

## Appendix 'B'

### Business Best Practices Pamphlets

### DID YOU KNOW?

**GREASE BUILDUP IS THE MAIN CAUSE OF RESTAURANT SEWER BACKUPS**

**A RESTAURANT SEWER BACKUP WILL RESULT IN IMMEDIATE CLOSURE**

**GREASE BUILDUP CAN FLOOD BASEMENTS**

**GREASE INTERCEPTOR INSTALLATION AND MAINTENANCE IS MANDATORY**

**DON'T USE EMULSIFIERS, DEGREASERS OR HOT WATER TO CLEAR GREASE**

**EMPLOYEE EDUCATION IS THE KEY TO SUCCESS**

### WHY IT'S IMPORTANT TO YOU

Ontario Building Code Reg. 350/06 states that grease interceptors are required anywhere food is cooked, processed or prepared. There are also enforceable limits in each municipality's Sewer Use Bylaws that prohibit the discharge of grease and oil over certain levels. These limits are enforceable through penalties and fines.

It is very expensive to return the sewer back to normal after a grease blockage and backup. This cost by the municipality could be charged back to the restaurant or food establishment. If a blockage does occur the Health Inspector will close the restaurant and any restaurant upstream of the blockage until water usage can resume. This could result in an entire day or more of lost operating hours and revenue.

Grease buildup in the sewer system and treatment facility results in higher operating costs which in the end are charged back to the citizens of the municipality in increased sewer rates and taxes.

### PROTECT OUR ENVIRONMENT

#### RESTAURANT GREASE



### WHY YOU SHOULD DISPOSE OF GREASE PROPERLY



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### KEEP GREASE OUT OF THE SEWER

Restaurants and food service operations account for a high percentage of the grease accumulation in our sewers, and the resulting blockages and back-ups. Major sources of grease are baking goods, lard, food scraps, cooking oil, shortening, butter, creamy sauces, dairy products (i.e. milkshakes), meat fats, batter and gravy.

### WHAT TO DO WITH GREASE?

When cleaning the grease interceptor, scoop out the solidified grease portion on the top and place in the garbage for disposal. Used cooking oil can be recycled. Storage bins can be rented from cooking oil recyclers usually at no cost to you.

There are several companies that are certified and licensed grease removal contractors.

Keeping a logbook and receipts of all cleanouts, either by you or a contractor, will help you maintain a grease interceptor cleaning schedule.

### WHAT YOU SHOULD DO

- ✓ Place screens over drains
- ✓ Wipe grease from dishes and pots
- ✓ Recycle used oil
- ✓ Train employees
- ✓ Scrape food scraps and grease into garbage
- ✓ Check grease interceptor often - clean often
- ✓ Avoid pouring grease down drains or toilets
- ✓ Avoid using degreasers, emulsifiers or hot water to dissolve grease
- ✓ Avoid pouring grease straight into garbage dumpster

### WHAT IS A GREASE INTERCEPTOR?

Grease interceptors are containment units designed to trap grease, oil, solids and other debris. They prevent these substances from getting into the sanitary sewer system where they can eventually block the entire pipe.

Grease interceptors need to be properly sized, installed and, most importantly, maintained!



### THE DON'TS



**BUTTER**

**COOKING OIL**

**GRAVY**

**MEAT FATS**

Figure B1: Restaurant Grease

## Did You Know?

From recycling to reducing waste; from active transportation to grey water initiatives - **London is truly proud to host Green Festivals**

Properly disposed of fats, oils and **grease is valuable!** It can be converted into BioGas (green energy)

Used fryer oil needs to be **recycled in the oil container** provided on site

Disposing of your liquid waste improperly could lead to **fines and charges** under the City of London *Waste Discharge By-law*

Liquid waste improperly poured into our storm sewers goes directly to our water sources - **local creeks, rivers and lakes**

## Protect Our Environment

### Outdoor Festival Food Vendors

London is the home of green festivals

The City of London is committed to protecting our environment. By working together with food vendors to reduce improper disposal of liquid waste, we are successfully diverting waste from our landfill and local waterways.

As a food vendor, we encourage you to ask questions and familiarize yourself with the proper disposal and recycling of your waste.

