

SUMMER VILLAGE OF POPLAR BAY

BYLAW NO. 232

A BYLAW FOR THE PURPOSE OF REGULATING RESIDENTIAL AND COMMERCIAL SEWAGE FACILITIES IN THE SUMMER VILLAGE OF POPLAR BAY

WHEREAS the Municipal Government Act, 2000, c.M-26 and amendments thereto provides that a council of a municipality may pass bylaws for the safety, health and welfare of people and the protection of people and property and to regulate activities and things in, on or near a public place or place that is open to the public;

AND WHEREAS the Municipal Government Act 2000, c.M-26 and amendments thereto permits the Council, by bylaw, to control or prohibit development and to respond to present and future issues;

AND WHEREAS the Municipal Government Act 2000, c.M-26 and amendments thereto, permits the summer village to impose fines for bylaw offences;

AND WHEREAS the Council of the Summer Village of Poplar Bay deems it advisable to adopt such a bylaw;

NOW THEREFORE the Council of the Summer Village of Poplar Bay in the Province of Alberta, duly assembled, enacts as follows:

- 1.0 Name of Bylaw:
 - 1.1 This Bylaw shall be known as "The Wastewater Bylaw."
- 2.0 Definitions: In this bylaw,
 - 2.1 'Summer Village' means the Summer Village of Poplar Bay
 - 2.2 'Sewage' means a) human excreta, or b) the water-carried wastes from drinking, bathing, laundering or food processing.
 - 2.3 'Black water' means waste water from a toilet or outhouse
 - 2.4 'Grey water' means all other waste water besides black water
 - 2.5 'Septic Tank and Field" means a tank or chamber(s) within a tank used to provide primary treatment of wastewater through the process of settling and floating of solids and in which digestion of the accumulated sludge occurs. The treatment field means a system of effluent dispersal and treatment by distributing effluent within trenches containing void spaces that are covered with soil
 - 2.6 'Holding tank' means a sewage facility, buried underground, that permits no waste water to escape
 - 2.7 "Safety Codes Officer" means a Safety Codes Officer in the plumbing discipline holding Group B qualifications.
 - 2.8 "Wastewater Collection System" means a piping system for collecting Wastewater operated by the Village or a contractor selected by the Village, either alone or in cooperation with other municipalities
 - 2.9 "Compliant Holding Tank" means a tank that retains wastewater or effluent (with no leakage in or out) and be in good structural condition for transfer of

wastewater to an approved treatment facility in accordance with the standards described in Schedule A.

- 2.10 "Compliant Field" means the septic tank retains wastewater or effluent with no loss and is in good structural condition in accordance with the standards described in Schedule A.
- 2.11 "Certified Maintenance Inspector" means the holder of a Private Sewerage Certificate of Competency granted by Alberta Municipal Affairs and who has been approved by the Summer Village

3.0 General

- 3.1 This bylaw is applicable to parcels of land within the Summer Village that are producers of sewage, Black water, and/ or Grey water. This includes all parcels of land where the property owner uses a recreational vehicle as a residence.
- 3.2 Parcels of land as outlined in 3.1 require that all black and grey water pipes be connected to a compliant holding tank.
- 3.3 All existing outhouses must be decommissioned or connected to a compliant holding tank as per Poplar Bay Outdoor Privy Bylaw #217.
- 3.4 New holding tank installations are required to conform to the standards outlined in Schedule A. A Development Permit is required prior to commencement of any work. Holding tanks must be inspected by a Safety Codes Officer after it has been installed but before it is buried in the ground.
- 3.5 All wastewater-producing parcels within the Summer Village must connect to a Wastewater Collection System within one year of such system being provided.

