



Guide to Managing Wastewater

Automotive Repair Industry



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This guide was developed with the cooperation of and input from the automotive repair industry.

For more information please contact:

Metro Vancouver
4730 Kingsway
Burnaby, BC
V5H 0C6
604-432-6200

icentre@metrovancouver.org



Developed for Metro Vancouver by Ideaspace and KWL



Introduction

The automotive repair industry provides an important service to Metro Vancouver residents and businesses. Automotive repair helps ensure vehicles are safe and reliable and prolongs the value of a significant investment.

Some of the materials found in the wastewater from the automotive repair industry can damage the wastewater system and pose a risk to fish and the natural environment.

Metro Vancouver has created this guide to help automotive repair operators manage wastewater safely and responsibly. To make sure the guide is practical and easy-to-use, Metro Vancouver consulted with representatives from the automotive industry.

We hope this guide reflects your business needs and provides you with convenient steps you can follow to manage wastewater in a way that safeguards the wastewater system and the natural environment.

Metro Vancouver is the regional government that represents 21 municipalities, one treaty first nation, and one electoral area in the Greater Vancouver area.

Metro Vancouver collects and treats wastewater to protect public health and the environment.

This guide will be of interest to the automotive repair industry, including, but not limited to, any commercial or industrial facility where cars, trucks, buses, engines and machinery are maintained, overhauled or refurbished.



Managing Wastewater Safely and Responsibly

Our research has shown most automotive repair companies care about the environment and want to manage wastewater safely and responsibly.

Automotive repair operators recognize that it is more efficient and cost-effective for the industry to voluntarily adopt recommended practices and avoid permits and regulations.

They have also told us they are aware that building and maintaining a good reputation with customers includes the responsible management of the waste products from their work.

Many operators are unaware that wastewater from automotive repair may contain sediments and pollutants that can damage pipes, clog pumps and block screens in the wastewater system. This stresses the wastewater system and costs money to maintain and repair.

Some of these pollutants may also pose a risk to fish and the natural environment.





Wastewater from automotive repair can contain:

- Oil and grease
- Fuels
- Antifreeze and windshield washer fluid
- Brake, carburetor, transmission and radiator fluids
- Heavy metals from road grime, sanding, exhaust, batteries and other sources
- Grit
- Spent acid from batteries
- Solvents and paint



DID YOU KNOW

As a shop owner or operator, you can help keep pollutants out of the wastewater system by keeping your shop clean. Prevent spills, keep floors clean to avoid tracking pollutants to other areas or outside, control sanding waste, and manage car wash water to keep it away from storm drains.



Safeguarding the Wastewater System and the Environment

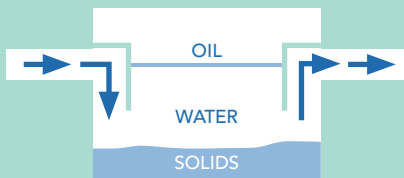
Recommended Practices

Auto repair operators play an important role. Here are some recommended practices to help manage wastewater safely and responsibly:



1. Capture Wastewater

Never discharge oil, grease, antifreeze or solids to the sewer system or any place where they may be introduced to a storm sewer or watercourse, such as a river, creek or stream.



2. Oil-Water Separator

Install an oil-water separator that captures runoff from all shop area floor drains and wash sinks before it goes to the sanitary sewer.*



3. Separator Maintenance

Inspect the oil-water separator monthly, and have it cleaned out by a qualified service provider. This should be done according to the manufacturer's maintenance recommendations, or, as a general guideline, before the oil level reaches 50mm (2 inches) above the outlet, and before the solids level reaches 150mm (6 inches) below the outlet (see diagram on page 8).

* An oil-water separator is a building and plumbing code requirement. Hire an engineer or a plumbing professional to help select the oil-water separator for your operation.



4. Automotive Fluids

Minimize the quantities of automotive fluids, cleaners, paints and solvents kept on site. Appropriately dispose of old or used fluids and containers through a Provincial Take Back Program (if applicable) or by returning to the supplier. For more information, check the Recycling Council of British Columbia website at www.rcbc.bc.ca or call 604-RECYCLE.



5. Labelling

Label automotive fluids, cleaners, paints and solvent according to WHMIS requirements and store in a secure area where spills can be contained.



