



# Guidelines for Subdivision



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# Definitions

**Approving Officer:** A Provincial approving officer, appointed by the B.C. government, approves subdivision plans in regional district electoral areas and in the Island Trust after all requirements are met. Subdivisions within a municipality will be approved by the municipality.

**Authorized Person:** Professional Engineer and Geoscientists with background and experience in on-site sewage disposal; Registered On-site Wastewater Practitioner (ROWP) with Planner designation.

**Breakout point:** a point down grade of an absorption field or lagoon where effluent could surface onto the land, enter a drain, cross a property boundary, or enter surface water. For example, existing and proposed ditches, drains, cut banks, sharp embankments, building foundation drains, etc.

**Discharge area:** an area designated to be used to receive effluent discharged from a treatment method. For example, an absorption field or lagoon.

**Domestic purposes:** the household use of water, for the preparation of food, dishwashing, personal sanitation, and general household cleaning and laundry, generated during operation and support of the household.

**Domestic water system:** means a system by which water is provided or offered for domestic purposes.

**Domestic sewage:** means human excreta and waterborne waste from the preparation and consumption of food and drink, dishwashing, bathing, showering, and general household cleaning and laundry.

**Effluent:** sewage, water or other liquid, partially or completely treated or in its natural state, flowing out of a septic tank, subsurface wastewater infiltration system, aerobic treatment unit, or other treatment system or system component.

**Potable water:** means water that meets the standards prescribed by the Drinking Water Protection Regulation and is safe to drink and fit for domestic purposes.

**Seasonal high water table:** means the highest level of ground water in the proposed absorption field or lagoon area.

**Sewerage system:** means a system for treating domestic sewage that uses one or more treatment methods and a discharge area, but does not include a holding tank or a privy

**Surface water:** means a natural watercourse or source of freshwater, whether usually containing water or not, and includes:

- a. a lake, river, creek, spring, ravine, stream, swamp, gulch and brook, and
- b. a ditch into which a natural watercourse or source of fresh water has been diverted, but does not include ground water or water in a culvert that is constructed to prevent the contamination of a watercourse by domestic sewage or effluent.

**Treatment method:** means a treatment method for domestic sewage classified as Type 1, Type 2 or Type 3 where,

- a. Type 1 is treatment by septic tank only,
- b. Type 2 is treatment that produces an effluent consistently containing less than 45 mg/L of total suspended solids and having a 5 day biochemical oxygen demand of less than 45mg/L, and
- c. Type 3 is treatment that produces an effluent consistently containing less than 10 mg/L of total suspended solids and having
  - a. A 5-day biochemical oxygen demand of less than 10 mg/L, and
  - b. A median fecal coliform density of less than 400 Colony Forming Units per 100 mL.

**Unsaturated native soil:** means soil placed by natural geological processes that is above the seasonal high water table and has not been artificially disturbed.

**Water supply system:** means a domestic water system, other than a domestic water system that serves only one single-family residence.

The BC Sewerage System Standard Practice Manual (SPM): ([Appendix A](#)) also has a detailed Glossy of Terms. If there were to be a conflict in definition of terms, the SPM would be considered correct.

## Introduction

### Background

Approving Officers from the Ministry of Transportation and Transit, Regional Districts, or Municipalities may refer subdivision applications to Northern Health for comment, as indicated in the *Local Services Act, Subdivision Regulations*. Subdivision applications that are referred to Northern Health are assessed on the basis of current provincial health legislation and Northern Health policies and guidelines. Once an assessment has been completed, recommendations are provided to the Approving Officer. Northern Health does not provide any form of “approval” regarding the subdivision of land.

The Approving Officer will only refer those subdivision application have lots less than 2 hectares to Northern Health. However, if the Approving Officer has a concern with an application where lots are 2 hectares or larger, these may also be referred to Northern Health.