4.0 Inspections:

- 4.1 All existing holding tanks, septic tanks and septic fields must be inspected by a Certified Maintenance Inspector to ensure they conform to the Alberta Private Sewage Systems Standard of Practice 2009 and the standards described in Schedule A.
- 4.1(i) If it can be demonstrated to the satisfaction of the Summer Village that the holding tank is less than 10 years of age as of the date of this bylaw, the holding tank must be inspected prior to the 10th anniversary of the holding tank installation.
- 4.1(ii) If the holding tank is greater than 10 years of age as of the date of this bylaw or if the age of the holding tank cannot be demonstrated to the satisfaction of the Summer Village, it must be inspected prior to May 31, 2013.
- 4.1 (iii) All existing septic tanks and fields and must be inspected before May 31, 2013.
- 4.1 (iv) Subsequent to an inspection pursuant to the above, holding tanks, septic tanks and septic fields must be inspected by a Certified Maintenance Inspector at least every 10 years.
- 4.1 (v) Section 542 of the Municipal Government Act authorizes municipal inspections and enforcement under this bylaw.

4.2 Following an inspection pursuant to the above, the Certified Maintenance Inspector shall issue an inspection report to the Summer Village Office.

4.2(i) Upon receiving written notice of a sewage facility that is in need of repair or is not compliant with the bylaw, the Summer Village will notify the property owner(s) within 30 days. The property owners(s) will have 30 days to notify the Summer Village of their intentions and 60 days from notification date to repair or replace their sewage facilities as specified. An extension may be granted by Summer Village Administration in the event of extenuating circumstances.

4.2(ii) Any property owner with a non-compliant sewage facility who fails to upgrade the sewage facility as ordered within the specified time frame will be subjected to a fine and the Summer Village may contract to have the facility upgraded to a conforming holding tank and the contaminated soil removed and replaced, with all costs charged to the property owner.

5.0 Severability:

Each separate provision of this Bylaw shall be deemed independent of all other provisions, and if any provisions of this Bylaw are declared invalid all other provisions shall remain valid and enforceable.

6.0 Fines:

6.1 The property owner of a lot who fails to upgrade their sewage facility as ordered within the specified date, or

6.2 The property owner of a lot who fails to upgrade their sewage facility as a condition of a compliance certificate, may be subject to a fine of:

\$2,000.00 for the first offence

\$5,000.00 for the second and any subsequent offence.

6.3 The property owner who wilfully dumps black or grey water on their lot or any other Summer Village property will be subject to a fine of:

\$5,000.00 for the first offence

\$7,500.00 for the second and any subsequent offence.

7.0 Repeal:

7.1 Bylaw #226 is hereby repealed.


8.0 Enactment:

This bylaw comes into effect on the date of the third reading.

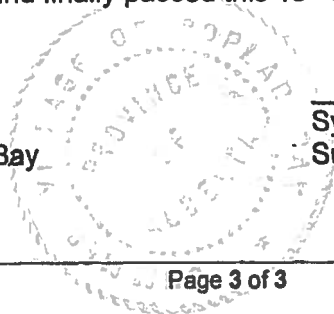
READ a first time this 18th day of May, 2012

READ a second time this 18th day of May, 2012

READ a third time and finally passed this 19th day of June, 2012



Kevin Davies, Mayor
Summer Village of Poplar Bay





Sylvia Roy, CAO
Summer Village of Poplar Bay

SCHEDULE A
Poplar Bay Bylaw 232, the Wastewater Bylaw

PURPOSE:

The purpose of this Schedule is to outline the principles that will govern the regulation of residential and commercial sewage facilities in the Summer Village of Poplar Bay.

STATEMENT:

It is the intent of the Summer Village to ensure that all sewage facilities are in compliance with relevant Federal, Provincial and Municipal legislation, standards and guidelines, in order to promote the health, safety and welfare of residents.

REFERENCES:

- **Municipal Government Act 2000, c.M-26**
- **Alberta Private Sewage Systems Standard of Practice**
- **Alberta Safety Codes Act**
- **Bylaw 217 - Privies**

SCOPE:

The scope of this Schedule includes all parcels of land within the Summer Village that produce wastewater. This includes all parcels of land where the property owner occupies a recreational vehicle.

