Sewer Use By-Law that governs spills in their municipalities.

Call the municipality, town or city if you see someone pouring chemicals, oil, paint or any other suspicious material into a storm sewer catch basin, sanitary sewer or land drainage works (i.e. a ditch).

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City of London
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london.ca

PROTECT OUR ENVIRONMENT

STORM SEWERS

WHY WATER SHOULD BE THE ONLY THING ENTERING OUR STORM SEWERS

ARE YOU POLLUTING OUR WATER?

Disposing of chemicals, paints, motor oil and other pollutants into storm sewer catch basins, sanitary sewers or on the ground can lead to contamination of our creeks, rivers and lakes. These rivers and lakes are our drinking water source and we must keep them clean.

WHAT IS A SPILL?

A spill can be any size, big or small. A spill occurs anytime anything is dumped into a sewer drain that isn't water. These spills can be chemical, biological, or gaseous in nature.

WHAT ARE THE CONSEQUENCES OF A SPILL?

Storm drain runoff is not treated. It is important that pollutants such as animal waste, automotive fluids, garbage and chemicals do not end up in our storm drains. If a hazardous liquid waste material is spilled into a storm drain it can cause destruction to our source water and well water. This will not only impact us but wild life and aquatic life as they depend on this water to live.

WHAT YOU SHOULD DO

- ✓ Sweep outdoor spills and dispose of in the trash (landfill) if not hazardous. If hazardous take to a waste depot
- ✓ For wet spills like oil, apply cat litter or another absorbent material, then sweep and bring to a household hazardous waste collection centre
- ✓ Dispose of unused pesticides, antifreeze and other hazardous chemical containers at your local hazardous waste facility
- ✓ When outside choose soaps, cleaners or detergents labeled non-toxic, phosphate-free or biodegradable
- ✓ Prevent spills with secondary containment, drip pans

ONLY RAIN DOWN THE DRAIN

THE DON'TS

Figure A2: Storm Sewers – Only rain down the drain

DID YOU KNOW?

MEATS, GRAVIES, SOUPS, SALAD DRESSINGS, DEEP FRIED DISHES, DAIRY PRODUCTS AND BUTTER ALL CONTAIN FATS, OIL AND GREASE

USING A STRAINER IN YOUR SINK PROTECTS OUR SEWER FROM FOOD WASTE

FATS, OIL AND GREASE CAN PLUG YOUR SEWER AND CAUSE BASEMENT FLOODING

YOU CAN PUT WASTE OIL, GREASE AND FOOD SCRAPS INTO A GREEN BIN, IF AVAILABLE

WASTE FATS AND GREASE CAN BE USED TO MAKE SUET AND FED TO BIRDS

HOUSEHOLD FATS, OIL AND GREASE (FOG)

- Meats
- Sauces
- Gravies
- Salad dressings
- Deep fried dishes
- Dairy products
- Soups
- Chili
- Pastas
- Pastries
- Butter and margarine



PROTECT OUR ENVIRONMENT

SINKS ARE NOT GARBAGE CANS



FATS, OIL AND GREASE



Contact information:
Wastewater Treatment Operations
City of London
519-661-5701
london.ca

HOW ARE FATS, OIL AND GREASE IMPACTING OUR SANITARY SEWER SYSTEMS?

When fats, oil and grease from food are poured down the drain, they are often in a warm liquid. This may not seem harmful but, as the liquid cools, the grease becomes a hardened mass.

As grease build ups over time, this mass restricts the flow of sewage – both on your property and under the roadway.

In fact, sewer pipes blocked by grease are an increasingly common cause of sewage back-ups in homes as well as sewer overflows. Each year, a considerable amount of time and money is spent cleaning clogged pipes throughout the city as a result of grease in the sanitary sewer system.

WHAT CAN I DO TO HELP?

DO

- ✓ **DO wipe out** greasy pots, pans, and utensils with paper towel before putting them into the sink.
- ✓ **DO place** grease and food scraps into a green bin to be disposed of in the curbside organics collection program (if available)
- ✓ **DO use a strainer** in the sink to catch food scraps and other solids
- ✓ **DO place grease in a jar** or can and store it. Once the grease solidifies place it into the garbage, green bin or feed it to birds as suet feeders
- ✓ **DO inform friends and neighbours** about the problem with fats, oil and grease in the sewer system
- ✓ **DO pour turkey and roast drippings into a container** and dispose in green bin or garbage

DON'T

- ✗ **DON'T pour grease** down the sink or into the toilet
- ✗ **DON'T rinse grease down** the sink. Once the grease and water cool, the grease deposits onto the sides of the sewer pipe, blocking the pipe over time
- ✗ **DON'T use cloth towels** or rags used to wipe off plates or clean greasy dishware. When the towels are washed the grease will end up in the sewer
- ✗ **DON'T pour turkey or roast drippings** down your toilet

THE DON'TS




Figure A3: Sinks are Not Garbage Cans

DID YOU KNOW?