*This guideline also applies to “Residential Development Applications” (purchase/lease of Crown Land) that are referred to Northern Health by FrontCounter BC (on behalf of the Integrated Land Management Bureau).*

## Purpose

The purpose of this guideline is to:

- Safeguard public health and the environment by ensuring that each proposed lot of a subdivision can either (a) reliably support an on-site sewage disposal system, or (b) be serviced by a community sewage disposal system
- Avoid the creation of lots that cannot support the installation of established and proven sewage disposal systems. All new lots should be suitable for their intended use without having to be serviced by costly, high risk, high maintenance or experimental sewage systems
- Protect drinking water sources

The information below can be used by Authorized Persons when conducting their site assessments and writing their assessment reports to ensure all requirements are included.

This guideline has been adapted using current best practices, but for accurate and up to date specifications on sewerage system design and installation please refer to the Sewerage System Standard Practice Manual.

## Subdivision Referral Process

When a land owner applies for a subdivision, their application may be reviewed by several referral agencies, including Northern Health. A Northern Health Environmental Health Officer reviews the subdivision application and provides comments to the Approving Officer on the suitability of the proposed new lots for installation of an on-site sewage disposal systems. Environmental Health Officers will not assess a subdivision application unless they have received a written referral from an Approving Officer.

There is an **administrative fee** for processing subdivision applications referred to Northern Health. This fee must be paid in full before the assessment of the application will begin. The base fee for a subdivision application is \$200. There is an additional fee of \$100 for each lot that is created. For example, the fee for a five-lot subdivision, or four lots and a remainder would be

$\$200 \text{ (base fee)} + (5 \times \$100) = \$700$

The subdivision application must contain a site assessment report prepared by an **Authorized Person**. If it does not, the Environmental Health Officer will inform the Approving Officer, in writing, of what components are missing.

The site assessment report **MUST** include a written statement that the Authorized Person has reviewed all the below criteria and conducted the necessary testing, and has identified two (2) suitable dispersal areas (or 1 for proposed lagoons) for each proposed lot (including any remainders that are less than 2 hectares), that when used for on-site sewerage disposal (Type 1 trench system or lagoon), will not create a health hazard. If the lot(s) cannot support a Type 1 trench system or lagoon but can support a Type 2 or Type 3 system, the report will be reviewed but the subdivision likely will not be recommended for approval. The report (including the site plan) must be signed and sealed by the Authorized Person.

The information required in the site assessment report is described in the **Subdivision Application Checklist**.

## Recommended Minimum Lot Sizes

Local government is responsible for community planning, including determining lot sizes. However, in cases where this is no zoning, it is recommended the following minimum lot sizes be observed:

- For lots that will be serviced by a “water supply system”, as defined in the *Drinking Water Protection Act*, the recommended minimum lot size is 0.2 hectares (0.5 acres).
- For lots that will have individual water systems (wells), the recommended minimum lot size is 1.0 hectares (2.5 acres).
- For lots that will be serviced by a lagoon system for on-site sewerage disposal, the recommended minimum lot size is 1.6 hectares (4.0 acres).

## Water Supply

Each lot in a subdivision should have an adequate supply of potable water. This may be achieved by having an individual domestic water system for each lot, by the extension of an existing water supply system, or by the construction of a new water supply system to service the subdivision.

**At this time, we are not requiring land owners to prove availability of potable water.**

However, if a water system is proposed an EHO may review it and comment on its suitability.

*Note: surface water sources are not recommended to serve single-family residences due to costly and complex treatment requirements.*

A water supply system that will serve anything other than one single-family residence must meet the requirements of the *Drinking Water Protection Act* and *Drinking Water Protection Regulation*. One of these requirements is that a construction permit must be obtained from the health authority prior to extending, constructing, or installing a water supply system. If a water supply system is proposed, it will be recommended to the Approving Officer that a construction permit be obtained by the applicant before final subdivision approval.

# On-Site Sewage Disposal

Each proposed lot in a subdivision should have sufficient area, with suitable conditions, to accommodate an on-site sewage disposal system capable of reliably servicing a single-family four-bedroom residence. Alternatively, lots may be serviced by a community sewage disposal system.

If a commercial development is proposed, the sizing of the sewage disposal system(s) must be based on a reasonable estimate of the typical flow rate that will be generated by the facility. Sufficient detail regarding the proposed commercial development must be provided in the application so it can be determined whether the proposed sewage disposal system(s) are appropriately sized and sited.

