

Canadian System of Soil Classification

For detailed information on soil types please check out:

<http://sis.agr.gc.ca/cansis/taxa/cssc3/intro.html>

****Classification chart for the slope found in Slope 1 and Slope 2 columns****

Class	Slope Range (%)	Class Mean (%)	Approximate Degrees	Terminology
A	0 - 0.5	0.2	0	Level
B	0.5 - 2	1.2	0.3 - 1.1	Nearly level
C	2 - 5	3.5	1.1 - 3	Very gentle slopes
D	5 - 9	7.0	3 - 5	Gentle slopes
E	9 - 15	12.0	5 - 8.5	Moderate slopes
F	15 - 30	22.5	8.5 - 16.5	Strong slopes
G	30 - 45	37.5	16.5 - 24	Very strong slopes
H	45 - 70	57.5	24 - 35	Extreme slopes
I	70 - 100	85.0	35 - 45	Steep slopes
J	> 100	125.0	> 45	Very steep slopes

****All the soils classified (for Frontenac soil clips) were given a non-stony soil classification. However here is the full classification scheme. (Stoniness1 and Stoniness2 columns) ****

Code	Meaning
-	Not Applicable
0	Non-stony
1	Slightly stony
2	Moderately stony
3	Very stony
4	Exceedingly stony
5	Excessively stony

CLI1 column refers to the agricultural classes and defines the possibility of crop/vegetation growth on the landscape. See the class listings below.

Class	Descriptions:
Class 1	No significant limitations in use for crops.
Class 2	Moderate limitations on use for crops.
Class 3	Moderately severe limitations on use for crops.
Class 4	Severe limitations on use for crops.
Class 5	Very severe limitations preclude annual cultivation; improvements feasible.
Class 6	Natural grazing only; no improvements feasible.
Class 7	No capability for agriculture.

CLI (Canada Land Inventory) Subclass 1

Refer to the CLII_1 column

Subclass C	Land subject to crop heat unit regimes of < 2300 (i.e. adverse Climate)
Subclass D	Adverse soil structure (i.e. Depth of rooting zone is restricted)
Subclass E	Loss of soil profile from Erosion
Subclass F	Low inherent soil Fertility
Subclass I	Subject to occasional flooding (Inundation) from adjacent streams or water bodies
Subclass M	Low inherent Moisture holding capacity
Subclass P	Presence of surface stones > 15 cm diameter.
Subclass R	Presence of consolidated bedrock within one meter of the soil surface
Subclass S	Presence of a combination of the Subclasses F and M, or, the presence of a combination of the Subclasses P and R (i.e. adverse soil characteristics)
Subclass T	Presence of adverse Topography
Subclass W	Subject to excessive Water saturation in the soil profile

Soil Drainage Class

Indicates classification of how well the soil drains.

(Please refer to Drainage 1 and Drainage 2 columns)

Allowable List	
-	Not Applicable
VR	Very Rapidly
R	Rapidly
W	Well
MW	Moderately Well
I	Imperfectly
P	Poorly
VP	Very Poorly

Hydro

Please refer to the Hydro 1 column.

Hydrological Soil Groups classify soils into 4 groups (A, B, C, and D) according to water run-off and infiltration rates.

A: Soils which have a low runoff potential and high infiltration rate, as the soils typically are sands and gravel.

B: Soils with moderate infiltration rates when completely wetted. Group B soils are sandy loam soils with moderately fine to moderately coarse textures.

C: Soils which have slow infiltration rates when thoroughly wetted and these soils typically are silty-loam soils with an impeding layer or soils with moderately fine to fine texture.

D: soils which have a high runoff potential and very slow infiltration rate when thoroughly wetted. Group D soils include clay soils with high swelling potential, soils in a permanent high water table and shallow soils over nearly impervious material.

A Texture

Describes the soil texture of the A Horizon in the soil profile.