DEFINITIONS:

Wastewater: Wastewater includes sewage (human excreta, or the water-carried wastes from drinking, bathing, laundering or food processing), black water (waste water from a toilet or outhouse) and grey water (all other waste water besides black water)

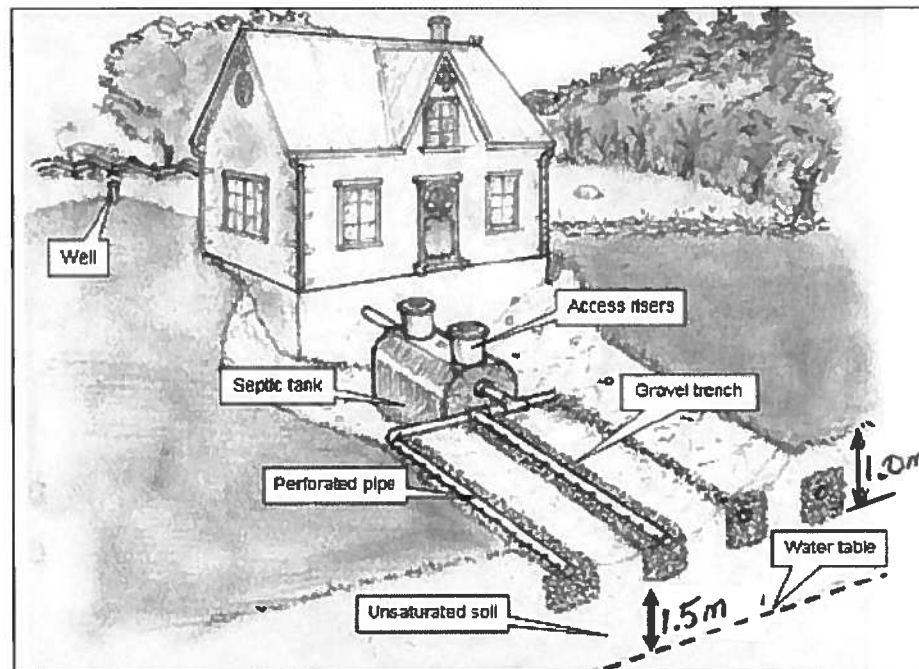
Holding Tanks: Holding tanks come in a wide variety of shapes, sizes and materials. They can be made of concrete, fiberglass, reinforced plastic, polyvinylchloride or polyethylene. The manufacture and design of the containment tank is governed by CSA Standard B66-10 that specifies the properties of the materials, load carrying capacities, depth of burial, design parameters, minimum reinforcing and manufacturing specifications.

The function of the tank is to **capture wastewater and to contain it** for future disposal, by pump out, to a Government Approved Treatment facility. Most tanks are either single or double compartment. The purpose of multi-compartment tanks is to provide separation between the solids and liquids within the tank. Each compartment must be pumped separately to get the tank completely empty. It is important to remember to leave at least a foot of liquid in the bottom of the tanks over the winter season to prevent the ground under the tank from freezing, which could cause movement of the tank and disconnection of lines. Similarly in areas of high

water tables, empty tanks may need to be weighted down to prevent them from floating up in the soil due to buoyancy.

Septic Tanks: A septic tank is a buried, watertight container, which accepts wastewater from your house. Septic tanks can be made from concrete, polyethylene or fiberglass and in the past were sometimes made from steel. Current tanks have two compartments, while older tanks may only have one compartment. Solids settle to the bottom of the first tank to form a sludge layer, and oil and grease float to the top to form a scum layer. The tank should be pumped out every three to five years or when 1/3 of the tank volume is filled with solids. Bacteria, which are naturally present in the tank, work to break down the sewage solids over time, and reduce it to sludge.

Septic Fields: The wastewater exits the septic tank via piping to the leaching bed or field, a system of perforated pipes in gravel trenches on a bed of unsaturated soil (minimum 0.9m/3ft. deep). The wastewater percolates through the soil where microbes in the soil, which require oxygen to survive, remove additional harmful bacteria, viruses and other nutrients before returning the treated effluent to the groundwater. The bottom of the treatment field laterals must be located a minimum of 5 feet (1.5m) above the seasonally high water table or an impervious layer of soil. Tests have shown that as fields grow older the percolation into this ground is reduced, due to solids plugging the water paths in the soil and results in water buildup in the laterals causing a breakdown of the microbes that were treating the wastewater flow. When this happens, the field has 'failed' and is no longer compliant with private sewage standards and will have to be decommissioned.



