

BLH Black Hill Land System

Low rounded hill east of Cambrai

Area: 17.3 km²

Annual rainfall: 290 – 325 mm average

Geology: The hill is formed on Black Hill norite, a sought after building stone. The rock outcrops in places, where there are several quarries. Where not outcropping or near the surface, the rocks are capped by calcrete. Overlying the calcrete are deposits of Molineaux Sand, much of which has been reworked since European settlement.

Topography: The System is a low hill with slopes in the range 2 - 12%. The highest point is on the western side where there is a massive rock outcrop. The land drops sharply away to the west from this outcrop with slopes of up to 12%. There is sporadic outcrop along a ridge extending to the eastern edge from the main outcrop. Sandy hummocks, low dunes and sand spreads are scattered over the slopes. These have been extensively eroded in the past.

Elevation: 75 - 150 m

Relief: 75 m

Soils: The soils are mostly calcareous and moderately shallow to moderately deep. There are some deep sands.

Main soils

B2 Shallow stony calcareous sandy loam

A2 Rubbly calcareous sandy loam over weathering rock

H2 Deep sand

Main features: The Black Hill Land System is an isolated low hill dominated by a crest of outcropping norite. The slopes of the hill are characterized by shallow loamy sands over calcrete overlain in places by drift sand. The shallow soils are commonly too stony for cultivation, and where they are cultivated, waterholding capacity and fertility are limiting. The sand spreads are infertile, probably water repellent and highly susceptible to wind erosion.



Soil Landscape Unit summary: 4 Soil Landscape Units (SLUs) mapped in the Black Hill Land System:

SLU	% of area	Main features #
A-n	4.2	Outcrop of norite on the crest and upper slopes of Black Hill. This is the site of the main Black Hill stone quarry. The land has no agricultural value, being mainly rock outcrop.
EEC	12.1	Upper slopes underlain at shallow depth by basement rock. There are sporadic outcrops. Main soils: <u>rubbly calcareous sandy loam on weathering rock</u> - A2 (V) with <u>deep sand</u> - H2 (L) on sand spreads. The main soils are shallow and stony, with limited water holding capacity. The stone makes them difficult to work in places. Productive potential is low.
QaB	76.8	Gentle slopes formed on calcreted basement rock. There are occasional reefs of surface calcrete and up to 20% calcrete stone. Main soils: <u>shallow stony calcareous sandy loam</u> - B2 (E), with <u>deep sand</u> - H2 (C) on sand spreads, and <u>rubbly calcareous sandy loam on weathering rock</u> - A2 (L) where the sheet calcrete is broken up. Shallow soils predominate. About half of the land is arable (often where there are sand spreads). Low fertility and restricted water holding capacity are the main limitations. Shallow stone prevents commonly cultivation.
UUF	6.9	Sand drifts and spreads. These areas may have once been sand hills, but they have been eroded to form hummocky rises and sand spreads. Main soils: <u>deep sand</u> - H2 (V) with <u>shallow stony calcareous sandy loam</u> - B2 (L) between the sand deposits. Much of the land is (or has recently been) actively drifting and potential for further erosion is high. The sands are infertile, probably water repellent and have little agricultural value - soil conservation is the main management issue.

PROPORTION codes assigned to soils within Soil Landscape Units (SLU):

- (D) Dominant in extent (>90% of SLU)
- (V) Very extensive in extent (60–90% of SLU)
- (E) Extensive in extent (30–60% of SLU)
- (C) Common in extent (20–30% of SLU)
- (L) Limited in extent (10–20% of SLU)
- (M) Minor in extent (<10% of SLU)

Detailed soil profile descriptions:

- B2** Shallow stony calcareous sandy loam (Petrocalcic Calcarosol)
Up to 30 cm calcareous sandy loam with variable rubble over sheet calcrete.
- A2** Rubbly calcareous sandy loam over weathering rock (Paralithic, Lithocalcic Calcarosol)
Calcareous loamy sand to sandy loam grading to a highly calcareous light sandy clay loam with a Class III C rubble layer at depths ranging from 20 to 60 cm. Weathering rock underlies the soil.
- H2** Deep sand (Arenic Rudosol)
Very thick loose sand over calcrete at variable depths.

Further information: [DEWNR Soil and Land Program](#)