(Please refer to the ATexture1 column)

S	coarse sand and loamy sand
SL	moderately coarse sandy loam
L	medium to moderately fine loam
SIL	silt loam
CL	clay loam
SIC	silty clay
C	clay
O	organic

Silt Loam- Soapier feel than SL but not as smooth and/or less easily worked than Z. Adheres to at least one finger.

Sandy Loam- Sandy feel. Adheres to at least one finger, not soapy or sticky. Readily worked.

Loam- No one dominating feel, roughly equal quantities of S, Z and C. Adheres to fingers and thumb. Readily, but less so than textures.

Clay- Extremely sticky when wet but very stiff to work.

Sand- Very sandy feel. Hardly adheres to fingers.

Loamy Sand- Very sandy feel. Very little adheres to fingers.

Muck- Well decomposed dark Bog soils. Poorly drained.

Peat- Poorly composed organic material.

Listing of Soil Surveys of Frontenac County

Also found on the M: drive in the soils folder (M:\Master Map Data\Soils)

http://sis.agr.gc.ca/cansis/publications/surveys/on/on39/on39_report.pdf

Listing of Soil Surveys by County

<http://sis2.agr.gc.ca/cansis/publications/surveys/on/index.html>

Listing of Soils for Parry Sound

http://sis.agr.gc.ca/cansis/publications/surveys/on/on31/on31_report.pdf

Soil Types

Battersea Silt Loam

The surface is a very dark brown fine sandy loam or silt loam with crumb and granular structure. This is underlain by a grayish brown, slightly mottled horizon 4 to 7 inches thick and of similar texture. The underlying Bt horizon is a brown finer-textured layer of varying thickness. The parent material is grayish brown silt to silty clay loam and calcareous.

Berrien Sandy Loam

The topography of the Berrien soils is gently sloping. This slope is insufficient to carry away all surplus water and imperfect drainage conditions exist in the soil. The cultivated surface is fairly dark in color indicating a fair level of organic matter. The subsurface layers of the Berrien soil are yellowish-brown sandy loam over a mottled reddish-brown Bf horizon usually located at the sand-clay junction.

Bondhead Series – Loam/ Sandy Loam

The topography of the Bondhead soils is moderately sloping with occasional short, steep slopes at the rounded ends of drumlins. The soil parent material is a gray-brown calcareous sandy loam or loam till that contains numerous fragments of limestone and large boulders of granite. On some of the till ridges the soil materials have been sorted by wave action that has produced sandy surfaces.

Can contain a fair amount of organic matter. It is friable and well aggregated, and about 6 inches thick. On the eroded slopes however the brown-colored B horizon becomes the surface layer, The B horizon is a brown to dark brown clay loam, 5 to 7 inches thick. Since it contains a greater quantity of clay than the surface it is less permeable to water.

Bondhead Shallow Phase

Shallow phases of both soil types are also present in areas where the soil has a depth of 1 to 2 feet overlying the limestone bedrock.

Dummer Loam – Shallow Phase

The landscape is irregular, steeply sloping so that the steepness of slope and coarseness of the material combine to produce a soil with very rapid internal drainage. The depressions contain deep accumulation of silt and fine sand that have been eroded from the surrounding slopes.

The surface horizon is 3 or 4 inches thick, very dark in color and alkaline in reaction. The subsoil is gray-brown to dark brown and may have some clay concentration in the B horizon. The total thickness of the solum ranges from 9 to 12 inches. A large portion of the Dummer soils have stoniness and hilly topography. Most of the present range areas are extremely weedy. The Dummer loam-shallow phase has a thin layer of soil over the limestone bedrock and a very steep topography.

Eastport Sand

The Eastport sand is a land type of variable drainage occurring along the shore of Lake Huron, usually in the form of dunes. Vegetative cover is scanty and there is practically no profile development. Where the sand has been stabilized by a vegetative cover, a shallow organic layer may develop underlain by a brownish yellow (10 YR 6/6) horizon which grades into the grey (10 YR 6, 1) sandy materials below. Often the organic layer becomes buried by sandy materials blown in from adjoining areas.