DRAINING YOUR CHLORINATED WATER INTO THE STORM SEWER KILLS FISH

SALT WATER POOLS MUST ALWAYS BE DRAINED TO THE SANITARY SEWER

NEVER DRAIN YOUR POOL, SPA OR HOT TUB ON A RAINY DAY

DISCHARGE YOUR POOL, SPA OR HOT TUB ACROSS YOUR LAWN WHILE AVOIDING THE STORM SEWER

DO NOT ADD CHEMICALS TO YOUR POOL, SPA OR HOT TUB FOR TWO WEEKS BEFORE DRAINING

THE DIFFERENCE IN SEWER SYSTEMS

SANITARY SEWER
This system collects sewage and wastewater from toilets and sinks from your home. This water goes to a wastewater treatment plant where it is treated and released back into the Thames River.

STORM SEWER
This system collects rainwater, melted snow, and surface water through storm grates that drain directly into the nearest creek, river, or storm pond. This water is NOT treated.

Remember: storm water is not treated before it reaches your local watercourse. The chemicals you put down the storm drain go directly into our rivers and creeks.

PROTECT OUR ENVIRONMENT

POOLS, SPAS, AND HOT TUBS



DRAIN YOUR POOL THE RIGHT WAY

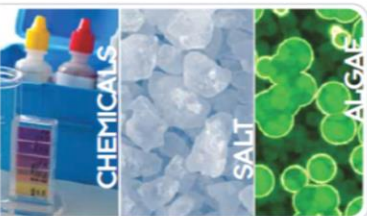


Contact information:
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City of London
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london.ca

CHLORINATED WATER AND SALT WATER POOLS

Chlorinated and saltwater pools contain chemicals needed to keep them clean and safe for swimming. These chemicals include chlorine/bromine, salts, copper-based algicides, nonylphenols and nonylphenol ethoxylates. These chemicals are deadly to fish and other aquatic organisms that live in our creeks, rivers and storm ponds.

Don't add chemicals to your pool or hot tub for two weeks before draining.



YOUR RESPONSIBILITY

As the owner of a private swimming pool, hot tub or spa, you and any pool service provider must maintain and operate it in compliance with your local Sewer Use Bylaw. The City of London sets out requirements for the proper operation, maintenance and seasonal closure of pools, hot tubs, and spas that will protect the area's water quality, fish and aquatic life.

You or your hired pool service provider are legally obligated to report a spill to provincial and municipal authorities if your pool water has gone into a stream, river, lake or storm sewer system without dechlorinating.


WHAT YOU SHOULD DO

CHLORINATED WATER

- ✓ **Superchlorinate** to get rid of bacteria, algae and organic matter.
- ✓ **Dechlorinate the water** before discharging by placing a dechlorination tablet in the water then letting it sit for one week or longer to allow the chlorine to dissipate.
- ✓ **Drain onto your lawn**, if it can be properly absorbed into the ground without flowing onto your neighbours property or storm water system.
- ✓ **Running the pump** will assist in the dissipation of the chlorine. Sunlight also helps.
- ✓ **Backwash water** should be dechlorinated before discharging or draining.
- ✓ **Test your pool, hot tub or spa** to ensure chemical levels are as close to zero as possible before discharging or draining it.
- ✓ **Report any spill** of untreated pool water to the provincial and municipal authorities if it has gone into a stream, river, lake or storm sewer system.

SALT WATER

- ✓ **Discharge salt water** pools to the sanitary system connection on your property. The water from salt water pools have such high levels of chlorides that this water cannot be discharged to the storm sewer system.
- ✓ **Have the salt water hauled** by a Ministry of the Environment approved and licensed hauler.



THE DON'TS




Figure A4: Pools, Spas and Hot Tubs

Did You Know?

The dirt on cars can **contain toxic chemicals**, heavy metals, oil and grease

When you wash your car on your driveway or the street, the dirty water runs into the storm sewer

Water from storm sewers drains directly into local creeks and rivers **without being treated**

Runoff from **car washing contributes to water pollution** and affects the quality of our creeks, rivers and lakes

The only thing going into a storm sewer should be **rainwater and snow melt**

Protect Our Environment

Washing Your Car

The City of London *Waste Discharge By-law* controls the quality and quantity of substances discharged into the sanitary and stormwater sewer systems and natural watercourses.

Improper disposal of liquid waste could result in by-law charges, fines and expensive clean up costs billed directly to you.

Call the City of London at 519-661-4965 if you see someone pouring chemicals, oil, paint or any other suspicious material into a storm sewer catch basin, sanitary sewer or land drainage works (i.e. a ditch).

