AGRICULTURAL LAND CLASSIFICATION
SELBY LOCAL PLAN
(OBJECTORS SITES)
NORTH YORKSHIRE
JANUARY 1996

ADAS

Leeds Statutory Group

Job No:- 7 - 8 - 9 - 11 - 13 - 14 - 15 /96

MAFF Ref:- EL 48/91A

Commission No:- N2305

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SUMMARY

Detailed Agricultural Land Classification (ALC) surveys of seven sites within Selby District (" Selby Local Plan, Objectors' Sites") were carried out in January 1996. The following table summarises the grade areas found on each site.

Site	Area (ha) Grade 2	Subgrade 3a	Subgrade 3b	Other Land
BAR IV	4.1	-	0.5	0.2
BRAY IV	-	8.5	-	-
BYR I	4.5	1.1	-	6.7
SEL II	-	4.3	-	-
SEL IV	-	16.1	-	-
SHB IV	1.7	13.9	3.9	0.3
NRD I	-	12.2	0.5	0.3

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AGRICULTURAL LAND CLASSIFICATION REPORT ON OBJECTORS' SITES FOR SELBY LOCAL PLAN, NORTH YORKSHIRE

1. Introduction

Detailed Agricultural Land Classification (ALC) surveys of seven sites within Selby District were carried out mainly in January 1996, when the soils were examined by hand auger borings at 100 m intervals predetermined by the National Grid. Additional borings were made where necessary to refine grade boundaries and at least one soil pit was dug on each site to allow a full profile description to be made.

The land quality in each case was assessed 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. SITE BAR IV, LAND TO THE SOUTH-EAST OF THE HOLLIES, OSGODBY

2.1 Land Use and Relief

This site lies 3½ km north-east of Selby town centre, on the north-east side of the village of Osgodby. At the time of survey the northern-most field was under ley grass while the land in the south had been recently ploughed. An area in the centre of the site, consisting of scrub and ponds, was agriculturally derelict. The altitude of the site varies between 10 m AOD in the south and approximately 8 m AOD in the centre. The land is level to gently sloping (0 - 2°) and the aspect is variable.

2.2 Climate

Grid Reference	: SE645337
Altitude (m)	: 10
Accumulated Temperature above 0°C (January - June)	: 1398 day °C
Average Annual Rainfall (mm)	: 581
Climatic Grade	: 1
Field Capacity Days	: 119
Moisture Deficit (mm) Wheat	: 109
Moisture Deficit (mm) Potatoes	: 100

2.3 Geology, Soils and Drainage

This area is underlain by Bunter Sandstone over which lie drift deposits of sand. Generally the soils are well or moderately well drained, falling in Wetness Classes I and II, and consist of medium sandy loam topsoils and subsoils in most cases, although loamy medium sand or gleyed and slowly permeable sandy clay loam or heavy clay loam subsoils occur in places. In the centre of the site is a low-lying area of land where the soils are imperfectly drained (Wetness Class III) and the soils vary between deep sandy loams and heavy clay loams or clays.

This area has been mapped by the Soil Survey and Land Research Centre as having Newport series soils.

2.4 AGRICULTURAL LAND CLASSIFICATION

The ALC grades occurring on this site are as follows:

Grade/Subgrade	Hectares	% of Total Area
1		
2	4.1	85.4
3a		
3b	0.5	10.4
4		
5		
(Sub total)	(4.6)	(95.8)
Other land	0.2	4.2
TOTAL	4.8	100

2.4.1 Grade 2

Most of the agricultural land on the site falls in Grade 2. The soils are well or moderately well drained, falling in Wetness Classes I or II, and consist of very slightly stony medium sandy loam topsoils and medium sandy loam or loamy medium sand subsoils in most cases. In a few profiles gleyed and slowly permeable sandy clay loams or heavy clay loams occur below 45 cm depth. The ALC grade of this land is limited by slight soil droughtiness.

2.4.2 Subgrade 3b

A small area of rushy low-lying land in the centre of the site falls in Subgrade 3b. The soils are variable, with sandy loam topsoils and subsoils in some areas, and heavy clay loam topsoils overlying clay subsoils in others. Soil wetness and variability are the factors restricting this land to Subgrade 3b.

2.4.3 Other Land

Other land on this site consists of small ponds and wet hollows in the centre and north.