**Note: the subdivision of land on the basis of sewage holding tanks will not be considered.**

## Floodplains

To protect sewage disposal systems from flooding, the proposed discharge areas must be located above the 200-year floodplain (If that information exists). It is incumbent on the land owner or Authorized Person to provide the floodplain information. Some lot(s) may be required to have specialized surveys to establish the floodplain elevation as set by the Ministry of Environment or Regional District bylaw.

## Absorption Fields

Absorption fields are the most common and accepted method of effluent dispersal. Assessment of the lots will be based on their suitability to accommodate a sewage disposal system with Type 1 treatment. Systems with Type 1 treatment are generally less expensive and require minimal maintenance compared to Type 2 or Type 3 systems. In addition, some areas do not have qualified maintenance providers available to service Type 2 and 3 systems. As such, lots that can only support a type 2 or type 3 system will not be recommended for approval.

Whether or not an absorption field is suitable for a particular site is dependent on many factors including, the depth of native soil, the permeability of the soil, the location of the ground water table and/or restrictive layer, the slope of the land, etc.

For each proposed lot, **two** suitable absorption field areas must be identified (primary and reserve). A reserve area is required because absorption fields have a limited life span. When the primary field fails, a suitable area for replacement field will be needed.

## Siting

When considering the siting of absorption fields, the following minimum requirements must be met:

- There must be a minimum of 1.2 metres (4 feet) of unsaturated, permeable native soil above the seasonal high water table for restrictive layer. If lots are larger than 2 hectares (5 acres) in size, then reduced native soil depths may be considered.
- The slope of the land in the proposed absorption field area cannot be greater than 25%
- The minimum horizontal setback requirements, as specified in Appendix A, Table 1

## Sizing

The following is to be taken into account when sizing proposed absorption field areas:

- The sizing of the absorption field areas is to be based upon a minimum design flow rate of 1600 litres (375 gallons) per day (4 bedroom residence).
- The sizing of the absorption field areas is to be based upon the Hydraulic Loading Rate for effluent that has undergone Type 1 treatment (septic tank), as specified in the *BC Sewerage System Standard Practice Manual*.
- Ideally, percolation rates in the proposed absorption field areas should be between **2-30 minutes per 2.5 cm**. Areas with percolation rates that are between 30-60 minutes per 2.5 cm may be considered for an “extended” absorption field system provided the soil conditions and lot size are suitable. Soils in the 30-60 minutes per 2.5cm percolation range, which have moderate to strong platy structure, are **not** suitable.
- Areas with percolation rates less than 1 minute per 2.5 cm are generally not acceptable for Type 1 effluent. However, the Environmental Health Officer may consider areas with percolation rates less than 1 minute per 2.5 cm if the soil depth is in excess of 2.5 metres and ground water is not at risk of contamination. Additional information from a Professional Geoscientist or Hydrogeologist may be required in these situations.
- The sizing of the absorption field areas is to be based on subsurface trenches that are 0.6 metres (2 ft) wide and spaced 1.8 metres (6 feet) apart on-center,
- If the slope in a proposed absorption field is 5% or greater, than an additional 1% overall increase in size, for each 1% of slope, is needed. For example, if the slope of the land in the absorption field is 15%, an additional 15% overall increase in the size of the absorption field is necessary.



## Lagoon Systems

In certain situations, a lagoon system may be an acceptable form of on-site sewage disposal. If a lagoon is proposed for on-site sewage disposal, the following minimum requirements must be met:

- A minimum lot size of 1.6 hectares (4.0 acres)
- A minimum of 3 metres (10 feet) of unsaturated native soil
- The percolation rates in the proposed discharge area must be 60 minutes per 2.5 cm or slower
- The slope of the land in the proposed discharge area cannot be greater than 12%
- The minimum horizontal setback requirements, as specified in Appendix A, Table 1,
- The minimum lagoon size requirement for a four-bedroom residence, as specified in the *BC Sewerage System Standard Practice Manual*.

A reserve area is not required for a proposed lagoon system.

