

Oil/Grit Separator Systems

WHAT ARE THE BENEFITS?

- Capture oil and grit from polluted stormwater and snowmelt.
- Reduces impacts on our local lakes, rivers and groundwater sources.
- Removes free oil from storm water.
- Will not scour or resuspend trapped pollutants.
- Construction, operation, and maintenance costs are only slightly more than for a standard catchbasin.
- Can be easily retrofitted to an existing structure or built during new development.

CITY SEWER USE BY-LAW

Section 3.01 of the City of Thunder Bay Sewer Use By-law states that:

No person shall discharge or deposit or cause or permit the discharge or deposit of matter into the storm sewer that will obstruct the flow of the storm sewer, result in a hazard to any person, animal, property or vegetation, impair water quality or contravene the Ontario Water Resources Act or the Environmental Protection Act.

Section 3.01 of the Sewer Use By-law also provides a list of specific water quality parameters which must be met for substances disposed of in a storm sewer.



STORMWATER MANAGEMENT AND TREATMENT

Stormwater treatment controls are essential for preventing polluted runoff from roads, highways, parking lots, construction sites and bridges from reaching surface waters without treatment. This runoff can contribute large amounts of sediment, silt and hydrocarbons to surface waters, which can deteriorate water quality and lead to effects on marine wildlife and other ecological problems.

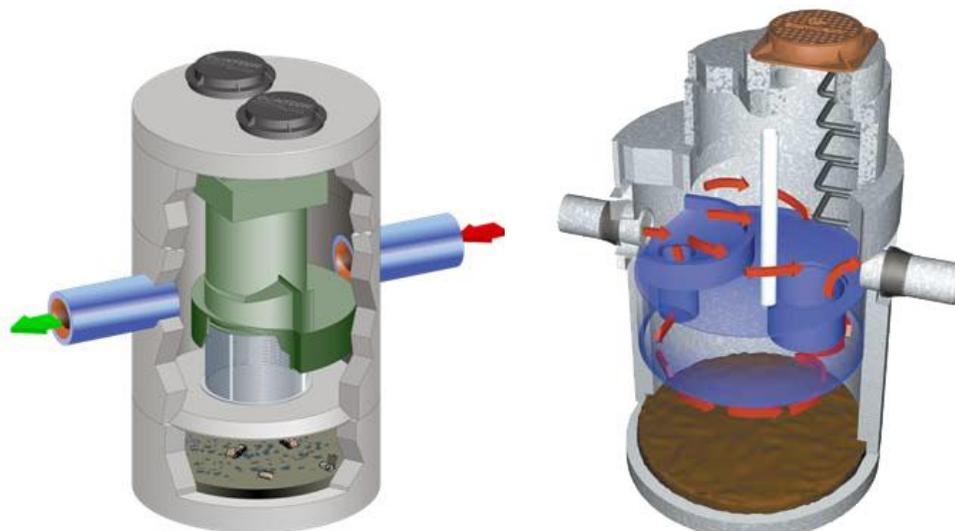
Heavy metals, oils, contaminants and debris from asphalt surfaces, traffic and spillage can attach themselves to soil particles and be carried with stormwater to our local waterways.

Stormwater management measures are best installed at the time of development to reduce pollution both during and after construction. These devices are buried underground or otherwise located so that the storm water will drain through them on its way to lakes and streams. Such measures can effectively limit the entry of pollutants into surface waters and groundwater and protect their quality, fish habitats and public health. Pesticides and fertilizers used on green spaces can pollute surface waters and groundwater when they filter into the soil, and are carried by surface runoff from the area where they are applied.

INSPECTION AND MAINTENANCE

The majority of oil and grit separators installed within the City of Thunder Bay are easily maintained by vacuum truck. Confined space entry procedures may be required for accessing these units. Inspection of the separator is usually required once per year or after any known spills have occurred.

Sediment accumulation in oil and grit separators can be easily measured from the surface by removing the maintenance cover and using a dipstick tube equipped with a ball valve (Sludge Judge[®]). Similarly, the presence of oil can be determined by inserting a dipstick tube into the separator. Maintenance of the separator should be performed once sediment and/or oil accumulations exceed the manufacturer's guidelines.



CDS – Oil/Grit Separator

Stormceptor

SUGGESTED MAINTENANCE PROCEDURE

1. Install an outfall pipe plug to insure no water/sediment or oil leaves the oil and grit separator during maintenance.
2. Pump out oil and dispose of oily water in compliance with all applicable regulations.
3. Hydrojet the inlet pipes from any upstream structures into the OGS.
4. Pressure wash the ceiling, walls and floor of the unit.
5. Clean any drop pipes, baffles or flow diverters.
6. Remove any sediment from the OGS chambers (manually or by vacuum) and dispose of sediments in compliance with all applicable regulations.
7. Remove the outfall pipe plug.