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3. SITE BRAY IV, LAND WEST OF BRACKENHILL AVENUE, SELBY

3.1 Location, Land Use and Relief

Site BRAY IV lies approximately 2 km south-west of Selby town centre, on the south side of the Selby-Leeds railway line. At the time of the survey all of the land was sown to winter cereals. The land lies at an altitude of 6 m AOD and is level.

3.2 Climate

Grid Reference	: SE599315
Altitude (m)	: 6
Accumulated Temperature above 0°C (January - June)	: 1406 day °C
Average Annual Rainfall (mm)	: 598
Climatic Grade	: 1
Field Capacity Days	: 126
Moisture Deficit (mm) Wheat	: 108
Moisture Deficit (mm) Potatoes	: 100

3.3 Geology, Soils and Drainage

This site is underlain by Bunter Sandstone over which lie deep deposits of glaciolacustrine clay and superficial deposits of wind blown sand. The soils are well drained (Wetness Class I) and consists of stoneless loamy fine sand or fine sandy loam topsoils overlying loamy fine sand or fine sand subsoils, although horizons of either silty clay or medium sand occur at depth in places. The soils belong to the Everingham series as mapped by the Soil Survey and Land Research Centre.

3.4 Agricultural Land Classification

The ALC grades occurring on this site are as follows:

Grade/Subgrade	Hectares	% of Total Area
1		
2		
3a	8.5	100.0
3b		
4		
5		
(Sub total)	(8.5)	(100.0)
Other land		
TOTAL	8.5	100

3.4.1 Subgrade 3a

All of the site falls in Subgrade 3a. Stoneless loamy fine sand or occasionally fine sandy loam topsoils overlie gleyed loamy fine sand or fine sand upper subsoils and fine sand, medium sand or silty clay lower subsoils. Although profiles are well drained (Wetness Class I), the topsoils are prone to wind erosion and it is this factor which limits the ALC grade of the land.

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4. SITE BYR I, LAND AT EAST ACRES/BYRAM PARK, BYRAM

4.1 Location, Land Use and Relief

Site BYR I lies 6½ km east of Castleford town centre, and approximately 750 m east of the A1(T). At the time of the survey 54% of the site consisted of woodland whilst the remaining 46% consisted of oilseed rape and recently ploughed land. The land is level to gently sloping (0 - 3°) with a southerly aspect, and site altitude is approximately 20 m AOD.

4.2 Climate

Grid Reference	: SE493255
Altitude (m)	: 20
Accumulated Temperature above 0°C (January - June)	: 1395 day °C
Average Annual Rainfall (mm)	: 604
Climatic Grade	: 1
Field Capacity Days	: 127
Moisture Deficit (mm) Wheat	: 106
Moisture Deficit (mm) Potatoes	: 97

4.3 Geology, Soils and Drainage

This area is underlain by Upper Magnesian Limestone, which outcrops to within one metre of the soil surface over much of the site. In the north of the site the soils have formed in weathering limestone and are moderately well to imperfectly drained (Wetness Class II to Wetness Class III) with medium clay loam or heavy clay loam topsoils overlying heavyclay loam, clay or silty clay subsoils which are slowly permeable below 50 cm depth in places. In the centre of the site a thin layer of glacial sand and gravel overlies the limestone and in this area the soils are well drained (Wetness Class I). Sandy loam topsoils overlie sandy

loam or loamy sand upper subsoils and sand lower subsoils, although horizons of heavy clay loam derived from the underlying limestone occur at depth in places.

The soils on this site correspond to the Aberford and Arrow associations as mapped by the Soil Survey and Land Research Centre.

4.4 AGRICULTURAL LAND CLASSIFICATION

The ALC grades occurring on this site are as follows:

Grade/Subgrade	Hectares	% of Total Area
1		
2	4.5	36.6
3a	1.1	8.9
3b		
4		
5		
(Sub total)	(5.6)	(45.5)
Other land	6.7	54.5
TOTAL	12.3	100

4.4.1 Grade 2

Most of the agricultural land on this site falls in Grade 2. The soils are well drained (Wetness Class I) and consist of coarse sandy loam topsoils overlying coarse sandy loam or loamy coarse sand upper subsoils and coarse sand, medium sand, sandy clay loam or,

where the underlying limestone outcrops to within one metre or so of the soil surface, heavy clay loam lower subsoils. In some areas, particularly adjoining the track which bisects the site east-west, the soils and climate combine to give a moderate susceptibility to drought, but the use of the irrigation water available on the site can alleviate this. This land is therefore restricted to Grade 2 by a slight droughtiness limitation.

