

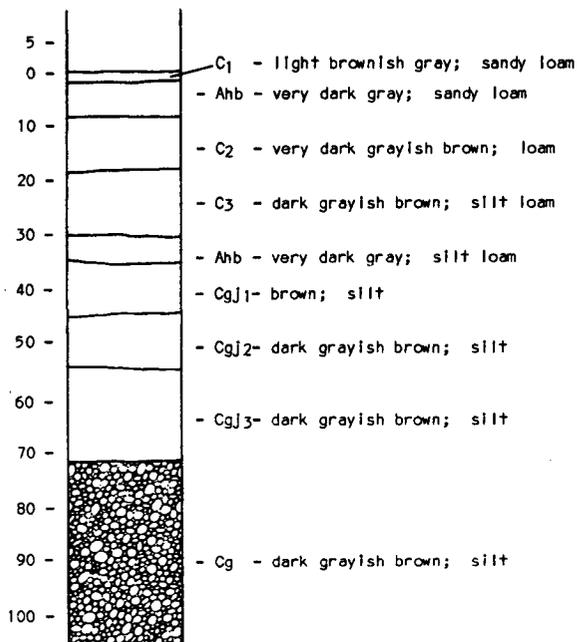
GUILFORD SOIL ASSOCIATION (GF)

Guilford soils occur in the Rocky Mountain Trench and to a lesser extent in the McGregor Plateau and Rocky Mountains, between the elevational limits of 650 to 1440 m. The major locations of the soils are on the floodplain of the Fraser River and to a lesser extent on the McGregor River. The soils are generally subject to a seasonally high water table, with the lower terraces being frequently inundated during periods of flood or high water. The textures of these recent alluvial deposits vary due to the nature of deposition; sandy loam to silt is the common textural range. The topography is nearly level to very gently sloping with some inclusions of depressional sites.

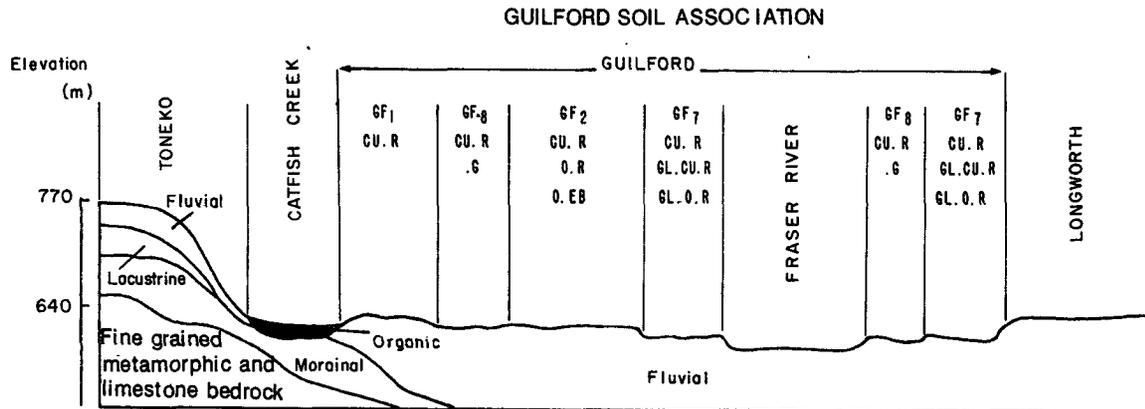
Soil reaction ranges from mildly alkaline to slightly acid depending upon the frequency of flooding and the degree of soil weathering. Mull humus is often found on the soil surface and a series of thin mull horizons are buried to depths greater than 1 m. This makes the soil moderately high in organic matter content and plant nutrients. The soils are imperfectly to moderately well drained and moisture, air and plant roots penetrate the soil easily. Runoff is slow, internal drainage is moderate and the moisture-holding capacity is low to moderate.

SOIL PROFILE

GF7; Gleyed Cumulic Regosol



Soil Association Component	Dominant Soil	Associated Soils	Soil Drainage Class	Depth to Bedrock (cm)
GF1	Cumulic Regosol		Moderately Well	>100
GF2	Cumulic Regosol		Moderately Well	>100
		Orthic Regosol; Orthic Eutric Brunisol	Moderately Well	>100
GF7	Cumulic Regosol		Moderately Well	>100
		Gleyed Cumulic Regosol; Gleyed Orthic Regosol	Imperfectly	>100
GF8	Cumulic Regosol		Moderately Well	>100
		Gleysolic	Poorly	>100



The dominant soil development is Cumulic Regosol (component GF1). Soils located on slightly higher terraces where flooding is less frequent, include Orthic Regosols and Orthic Eutric Brunisols (component GF2). Areas affected by seepage and periodic high water tables are gleyed and inclusions of Gleyed Cumulic Regosols and Gleyed Orthic Regosols are very common (component GF7). Soils which are subject to prolonged saturation are Gleysolic and often have 40 to 60 cm of organic accumulation at the surface. These are included in GF8. This component is mapped almost exclusively on the floodplains of the McGregor and Torpy Rivers and here indicates a cooler environment than is common for Guilford soil components found on the Fraser River floodplain.

This association is very similar to the McGregor soil series as mapped and described in Report No. 10, "Soils of the Upper Part of the Fraser Valley" (Hortle et al., 1970).

Guilford soils occur mainly in the interior western red cedar - white spruce zone and to a lesser extent in the interior western hemlock - western red cedar zone of the Interior Wet Belt Region.

COMMENTS ON LAND USE

- Agriculture.** Moderate capability. A seasonally high water table and inundation are the major limitations.
- Forestry.** High capability. A seasonally high water table and inundation impose some limitations to forest growth.
- Ungulates.** High capability for moose, moderate for mule deer. Snow depth limitations and forestry-agriculture use patterns determine degree of wildlife use. The deep, medium textured soils have a high capability for browse production during the early seral stages.
- Recreation.** Very low carrying capacity. Flooding limits recreational installations such as campgrounds and trails.
- Engineering.** Severe limitations. The incidence of flooding and high water tables pose major constraints to most engineering uses.