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AGRICULTURAL LAND CLASSIFICATION
SCARBOROUGH LOCAL PLAN
NORTH YORKSHIRE
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ADAS
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SUMMARY

A total of 241.7 ha of land was surveyed for Scarborough Local Plan in September 1994. Seven areas in total were surveyed. All except the proposed open space at Eastfield were surveyed in detail. The Eastfield area was surveyed in semi-detail.

At Eastfield 48.2 ha were classed as grade 2, 57.5 ha Subgrade 3a and 50.3 ha Subgrade 3b. 26.5 ha were classed as grade 4, 5 and various non agricultural uses. Soils on the site were mostly light textured and the land limited by droughtiness to varying degrees.

4.9 ha were surveyed at Osgodby. 2.7 ha were Subgrade 3a and 2.2 ha 3b. The ALC grade is limited by soil wetness in both cases.

2.0 ha were surveyed at Frank Cliffe. 1.2 ha were graded 3b, soil wetness was limiting. 0.8 ha of non agricultural land was also identified.

A 6.4 ha site containing 5.9 ha of grade 2 land at Seamer was surveyed. Droughtiness was limiting. 0.6 ha of non agricultural land was identified.

At Eastfield Industrial Estate 33.7 ha were surveyed. Grade 2 comprised 3.1 ha, 3a, 3.8 ha and 3b 26.8 ha. The grade 2 land was droughty. The remaining grades were limited by soil wetness.

3.2 ha were surveyed at Hunmanby. 2.3 ha were grade 2 and droughty, 0.9 ha Subgrade 3b subject to a flood risk.

An 11.5 ha site containing 5.7 ha 3a and 5.8 ha 3b was surveyed at Filey. Soil wetness was the limiting factor in both cases.

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AGRICULTURAL LAND CLASSIFICATION: SCARBOROUGH LOCAL PLAN

1. INTRODUCTION AND SITE CHARACTERISTICS

1.1 Location and Survey Methods

Land covering approximately 241.7 ha was surveyed at seven locations within Scarborough District. The agricultural land quality of each of these sites is described in the following section of this report. Except for the proposed open space at Eastfield (ref POS/CW) which was surveyed as a semi detailed survey, all these sites were surveyed in detail during September 1994. Part of the Eastfield area was surveyed in 1990. Soils were examined by hand auger borings at a density of one boring per hectare (one per 2 hectares semi detailed) at points predetermined by the National Grid. Soil profile pits were dug to examine soil characteristics in greater detail. All assessments were made using the methods described in "Agricultural Land Classification of England and Wales, Revised guidelines and criteria for grading the quality of agricultural land". (MAFF 1988).

2.1 SITES AT EASTFIELD (REFERENCES H1, POS15, I3 AND POS/CW)

2.1.1 Location and Survey

The Eastfield sites were all adjacent and are described below. All were surveyed in detail except POS/CW which was the subject of a semi detailed survey. The area east of Deepdale was surveyed in 1990, the remaining areas in 1994.

The area has a centroid grid reference of TA 039 850 and lies about 3km south of Scarborough town centre.

2.1.2 Climate

Grid Reference	: TA 039 850
Altitude (m)	: 80
Accumulated Temperature above 0°C (January - June)	: 1287 day °C
Average Annual Rainfall (mm)	: 660
Climatic Grade	: 2
Field Capacity Days	: 154
Moisture Deficit (mm) Wheat	: 100
Moisture Deficit (mm) Potatoes	: 89

The close proximity to the sea will increase wind exposure but is unlikely to limit climate to lower than grade 2.

2.1.3 Land Use and Relief

Land use ranges from arable on the gently sloping higher land to rough pasture on the steep slopes of the Deepdale Beck. Altitude ranges from 120m AOD at Olivers Mount Farm in the north to 45m AOD in the Deepdale Beck. Aspect is generally southerly.

2.1.4 Geology and Soils

Jurassic sandstones, limestones and clay underlie the whole site but are generally covered with deposits of boulder clay or locally derived head drift. The drift is thin or absent towards the north of the site and on the steep slopes of the Deepdale Beck.

Where the drift is thin or absent the soils are medium to light textured, although shallow. Typically medium sandy loam or sandy clay loam topsoils overlie similar textured, freely drained subsoils (Wetness Class I). Weathering bedrock is encountered at between 30 and 100 cm depth. These soils are droughty. Occasionally drift cover is thicker, where topsoils are usually medium clay loam over clayey slowly permeable subsoils (Wetness Class IV). These poorly drained profiles are limited by wetness.