Elsewhere the land meets the requirements for Grade 2 without the need for irrigation, and the ALC grade of these areas is limited by slight droughtiness, slight soil wetness and/or a slight pattern limitation.

4.4.2 Subgrade 3a

Subgrade 3a land is found in the north of the site. The soils are moderately well to imperfectly drained (Wetness Classes II to III) and consist of non-calcareous medium clay loam or heavy clay loam topsoils overlying heavy clay loam or clay upper subsoils and gleyed and slowly permeable silty clay lower subsoils at around 45 cm depth. A combination of soil wetness and topsoil workability restrictions limit this land to Subgrade 3a.

4.4.3 Other Land

Much of the centre and south of this site is covered by woodland.

5. SITE SEL II, LAND AT HILL FIELD FARM, MONK LANE, SELBY

5.1 Location, Land Use and Relief

Site SEL II lies 1½ km north-west of Selby town centre. At the time of survey the north-western field was in ley grass while the south-eastern field was in winter cereals. The site altitude varies between 4 m AOD in the south-east and 5 m AOD in the west, and the land is level.

5.2 Climate

Grid Reference	: SE662336
Altitude (m)	: 4
Accumulated Temperature above 0°C (January - June)	: 1406 day °C
Average Annual Rainfall (mm)	: 585
Climatic Grade	: 1
Field Capacity Days	: 123
Moisture Deficit (mm) Wheat	: 109
Moisture Deficit (mm) Potatoes	: 101

5.3 Geology, Soils and Drainage

Site SEL II is underlain by Bunter Sandstone, which is covered by glacial and post-glacial drift deposits of silt and clay. Over most of the site the soils are imperfectly drained (Wetness Class III) and consist of non-calcareous medium clay loam topsoils overlying gleyed and slowly permeable sandy clay loam, heavy clay loam or clay subsoils. In the south-east of the site non-calcareous medium or heavy silty clay loam topsoils overlie gleyed and sometimes slowly permeable medium or heavy silty clay loam upper subsoils and clay or silt loam lower subsoils. These profiles fall in Wetness Classes II and III.

5.4 AGRICULTURAL LAND CLASSIFICATION

The ALC grades occurring on this site are as follows:

Grade/Subgrade	Hectares	% of Total Area
1		
2		
3a	4.3	100.0
3b		
4		
5		
(Sub total)	(4.3)	(100.0)
Other land		
TOTAL	4.3	100

5.4.1 Subgrade 3a

All of this site falls in Subgrade 3a. Over most of the site non-calcareous medium clay loam topsoils overlie gleyed and slowly permeable sandy clay loam, heavy clay loam or clay subsoils. The profiles are imperfectly drained (Wetness Class III) and soil wetness limits the land to Subgrade 3a. In the south-east the soils are moderately well or imperfectly drained (Wetness Classes II and III) and consist of non-calcareous medium or heavy silty clay loam topsoils overlying gleyed and sometimes slowly permeable medium or heavy silty clay loam upper subsoils and either clay or silt loam lower subsoils. A combination of soil wetness and topsoil workability limitations restrict this land to Subgrade 3a.

RPT File: 2FCS 11220

6. SITE SEL IV, LAND BETWEEN STAYNOR WOOD AND EAST COMMON, SELBY

6.1 Location, Land Use and Relief

The site lies approximately 1½ km south east of Selby town centre. It covers a total area of 16.1 ha all of which was in arable use at the time of survey. The site is level at an altitude of 6 m AOD.

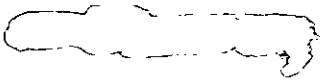
6.2 Climate

Grid Reference	: SE626312
Altitude (m)	: 6
Accumulated Temperature above 0°C (January - June)	: 1405 day °C
Average Annual Rainfall (mm)	: 589
Climatic Grade	: 1
Field Capacity Days	: 123
Moisture Deficit (mm) Wheat	: 109
Moisture Deficit (mm) Potatoes	: 101

6.3 Geology, Soils and Drainage

Bunter Sandstones underlie the site, however these are not exposed within a metre of the surface. Drift deposits mostly consist of stoneless wind blown (aeolian) fine sand although occasionally where this sand cover is thin or absent clayey lacustrine deposits occur. Soils across the site are typically a loamy fine sand or occasionally fine sandy loam (as confirmed by laboratory analysis) topsoil and upper subsoil over an often gleyed fine sand subsoil. Occasionally clay is found in the profile, typically below 80 cm depth. These soils are well drained (Wetness Class I). A small area adjacent to the drainage ditch north east of Staynor Hall Cottages contains medium clay loam or sandy clay loam topsoils over clayey subsoils. These profiles are slowly permeable within 35 cm depth and fall within Wetness Class III.