6. Spill Clean-up

Promptly clean up spills with a dry absorbent and appropriately dispose of used absorbents as outlined on the spill kits.



7. Staff Training

Train staff on the practices described in this Guide, and maintain good records of inspection and cleaning to optimize the oil-water separator cleaning frequency.



Oil-Water Separator

In Metro Vancouver, wastewater from automotive repair can be discharged directly into a drain that is connected to the sanitary sewer system.

To safeguard the wastewater system and the natural environment, large particles and pollutants must be removed prior to discharge.

Many automotive repair operators are leading the industry by keeping a written record of oil-water separator inspections and pump outs. This helps ensure the separator is well maintained and able to keep oil, grease and grit out of the wastewater system.

[Click here to download the Oil-Water Separator Maintenance Log \(printable PDF file\).](#)


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Oil-Water Separator Maintenance Log

Keep one sheet for each oil-water separator on site.

Oil-water separator location (if applicable): _____

Dimensions (length, width, and wetted height): _____

Volume (cubic metres): _____

Note:
 Length (m) X width (m) X wetted height (m) X 0.000027 = cubic metres
 Length (ft) X width (ft) X wetted height (ft) X 0.0000284 = cubic metres

Separator Inspections

Inspect and record results of all chambers at least once per month.

Clean out within 7 days if:

- floating materials (oil and grease) exceed 5m (2 inches) or 5% of wetted height, or
- there is evidence of petroleum byproducts, or
- the amount of solids (sludge) exceed 50% of wetted height
- separator malfunction

DATE	JANUARY	FEBRUARY	MARCH	APRIL
Sludge (m)				
Floating material (m)				
Date of inspection				
Initials				

DATE	MAY	JUNE	JULY	AUGUST
Sludge (m)				
Floating material (m)				
Date of inspection				
Initials				

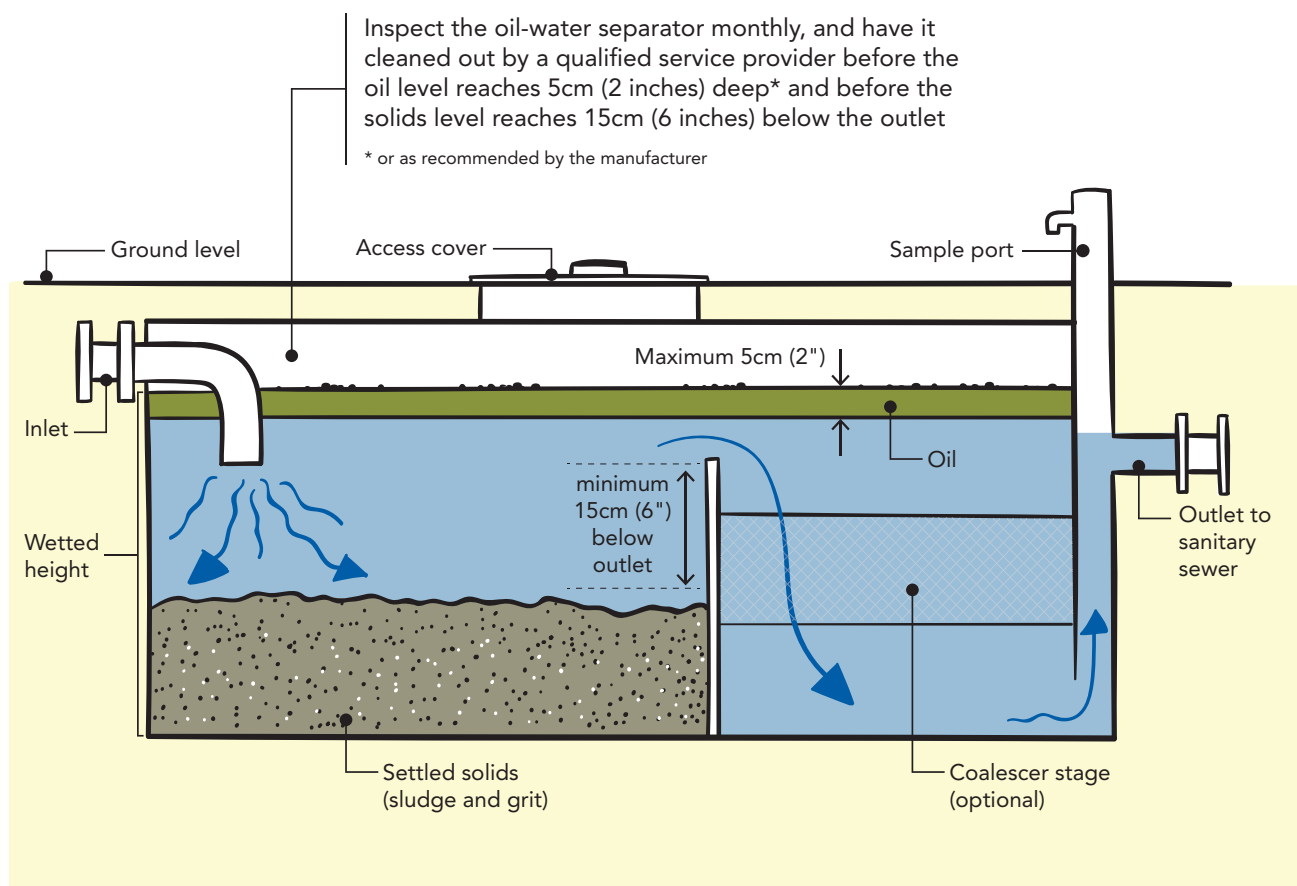
DATE	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
Sludge (m)				
Floating material (m)				
Date of inspection				
Initials				

