

PINEVIEW SOIL ASSOCIATION (P)

General Location and Physiography - Pineview soils occur in all three glacial lake basins forming the Nechako Plain. They mainly occur in the eastern half and west-central part of the map area at elevations from as low as 2,000' adjacent to the deeply entrenched Fraser River, up to 2,600'. The Pineview association is dominant over 15.2%, of the map area.

Landform - The landforms consist of usually deep, clayey glaciolacustrine plains having variable topography. The topography is related to the depth of sediments, and to the surface form of the underlying deposits that existed prior to the formation of the glacial lakes. Generally, the thicker the sediments, the smoother the landforms.

Deep deposits are generally characterized by gently undulating to gently rolling topography. Shallower deposits (usually less than 20' to 30') overlying drumlinized glacial till have topographies that generally conform to the gently, moderately or strongly rolling topography of the glacial till. Slumping of the glaciolacustrine sediments in the grooves between the drumlins is usual, and as a result, the slopes are somewhat more gradual than those of the undulating drumlinized glacial till. Post-glacial dissection and erosion adjacent to large rivers has resulted in strongly rolling to very steeply sloping topography in these areas.

Surface drainage of these clayey landforms is by a network of intermittent creeks with long, low gradients. Associated gullies and creek channels do not have the sharp-angled and steep-sided characteristics of silty sediments but have flat-angled, gradually sloping sides typical of cohesive clays. A few small ponds and lakes occur in kettle holes or depressions within the sediments.

Parent Material and Soils - The unweathered parent material is brownish to grayish in color, varved, calcareous at depth, has very slow permeability and very firm consistence. Surface sediments are fine or very fine textured and are underlain by siltier textures at depth. Variations in surface and profile textures are usually associated with the amount of post-glacial erosion, topography and the proximity to lighter textured soils.

Upper textures are predominantly heavy clay, gradually grading to clay or silty clay with depth. Heavy clay textured material between 4' and 8' deep overlaying interstratified clay and silty deposits down to 15' were observed in exposed sections along highways. Leaching in the top 2" to 6" has varied the texture to clay or silty clay loam, abruptly underlain by heavy clay.

The heavy textures cause the Pineview soils to have restricted subsoil drainage and rooting depths. The soils are classified as moderately well drained Orthic Gray Luvisols with significant inclusions of imperfectly drained Gleyed Gray Luvisols. Poorly drained Gleysols and very poorly drained Organics occupy depressions and swales.

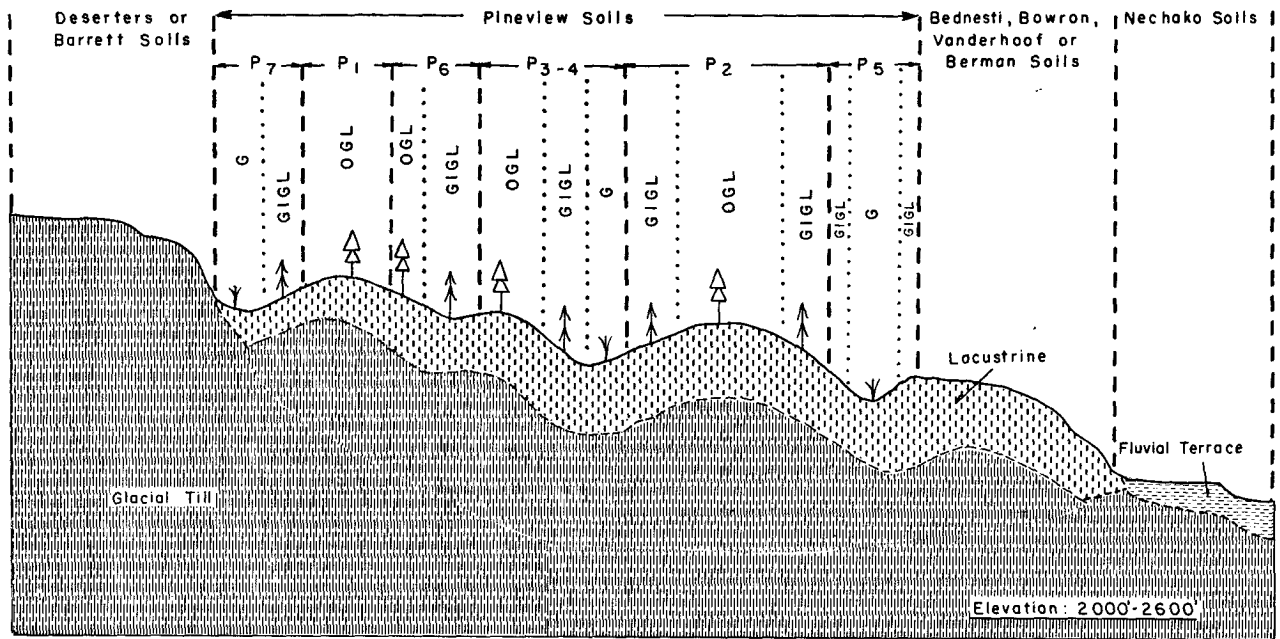
Climate and Vegetation - The average annual, and May to September precipitation is estimated to be between 18" and 40", and 7" and 14", respectively. The lower values occur in the western part of the map area. The frost-free period of Pineview soils is slightly higher than on the surrounding, higher elevation glacial till plain and varies from about 60 to 90 days in the eastern Prince George lake basin to generally less than 60 days in the western Vanderhoof lake basin.