The land is usually bare and subject to blowing. Where vegetation has been established it consists of poplar, pine, some white birch and grasses.

Farmington Loam

The limestone rock surface is flat, hence the soil surface is also flat, except for local breaks or scarps in the rock surface. Variations in the soil are mainly variations in depth of till deposit. Thus, it is possible to find areas of considerable size that have a soil coverage of 4 inches and others with 12 inches of soil materials. Native grasses such as Canada Blue and to a lesser extent Kentucky Blue and Brown Top constitute the principal grass species.

These soils have little profile development. Because of proximity to bedrock the soil material has a high content of bases and may be calcareous even at the surface. The organic matter content is generally high and is present even in the subsoil so that the entire profile is dark brown. Only rarely do these soils show the mottled effects that are so commonly produced by imperfect drainage. It is possible that there are sufficient fractures and crevices within the rock surface to permit the excess water to seep away from the soil.

Gananoque Clay (With a Rock and Shallow Phase)

The Gananoque soils are developed in clay soil material having good to moderately good surface drainage.

The topography of the Gananoque soils is variable. In some areas the moderate slopes are bedrock controlled; in other areas the parallel rolling ridges are probably the result of wave action and in still other areas the irregular sloping topography has resulted from stream erosion. The surface of the soil is slightly acid and is gray in color. The subsurface soil is also gray or when dry is almost white in color. This is the most severely leached portion of the soil and has a low organic matter content. The remaining depth of subsoil consists of a brown clay with a medium to large blocky structure and neutral reaction. The calcareous parent materials contain many hard lime concretions.

The Gananoque clay - shallow phase is mapped in areas where bedrock occurs within 2 feet of the surface. These soils are used similarly to the deep Gananoque soils but are affected to a greater degree by drought.

The Gananoque clay - rocky phase has numerous outcroppings of Precambrian rock which restrict cultivation.

Guerin Loam (Shallow Phase)

The Guerin soil series is imperfectly drained, and is generally found associated with the Bondhead soils. The largest acreages of these soils are mapped in the Fellows area. About 50 percent of the Guerin soil areas are underlain by bedrock at depths ranging from 1 to 3 feet. These areas are classified as Guerin - shallow phase and are found in association with the Farmington soils in slightly depressional troughs in the limestone plain. The Guerin soils in Frontenac County have pockets of lacustrine material incorporated in them which were not delineated at the scale of mapping.

The topography is gently sloping, hence erosion is not a serious hazard. Surface drainage is slow and internal drainage is often impeded by the underlying bedrock. Soil horizons below this surface layer are less well developed than corresponding horizons of the well-drained soils.

Hinchinbrooke Loam and Silt Loam and Rocky Phase

The surface cultivated layer may be 6 to 8 inches in thickness, fine sandy loam to silt loam with friable crumb structure. Soil reaction is neutral. The underlying layers are a drab grayish brown with varying amounts of yellowish brown mottles. Soil reaction increases with depth until free carbonates are encountered at about 30 inches.

Some of the rock-enclosed areas of Hinchinbrooke have a high water table for much of the year. However, in many areas such as in the Lyndhurst area and northwest of Brockville, the Hinchinbrooke soils occur in fairly large level plains.

Lansdowne Clay (Rocky and Shallow Phase)

The Lansdowne soils are found on gentle slopes that probably represent the rising elevations to a limestone plain. In some locations islands of rock occur completely surrounded by these clay sediments. The positions occupied by the Lansdowne soils is therefore the upper limits of the sediments laid down in the former glacial lake. There are two conditions that contribute to the natural drainage on these clay soils namely, the natural slope of the surface, which assists in water runoff, and the slope of the underlying sediment or base material.

Natural drainage of these soils is not completely satisfactory since clay texture restricts the movement of percolating water. These soils are therefore saturated with water for many months of the year and only dry out thoroughly during the summer season.

The surface cultivated soil has a low content of organic matter. This low organic matter content is a natural condition brought about through soil development.