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




**Best practices for proper disposal of liquid waste**

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## Steps to success



**1 Storage Totes**



**2 Direct Connection**

London's parks and outdoor venues accommodate hundreds of food vendors. As the success of our festivals continues to grow, so do the number of vendors using our facilities. In 2009, the City of London began investigating best practices of grey water liquid waste disposal amongst vendors and discovered a lack of overall knowledge about wastewater.

The City began an ongoing effort to educate vendors and encourage compliance with Green Festival initiatives, including use of grease interceptors and totes for liquid waste. **These initiatives have resulted in thousands of litres of liquid waste being converted into green alternative energy sources, avoiding polluting our water sources and clogging up City sewer pipes.**

### What is wastewater?

Wastewater is another word for grey water. This is water used for many purposes - including washing and rinsing dishes, cleaning utensils and cleaning hands.

### What is a storm sewer?

Storm sewers are the grates you see on the ground. Liquids put down the storm sewer go directly into our local water sources without being treated.



### Why should I care?

If you pour any type of liquid waste other than water into a storm sewer, you will contaminate local waterways and also be in direct violation of the City of London *Waste Discharge By-law* and the Ministry of the Environment *Environmental Protection Act*.



### How do I dispose of liquid waste properly?

Different City venues have different options.

- 1 Storage Totes:** The most common option available is to transport your liquid waste to a designated location on site where a storage tote is available for you to pour your waste into.
- 2 Direct Connection:** Currently, the only location in London with direct sewer connection is Victoria Park, along the east main pathway.
- 3 Trailer Grey Water Station:** Located in northeast Victoria Park, across from Wolfe Street. Trailers with grey water holding tanks can hook up and empty before leaving the park.

**DO NOT pour liquid waste down the storm sewer.**

Figure B2: Outdoor Festivals Good Vendors

## DID YOU KNOW?

**FEDERAL, PROVINCIAL AND MUNICIPAL LAWS REQUIRE THE CONTROL OF CONSTRUCTION SITE RUNOFF**

**EROSION AND SEDIMENT CONTROL PLANS ARE AN INTEGRAL PART OF SITE DEVELOPMENT AND CONSTRUCTION SITES**

**SANITARY SEWERS ARE NOT BUILT TO HANDLE RAINWATER FROM CONSTRUCTION SITES AND BASEMENTS**

**WATER FROM SUMP PUMPS GOES DIRECTLY TO STREAMS, RIVERS AND LAKES - RECEIVING NO TREATMENT**

**WASH WATER FOR LATEX PAINT OR CONCRETE SHOULD NEVER GO TO THE STORM SEWER SYSTEM**

### STEPS TO SUCCESSFUL EROSION AND SEDIMENT CONTROL

1. Establish an Erosion Sediment Control Plan (ESCP) based on the City of London's Design Specifications
2. Implement and install controls in accordance with your approved ESCP
3. Monitor and maintain controls throughout construction and address any problems that appear
4. Adjust controls based on what is and isn't working

If a lot of sediment is leaving the site, discuss with a Professional Engineer or the Site Superintendent

### RECOMMENDED CONTROL MEASURES

- Sediment Control Fence
- Gravel or Stone Filter Berms
- Drainage Swale
- Straw Bale Filter Barriers
- Check Dams
- Sediment Dissipation Pool
- Filter Cloth over catch basins



## PROTECT OUR ENVIRONMENT

### NEW CONSTRUCTION SITE MANAGEMENT





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## BEST PRACTICES FOR DRAINAGE, SEDIMENT AND EROSION CONTROL DURING CONSTRUCTION

## SEDIMENT AND EROSION CONTROL MEASURES

Sediment and erosion control measures should be used on all construction sites to limit the effects of construction on the surrounding areas and infrastructure.

