PLANNING & DEVELOPMENT SERVICES
38106 Range Road 275
Red Deer County, AB T4S 2L9
Phone: 403.350.2170
Fax: 403.346.9840

Private Sewage Disposal System – Setbacks

Septic Tanks or Sewage Holding Tanks shall not be located within:

- 1 m (3.25 ft) from property line or from any building.
- 10 m (33 ft) from any water source or water course.

No part of the Disposal Field measured from any part of a trench shall be located within:

- 1.5 m (5 ft) from any property line.
- 15 m (50 ft) from any water source or water course.
- 5 m (17 ft) from a septic tank or package treatment plant.
- 10 m (33 ft) from any basement, cellar or crawl space.
- 1 m (3.25 ft) from any non-basement building or does not have a permanent foundation.
- 5 m (17 ft) from a building that has a permanent foundation but no basement, cellar, or crawlspace.

No part of a Treatment Mound shall be located within:

- 3 m (10 ft) from any property line.
- 15 m (50 ft) from any water source or water course.
- 3 m (10 ft) from a septic tank.
- 10 m (33 ft) from any basement, cellar or any non-basement building.

An Effluent discharge to the ground surface shall not be located within:

- 50 m (165 ft) from any water source.
- 45 m (150 ft) from a water course or from a building.
- 90 m (300 ft) from any property line.

A Lagoon that serves a single dwelling or duplex shall not be located within:

- 100 m (330 ft) from any water source or water course.
- 45 m (150 ft) from a building.
- 30 m (100 ft) from any property line.

On a Property that adjoins a permanent body of water such as a lake, river, stream, or creek, the effluent disposal component of a private sewage system shall be located:

- Not less than 90 m (300 ft) from the shore of the body of water; or
- Where a principal building is located between the system and a body of water, the distance may be reduced to the minimum distance requirements for that method of treatment and disposal.

All measurements shall be taken from the outside of the Berm, where the side slope of the Berm intersects with the natural grade.

Septic Tanks for Houses and Duplexes

Number of Bedrooms	Minimum working capacity of Septic Tanks in Litres (gallons)
3 or less	3,360 (740 IG)
4	4,260 (940 IG)
5	5,220 (1,150 IG)
6	6,130 (1,350 IG)

For advise on selecting a private sewage system, visit:

http://www.municipalaffairs.gov.ab.ca/cp_selecting_private_sewage_system

This checklist will help you choose the right system for your home and ensure the system complies with the Standard of Practice.

Some Factors to Consider ***System and Site Selection***	**Checklist**
Will the installer obtain a permit and provide you an inspection report? Make sure the person doing the work for you is a certified installer. The owner is entitled to a copy of the permit and inspection report(s) from the inspection agency. A copy of the Permit and Inspection Report may be required if and when you sell your property.	
Will the installer arrange for an inspection prior to covering the system?	
Was a site evaluation performed? A proper site evaluation requires a visit to the site to examine the site conditions and determine the type and size of system you need.	
Was the underlying soil analyzed to identify soil layers that affect system performance and was it determined that there are no saturated soil conditions present that can harm the system? The soil under the surface can change rapidly. A thin soil layer below the bottom of your system can prevent or slow the sewage effluent soaking into the soil making the system fail. Soils saturated with water during parts of the year can also cause a system to fail.	
Has there been consideration of the S.A.R. (Sodium Adsorption Ratio) of the water used in your home or if a water softener is used in the home? Water with a high S.A.R. can reduce the soil's ability to absorb and move the water especially when significant amounts of Montmorillonite clay are in the soil. Sodium based water softeners can increase the S.A.R. of the water.	
Were other system types and designs considered or proposed? A number of technologies are available and there is usually more than one solution for sewage treatment at a site. Each offers advantages and disadvantages. Know what these are and pick the system that best suits your needs.	
System Capacity	
Have the specific characteristics of your home been considered in determining what the "Expected Volume of Sewage per Day" used to design the system is? Minimum volumes are specified in the Standard and are based on the number of bedrooms for a basic home. If your home has features, beyond the basic home, that might increase water use, additional volumes should be included.	

Is the size of the septic tank large enough for your home? The minimum septic tank size (working capacity) is specified in the Standard, i.e. 4 bed home = 940 gallons (4260 liters). The size is increased when a garbage grinder is used or when using pressure distribution piping in a disposal field or mound. Note that the "Model #" is often NOT the "Working Capacity" of the "Septic Chamber" and cannot be used for sizing purposes. Septic tanks must be labeled and certified to comply with CSA Standards.	
System Sizing	
Is the size of the soil-based effluent treatment system (e.g. disposal field) different in each proposal(s) you have received from the certified installer(s) and are they the right size? If there is a difference between the sizes of systems proposed, determine the reason for the difference and which is right for you. Ask your installer questions about the design. Some types of Private Sewage Systems can reduce the soil-based effluent treatment area required as compared to others. The required size of the effluent treatment system varies greatly depending if the system utilizes primary treated effluent (i.e. septic tank) or secondary treated effluent (i.e. package treatment plant, sand filter, mound, etc.). System sizing is also dependent on the manner in which the treated effluent is distributed to the final soil treatment component, such as gravity or pressure distribution. Another variable is whether the soils are sandy soils and clayey soils. Clayey soils will typically have a slow infiltration rate and require a large soil infiltration area as compared to sandy loam soil. The soil must be investigated using a testpit to develop a characterization of the soil profile down to 5 to 9 feet below surface. This investigation needs to determine the texture, structure and grade of the different soil layers (with a soil sample from the depth of the soil profile that most impacts the design and this sample must be sent to a certified laboratory for particle size analysis), these characteristics considered together dictate the ability of the soil to absorb and treat the effluent. It is critical to the effectiveness of your system that it be sized for your soil type and the constraints that may exist in the soil (i.e. shallow groundwater, restrictive soil layers such as fine-grained clays or coarse-grained sands, etc.). Without this information the design of your sewage system is likely to be inadequate and can lead to failure within a couple of years or less.	
System Operation	
Is a complete operations and maintenance manual provided for the system? Ask for a sample of the operations and maintenance manual that will be provided for the overall system. The maintenance manual should be specific to your system and provide principles of operation, construction details, and all operating and maintenance requirements.	
Have any water treatment devices you plan to use been considered in the design of the system? Water treatment devices may cause problems within the private sewage system if they are not considered in the system design.	