The Lansdowne - shallow phase soils that are indicated on the soil map are usually found in close association with the Farmington soils. They consist of clay deposits of 12 to 18 inches underlain by limestone bedrock. Natural drainage is imperfect and the characteristics of the soil are similar to those of the deeper soils. The Lansdowne clay - rocky phase has numerous outcroppings of Precambrian rocks which restrict its use for agriculture.

Lindsay (Clay and Clay Loam)

The Lindsay soils have developed on shallow lacustrine clay deposits, about 15 inches thick, over stony calcareous till. The topography of this series is nearly level; hence external and internal drainage is slow. The cultivated surface is dark, usually stonefree, clay loam and neutral in reaction. The subsoil layers are gleyed and mottled.

Lindsay clay and Lindsay clay loam are two series type mapped in the county. Under natural drainage conditions there is little to choose between the types.

Lyons Loam (Rocky and Shallow Phase)

Soils of this series occur on level or slightly depressional areas and are developed from stony calcareous till materials of loam texture. They are poorly drained and have a thick (6 to 8 inches), dark surface horizon that is rich in organic matter. Soil horizons underlying the surface grade from those having a drab gray color to those of intense mottling. Free carbonates are usually found about 2 feet below the surface.

The soil parent material is a calcareous glacial till that contains thin fragments of limestone. The surface soil is a very dark gray color underlain by mottled gray moderately stony soil resting on limestone bedrock. The entire solum is alkaline in reaction. It is a wet soil in late spring.

The rocky phase occurs near the Precambrian-Ordovician border line and numerous outcroppings of Precambrian rock are associated with Lyons soils.

Marsh

Marshes are generally flooded areas supporting water-loving plants but have not as yet developed into organic bogs. These areas have less than a foot of organic accumulation.

Monteagle Sandy Loam

A common soil type whose parent material consists of a stony, gravelly, sandy loam till derived from hard Precambrian rocks such as granite, gneiss, etc. These soils have no crystalline limestone incorporated in the soil parent material. The mantle of till overlying the bedrock is usually very thin but there are some localities where the till mantle is thick. A mantle of soil material, 3 feet or more in thickness, has permitted the development of a soil profile. Such a mantle occurs occasionally in areas of mappable size but most frequently mapped as part of a complex that includes Monteagle soils, organic soils (either Muck or Peat) and rock outcrop.

The areas that occur on the soil map as Monteagle sandy loam constitute the areas with deeper soil materials and in which rock outcrop occupies less than 25 percent. These soils have a dark-colored surface which originally developed under a mixed forest vegetation of deciduous and coniferous trees.

Under grass vegetation it is generally destroyed. The subsoil which is brown, loose, and very porous, grades into the parent material at 14 to 22 inches. All horizons of the profile including the parent material have an acid reaction.

Moscow Clay (Shallow Phase)

The Moscow soils are poorly drained clay soils. The soil materials from which these soils developed originated in a local lacustrine basin separated by limestone plains and morainic ridges from the Lake Iroquois basin in which the Gananoque clay and Napanee clay soils occur. Camden Lake and Varty Lake in Lennox and Addington County are remnants of a large lake that occupied an irregular-shaped basin extending east into Frontenac County.

The surface of these soils has a clay texture (the clay percentage varying from 35 to 45 percent), is friable, and has good structure in contrast to the Napanee soils. The subsoil and parent material is silty and ranges from silty clay loam to silty clay. They have poor internal drainage.

The Moscow clay - shallow phase soils have limestone bedrock at depths of 1½ to 2 feet.

Muck

The organic soils in the county are designated as Muck or Peat. The Muck soils are the black, fairly well decomposed organic materials that occur in the limestone plain area of the southern half of the county and in certain portions of the Precambrian Shield. The occurrence of this soil appears to be associated very largely with the distribution of limestone or of calcareous soils.