Lagoon systems are based on the concept that the output of effluent from the lagoon (through evaporation and transpiration) is greater than the input (sewage flow and precipitation). Thus, whether or not a lagoon system is appropriate is very dependent on the local climate. Even if the above minimum requirements are met, a lagoon may not be feasible because of the local climate, or, in some cases, a lagoon with a larger surface area or multiple cells may be required.

## Existing On-Site Sewage Disposal Systems

In some cases, subdivision applications include proposed lots that have an existing dwelling with an existing sewage disposal system. Existing sewage systems must be assessed to ensure functionality and that they do not pose a health or safety hazard. If documentation cannot be provided to show that the existing system was constructed in accordance with provincial health legislation (e.g. a permit issued by and EHO or a Letter of Certification), an Authorized person must inspect the system. This information should be included in the Authorized Person's assessment report as per the **Subdivision Application Checklist** In addition, the application must still demonstrate that the proposed lots have a reserve discharge area.

Note: If, in the opinion of an Environmental Health Officer or the Authorized Person, an existing sewage disposal system is causing a health hazard, the system will need to be appropriately repaired or replaced.

## Section 219 Covenants

Section 219 Covenants (pursuant to Section 219 of the *BC Land Title Act*) are registered limitations on a property. Covenants are registered with the Land Title Office and can inform future landowners of the limitations of the property prior to purchase, identify areas where they can or cannot build, and can protect sewage discharge areas from being inadvertently damaged or destroyed. In certain circumstances, the registration of a Section 219 Covenant on a lot, in order to protect and reserve sewage discharge areas, may be recommended to the Approving Officer. For example, a Section 219 Covenant could be recommended on lots that are less than 1 acre in size or on lots with only one suitable area for a primary and reserve absorption field. It is the responsibility of the land owner to have a covenant prepared, if the Approving Officer requires one.

## Community Sewage Disposal System

If a community sewage system intended to service a subdivision has a combined designed daily domestic sewage flow of less than 22,700 litres (22.7m<sup>3</sup>), the *Sewerage System Regulation* applies. The development of community systems may be a complex, expensive, and time-consuming process. However, in some situations it may be the best or only option. The following minimum criteria will need to be considered for community systems:

- Community systems must be pursued under the *Strata Property Act* and associated Regulations. The strata corporation created is ultimately responsible for the operation and maintenance of the sewage system
- Both a primary and reserve sewage discharge area is required
- The community sewage system must be designed by a professional engineer experienced in soils, hydrogeology, and sewage disposal systems
- If the system falls under the *Sewerage System Regulation*, a Certified Operator must perform operation and maintenance of the community system.
- If the system has a combined design daily domestic sewage flow of more than 22,700 litres, the *Sewerage System Regulation* is not applicable and the system falls under Ministry of Environment jurisdiction and the *Environmental Management Act*, and *Municipal Wastewater Regulation* apply.

## Required Soil Testing and Site Evaluation

For each proposed lot, an Authorized person must identify 2 suitable sewage dispersal areas. To demonstrate that these areas are suitable, the following must be completed:

### Percolation Tests

A minimum of two percolation test holes are required in each proposed discharge area (primary and reserve). The “Percolation Test Procedure” is in Appendix C. Test holes will not be inspected by Northern Health and should be filled in when testing is complete to prevent entry or injury.

### Soil Evaluation

A minimum of two observation holes are required in each of the proposed discharge areas (primary and reserve). Observation holes must be dug at each end of the proposed discharge area to a minimum depth of 1.5 metres for a proposed absorption field or a minimum depth of 3.0 metres if a lagoon is proposed. The Authorized Person must evaluate the site and soil of the observation holes and include their assessment in their written report. Details to be included are described in Subdivision Report Criteria for Authorized Persons.