Credit: Eric Brunet, Ontario Rural Wastewater Centre, University of Guelph
Typical Septic System

PROCEDURES:

Inspection of Existing Sewage Facilities

All developments require that all black and grey effluent water pipes be connected to a holding or septic tank. The design of the tank must meet or exceed the *General System Requirements*

as set forth by The Safety Codes Council, Alberta Private Sewage Systems Standard of Practice 2009 (2.1.2) and the design must be adaptable for connection to a the proposed municipal wastewater collection system.

Inspection and testing of all sewage facilities will be performed by a Certified Maintenance Inspector (CMI) who holds a valid Private Sewerage Certificate of Competency granted by Alberta Municipal Affairs and who has been approved by the Summer Village. All sewage facilities must be inspected by a CMI every 10 years. Property owners are responsible for all costs associated with the inspection of sewage facilities.

During the inspection, distances to wells, water courses and sources, buildings and property lines will be noted. Any deviations from the 'Separation Distances' outlined in the Alberta Private Sewage System Standard of Practice (listed below) will result in a non-compliant inspection. In these situations the property owner must **seek a variance** from the Department of Municipal Affairs (information available from Village office). The tank must be tested and deemed compliant in order to seek a variance. If the variance is not approved, the property owner will be required to take action to bring the sewage facilities into compliance.

Separation Distances

A Septic Tank or Holding Tank shall not be located within

- a) 1 meter from a property line
- b) 10 meters from a water course (stream or lake)
- c) 10 meters from a water source (well)
- d) 1 meter from a building

A Septic Field measured from any part of a weeping lateral trench shall not be located within

- a) 15 meters from a water source (well)
- b) 15 meters from a water course (stream or lake) except as provided in Article 2.1.2.4 of the *Alberta Private Sewage Systems Standard of Practice*.
- c) 1.5 meters from a property line
- d) 10 meters from a basement cellar or crawl space
- e) 1 meter from a building that does not have a permanent foundation
- f) 5 meters from a building that has a permanent foundation but does not have a basement or crawl space
- g) 5 meters from a septic tank or packaged treatment plant.

INSPECTION PROTOCOL FOR HOLDING TANKS

- **With Man Way**

- 1) The man way(s) is/are opened. Tank must be power washed to a clean condition and all material pumped from all chambers of the tank.
- 2) The tank may or maybe not be entered but is visually inspected to ensure its structural integrity and water tightness.
- 3) The tank is inspected for visible leakage of groundwater infiltration into the tank and inspected to ensure sewage is not leaking out of the tank. The structural integrity of the

tank is a key indicator of both intrusion and extrusion of water and will be carefully noted during the inspection procedure.

- 4) Man way(s) put back on tank.
- 5) Report made and issued to Summer Village Office for furtherance onto the property owner.

The report will describe the procedure, shape and size of tank, condition of tank and comment on whether alarms or electricity is present at the tank.

An acceptable tank will have no ground water leakage (in or out) and be in good structural condition (no cracks)

- **Without Man Way**

- 1) Tank is power washed and vacuumed through evacuation tube
- 2) Video camera and light lowered through evacuation tube.
- 3) The tank is inspected for visible leakage of groundwater infiltration into the tank and inspected to ensure sewage is not leaking out of the tank. The structural integrity of the tank is a key indicator of both intrusion and extrusion of water and will be carefully noted during the inspection procedure
- 4) Camera and light removed from Evacuation tube.
- 5) Report made and issued to Summer Village Office for furtherance onto the property owner.

The report will describe the procedure, shape and size of tank, condition of tank and comment on whether alarms or electricity is present at the tank.

An acceptable tank will have no ground water leakage (in or out) and be in good structural condition (no cracks)

Note: If it is not possible to properly clean the tank, or there are more compartments than evacuation tubes, or the evacuation tube is too small, the only option is to excavate down to the tank and visually inspect the tank.

INSPECTION PROTOCOLS FOR SEPTIC FIELDS

An acceptable septic tank and field will have:

- 1) No ground water leakage (in or out) of the tank and be in sound structural condition (no cracks)
- 2) Baffle shall be in good working condition
- 3) Lateral trenches shall be no more than 3 feet (1 meter) deep
- 4) Gravel above and below the pipe
- 5) 2" (50mm) effluent or less in the lateral pipes.
- 6) Soil conditions below pipe allowing drainage
- 7) Separation from water table as specified in the SOP.