A boring made through a body of Muck usually reveals various layers of other materials such as silt, woody remains of trees, and layers of peaty material that have not thoroughly decomposed. These layers are frequently a foot or more in thickness. The thickness of Muck deposits may vary from one to several feet. These deposits occur in the depressions in all soil areas and therefore may be underlain by limestone of Precambrian bedrock or by soil materials. Since these soils are located in depressional areas they are always poorly drained and there is little opportunity to improve their drainage by artificial means. The larger areas of Muck soils usually have some natural drainage outlet such as streams, and all that may be required to improve the drainage is to deepen and extend the outlet into the main body of Muck.

Napanee Clay (Rocky and Shallow Phase)

The Napanee soils are the poorly drained clay-textured soils that occupy the level and depressional areas eastward from Napanee along the lakeshore front to Leeds County. They are found in the townships of Kingston, Pittsburgh and on Wolf's Island.

The Napanee soils are known locally as "the white clays". This descriptive term characterizes the color of the surface cultivated soils but the subsoil becomes darker with depth. Chemical analyses show that the surface horizons are low in organic matter and have lost most of their soluble constituents through leaching.

In this respect they are similar to the Lansdowne clay soils. The average clay content of the cultivated surface soil is 45 percent.

The features that make this soil difficult to cultivate are (1) high clay content, (2) low organic matter content and (3) poor drainage. An increase in the organic matter content will improve the structure of the clay and in addition aid drainage by allowing freer movement of soil water. Perhaps the most serious handicap of these soils is the poor drainage.

The Napanee clay - shallow phase soils, indicated on the soil map, consists of those areas in which clay deposits rest upon limestone bedrock, within 12 to 18 inches of the surface. Fortunately such soils are not very extensive and only occur adjacent to limestone outcrop and limestone plains.

The Napanee clay - rocky phase has numerous outcroppings of Precambrian rocks

Newburgh Fine Sandy Loam and Silt Loam

The Newburgh soils are well-drained soils and are found associated with lakes or rivers and are thought to be deltaic in origin. The soil materials are fine sandy loam with or without silt layers. Two soil types have been mapped in the county, namely Newburgh silt loam, which contains silt bands, and Newburgh fine sandy loam, which has a uniform texture throughout the soil profile.

The Newburgh soils are scattered in small areas in the southern part of the county, the largest single area occurs around Wilmer. The surface soil is a fine sandy loam, friable and slightly acid in reaction. The profile has developed to a depth of 24 inches and maintains a fine sandy loam texture down to the parent material. The parent material is calcareous and may be either fine sandy loam or silt loam. Soil drainage is free in all seasons of the year.

Otonabee Loam (Shallow Phase)

The Otonabee soils occupy a large area in central Ontario and extend to the western boundary of Frontenac County. These soils are commonly found on oval-shaped hills having long moderate slopes or with short slopes in areas of ground moraine. It is in these latter areas that loam and clay soils are found in close association and hence are mapped as a complex of Otonabee loam and Moscow clay.

The soil parent material is a calcareous gray loam till that commonly contains some stone and occasionally is very stony. These latter areas are designated on the soil map as Otonabee-stony phase. The solum is thin having a depth of 12 or 14 inches. All horizons in these soils have a high base saturation. The reaction of the surface soil is neutral and free carbonates are present in the B horizon which occurs generally within 8 to 10 inches from the surface.

These variations occur in specific areas and have been mapped separately as phases, namely Otonabee - shallow phase, Otonabee - stony phase, and Otonabee - steep phase. The shallow phase soils have 1 or 2 feet of soil material overlying the bedrock and are most common in the Camden Lake region where the till plain merges with the limestone rock plain.

Peat

The Peat soils occur only in the northern part of the county. The surface of the Peat is generally brownish in color. They are less decomposed than Muck soils and the plant remains are usually fibrous and relatively fresh. Sedges and sphagnum moss are common components of the Peat bogs.

Picadilly Fine Sandy Loam

The Picadilly series are soils that have developed on a mixture of silt loam and fine sandy loam deposits under imperfect drainage. They occur in two areas in the county, namely the Picadilly and the Godfrey areas. Fine sandy loam soils and silt loam soils mapped as Newburgh, Picadilly, and Hinchinbrooke, occur in the area and are no doubt deltaic in origin.