## Additional Information / Documentation

The information requested in the previous sections and in the **Subdivision Application Checklist** is the minimum information required to assess the suitability of a lot for on-site sewage disposal. Depending on the complexity and scale of the proposed subdivision, and the site constraints identified, an Environmental Health Officer may require additional site information or documentation so they can provide appropriate recommendations to the Approving Officer. For example, additional observation holes, percolation test holes, or a prolonged water table assessment may be required if submitted test results are variable or if there is uncertainty about the seasonal high water table. The Environmental Health Officer may also request a hydrogeological assessment from a Professional Geoscientist or Hydrogeologist when the drainage of surface water, permeability of the soil, density of the development, or any other site constraints indicates further study is necessary.

## Summary of Requirements

	Septic Tank and Field	Lagoon
Minimum lot size	Lots with a water supply system – 0.2 hectares (0.5 acres) Lots with individual water systems – 1.0 hectares (2.5 acres)	1.6 hectares (5 acres)
Discharge area required	Primary and reserve for each proposed lot	Primary for each lot
Minimum depth of unsaturated native soil above the seasonal high water table or restrictive layer	1.2 metres (4 ft.)	3 metres (10 ft.)
Percolation rate	2 – 30 minutes per 2.5 cm (30 – 60 minutes per 2.5 cm may be considered for extended absorption fields)	60 minutes per 2.5 cm or slower
Maximum land slope in discharge area	25%	12%
Depth of observation holes	1.5 meters	3.0 metres (10 ft.)

## Links and Resources

BC *Local Services Act* - Subdivision Regulations:

[https://www.bclaws.gov.bc.ca/civix/document/id/complete/statreg/262\\_70](https://www.bclaws.gov.bc.ca/civix/document/id/complete/statreg/262_70)

BC Sewerage System Regulation:

[http://www.qp.gov.bc.ca/statreg/reg/H/Health/326\\_2004.htm](http://www.qp.gov.bc.ca/statreg/reg/H/Health/326_2004.htm)

BC Sewerage System Standard Practice Manual:

<http://www2.gov.bc.ca/gov/content/environment/waste-management/sewage/onsite-sewage-systems/sewage-system-standard-practice-manual>

To obtain a listing of Professional Engineers and Geoscientists:

<http://www.apeg.bc.ca/members/sewageprolist.html>

To obtain a listing of Registered Onsite Wastewater Practitioners:

<https://asttbc.org/registrants/registant-directory/#>

To obtain a listing of British Columbia Land Surveyors:

[http://www.abcls.ca/?page\\_id=26](http://www.abcls.ca/?page_id=26)



## Appendix A

**Table 1: Horizontal Setback Requirements**

Distance to	Septic Tank and Field		From watertight septic tank (metres / feet)
	Lagoon	Absorption Field	
Property lines	15 m / 50 ft.	3 m / 10 ft.	1 m / 3 ft.
Source of drinking water, well or water suction lines	30 m / 100 ft.	30 m / 100 ft.*	30 m / 100 ft.
Water lines (pressure)	7.5 m / 25 ft.	3 m / 10 ft.	3 m / 10 ft.
Break-out point or down slope drain (including building perimeter drain)	15 m / 50 ft.	7.5 m / 25 ft.	0
Building non-dwelling (where there is no perimeter drain)	15 m / 50 ft.	1 m / 3 ft.	1 m / 3 ft.
Building dwelling (where there is no perimeter drain)	60 m / 200 ft.	1 m / 3 ft.	1 m / 3 ft.
Buried utility services	1 m / 3 ft.		1 m / 3 ft.
Surface Water	30 m / 100 ft.		15 m / 50 ft.
Drinking water cistern at or above ground	1 m / 3 ft.		1 m / 3 ft.
Drinking water cistern below ground	30 m / 3 ft.		

\* For domestic water supply wells with high pumping rates, in unconfined aquifers, the minimum horizontal separation from an absorption field/dispersal system is 90m.

Refer to *Sewerage System Standard Practice Manual* for more information.