Why only rain should go down the drain




London CANADA

Contact information:
Wastewater Treatment Operations
City of London
519-661-5701
london.ca

Are you polluting our water?

The dirty water from washing your car can contain chemicals, oil and grease. Allowing these substances to run into City storm sewers can lead to contamination of our creeks, rivers and lakes.

We need to keep our drinking water sources clean.

What is a spill?

A spill occurs any time anything harmful is dumped into a storm sewer that isn't water. A spill can be any size, big or small and can be chemical or biological. Spills are regulated under the *Environmental Protection Act (EPA) R.S.Q. 1990 – Section 92.2, 93.1* and the *Clean Water Act*. As well, many towns and cities have their own enforceable sewer use by-law.

To avoid having dirty water run into our storm sewer system, consider these options for washing your car:

- 1 Use a commercial car wash facility** (automatic or coin). These facilities are required to follow a set of practices determined by the City, including treating wastewater and discharging it into the sanitary sewer system where it will receive further treatment.
- 2 Find a location where the wastewater won't flow into the storm sewer.** For example, washing cars on a gravel surface or grass allows the wastewater to be absorbed before it reaches the storm sewer.

Commercial car washes are regulated to practice water conservation. Washing your car at home can use as much as 50 percent more water.

These options will help protect public health and aquatic environments from the harmful effects of dirty water entering the storm sewers.

DO NOT pour liquid waste down the storm sewer.

It's important to be aware London has two types of sewer systems:

- The sanitary system takes used water from homes and businesses to a wastewater treatment plant.
- The storm sewer system — the square grates on the side of the road — takes rainwater and melted snow from our streets and releases it, untreated, into local creeks, storm ponds, rivers and lakes.

Soap and detergent is harmful to aquatic life.

It can cause damage to fish tissue and organs, which could make fish vulnerable to diseases and eventually lead to death. When you wash your car at home, don't let the soap and detergent run into the storm sewer.





Figure A5: Car Wash – Why only rain should go down the drain

DID YOU KNOW?

FOOD WASTE GRINDERS DISCHARGE TO THE LOCAL SANITARY PLANT FOR TREATMENT

WATER TREATMENT AND TAX COSTS RISE SUBSTANTIALLY WITH FOOD WASTE IN OUR SEWERS

FOOD WASTE FROM GRINDERS CAN CAUSE YOUR SEWER TO BACKUP

WATER REQUIRED TO FLUSH ORGANICS THROUGH YOUR PIPES INCREASES YOUR WATER BILLS

ORGANIC WASTE IS BETTER USED FOR COMPOSTING

COST CONSCIOUS

One household in one year can use up to 4,000 litres of water to flush organics down a food waste grinder. This puts an unnecessary strain on the local water supply and increases your monthly water bill.

Other methods of organic waste disposal are not quite as hard on treatment facilities. More maintenance to wastewater treatment facilities will mean higher taxes.

Cost to treat food waste grinder	\$400 per tonne
Cost to landfill	\$120 per tonne
Cost to compost in backyard	\$0 per tonne

BY-LAWS

Towns, municipalities and cities have by-laws in place that limit the amount of solids you can put into the sewer system. In using a food waste grinder, you are likely putting yourself in contravention of the sewage by-law limits.

PROTECT OUR ENVIRONMENT

GARBAGE GRINDERS



WHY YOU SHOULD NOT USE A FOOD WASTE GRINDER



Contact information:
 Pollution Control Operations
 City of London
 519-661-5701
 london.ca

WHAT IS A FOOD WASTE GRINDER?

A food waste grinder is an appliance that is installed beneath the kitchen sink to grind food wastes into small particles, which are then discharged into the sewer system with the aid of tap water.

Food waste grinders offer convenience, allowing for the immediate disposal of kitchen food waste down the drain. However, this convenience needs to be balanced against the initial capital cost, maintenance and eventual replacement of the food waste grinder, and potential clogging of our sewer system.

WHY ARE THEY BAD?

Food waste grinders can cause blockages in sewer pipes and pumping stations because they increase food particles and grease. They can also block the line that leads from your house, causing sewage to backup into your home.

Added organic waste to our sewer system means added loads to treat at waste facilities. This directly increases operating costs and in the end increases taxes for the municipality. Food waste grinders don't really solve any waste problems, they just shift them to the wastewater treatment facilities.

WHAT YOU SHOULD DO

✓ Remove old food waste grinders that you currently have installed

✓ Scrape all food scraps into the trash or composter

✓ Put strainers in sink drains to catch food scraps and other solids. Empty the strainers into your trash or composter for disposal



THE DON'TS



FATS, GRAVY, BUTTER AND COOKING OIL SHOULD NEVER BE DISPOSED OF DOWN THE DRAIN.

Figure A6: Food Waste Grinders