The soil materials are much the same as those on which the Newburgh soils developed but in comparison with the latter constitute a much shallower depth of deposit, the total depth of soil being less than 6 feet over bedrock.

The surface soil is most commonly fine sandy loam although local areas of silt loam are also present. The soils are friable, easy to work and are slightly acid in reaction. The subsoil texture is friable, porous, silt loam, a material with mottled color indicative of imperfect drainage. The subsoil is saturated with water for many months of the year and probably dries out only in the summer months. The calcareous silt loam parent material occurs at a depth of 18 inches.

Where internal drainage of the soil is a problem, tile drainage could be installed provided that the soil is sufficiently deep over the bedrock to permit a satisfactory installation.

Rock Outcrop

Bare rock constitutes over 75 percent of the area and it has no potential as either forestry or agricultural land.

Rockland

This land was differentiated from Monteagle sandy loam - rocky phase on the basis that it has a much smaller percentage of Monteagle soils among the rocks and therefore has no potential for any type of agricultural endeavor.

The area contains over 50 percent of rock outcrop together with shallow Monteagle soils, Muck, and Peat. There may be small areas of Wendigo sand included in this mapping unit. Most of this area is under tree cover and should be considered only as forestry and recreational land.

Seeley's Bay Silt Loam (Rocky Phase)

The Seeley's Bay soils are well-drained silty soils found along the northern fringe of the lacustrine deposits in Frontenac and Leeds Counties. They are relatively shallow lacustrine deposits in contrast to the deep clay deposits mapped to the south as Gananoque, Lansdowne, and Napanee. The soil parent material is a calcareous stone-free silty clay to silty clay loam. The topography of the Seeley's Bay soils is irregular, moderately sloping and is bedrock controlled. The surface of these soils is dark and contains a fair level of organic matter. It is slightly acid in reaction. The subsoil consists of a pale brown Ae horizon about 4 inches thick underlain by a brown silty clay B horizon about 8 inches thick. This overlies the dark gray silty clay loam

parent material. The soil has subangular blocky friable aggregates in the upper parts of the solum but the B and C horizons have angular blocky aggregates which become hard when dry.

St. Peters Gravelly Sandy Loam (Rocky Phase)

The St. Peters soil is a coarse gravelly soil that occurs exclusively within the Precambrian Shield. The soil materials consist of gravel and sand deposited by fast-flowing streams and form much of the river terrace deposits and alluvial flood plains of the Mississippi River.

These are granitic materials and soil development has produced a typical Podzol soil profile. The reddish-brown B horizon is always present. The total depth of the soil profile is less than 12 inches.

Tennyson Sandy Loam

These soils have developed from glacial till derived from the underlying limestone bedrock mixed with liberal quantities of Precambrian till carried by the ice from the adjoining Precambrian region.

The Tennyson soils in this county have smooth moderately sloping topography. They are well-drained and classified as Brunisolic-Gray-Brown Podzolic soils. The soil parent material is a gray-brown calcareous sandy loam till of mixed materials.

The dark brown friable sandy loam surface is 6 inches in cultivated areas and is underlain by a dark yellowish-brown sandy loam horizon (Ae₁) of about 3 inches thickness. The yellowish-brown Ae₂ horizon is sandy loam in texture and about 7 inches thick. The Gray-Brown Bt horizon is 6 inches thick, loam textured and subangular blocky in structure. The B/C horizon is thick with a 2 foot depth to free carbonates. Soil reaction ranges from nearly neutral at the surface to alkaline at 3 feet. Carbonates are leached to a depth of 4 feet in non-eroded locations.

Tweed Sandy Loam

The Tweed soil series is closely associated with crystalline limestone. This rock material was ground by glacial action sufficiently to produce a sandy loam calcareous till. The soil parent material is a stony sandy loam, in which the stone fragments are both limestone and granites derived from the Precambrian rock formations.

