

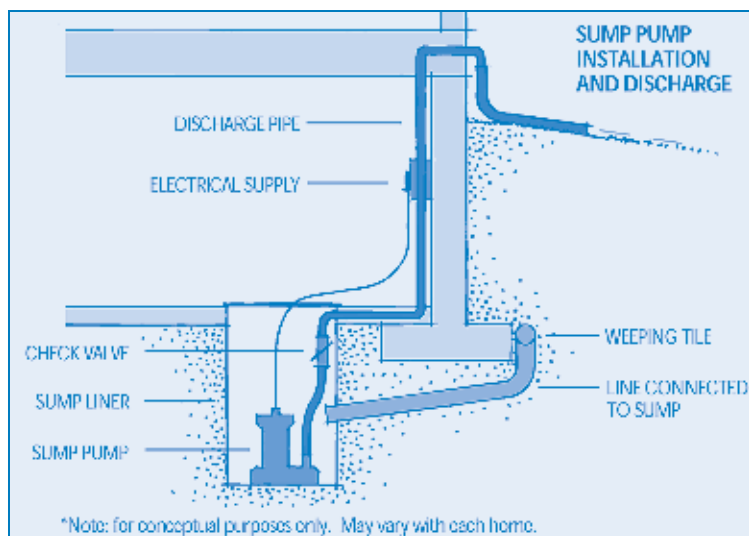
Sump Pump Guide

Over 60,000 homes in the Edmonton region may need their sump pumps replaced in the next five years. Yours may be one of them.

The majority of homes built since 1988 have a sump pump. A working pump plays an important part in flood prevention, channelling groundwater out and away from the home. If your home was built since 1988, you should be aware of the condition of your pump and whether it needs replacing. A good quality pump should last around 10 years, depending on how often it is working and the acidity and dirtiness of the water.

So, how can you find out whether you need a new pump? And, if you need to replace it, what should you look for in a new pump?





Finding and Testing Your Sump Pump

Different manufacturers have different recommendations for testing and maintaining your pump. Some recommend running the pump every two to three months, others recommend a yearly test. Follow any recommendations provided by the manufacturer. The pump should be located in a shallow pit (or sump) at the lowest point in your basement. Once you've located the pump, you can perform a simple 3-step test to ensure the pump is working properly:

1. Check to make sure power is running to the pump circuit.
2. Pour enough water into the pump well for the pump to begin working.
3. Check the outside pump pipe to ensure that water is flowing out from the discharge line outside your home. In some cases, the pump may run but not pump any water.

If you test the pump and it is not working properly:

- Check for debris blocking the suction intake.
- Listen for strange noises coming from the motor.
- Check for oil in the sump well (may indicate a failed pump seal).
- If the activating switch for the pump works on a float, check that the float is not restricted.

Depending on the problems you encounter you may want to consider getting your sump pump serviced or replaced.

**Caution: maintenance should be done by a qualified technician.*

Other Factors

Freezing: If your pump is operating during freezing weather there is a risk of freezing and line blockage. To prevent problems it is best to disconnect outside hoses prior to winter.

Recycling: If water from your sump hose discharges too close to your foundation, the ground water may recycle and end up back in your system, possibly endangering your foundation.

What to Look for When Replacing Your Sump Pump

There are some basic criteria for choosing a pump: size or capacity, pump type and horsepower. There are other factors specific to your home that may also influence your choice of pump, such as the volume of water your drainage system has to handle or the amount of grit in the water. In the end, you have to balance your needs with how much you want to pay. You can buy a cheaper pump but don't expect it to perform as long or as well. A higher quality pump is built from top quality components. Prices generally range from \$150-\$300 (2006) for a good quality pump.

Horsepower (hp)

- Minimum 1/3 hp recommended.

Size/Capacity/Performance

- Make sure to size your pump properly to ensure greatest efficiency.
- Get information on the pump capacity (the amount of water pumped in gallons per minute) and the height and distance the water needs to travel (referred to as "head").
- To avoid clogging, should be able to pass stones of up to 10 millimetres through the pipes.
- Pumping head should be a minimum of approximately 10 feet.
- Discharge line should be 1 1/4 inch pipe.

Pump Type

- ***Four common types: submersible, pedestal, water-powered and battery back-up.***
- Pedestal type may be better in highly corrosive areas.
- Water-powered pumps are not as efficient as electric.
- It is a good idea to have a pump that either has a back-up system (water-powered or battery) or an alarm to warn you if your pump fails.
- Back-up systems: water-powered or battery.

Quality

Pumps are tested against general standards and rated accordingly. Before purchasing a pump, check whether the pump meets standards such as the CAN/CSA 22.2 No. 108 "Liquid Pumps". This information is available on websites such as www.ul.com.

Sump Pit Requirements

If your sump pit is incorrectly sized, it will affect the operation of the pump. The pump is most efficient when it is working at its optimal flow rate, based on the capacity of the pit. The City's building code sets out minimum requirements for sump pit size:

Pit depth: 750 mm

Pit area: 0.25 m²

A sump pit cover is required, and should be designed to be child-proof (to prevent children from removing the cover and entering the pit).

Purchasing Checklist

(use to compare models you are considering for purchase)

Feature	Minimum requirement	Model:	Model:	Model:
Horsepower (hp)	rated 1/3 hp			
Pump capacity (gallons per minute)	specific to each home			
Pump head (sump level to pipe exit from home)	approx. 10 to 12 ft.			
Solids handling	allows stones up to 10 mm to pass			
Discharge line size	1 1/4 inch pipe			
Check valve	recommended			
Back-up system / alarm	recommended			
Warranty	generally 1-2 years			
Approved by Canadian Standards Association	recommended			

Please call **496-5591** or visit **www.edmonton.ca/floodprevention** from more information.