## Appendix B

### Discharge Area Sizing for 4-Bedroom House

(Max. 2530 ft.<sup>2</sup> or 235 m<sup>2</sup>), Type 1 System, 2-ft. (0.6 m)  
Wide Tranches, 6-ft. (1.8 m) Spacing On-Centre, Slopes < 5%

Hydraulic Loading Rate (litres/m <sup>2</sup> /day)	Total Length of Trenches (m)	Layout (# of lines by length in m)	Min. Area for 2 Fields (m <sup>2</sup> )	Min. Area for 2 Fields + 10% (m <sup>2</sup> )
39	73	3 x 24.2	232	256
34	83	4 x 21	277	305
29	98	4 x 24.5	323	356
25	113	5 x 22.7	381	419
20	142	6 x 23.6	481	530
15	189	6 x 31.5	643	707
10	283	10 x 28.3	985	1083

More area is required to install trenches on a slope because the installation must follow the natural contours of the land. Developers will be required to allow for larger discharge areas and protect these area(s) by covenant if the lots are small or the area suitable for effluent discharge is limited.

**For slopes of 5% and greater:** Add 1% for each percent of slope. This is in addition to the 10% added in the initial calculation of basic field size. For example, for a 15 percent slope, add 15 percent to the size given in the last column in the table above.

**Example:** Hydraulic Loading Rate of 25 litres /m<sup>2</sup>/day and a slope of 12%.

It can be determined from the table above that for a Hydraulic Loading Rate of 25 litres/m<sup>2</sup>/day the minimum area required for 2 fields is 419 m<sup>2</sup>. Since the slope is 12% an additional increase of 12% to the area is needed, giving a total of 469 m<sup>2</sup>.

**Note:** The sizes given in the table above are calculated using a particular configuration of field lines. The calculation can be done using different configurations and the end result will differ slightly. The discharge area sizing table above is a guideline for *typically* required discharge areas.

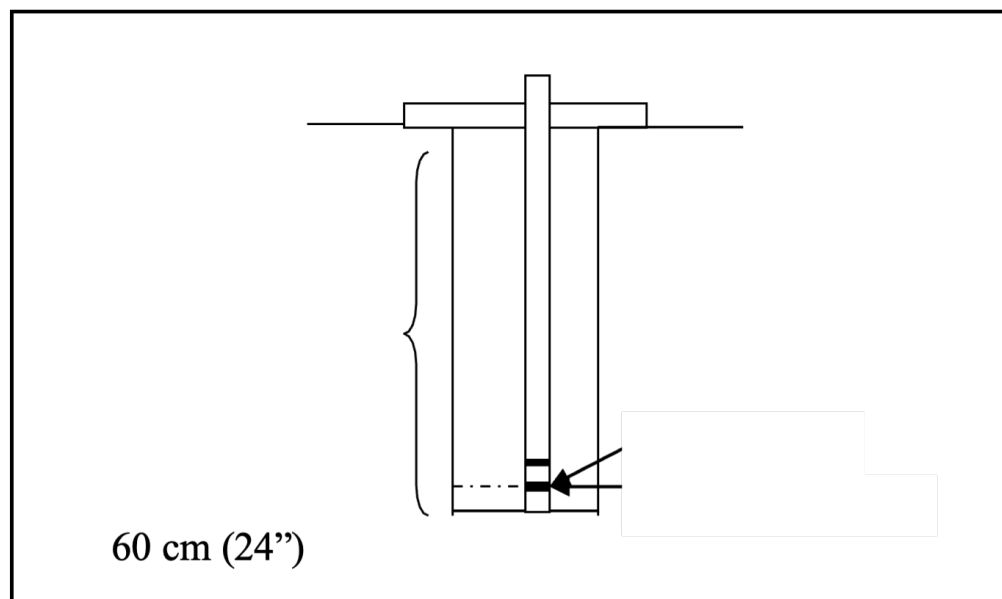
# Appendix C

## Percolation Test Procedure

The primary and reserve areas must both be tested. Two holes are required on each disposal area.