These soils have an irregular moderately sloping topography. The slope and the coarseness of the soil material combine to produce a well-drained soil. The cultivated surface soil is a gray-brown sandy loam, friable, and ranging in reaction from moderately acid to neutral. The subsoil horizons are neutral to alkaline and become calcareous as they approach the unweathered parent material. The soils are normally very stony.

Unclassified
Urban – Kingston
Water

Wauseon Sandy Loam

The Wauseon soils have developed on a calcareous sand that overlies calcareous lacustrine clay at 20 to 24 inches. The topography is level or depressional. Surface drainage is poor and the drainage conditions within the soil are poor. The cultivated surface horizon is thick and dark, indicative of a high organic content level. Soil reaction is alkaline. Underlying layers are gray and mottled.

Wendigo Loamy Sand (Rocky Phase)

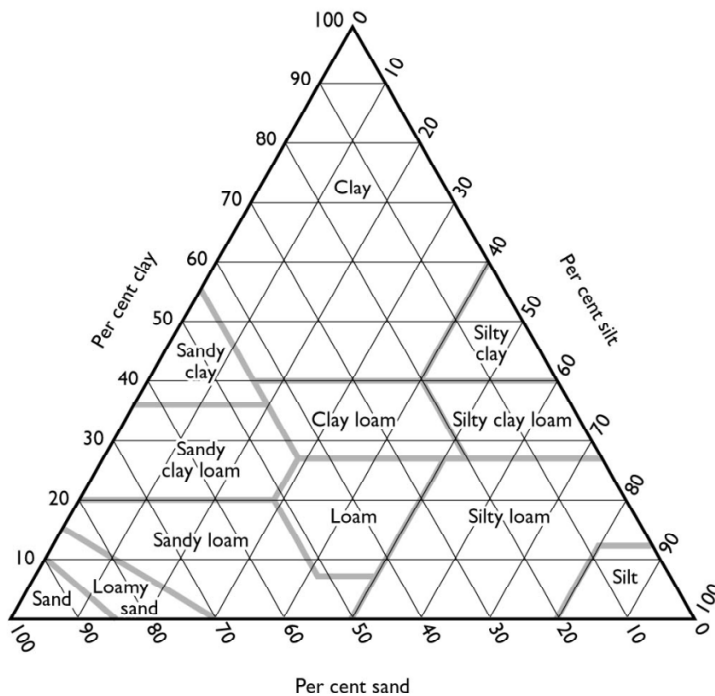
The parent materials of these soils originated as glacial outwash and to a lesser extent as river deposits associated particularly with the Skootamata River.

