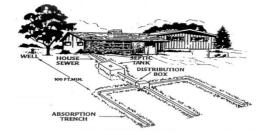
#### General

A household septic system will serve a home satisfactorily only if it has been properly located, designed, constructed and maintained. In many cases, the systems now in use at CBC are dated and may be operating at less expected, much less than designed, efficiency. While potentially 'grandfathered', many are no longer in compliance with current codes. The purpose of this brochure is to explain how the system works, how to operate it efficiently and how it can best be maintained. Our manager, while not an expert in septic systems, is fully knowledgeable about general matters and should be the first call if anyone has a question or detects that something may be amiss.

#### How It Works

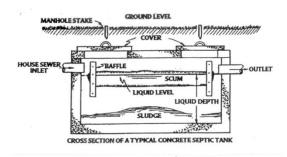
A typical household sewage treatment system consists of a house sewer line, septic tank, distribution box and absorption/

drain/leach field (ADL field) or seepage pit/cesspool.



**Sewer Line** – The pipeline carrying household sewage ('blackwater') and drain water ('greywater') to the septic tank.

**Septic Tank** – A watertight underground metal or concrete box from 500- to 1,000-gallon capacity used to retain, store and treat household effluent. When sewage enters the tank, heavier solids settle to the bottom (sludge) and lighter solids, fat and grease rise to the surface (scum). Bacteria attack everything in the tank to form the first level of treatment. Bacteria break down about 95% of new scum and sludge; the balance remains and accumulates in the tank and will ultimately require removal.



Distribution Box – Partially treated effluent flows from the tank and is distributed evenly into the ADL field. Unequal distribution could overload one section of the field, rendering it less effective by ½ to ½.

ADL Field — Typically containing 2 or 3 trenches, this is where effluent is naturally purified as it percolates down through the soil. The trenches are partially filled with washed gravel or crushed stone into which perforated or open joint pipe is placed.

Seepage Pit or Cesspool – A covered pit with a perforated lining through which the tank's discharge infiltrates into the soil. Generally, this is less effective than using an ADL field.

#### **Good Operating Habits**

- Best operation occurs when the combined depth of sludge and scum is less than ¼ of the liquid depth of the tank. When the tank is too full, bad things can happen: solids are carried into the ADL field; clogging occurs; failure of the field results; and the field must be repaired or replaced. This can be a health and environmental hazard ... and very expensive to fix. Regular pumping is essential!
- Conserve water and space out heavy water-using activities.
  Large volumes of greywater over short periods can flush solids into the ADL field.
- No grease or cooking oils that can harden in the scum layer and clog outlet pipes.
- No paints, thinners, solvents, or drain cleaners that kills bacteria.
- Detergents, kitchen wastes, laundry wastes and household chemicals in normal amounts generally will not kill bacteria.

- Do put cigarettes, disposable diapers, tissues, catbox litter, coffee grounds, cotton swabs, sanitary napkins into toilets.
- Garbage grinders substantially increase the accumulation of solids in the septic tank and the solids entering the ADL field. Their disadvantages outweigh the convenience they provide and are not recommended unless the tank has been 'oversized' for this purpose.
- Camps with washing machines should be especially careful about over extending the septic tank's normal-usage capacity. Heavy duty use of washing machines might warrant a separate dry well or seepage pit.
- All roof, footing, downspouts and surface water should drain away from the ADL field. If necessary, install a ditch or berm to intercept the flow.
- Avoid trees (especially willows and others that like 'wet feet') growing in the immediate area of the ADL field; this can clog.

#### **Maintenance**

#### PUMP ... PUMP ... PUMP!!

Have your tank pumped (about \$225) every 3 - 5 years and save yourself 20X that much by NOT having to repair your ADL field! If the field has to be replaced, and brought up to code, the cost could be 40X - 50X higher.

Repair defective toilet tank valves and leaky faucets; install low-flow appliances.

#### What To Do Now!

- 1. Sign up with Mark to have your tank pumped this spring.
- We have interviewed two firms, both approved by Mark:

Morrisonville Septic in Cadyville Don Rabideau: 518-293-6680

**Roto-Rooter** in Plattsburgh Pat Leary: 518-561-8760

 Based on submitted prices (special this year for CBC) and services offered, we have selected

to be our 'spring pumper'. Cost will be about \$225 per tank (plus or minus an increment based on size of tank, whether it has been located, difficulty of uncovering, etc.). Call or email Mark to include your camp. After pumping, you will be billed and receive a diagram locating your system.

- 2. At the end of each season, when closing up camp, flush a 'bacteria enhancing additive', such as *Rid-X* (Morrisonville Septic sells a private label, *Pro-Pump*, for \$40/year's supply). Otherwise, bacteria will die out and the sludge pile builds.
- 3. For other septic system info:

Jason Fuller (Steve's son – in charge of their septic business) 518-834-4617

**Tom LaBombard** (local engineer with septic design experience) 518-834-7729

## SEPTIC SYSTEMS

At

### **Corlear Bay Club**

# Operation & Maintenance

**CBC Environmental Committee** 

Spring, 2014