## MANAGING CONSTRUCTION WASH WATER

### SANITARY DRAIN CONNECTION

- Do not connect Private Drain Connections (PDCs) to the sanitary sewer to drain empty basements or ground water, even temporarily
- Cap the trunk sewer outlet of a subdivision or site plan until there are occupied houses
- Cap PDCs on all individual buildings until the building or home is occupied

### VEHICLES

- Change oil and antifreeze off-site
- Provide temporary gravel base on-site
- Wash vehicles off-site at a car wash or establish a designated wash area

Characteristics of a designated wash area:


- Well-defined boundaries
- Large enough to park and wash the largest vehicle
- Posted with a sign that forbids washing with solvents
- Does not permit changing oil and indicates the nearest oil recycling facility
- Paved and drained to an oil/water separator
- Connected to the sanitary sewer

### CHEMICALS






- Minimize the quantity used
- When practical, collect wash water for reuse or discharge to a sanitary sewer
- Educate equipment operators on methods to report and contain spills

### CATCH BASINS

- Do not wash spilled material into catch basins or storm drains
- Where land is being cleared, protect catch basins by covering the inlet with filter fabric
- Properly maintain oil/water separators
- Sweep paved outdoor surfaces rather than spraying with water
- Pick up and properly dispose of sweepings



### THE DON'TS

-  X CHEMICALS/ SOLVENT
-  X OIL
-  X SPILLED MATERIALS
-  X ANTIFREEZE
-  X SEDIMENT

*Catch basin, showing filter cloth control measure.*

Figure B3: Construction Site Management

## DID YOU KNOW?

**DENTAL OFFICES GENERATE MERCURY, BIOMEDICAL, FIXER SOLUTIONS AND LEAD WASTES THAT CANNOT BE DISPOSED WITH REGULAR GARBAGE**

MUNICIPAL BY-LAWS PLACE **CONCENTRATION LIMITS** ON MERCURY AND OTHER HEAVY METALS THAT CAN ENTER WASTEWATER SYSTEMS

FEDERAL REGULATIONS REQUIRE DENTAL OFFICES TO HAVE A **POLLUTION PREVENTION PLAN** FOR DENTAL AMALGAM

SILVER CONTAINING WASTES AS WELL AS SPENT X-RAY DEVELOPER AND FIXER SOLUTIONS **SHOULD BE RECYCLED** BY THE SUPPLIER

APPROPRIATE DISPOSAL OF HAZARDOUS WASTE IS REQUIRED BY BOTH ONTARIO'S WASTE MANAGEMENT REGULATIONS AND MUNICIPAL SEWER USE BYLAWS

### AMALGAM WASTE INCLUDES:

- Contact amalgam, such as extracted teeth, containing amalgam restorations
- Non-contact or scrap amalgam
- Used, leaking, or unusable amalgam capsules
- Amalgam captured by chair-side traps, vacuum pumps screens and other devices - including the traps, filters, and screens themselves



**AMALGAM**

*Ontario regulations require dental practices where dental amalgam is placed, repaired or removed to install and maintain an ISO standard dental amalgam separator.*

## PROTECT OUR ENVIRONMENT

### PROPER WASTE DISPOSAL IN DENTAL OFFICES



## BEST MANAGEMENT PRACTICES



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### CATEGORIES OF WASTES FROM DENTAL OFFICES

**MERCURY**  
Mercury was declared a toxic substance under the CEPA, 1999. In addition, mercury containing wastes - including dental amalgam wastes - may be classified as hazardous wastes.

**BIOMEDICAL/PATHOLOGICAL**  
Biomedical wastes are classified as hazardous wastes. Biomedical waste containers must be released to a certified biomedical waste carrier for transport to an approved facility.

**SILVER**  
Silver containing wastes and untreated spent X-Ray developer and fixer solutions should be recycled by the supplier.

**LEAD**  
Lead foil packets and lead aprons must not be disposed to the general waste stream. Approved waste carriers must be utilized to transport and dispose of this waste.