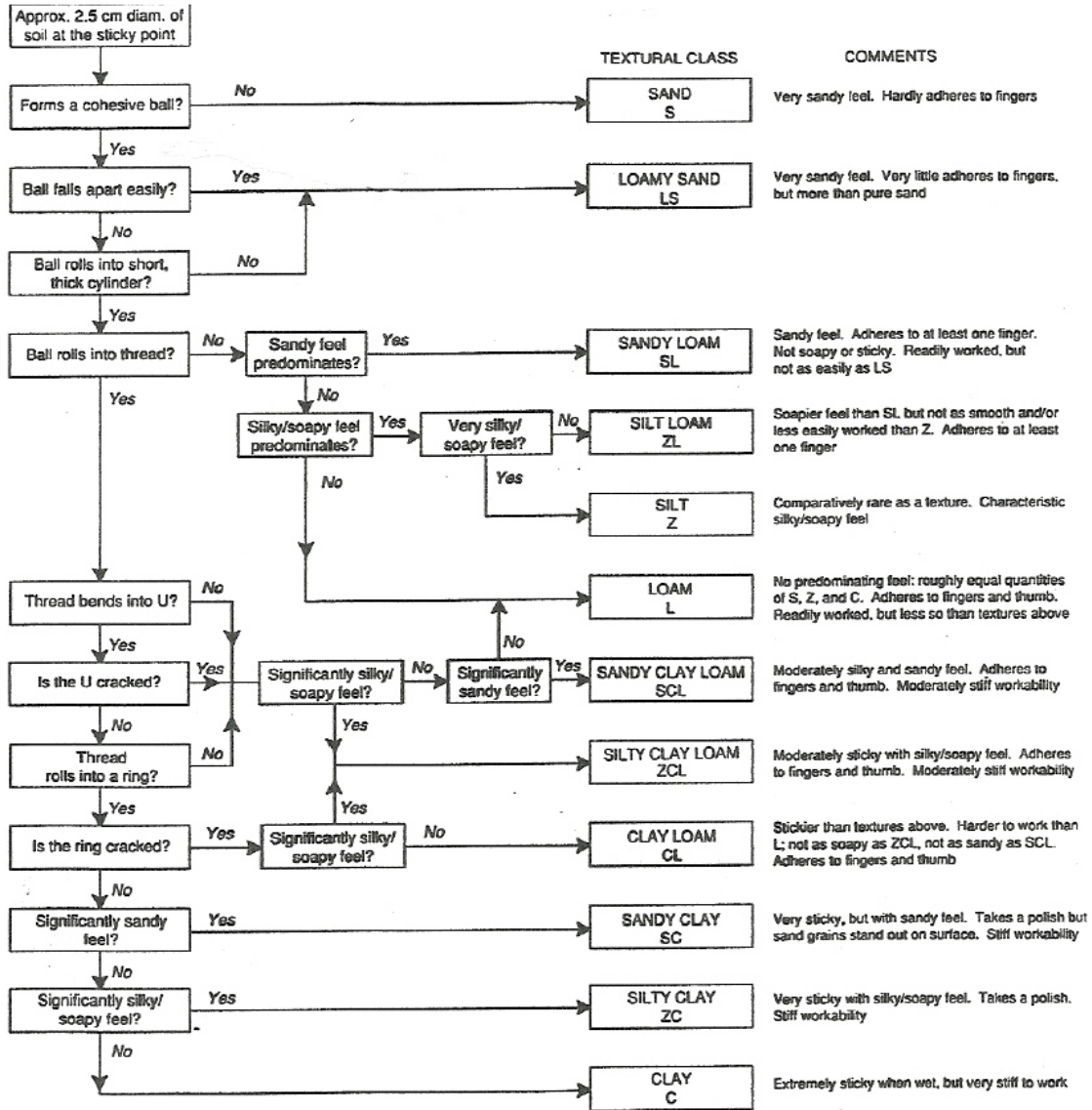
These deposits are generally shallow and poorly sorted with the result that gravels and various grades of sand occur together in stratified layers. This is a region of thin soils and frequent rock outcrops. The sand deposits occur as individual pockets, having only a few acres of size or as a broad continuous area, with many rock knobs and small undrained depressions.

These sandy materials are non-calcareous and the soils that have developed on them are strongly acid and with a typical podzol profile. Gray-colored surface horizons occur continuously in grassy open areas and in the wooded or forested areas. Many of the best native stands of pine were to be found on these sandy soils.

White Lake Gravelly Sandy Loam (Rocky Phase)

The soil parent materials are composed of gravel formed from many kinds of rock such as granite, sandstone, and crystalline limestone. The gravel is poorly sorted, ranging in size from fine gravel to large boulders. The topography is irregular, moderately to steeply sloping. The soils has developed the characteristics of a thin Podzol in the surface horizons with evidences of a Gray-Brown Podzolic textural horizon in the lower part of the profile. Soil reaction in the upper part of the profile is moderately acid but reaches the neutral point at about 15 inches.





NOTES

Sticky point: Moisture content at which a dry soil being wetted just begins to adhere to fingers

Workability: Ease with which soil can be moulded between fingers. Because consistence varies greatly with moisture, samples must be properly and uniformly wetted up.

Cylinder: Approx 5 cm long and 1.5 cm diameter

Thread: Approx 13 cm long and 0.6 cm diameter

Ring: Approx 2.5 cm diameter formed from about 8 cm of above thread