- **Phase I**

- 1) Access man ways will be removed to observe liquid levels in the chambers of the tank and the condition of the baffle(s) to ensure they are in the correct position to function as intended to prevent solids from entering the effluent compartment and to prevent debris from entering the outlet pipe. Sludge depth and surface scum will be noted.

- 2) The pump may be cycled by manual or automatic mode to ensure proper working condition. The bell and syphon will be visually inspected to ensure it is correctly mounted and that the effluent liquid level is properly maintained in the tank.
- 3) The lateral trenches will be identified, surface characteristics noted and hand auguring will typically test the following key operating features.
 - a) Depth of soil cover over the lateral
 - b) Total depth of trench lateral
 - c) Materials of construction in trench lateral
 - d) Effluent ponding level in trench lateral
 - e) Soil conditions and type as determined by visible field analytical methods and hand texturing methodologies.
 - f) Setback distances will be noted and specifically any conflicts with setback distances to any water source or course on or off the property.
- 4) Any visual observations of the area indicating stress due to a field.
- 5) Report made and issued to Summer Village office for furtherance onto the property owner.

- **Phase II**

Phase II occurs when Phase I deems that the field is non-compliant and owner wishes to use the septic tank as a holding tank.

- 1) Tank must be power washed to a clean condition and all material pumped from all chambers of the tank.
- 2) All areas of tank inspected
- 3) Field disconnected
- 4) Lids replaced
- 5) Report made and issued to Summer Village office for furtherance onto the property owner

- **Phase III**

Phase III inspection will occur when the Phase I inspection deems that the field is non-compliant and the owner wishes to challenge the inspection findings.

- 1) As in phase I items 1 to 5.
- 2) Hand auger and core to a depth of 4 feet, 1 foot from the edge of a lateral and place a perforated plastic pipe to allow water samples to be taken. Return 1 day later to obtain water samples and water levels.
- 3) A water sample will be taken in the primary chamber of the Septic tank and one sample will be taken from the observation tube.
- 4) The following effluent levels will be expected.
 - a. Primary effluent strength expected to be
 - i. 150 mg/L CBOD5 or less
 - ii. 100 mg/L TSS or less and
 - iii. 15 mg/L oil and grease or less
 - b. Secondary treated effluent (field)
 - i. 25 mg/L CBOD5 or less (83.3 % reduction)
 - ii. 20 mg/L TSS or less (70% reduction)
 - iii. 10 mg/L oil and grease or less (33.3% reduction)

INSPECTION PROTOCOL FOR PRIVIES

As per Bylaw 217 all privies shall have a compliant holding tank to prevent contact between waste water and ground.

Privies will be entered and visually inspected to determine if

- 1) A compliant holding tank is in place (It may be necessary to employ a vacuum truck to confirm this).
- 2) Whether the privy has been properly abandoned by filling the hole and refitting the structure to another use.

Installation of New Sewage Facilities

Septic tanks and fields are not permitted on new developments in the Summer Village of Poplar Bay. New holding tank installations are required to conform to the Alberta Private Sewage Systems Standard of Practice 2009 and must be installed by a Certified Installer who has been approved by the Summer Village. A Development Permit is required prior to commencement of any work. Holding tanks must be inspected by a Safety Codes Officer in the plumbing division holding Group B qualifications, after it has been installed but prior to being buried. The minimum capacity for a holding tank for new developments shall be 6,700 litres (1,500 gallons) unless a waiver regarding the minimum has been approved by the Development Officer. The tank must have two compartments and man ways to surface (24" minimum). Once installed, all holding tanks must be inspected by a CMI every 10 years.

When a Property is sold

A compliance certificate will be issued by the Summer Village if the property has a wastewater holding tank that has been inspected and deemed compliant or if it can be demonstrated that the holding tank is less than 10 years old. When a lot with a non-compliant holding tank is sold, a compliance certificate will be issued on the condition that the sewage facility is upgraded to a compliant holding tank within 90 days of the possession date. An extension may be granted by Summer Village administration in the event of extenuating circumstances.