### WHAT SHOULD MY OFFICE BE DOING?

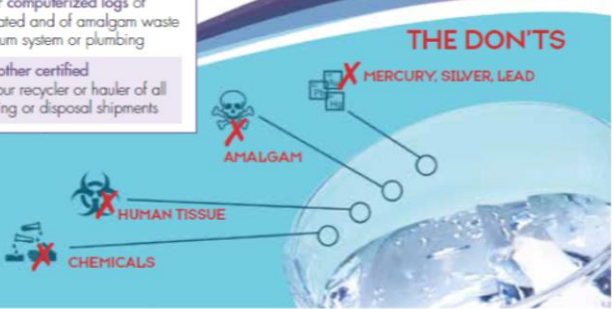
**DO**

- ✓ Do train staff in proper handling, management and disposal
- ✓ Do install and maintain an ISO certified amalgam separator or equivalent and connect all dental units to it
- ✓ Do use disposable chair-side traps and filters in your dental units
- ✓ Do remove the chair-side trap and place the entire trap into a break resistant, air tight container labeled "Hazardous Waste: Contact Amalgam"
- ✓ Do remove your vacuum pump filter from your dental unit. Fasten the lid securely onto the filter. Label the filter "Hazardous Waste: Contact Amalgam". Collect filters in a secondary container as provided by your supplier
- ✓ Do empty waste from reusable traps and filters into a marked waste container
- ✓ Do follow manufacturer's instructions regarding equipment maintenance
- ✓ Do store all wastes in sealed containers and ship within 90 days of being filled
- ✓ Do collect human tissue in red liners marked with the universal biohazard symbol
- ✓ Do maintain written or computerized logs of amalgam waste generated and of amalgam waste removed from the vacuum system or plumbing
- ✓ Do obtain receipts or other certified documentation from your recycler or hauler of all amalgam waste recycling or disposal shipments

**DON'T**

- ✗ Don't dispose of amalgam, human tissue, blood soaked materials or sharps into the regular garbage
- ✗ Don't wash amalgam particles down the drain
- ✗ Don't place amalgam wastes into the biomedical waste/sharps container
- ✗ Don't self-transport amalgam
- ✗ Don't give amalgam to an uncertified scrap metal dealer
- ✗ Don't use chlorine containing products to cleanse vacuum lines
- ✗ Don't pour chemicals or silver bearing x-ray film processing solutions into the drain, sink or open environment
- ✗ Don't wipe traps/filters with paper towels or any other material

### THE DON'TS



- ✗ MERCURY, SILVER, LEAD
- ✗ AMALGAM
- ✗ HUMAN TISSUE
- ✗ CHEMICALS

Figure B4: Best Practices for Dental Offices

### DID YOU KNOW?

- Disposing of pollutants into a storm sewer is **illegal**
- Waste oil and coolant should **never be introduced to the sewers** even with a proper functioning oil interceptor
- You can be **reimbursed** for recycling used oil and coolant
- **Removing the cap** on your oil interceptor can cause sewer gases to enter your facility
- Altering the construction of an interceptor can put you in **non-compliance** with the wastewater discharge by law
- If your interceptor causes **back-ups**, from not being maintained, you may be responsible for clean-up costs



### WHY IT'S IMPORTANT TO YOU

Be aware that sewer discharges are regulated under London's wastewater discharge by-law. It is your responsibility to limit the amount of oil entering the sewer systems.

Waste Discharge By-Law (WM-2)  
3.4 Oil – grease – origin - non-animal – non-vegetable

*No person shall discharge or deposit or cause or permit to be discharged or deposited, into or in sanitary sewers, waste which contains more than 15 milligrams per litre of oil, grease and tar or other matter*

A single shop may contribute a small amount of contaminants to the sewer system, collectively all shops can have a significant impact.

**DO YOUR PART**

**PROTECT OUR ENVIRONMENT**

City of London  
Wastewater Treatment  
Operations  
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## PROTECT OUR ENVIRONMENT

### AUTOMOTIVE SERVICE STATIONS



**MAINTAINING YOUR OIL INTERCEPTOR & PREVENTING CONTAMINANTS FROM ENTERING THE ENVIRONMENT**


### MINIMIZE THE CONTAMINANTS

Vehicle maintenance can introduce:

- Heavy metals from engine oil
- Coolant from radiator flushing
- Grease from brake residues
- Tar from changing tires

These contaminants are toxic and are harmful to the environment.

Auto service stations are required to manage their used oil and other hazardous wastes with an oil interceptor.



One litre of oil can contaminate one million litres of water!

### OIL INTERCEPTOR

The oil interceptor collects the service bay drainage through multiple floor drains.