2.1.5 AGRICULTURAL LAND CLASSIFICATION LAND AT EASTFIELD (SITE REFERENCES H1, POS15, I3, AND POS/CW)

The ALC grades occurring on this site are as follows:

Grade/Subgrade	Hectares	Percentage of Total Area
1		
2	48.2	26
3a	57.5	32
3b	50.3	28
4	5.9	3
5	10.5	6
(Sub total)	(172.4)	(95)
Urban	1.8	1
Non Agricultural	5.7	3
Woodland	0.9	<1
Agricultural Buildings	1.7	1
Open Water		
Land not surveyed		
(Sub total)	(10.1)	(5))
TOTAL	182.5	100

2.1.6 Grade 2

Grade 2 land is found near Deepdale Beck, in a small area in the south east of the site and in a large block east of High Eastfield Farm.

Generally topsoils are medium clay loam or sandy clay loam over a similar textured freely drained subsoil. Weathering bedrock is occasionally encountered at about 80cm depth. This land is limited by droughtiness and the overall climatic restriction.

2.1.7 Subgrade 3a

This grade is found widely across the site. Topsoils are usually medium sandy loam or sandy clay loam over similar textured subsoils. Weathering bedrock is encountered at about 60cm depth. Droughtiness is the principal limiting factor.

2.1.8 Subgrade 3b

Strongly sloping land in places limits ALC grade to 3b. Elsewhere shallow freely drained soils are limited by topsoil stoniness or droughtiness.

2.1.9 Grade 4

Moderately steeply sloping land is limited to grade 4 alongside Deepdale.

2.1.10 Grade 5

Steeply sloping land also along Deepdale is limited to grade 5.

2.1.11 Urban

This includes roads on the site.

2.1.12 Woodland

Two areas of woodland occur on the site.

2.1.13 Farm Buildings

This includes High Eastfield Farm and the ruins High Deepdale Farm.

2.2 SITES AT OSGODBY (REFERENCE H4 AND POS9)

2.2.1 Location

The sites at Osgodby lie about 4km south east of Scarborough around centroid grid reference TA 058 845.

2.2.2 Land Use and Relief

At the time of survey both sites were under grass.
Relief is gentle and the aspect south easterly.
The altitude ranges from 75 to 65m AOD.

2.2.3 Climate

Grid Reference	: TA 058 845
Altitude (m)	: 70
Accumulated Temperature above 0°C (January - June)	: 1298 day °C
Average Annual Rainfall (mm)	: 650
Climatic Grade	: 2
Field Capacity Days	: 152
Moisture Deficit (mm) Wheat	: 102
Moisture Deficit (mm) Potatoes	: 92

2.2.4 Geology Soils and Drainage

Soils are all developed from boulder clay drift deposits. Solid strata are not exposed within a metre of the surface. Topsoils are medium clay loam. Soils on the higher land contains a similar textured upper subsoil. This is absent on the lower land. The lower subsoil is clayey and slowly permeable. The higher land is better drained and falls into Wetness Class III. The lower land is Wetness Class IV.

2.2.5 AGRICULTURAL LAND CLASSIFICATION LAND AT OSGODBY

The ALC grades occurring on this site are as follows:

Grade/Subgrade	Hectares	Percentage of Total Area
1		
2		
3a	2.7	55
3b	2.2	45
4		
5		
(Sub total)	(4.9)	(100)
Urban		
Non Agricultural		
Woodland - Farm		
- Commercial		
Agricultural Buildings		
Open Water		
Land not surveyed		
(Sub total)		
TOTAL	4.9	100

2.2.6 Subgrade 3a

The better drained higher land, with Wetness Class III, imperfectly drained soils is limited by soil wetness.

2.2.7 Subgrade 3b

The lower land is poorly drained (Wetness Class IV) and limited by a more severe soil wetness problem.

2.3 SITE AT FRANK CLIFFE (REFERENCE H5)

2.3.1 Location

The site at Frank Cliffe (grid reference TA 052 858) lies about 2½ km south east of Scarborough.

2.3.2 Land Use and Relief

The site is split into 2 fields. The westerly field is in arable use and to the east a playground.
Relief is gentle with variable aspect.
Average altitude is 80m AOD.

2.3.3 Climate

Grid Reference	: TA 052 858
Altitude (m)	: 80
Accumulated Temperature above 0°C (January - June)	: 1286 day °C
Average Annual Rainfall (mm)	: 653
Climatic Grade	: 2
Field Capacity Days	: 152
Moisture Deficit (mm) Wheat	: 100
Moisture Deficit (mm) Potatoes	: 90

The site lies only about 1km from the coast, above the sea cliff. Wind exposure will be increased. However this is unlikely to limit the climate of the site to any worse than grade 2.

