

# Sumac Park Soil Description

*An Addendum to “Sumac Park and HMS Plumper Park Overview” (Christensen, 2023)*



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## **Introduction**

This report acts as an addendum to the Christensen (2023) report “Sumac Park and H.M.S. Plumper Park Overview” completed for the Friends of North Saanich Parks. The history, current conditions, and main site associations of Sumac Park were summarized by Christensen, but soil descriptions were not completed.

## **Methods**

A 1x1m soil pit was dug to approximately 1m deep in the park on June 17, 2024 and the soil profile was described on June 18, 2024. The pit was located at the coordinates 48.69221°, -123.44331°, in the Western redcedar – Grand fir - Foamflower site association. The location was chosen to be representative of the park with the typical slope, vegetation, and topography.

The pit was revisited on August 5, 2024 to reassess the original soil descriptions. Changes were made to the texture descriptions of all horizons and colour descriptions of the B horizons.

## **Results**

The soils in Sumac Park were determined to be a Gleyed Sombric Brunisol (GL.SB) with an Ah horizon greater than 10cm thick, present Bmgj horizons, and distinct, prominent mottling at a depth greater than 50cm (Soil Classification Working Group, 1998).

The soils found were primarily silt in the upper horizons and sand in the lower horizons. The horizon boundaries were even and well defined. When the soil pit was excavated in June, the water table was encountered at 43cm below ground level. In early August when the pit was revisited the water table had lowered with the only saturated soils being at the pit floor at 90cm.

Despite numerous large trees in close proximity to the pit, no large roots were encountered while digging. Encountered fine roots were infrequent in the A horizon, rare



in the B horizons, and absent in the C horizon. The total rooting depth was measured at 63cm.



**Figure 1.** View of the Sumac Park soil profile.

**Table 1.** Sumac Park soil summary.

Horizon	Depth (cm)	Texture	Coarse Fragments	Colour	Roots	Comments
LFH	0-1					
Ah	0-17	SiL	1% subangular cobbles	Dark reddish brown <b>5YR 2.5/2</b> moist	Infrequent, fine to medium	Medium to coarse granular structure; Decomposing roots below surface
Bmgj <sub>1</sub>	17-39	SC	10% subangular round cobbles	Dark brown <b>7.5YR 3/2</b> moist	Rare, medium	Coarse subangular blocky structure. Decomposing roots
Bmgj <sub>2</sub>	39-65	SC	10% subangular round cobbles	Brown <b>10YR 4/3</b> wet	Rare, medium	Medium to coarse granular structure. Water table encounter, soil saturated below
Cg	65+	SiC	1% subangular sand, 1% subangular gravel, 6% subangular round cobbles	Grayish brown <b>10YR 5/2</b> wet	None	Medium subangular structure. Frequent medium mottling (Dark yellowish brown <b>10YR 4/6</b> , wet)
<p><b>Other notes:</b> The soil pit was excavated in a lower slope position at an elevation of 103m above sea level, a slope of 13%, and an aspect of 70° ENE.</p>						

**References:**

Christensen, H. (2023). Sumac Park and H.M.S. Plumper Park Overview. Friends of North Saanich, North Saanich, BC.

Soil Classification Working Group. (1998). The Canadian System of Soil Classification, 3<sup>rd</sup> Edition. Agriculture and Agri-Food Canada Publication 1646.