The soils occur in the Subboreal white spruce - alpine fir zone. Dense stands of white spruce, relatively pure stands of lodgepole pine and/or aspen, or mixed stands of white spruce, lodgepole pine and aspen occur. White spruce favors the imperfectly drained soils where additional moisture

and seepage are beneficial to forest growth. Alpine fir occurs in the understory and willow and cottonwood occur in scattered locations. Under dense canopies there is little ground cover except for an abundant moss layer. More open forest has a variable understory that is most luxuriant on imperfectly drained soils. Poorly and very poorly drained areas support willow, various hydrophytic plants and mosses with some black spruce, white spruce and lodgepole pine.

Soil Association Components - Seven components of the Pineview association were established in the map area.

Soil Association Component	Dominant Soil(s)	Significant Soil(s)	Drainage	Comments
P1	Orthic Gray Luvisol		moderately well	Occurs mainly on rolling topography that has better good surface drainage.
P2	Orthic Gray Luvisol	Gleyed Gray Luvisol	moderately well imperfect	Significant proportion of imperfectly drained areas.
P3	Orthic Gray Luvisol	Gleyed Gray Luvisol Gleysolic	moderately well imperfect poor	Similar to P2 except a significant proportion of poorly drained areas also occur.
P4	Gleyed Gray Luvisol	Orthic Gray Luvisol Gleysolic	imperfect moderately well poor	Dominant proportion of imperfectly drained areas.
P5	Gleysolic	Gleyed Gray Luvisol	poor imperfect	Wet, depressional areas often associated with Organics.
P6	Gleyed Gray Luvisol	Orthic Gray Luvisol	imperfect moderately well	Similar to P2 but imperfectly drained areas predominate.
P7	Gleyed Gray Luvisol	Gleysols	imperfect poor	Soil drainage is somewhat better than in P5.



Map Complexes - The Pineview association has been mapped as the dominant soil in map complexes with the Bednesti, Berman, Bowron and Vanderhoof associations, all of which have also developed in glaciolacustrine deposits. The Pineview-Bednesti and Pineview-Bowron complexes occur in the eastern part of the map area, the Pineview-Vanderhoof complex occurs in the west, and the Pineview-Berman complex is distributed westward from near the Fraser River. The main differentiating criteria in the complexes are changes from clayey to silty textures.

At their upper elevations the clayey glaciolacustrine deposits are intimately intermixed with glacial till. Here the Pineview association is mapped in complexes with the Barrett and Crystal associations in the western part of the map area and with the Deserters association in the east.

Where beach deposits occur along the margins of the Prince George and Vanderhoof glacial lake basins, complexes of the clayey glacial lake deposits and coarse textured beach materials have been mapped. The Pineview-Gunniza complex has been established in the eastern part of the map area and the Pineview-Kluk complex in the west.

Various Gleysolic and Organic soils also occur in the Pineview association. Where the Organic soils occupy large enough areas they are mapped as the Chief or Moxley associations. Smaller areas of Organic soils are included in the respective Pineview components.