1. Dig a hole 30 cm (1 foot) square to the proposed depth of the absorption field, usually about 60 cm (24 inches) to 75 cm (32 inches) deep.
2. Remove any smeared soil from the sides of the holes with a rake or shovel.
3. Pre-soak the test holes by keeping the holes filled with water for a minimum of 4 hours. *If clay soils are present, keep test holes filled overnight.*
4. Place a stick with markings (e.g. nails) at 12.5 cm (5 inches) and 15 cm (6 inches) from the bottom. Place the stick in the test holes.
5. Allow the water to drain within 12.5 cm (5 inches) of the bottom of the test holes, then refill the hole to a level above the 15 cm (6 inch) mark.
6. Prepare to time the rate of water level drop in the hole. When the water level drops to the 15 cm (6 inch) mark, commence timing. Stop timing when the 12.5 cm (5 inch) mark is reached. Record the time in minutes per 2.5 cm (inch).
7. Repeat steps 5 and 6 until the last two rates do not vary by more than 2 minutes per 2.54 cm.
8. Determine the percolation rates by averaging the slowest rate for each of the holes.

*Do not continue the timing if 120 minutes per 2.5 cm (1 inch) has been reached.*



**Note:** Complete one Percolation Test Results form for each lot.

**Proposed Lot #** \_\_\_\_\_

**Percolation Test Results – Primary Area**

Test Hole #1	Test Hole #2	Soil Test Performed By:
1st timing _____ min / inch	1st timing _____ min / inch	Name:
2nd timing _____ min / inch	2nd timing _____ min / inch	Address:
3rd timing _____ min / inch	3rd timing _____ min / inch	Phone:
4th timing _____ min / inch	4th timing _____ min / inch	Date:
		Signature:
Average of Slowest Rate from Each Test Hole is _____ min / inch		

**Percolation Test Results – Reserve Area**

Test Hole #1	Test Hole #2	Soil Test Performed By:
1st timing _____ min / inch	1st timing _____ min / inch	Name:
2nd timing _____ min / inch	2nd timing _____ min / inch	Address:
3rd timing _____ min / inch	3rd timing _____ min / inch	Phone:
4th timing _____ min / inch	4th timing _____ min / inch	Date:
		Signature:
Average of Slowest Rate from Each Test Hole is _____ min / inch		



## Percolation Rate vs. KFS

Table III – 34. LLR based on permeability or percolation rate (IG/day/ft.)

KFS (MM/DAY)	Percolation Rate (MIN/INCH)	Slope 0 to < 5%			Slope 5 to < 10%			Slope 10% to < 15%			Slope > 15%		
		(IN) Soil Depth Below Infiltrative Surface			(IN) Soil Depth Below Infiltrative Surface			(IN) Soil Depth Below Infiltrative Surface			(IN) Soil Depth Below Infiltrative Surface		
		10 – 18	18 – 24	24 – 36	10 – 18	18 – 24	24 – 36	10 – 18	18 – 24	24 – 36	10 – 18	18 – 24	24 – 36
> 17,000	< 0.5	10.1	17.5	22.8	26.9	26.9	26.9	26.9	26.9	26.9	26.9	26.9	26.9
8,000–17,000	0.5 – 1.0	5.7	9.4	12.1	16.8	10.1	16.8	22.2	26.9	17.5	26.9	26.9	26.9
4,000–8,000	1 – 2	3.4	5.4	7.4	9.4	5.4	9.4	12.1	16.8	9.4	16.1	20.8	26.9
2,000–4,000	2 – 4	3.1	3.7	4.7	6.1	3.7	5.7	7.4	10.1	6.1	9.4	12.1	16.1
1,000–2,000	4 – 7.5	3.1	3.7	4.7	4.7	3.4	4.1	5.1	6.1	4.1	6.1	7.4	9.4
550–1,000	7.5 – 15	3.1	3.7	4.7	4.7	3.4	4.1	5.1	5.1	4.1	5.1	6.1	6.8
300–550	15 – 30	2.7	3.1	3.7	3.7	3.1	3.4	3.7	4.1	3.4	3.7	4.1	4.4
150–1300	30 – 60	2.1	2.4	2.7	2.7	2.4	2.7	3.1	3.1	2.4	3.1	3.4	3.7
75–150	60 – 120	1.7	2.1	2.4	2.4	1.7	2.4	2.7	2.7	2.1	2.4	2.7	2.7
< 75	> 120	NA											



**northern health**  
the northern way of caring



#HealthyNorth

[northernhealth.ca](http://northernhealth.ca)