2.3.4 Geology, Soils and Drainage

Soils are developed from boulder clay drift. Solid strata is not exposed within a metre of the surface.

Topsoils are medium clay loam over a clayey slowly permeable subsoil. These poorly drained soils fall in Wetness Class IV.

2.3.5 AGRICULTURAL LAND CLASSIFICATION LAND AT FRANK CLIFFE

The ALC grades occurring on this site are as follows:

Grade/Subgrade	Hectares	Percentage of Total Area
1		
2		
3a		
3b	1.2	60
4		
5		
(Sub total)	(1.2)	(60)
Urban		
Non Agricultural	0.8	40
Woodland - Farm		
- Commercial		
Agricultural Buildings		
Open Water		
Land not surveyed		
(Sub total)	(0.8)	(40)
TOTAL	2.0	100

2.3.6 Subgrade 3b

Medium clay loam topsoils overlie clayey slowly permeable subsoils. Soil wetness limits this land to Subgrade 3b.

2.3.7 Non Agricultural

This includes a childrens play area.

2.4 LAND AT SEAMER (REFERENCE H7 AND POS 8)

2.4.1 Location

The land surveyed lies just to the south east of Seamer at grid reference TA 028 835.

2.4.2 Land Use and Relief

The site is currently not in agricultural production and contains unmanaged grass and weeds. It is level at an altitude of 35m AOD.

2.4.3 Climate

Grid Reference	: TA 028 835
Altitude (m)	: 35
Accumulated Temperature above 0°C (January - June)	: 1339 day °C
Average Annual Rainfall (mm)	: 671
Climatic Grade	: 1
Field Capacity Days	: 162
Moisture Deficit (mm) Wheat	: 104
Moisture Deficit (mm) Potatoes	: 95

2.4.4 Geology, Soils and Drainage

Solid strata are not exposed within a metre of the surface. Soils are all developed from freely drained (Wetness class I) sand and gravel deposits. Topsoils and subsoils are usually a slightly stony medium sandy loam.

These soils are droughty.

2.4.5 AGRICULTURAL LAND CLASSIFICATION LAND AT SEAMER

The ALC grades occurring on this site are as follows:

Grade/Subgrade	Hectares	Percentage of Total Area
1		
2	5.9	92
3a		
3b		
4		
5		
(Sub total)	(5.9)	(92)
Urban		
Non Agricultural	0.5	8
Woodland - Farm		
- Commercial		
Agricultural Buildings		
Open Water		
Land not surveyed		
(Sub total)	(0.5)	(8)
TOTAL	6.4	100

2.4.6 Grade 2

The freely drained (Wetness Class I) soils found on the site are limited by topsoil stoniness and droughtiness.

2.4.7 Non Agricultural

This includes a small area where soil had been stored.

2.5 LAND AT EASTFIELD INDUSTRIAL ESTATE (REFERENCE I1 AND I2)

2.5.1 Location and Survey Methods

The site lies about 5km south of Scarborough and to the south of the existing industrial estate. A disused sand and gravel quarry lies immediately to the west.

The site has a centroid grid reference of TA 034 830.

2.5.2 Land Use and Relief

The site currently contains a mixture of arable and grass fields.
Relief is gentle with variable aspect.
Average altitude is 35m AOD.

2.5.3 Climate

Grid Reference	: TA 034 830
Altitude (m)	: 35
Accumulated Temperature above 0°C (January - June)	: 1340 day °C
Average Annual Rainfall (mm)	: 668
Climatic Grade	: 1
Field Capacity Days	: 161
Moisture Deficit (mm) Wheat	: 105
Moisture Deficit (mm) Potatoes	: 95

2.5.4 Geology Soils and Drainage

Solid strata is not exposed within a metre of the surface. Soils are mostly developed from boulder clay drift although a small area in the west contains soils developed from sand and gravel deposits.

Boulder clay soils have a medium clay loam topsoils and sometimes similar upper subsoils. The lower subsoil is clayey and slowly permeable. The soils are imperfectly to poorly drained (Wetness Class III to IV).

The sand and gravel derived soils have a sandy loam topsoil and upper subsoil over a similar textured or loamy medium sand lower subsoil. Topsoils are slightly stony. These soils are droughty but freely drained (Wetness Class I).

