

STATEMENT OF PHYSICAL CHARACTERISTICS

PROPOSED LANDFILL, SALT WAY, DROITWICH

The site which extends to about 48 ha, lies about 1½ miles to the east of Droitwich. It is bounded to the east by the Birmingham to Cheltenham railway line, to the south by Hay Lane, to the west by the Birmingham-Worcester canal, and it extends to the B4090 Salt Way in the north. The site was surveyed by the Resource Planning Team in September 1992. Although agricultural land, much of the site had not been farmed for about one year at the time of survey, but previous to that was cultivated for cereals and grazing.

Climate

Average annual rainfall - 639 mm.

Accumulated temperature above 0°C for the period January to June - 1445 day °C.

Field capacity days - 137.

Moisture deficit wheat - 111 mm.

Moisture deficit potatoes - 103 mm.

There is no overall climatic limitation to the agricultural the land.

Site

The site lies at an altitude of 45 m to 50 m, rising from Dean Brook in the south to its highest point on the northern edge. The land is level in the south and gently sloping elsewhere. Although the land adjacent to Dean Brook lies wet in the winter this appears to be a drainage problem probably caused by the low permeability of the soils and the underlying mud stones together with lack of suitable gradients and the canal and railway embankment impeding run-off. The canal does discharge into Dean Brook at times of high water but otherwise there are no records of flooding from the brook at this point.

Soils

The solid geology in the vicinity of the site is Mercia Mudstone. This is overlain by Alluvium in the south along Dean Brook and in ~~the~~ a small area in the north east corner of the

site. The soils derived from this geology are heavy with medium and heavy clay loams or clay topsoils over clay.

Agricultural Land Classification

Grade 3A

Grade 3A has been mapped in the centre and north of the site on the gently sloping and slightly higher land. Soils are medium clay loams over heavy clay loams and clay. Wetness is the main limiting factor with medium and heavy textures and presence of slowly permeable layers restricting land to this grade.

Grade 3B

The rest of the site has been mapped as Grade 3B, soils are heavy clay loams and clays over slowly permeable clay subsoils. Wetness is the main factor limiting the use of these soils. Land alongside the canal is disturbed in places with mixed heavy profiles and inclusions of rubble and therefore has been included in this grade.

Area of land in each grade

Grade	ha	% of total area	% of agric. area
Grade 3A	17.8	37	38
Grade 3B	28.8	61	62
Non agricultural Buildings	1	2	
Total	47.6	100	100

Soil Units

Soils were examined using a Dutch soil auger to a depth of 1m where possible. Auger borings were on a 100m x 100m grid based on the Ordnance Survey grid. The soil pit was dug to obtain details of factors such as subsoil structure and porosity. Two soils units have been identified on the site.

Type 1

Comprises lighter textured soils with medium clay loam over heavy clay loam and/or porous clay over slowly permeable clay subsoils. The soils have few or no stones and are characteristically reddish brown or dark reddish brown in colour. A typical profile is described below.

0-38 cm 7.5YR 4/3 medium clay loam, moderate medium granular structure, 2% hard stones, common roots.

38-59 cm 5YR 4/3 medium/heavy clay loam with 7.5YR 5/3 ped faces, moderate coarse angular blocky structure, porous, 1% hard stones, few roots.

59-100 cm 5YR 4/4 clay with 7.5YR 5/3 ped faces, strong coarse prismatic structure, not porous.

Slowly permeable layer at 59 cms. Wetness class 3.

Type 2

Comprises heavier more poorly drained soils with heavy clay loam or clay topsoils over clay subsoils. These soils have few or no stones and are more varied in colour with reddish brown, grey and occasional yellowish brown colours. Slowly permeable layers generally start within 40 cm of the surface. Topsoils are about 27 to 30 cm deep and gleying is more common in these soils.