Separator Clean-out

Oil-water separator must be cleaned out at least once every 12 months.

Record the name, address and phone number of each disposal or recycling company used.

DATE OF CLEAN-OUT	NAME	ADDRESS	PHONE NUMBER	REMARKS
Type of material removed (oil, solids, or oil)				
Quantity of material removed				
Contractor (name, address, phone number)				



This example of an oil-water separator illustrates when it should to be cleaned out by a qualified service provider in order to prevent oil, grease and grit out of the wastewater system.

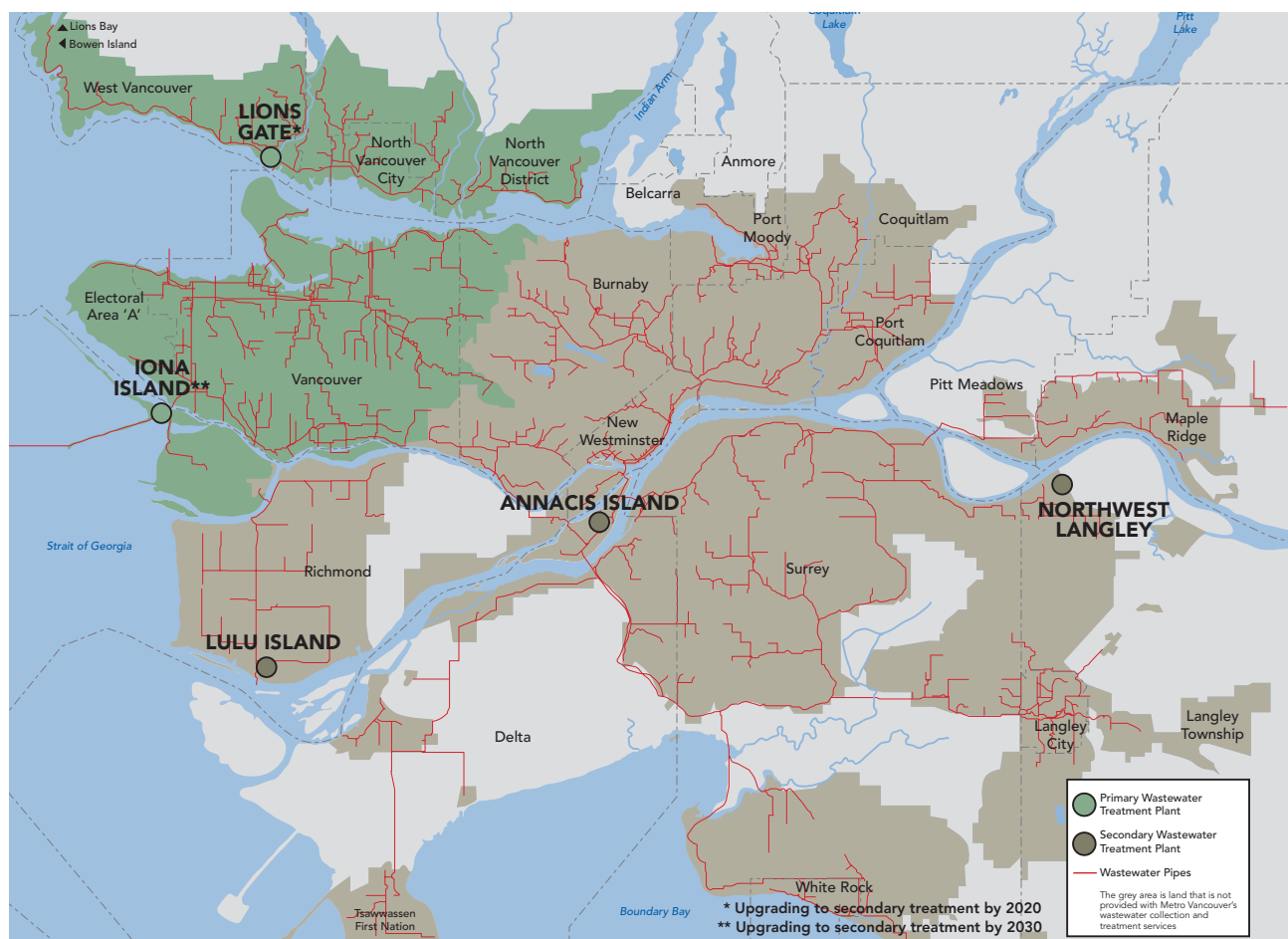
Understanding the Wastewater System

Metro Vancouver provides an important service to the region, collecting and treating wastewater to protect the environment and public health.

The wastewater system consists of private, municipal and regional trunk sewers that convey wastewater for treatment at one of five regional wastewater treatment plants. The treatment plants are regulated by the Provincial and Federal governments.

While Metro Vancouver and municipalities are responsible for managing approximately 50% of the wastewater treatment system, private businesses and residents are responsible for the other 50% of the system. That means, we have a shared responsibility to manage the wastewater system.

Metro Vancouver relies on a range of tools including codes and bylaws, education programs and guides to reduce or eliminate wastewater pollutants at their source.



In Metro Vancouver, there are estimated 6,400 km of private sewers, 7,100 km of municipal sewers and 530 km of Metro Vancouver sewers. The entire wastewater treatment system is approximately 14,030 km in length – that's the total distance from Vancouver to Halifax and back.

Complying with Regulations

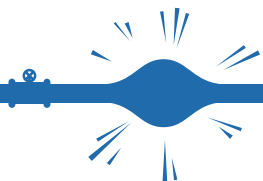