The Soil Survey and Land Research Centre (SSLRC) have published a 1:25,000 scale soils map of the Selby area (SE63/73) which covers the western part of the site. Remaining parts of the site are shown as urban by the SSLRC. Here soils of the Everingham series are mapped. These are sandy gley soils, typically with a loamy fine sand topsoil.



6.4 AGRICULTURAL LAND CLASSIFICATION

ALC grades occurring on this site are as follows:

Grade/Subgrade	Hectares	% of Total Area
1		
2		
3a	16.1	100.0
3b		
4		
5		
(Sub total)	(16.1)	(100.0)
Other land		
TOTAL	16.1	100

6.4.1 Subgrade 3a

All of the site is Subgrade 3a. Most of the site contains, as confirmed by laboratory analyses, loamy fine sand or occasionally fine sandy loam topsoils and upper subsoils over fine sandy lower subsoils, occasionally with clay at depth. Wind erosion (blowing) limits the ALC grade of this land. Wind erosion is most likely to occur in spring or early summer during windy weather following dry weather. This erosion can cause damage to crops and lead to the loss of topsoil, fertiliser, seedlings and recently sown seeds.

A small area adjacent to the drainage ditch north-west of Staynor Hall Cottages contains sandy clay loam or medium clay loam topsoils over clayey slowly permeable subsoils. Soil wetness and workability problems limit the ALC grade of this land.

RPT File: 2FCS 11219

7. SITE SHB IV, LAND TO THE NORTH AND EAST OF PROSPECT FARM, SHERBURN-IN-ELMET

7.1 Location, Land Use and Relief

Site SHB IV lies 1½ km south-east of Sherburn-in-Elmet, around Grid Reference SE498328. Land in the north of site had been subject to a detailed ALC survey in summer 1993 ("Selby District Local Plan, Site 21", Job No. 118/93). At the time of the January 1996 survey the land in the south was sown to winter wheat whilst the land in the north had been recently ploughed. Site altitude varies from 21 m AOD in the west to approximately 7 m AOD in the east and the land is gently sloping (approximately 2°) with an easterly aspect.

7.2 Climate

Grid Reference	: SE498328
Altitude (m)	: 12
Accumulated Temperature above 0°C (January - June)	: 1400 day °C
Average Annual Rainfall (mm)	: 635
Climatic Grade	: 1
Field Capacity Days	: 139
Moisture Deficit (mm) Wheat	: 106
Moisture Deficit (mm) Potatoes	: 98

7.3 Geology, Soils and Drainage

Upper Magnesian Limestone underlies this site and, with the exception of locally derived Head deposits, there is no drift cover. The soils have developed in weathering limestone, which outcrops to within one metre of the soil surface over most of the site, and are generally well drained, falling in Wetness Class I. Typically medium clay loam topsoils overlie medium clay loam, heavy clay loam or clay subsoils, with weathering limestone

beginning at between 40 cm and 80 cm depth. The soils on the site correspond to the Aberford association as mapped by the Soil Survey and Land Research Centre.

7.4 AGRICULTURAL LAND CLASSIFICATION

ALC grades occurring on this site are as follows:

Grade/Subgrade	Hectares	% of Total Area
1		
2	1.7	8.6
3a	13.9	70.2
3b	3.9	19.7
4		
5		
(Sub total)	(19.5)	(98.5)
Other land	0.3	1.5
TOTAL	19.8	100

7.4.1 Grade 2

A small area of Grade 2 land occurs in the south of the site. The soils are well drained (Wetness Class I) and consist of medium clay loam topsoils overlying medium clay loam, heavy clay loam or clay subsoils. Weathering limestone typically begins at around 80 cm depth and soil droughtiness is the factor limiting this land to Grade 2.