2.5.5 AGRICULTURAL LAND CLASSIFICATION LAND AT EASTFIELD INDUSTRIAL ESTATE

The ALC grades occurring on this site are as follows:

Grade/Subgrade	Hectares	Percentage of Total Area
1		
2	3.1	9
3a	3.8	11
3b	26.8	80
4		
5		
(Sub total)	(33.7)	(100)
Urban		
Non Agricultural		
Woodland - Farm		
- Commercial		
Agricultural Buildings		
Open Water		
Land not surveyed		
(Sub total)		
TOTAL	33.7	100

2.5.6 Grade 2

The light textured sand and gravel soils found in the west of the site are limited to grade 2 by topsoil stoniness and droughtiness.

2.5.7 Subgrade 3a

This includes imperfectly drained boulder clay derived soils found in the north east of the site. These soils are limited by soil wetness.

2.5.8 Subgrade 3b

Poorly drained boulder clay soils are graded 3b. Soil wetness again limits the ALC grade.

2.6 LAND AT HUNMANBY (REFERENCE I7)

2.6.1 Location and Survey Methods

The Hunmanby site lies about 4½ km south of Filey at grid reference TA 106 768.

2.6.2 Land Use and Relief

At the time of survey the whole site was under grass. Slopes are level or gentle and aspect is variable.

Average altitude is 60m AOD.

2.6.3 Climate

Grid Reference	: TA 106 768
Altitude (m)	: 60
Accumulated Temperature above 0°C (January - June)	: 1312 day °C
Average Annual Rainfall (mm)	: 705
Climatic Grade	: 2
Field Capacity Days	: 175
Moisture Deficit (mm) Wheat	: 99
Moisture Deficit (mm) Potatoes	: 88

2.6.4 Geology, Soils and Drainage

Solid strata are not exposed within a metre of the surface. Soils are all developed from light textured sand and gravel deposits.

Topsoils and upper subsoils are medium sandy loam over a loamy sand or sand subsoil. Soils are freely drained (Wetness Class I) and droughty. A small area in the west is subject to frequent winter flooding.

2.6.5 AGRICULTURAL LAND CLASSIFICATION LAND AT HUNMANBY

The ALC grades occurring on this site are as follows:

Grade/Subgrade	Hectares	Percentage of Total Area
1		
2	2.3	72
3a		
3b	0.9	28
4		
5		
(Sub total)	(3.2)	(100)
Urban		
Non Agricultural		
Woodland - Farm		
- Commercial		
Agricultural Buildings		
Open Water		
Land not surveyed		
(Sub total)		
TOTAL	3.2	100

2.6.7 Grade 2

Light textured freely drained soils are limited to grade 2 by droughtiness.

2.6.8 Subgrade 3b

This area is limited by flood risk.

2.7 LAND AT FILEY (REFERENCE H11, I5, POS11 AND POS13)

2.7.1 Location

The Filey site is located 1km south west of Filey at grid reference TA112 800. The southern half of the site was originally surveyed in 1987 before the 1988 revised ALC guidelines were published. This survey found most of the land to be of subgrade 3a quality.

2.7.2 Land Use and Relief

The site contains both grass and arable land uses.
Aspect is north easterly and slopes are gentle.
Average altitude is 45m AOD.

2.7.3 Climate

Grid Reference	: TA 112 800
Altitude (m)	: 45
Accumulated Temperature above 0°C (January - June)	: 1328 day °C
Average Annual Rainfall (mm)	: 668
Climatic Grade	: 1
Field Capacity Days	: 164
Moisture Deficit (mm) Wheat	: 108
Moisture Deficit (mm) Potatoes	: 99

2.7.4 Geology, Soils and Drainage

Solid strata are not exposed within a metre of the surface. Soils are all derived from boulder clay drift.

Topsoils and upper subsoils are medium clay loam over a clayey slowly permeable lower subsoil. These soils fall within Wetness Class III, or Class IV where the upper subsoil is absent (imperfectly or poorly drained).

2.7.5 AGRICULTURAL LAND CLASSIFICATION LAND AT FILEY

The ALC grades occurring on this site are as follows:

Grade/Subgrade	Hectares	Percentage of Total Area
1		
2		
3a	5.7	49
3b	5.8	51
4		
5		
(Sub total)	(11.5)	(100)
Urban		
Non Agricultural		
Woodland - Farm		
- Commercial		
Agricultural Buildings		
Open Water		
Land not surveyed		
(Sub total)		)
TOTAL	11.5	100

2.7.6 Subgrade 3a

This subgrade includes imperfectly drained higher land in the south. The ALC grade is limited by soil wetness.

2.7.7 Subgrade 3b

Subgrade 3b land is found mostly in the north where the soils are poorly drained. Again the ALC grade is limited by soil wetness.