As the water travels through each stage of the interceptor, the oil and grease become separated from the water.

Oily substances float on the top while the sediments collect on the bottom.

The water is discharged to the sanitary sewer and flows to the wastewater treatment plant where it is treated.

Oil interceptors must be properly sized and cleaned out on a regular basis.

### IMPORTANCE OF MAINTENANCE

Regular inspections are important to ensure that the unit is not plugged and the water being discharged to the sewers does not contain any oil.

Check the amount of sediment and oil in the first compartment to determine if a clean-out is required.

A licensed oil waste hauler must remove and properly dispose of the oil from the interceptor.

### YOUR RESPONSIBILITIES

Inside the facility, drain oil and other auto fluids into a pan or drum using a funnel.

Use absorbents, such as cat litter or oil absorbent pads to clean up spills.

Dispose of absorbents in a dry garbage.

Sweep up your work area to limit the amount of grit accumulating in the floor drains.

Keep wash water inside where it can flow into the floor drains. Do not hose down bay areas where the water can flow outside.

Use a temporary storage tank to hold used oil and coolant.

Be careful when dumping waste oil to an outside storage tank.

Ensure that your oil interceptor is maintained and functioning properly.

Figure B5: Best Practices for Automotive Services

## DID YOU KNOW?

**THERE MAY BE AN OIL AND GRIT SEPARATOR ON YOUR COMMERCIAL PROPERTY**

**CONDOS AND MULTI-RESIDENTIAL PROPERTIES OFTEN HAVE OIL AND GRIT SEPARATORS**

**AS A PROPERTY OR BUSINESS OWNER, YOU ARE RESPONSIBLE FOR MAINTAINING THIS DEVICE AS PER LONDON'S WASTE DISCHARGE BY-LAW**

**IF AN OIL AND GRIT SEPARATOR IS NOT MAINTAINED IT CAN RESULT IN TOXIC RUNOFF ENTERING OUR STORMWATER SYSTEM**

**SPILLS HAPPEN. MAKE SURE YOUR OIL AND GRIT SEPARATOR IS WORKING PROPERLY TO CAPTURE THEM**



**IT'S YOUR RESPONSIBILITY**

Property owners or business owners of commercial, industrial, institutional and multi-dwelling sites have an obligation to maintain and inspect oil and grit separators located on their sites and parking lots.

Failure to do so could result in fines, costly clean up fees and damage to our environment.

**PROTECT OUR ENVIRONMENT**

**STORMWATER OIL AND GRIT SEPARATORS**



**A GUIDE FOR BUSINESS AND MULTI-RESIDENTIAL PROPERTY OWNERS**



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### YOUR RESPONSIBILITY

Many property owners may not be aware there is an oil and grit separator on their property.

Oil and grit separators have been installed for new construction on industrial sites, as well as select commercial, institutional and multi-residential developments, since 1985; more commonly after the mid-1990s. If your facility was built after 1985 there could be one on your property.

If you fail to maintain your oil and grit separator, it will cease to function properly, and you will be in non-compliance with London's Waste Discharge By-law.

### WHAT DO THEY DO?

Oil and grit separators are structures which are installed underground and integrated into the City's stormwater system. As rain and melted snow wash from the ground surface and enter stormwater grates located on roads and in parking lots, oil and grit separators:

- remove sediment
- screen debris; and
- separate oil

They prevent toxic substances from entering the City's stormwater system.

By preventing pollution from entering storm grates on our roads – which drain **UNTREATED** directly into our creeks, rivers and lakes – oil and grit separators help protect our local water sources and aquatic life.

### HOW DO THEY WORK?

Oil and grit separators allow larger particles to settle to the bottom, while oily fluids will rise to the top and be captured.

In order to function properly, these devices need to be maintained through inspections and cleaning.

Inspections should be performed annually, but cleaning frequency may range from one to several years, dependent upon site specific conditions.




### WHAT OIL AND GRIT SEPARATORS CAPTURE:

- ✓ OIL LEAKS FROM VEHICLES
- ✓ BRAKE MATERIAL
- ✓ HEAVY METALS
- ✓ SPILLS




Figure B6: Stormwater Oil and Grit Separators