

Private Sewage Disposal Systems (PSDS)

A Private Sewage Disposal System does much more than make your sewage soak into the ground. The system treats the sewage to prevent the transmission of disease to your family or neighbours and prevents damage to the environment.

Q: I'm building a new house or adding a second residence, what do I need to know about private sewage?

There are many different types of private sewage systems available: open discharge, treatment field, treatment mound, septic tank and lagoon. Red Deer County requires a preliminary private sewage form and detailed site plan with your development permit application. This process will help you determine where and what type of system you would like to install.

Considerations commonly overlooked:

- costs of a new sewer system;
- best location for the dwelling and sewer (keep a diagram of the location);
- setbacks from property lines, bodies of water, other buildings on-site;
- keeping the sewer site from being compacted before and after the system is installed;
- keep down spouts and other surface water flows away from the septic system;
- maintain your septic system regularly.

Once you are ready to apply for your private sewage permit, the applicant must provide Red Deer County's Safety Codes Department with the System Design Support Documents, including the following:

1. A detailed drawing shall be provided showing distances from the effluent component design to the following:
 - a) property lines
 - b) residence or building being served
 - c) water source
 - d) water course
 - e) septic or sewage holding tank
 - f) lagoons

Meeting the required setback distances of your chosen sewage system is **TOP PRIORITY**, for setback requirements, go to: <http://www.ijd.ca/homeowner-hints/private-sewage-hints>

2. A site evaluation shall be done in accordance to the requirements of Article 7.1.1.2.(1) & (2) of the Alberta Private Sewage Standard of Practice 2009.
3. The characteristics of each soil profile investigated shall be described using Canadian System of Soil Classification and include soil profile descriptions as set out in Article 7.1.1.2.(3) of the Alberta Private Sewage Standard of Practice 2009.

4. A soil sample of the most limiting condition affecting the design shall be collected and analyzed at a laboratory using a recognized grain or particle size analysis method to determine the texture of the soil.
5. Work sheets showing calculations for treatment components are required along with system design documents. Examples and templates for these design documents and work sheets can be viewed at: www.municipalaffairs.alberta.ca/CP_PSDS_DesignToolsAndForms.cfm.

A certified installer is highly recommended to design and install your sewage disposal system. When hiring a certified contractor, ensure they do the following minimum investigations on your property to prepare you with a quote:

- estimate the volume of sewage per day from your household;
- determine the size of your septic tank and the best location for your septic system;
- explore other suitable/alternative Private Sewage Disposal Systems;
- identify any signs of seasonal saturation or high water tables that may affect your system design;
- confirm the clearance from water sources, water courses, property lines, dwellings and any other buildings.

For a complete list of certified installers in Alberta go to:

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

Q: What are the signs that my septic system may be failing and what do I do?

- sewage odours indoors or outdoors;
- water (sewage) surfacing in your yard (often above your leaching field);
- tile bed area is frequently wet and spongy;
- backup of sewage into your house;
- a change in plant growth and algae (excessive growth) in nearby ponds and lakes;
- contamination in well water tests (increased levels of nitrates and coliform bacteria).

If your system is failing, please call a certified installer as soon as possible to investigate the issue and to prevent potential contamination.

Helpful Links

Homeowner Information - Advice for Selecting a Private Sewage System:

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

Planning Your Private Sewage Disposal System:

<http://www.aowma.com/home-owners/new-systems/>

Maintaining your Sewage System:

<http://www.aowma.com/home-owners/maintenance/>