Regulations are in place to safeguard the wastewater system and protect the environment.

Metro Vancouver's Sewer Use Bylaw has been in effect since 1990. It applies to the direct or indirect discharge of waste into any sewer or drain connected to a sewage (also called wastewater) facility operated by Metro Vancouver.



DID YOU KNOW

A blockage or back up in a privately-owned section of the sewer system is the financial responsibility of the home or business owner.



The Sewer Use Bylaw is in place to:

- Protect human health, safety and the environment
- Protect the sewers and sewage facilities from damage and promote their efficient and cost-effective operation

Automotive industry operators are required to comply with the Sewer Use Bylaw. The Sewer Use Bylaw restricts the discharge of specific pollutants (including oil and grease, grit and solvents) into the sanitary sewer system.



DID YOU KNOW

The Automotive Retailers Association has an environmental compliance program designed specifically for shop owners.

Find out about the Green Garage Program:
www.ara.bc.ca/greengarage

Automotive repair is also regulated by building and plumbing codes, which require an oil-water separator to remove oil, grease and grit from wastewater.

All owners and operators should be familiar with Metro Vancouver's Sewer Use Bylaw. Non compliance can result in penalties and fines. Links to relevant codes and bylaws have been provided below.

Relevant Regulations

To find the regulations and requirements referred to in this guide, please go to:

Metro Vancouver Sewer Use Bylaw

www.metrovancouver.org (search for Metro Vancouver Sewer Use Bylaw)

BC Building Code

www.bccodes.ca

City of Vancouver Building Bylaw

www.vancouver.ca

Workplace Hazardous Materials Information System (WHMIS)

www.whmis.org

Notes