7.4.2 Subgrade 3a

Most of the agricultural land on this site falls in Subgrade 3a. The soils are similar to those on the Grade 1 land but the weathering limestone begins at between 50 cm and

70 cm depth, and the soils are subsequently more droughty. This increased soil droughtiness further restricts the ALC grade to Subgrade 3a.

7.4.3 Subgrade 3b

Subgrade 3b occurs in the west and north-east. The soils are again well drained (Wetness Class I), with medium clay loam topsoils and subsoils overlying weathering limestone at between 40 cm and 50 cm depth. Severe soil droughtiness further limits the ALC grade to Subgrade 3b.

7.4.4 Other land

This consists of Prospect Farm and associated outbuildings.

RPT File: 2FCS 11218

8. SITE NRD I, LAND TO THE EAST OF YORK ROAD, NORTH DUFFIELD

8.1 Location, Land Use and Relief

This site lies approximately 9 km north-east of Selby town centre, on the north side of the village of North Duffield. At the time of the survey 98% of the land was in agricultural use, (mainly arable but with some ley and permanent grass) while 2% consisted of agricultural buildings.

Site altitude varies from 8 m AOD in the east to almost 10 m AOD in the south and the land is level to gently sloping (0 - 2°) with variable aspect.

8.2 Climate

Grid Reference	: SE685373
Altitude (m)	: 8
Accumulated Temperature above 0°C (January - June)	: 1396 day °C
Average Annual Rainfall (mm)	: 588
Climatic Grade	: 1
Field Capacity Days	: 124
Moisture Deficit (mm) Wheat	: 109
Moisture Deficit (mm) Potatoes	: 101

8.3 Geology, Soils and Drainage

This site is underlain by Bunter Sandstone over which lie deep deposits of glaciolacustrine clay which, over the centre and west of the site, is overlain in turn by deposits of wind blown sand.

The soils in the west and centre are well drained (Wetness Class I) and typically consist of loamy fine sand topsoils and upper subsoils overlying fine or medium sand lower subsoils. These soils correspond to the Kexby and Everingham series as mapped by the Soil Survey and Land Research Centre. The soils in the east of the site are imperfectly drained (Wetness Class III) generally with sandy loam or sandy clay loam topsoils and upper subsoils overlying gleyed and slowly permeable clay at between 35 cm and 45 cm depth. These soils correspond to the Foggathorpe and Portington series as mapped by the Soil Survey and Land Research Centre. In a small area alongside the drain in the east of the site heavy clay loam topsoils overlie gleyed and slowly permeable clay subsoils. This area has been mapped by the Soil Survey and Land Research Centre as having Crimple and Sulham series soils.

8.4 AGRICULTURAL LAND CLASSIFICATION

The ALC grades occurring on this site are as follows:

Grade/Subgrade	Hectares	% of Total Area
1		
2		
3a	12.2	93.9
3b	0.5	3.8
4		
5		
(Sub total)	(12.7)	(97.7)
Other land	0.3	2.3
TOTAL	13.0	100

8.4.1 Subgrade 3a

Most of this site falls in Subgrade 3a, although there are two distinct soil types. The first occurs in the centre and west, where the soils are well drained (Wetness Class I), and loamy fine sand topsoils and upper subsoils overlie fine sand or medium sand lower subsoils. The low clay content of the topsoils means that these soils are prone to wind erosion, and it is this factor which restricts the ALC grade of the land.

The second soil type occurs in the east of the site, where the soils are imperfectly drained (Wetness Class III). Sandy loam or sandy clay loam topsoils and upper subsoils overlie gleyed and slowly permeable clay at between 35 cm and 45 cm depth. Although those areas with sandy loam topsoils meet the requirements for Grade 2, they are too inextensive

to map separately, and soil wetness and topsoil workability restrict the ALC grade of the areas with sandy clay loam topsoils.

8.4.2 Subgrade 3b

A small area in the east consists of non-calcareous heavy clay loam topsoils overlying gleyed and slowly permeable clay subsoils at around 20 cm depth. These profiles are also imperfectly drained (Wetness Class III), but the heavy clay loam topsoils are less easily worked than the medium clay loams on the surrounding land, and it is this which further restricts the ALC grade to Subgrade 3b.

8.4.3 Other Land

This consists of agricultural buildings and occurs in the south-west of the site.

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