



Onsite Sewage Disposal

Context

While some Electoral Area residents rely on communal methods of sewage disposal, most rely on the use of individual onsite systems. There are a range of onsite sewage disposal methods available ranging from a basic type 1 conventional septic system which includes a septic tank and a dispersal field to more advanced type 2 and 3 systems which treat wastewater to produce higher quality effluents.

When properly designed, sited, and maintained, septic systems are an efficient and safe treatment and disposal option. However, when not properly designed, sited or maintained, they pose risk of contamination of surface and groundwater resources, which can lead to public health and environmental concerns.

Legislative Framework

The *Sewerage System Regulation* and *Public Health Act*, administered by Island Health apply to systems that:

- Process a sewage flow of < 22,700 litres per day (approximately 16 - 20 three bedroom dwelling units).
- Serve single-family systems or duplexes.
- Serve different buildings on a single parcel of land.
- Serve one or more parcels on strata lots or a shared interest of land.

The *Sewerage System Regulation* lists three types of approved sewage systems and requires that the design and installation of these systems be certified by a Registered Onsite Wastewater Practitioner or professional engineer.

Systems that produce more than 22,700 litres per day and most systems that discharge into water are authorized under the *Environmental Management Act* administered by the Ministry of Environment.

Current challenges

Although septic systems can be an effective means of wastewater disposal, they pose some inherent challenges as summarized below:

State of regulatory oversight for ongoing maintenance

Once designed and installed by an authorized person there are no regulatory or enforceable reporting requirements to ensure that homeowners have their septic system inspected and maintained by an authorized person.

Aging septic systems on small lots

Electoral Area 'H' has many existing small parcels (2000 m² (0.5 acres) or less) which are serviced with septic systems of various types and ages.

Although septic systems can typically operate in an efficient and safe manner for many years if properly maintained, at some point the system or its components will need to be repaired or replaced.

Septic systems which have not been properly maintained pose a risk to groundwater, surface water, and ultimately human health.

Achieving the densities envisioned in the OCP on lands located in the Rural Village Centres

Septic systems occupy land which cannot be used for development. It may be difficult to physically achieve the densities and intensities of use envisioned in the rural village centres using septic systems (eg. Bowser).

Point Source Vs. Non-Point Source

Unlike community sewer systems which have a single operator and outfall, each septic system has its own disposal field and must be individually maintained. It is more difficult to control and monitor non-point source emissions.

Septic Disposal

What are the minimum parcel size requirements for lands serviced with a septic system?

There is an important distinction to be made between new and existing parcels.

For new parcels, Island Health has published subdivision standards which are considered to be the minimum standards for the creation of new parcels. The intent of the standards is to provide a viable long-term solution for parcels serviced by septic systems, thereby eliminating the need for costly community sewer systems in the future.

The smallest minimum parcel size supported by the standards is dependent on the availability of community water, the slope within the discharge area, and soil depth. According to the standards, ***under ideal conditions***, the smallest parcel size supported with a connection to a community water system is 2,000 m² (0.5 acre) and without a community water service connection is 1.0 ha (2.47 acres). For the most part this is consistent with current zoning.

For existing parcels, it is important to consider that there are many small <2,000 m² (0.5 acre) parcels in Electoral Area H. Most of these lands may be serviced by a community water system while others may not. Parcels of <2,000 m² (0.5 acre) serviced with a septic system would typically no longer be permitted because of the challenges identified in this document and because they are not consistent with the OCP and Regional Growth Strategy. In addition, subdivision may not be approved by the Ministry of Transportation and Infrastructure due to servicing limitations.

Maintaining separation distances to protect drinking water

It may be difficult on small lots to maintain adequate separation distances between a septic system and a well. The *Sewerage System Regulation* requires that a sewerage system be located at least 30 metres from a well. A lesser setback may be permitted under the regulation if a professional hydrologist determines that doing so would not result in a health hazard.

Ensuring land is available for reserve field

It is important to have a backup plan should the need arise to replace a failing septic system. Small lots provide less opportunity for the establishment of a reserve field should one be required. Maintaining larger lot sizes in areas serviced by septic systems helps to avoid potential problems in the future.

Where are septic systems most suitable?

Septic systems are a cost effective choice in rural areas where there is adequate land available for both a disposal field and a reserve field. This helps achieve community goals related to growth management.

Considerations for Community Sewer

The provision of community sewer services is an integral component of complete compact communities within the Regional District of Nanaimo Rural Village Centres. These services are required to support the densities and types of development envisioned by the OCP.

Due to the high cost of providing community sewer, compact higher density development is essential. Larger lots and greater separation distances require more infrastructure and are less efficient to operate and maintain. In addition, there are fewer property owners who benefit from the service, which typically results in higher individual costs.

What role could the OCP play?

Although the authority to authorize onsite sewage systems rests with the Province, the OCP can play an important role through the identification of goals, objectives, policies, and implementation actions that relate to land use, protection of the natural environment, and servicing.

For example, the OCP could contain policies that apply at the time of rezoning which require a the use of a type 2 or 3 system for parcel of a certain size, development in environmentally sensitive areas, or development of a certain intensity.

RDN Initiatives

⇒ The RDN Septic Smart Program currently offers septic system maintenance rebates? For more information [click here](#) or visit the RDN website at www.rdn.bc.ca.

For More Information

- [Environmental Management Act](#)
- [Sewerage System Regulation](#)
- [Public Health Act](#)