MAFF Ministry of Agriculture Fisheries and Food

AGRICULTURAL LAND CLASSIFICATION
SELBY DISTRICT LOCAL PLAN
SITES AT HAMBLETON, THORPE WILLOUGHBY, CAMBLESFORTH AND SELBY

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SELBY DISTRICT LOCAL PLAN
AGRICULTURAL LAND CLASSIFICATION SURVEYS

PREFACE

This report contains the results of Agricultural Land Classification Surveys carried out, in September 1993, on sites at Hambleton, Thorpe Willoughby, Camblesforth and Selby. Earlier work for the Local Plan (June and July 1993) in the Selby, Sherburn-in-Elmet and Eggborough areas is covered in a separate report. In this report the six sites surveyed are grouped, according to location, into 4 sections. Separate summaries are given at the beginning of each section.

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AGRICULTURAL LAND CLASSIFICATION: SELBY DISTRICT LOCAL PLAN: SITES AT HAMBLETON (HAM/D, HAM/E), THORPE WILLOUGHBY (THW/F, THW/G) CAMBLESFORTH (DPS/C) AND SELBY (SEL/F)

SECTION 1: INTRODUCTION

1.1 Survey Areas and Methods

Land covering an area of approximately 97.4 ha was surveyed on sites around Hambleton, Thorpe Willoughby, Camblesforth and Selby. These sites, grouped according to their location, are described in subsequent sections of this report.

Survey work was carried out during September 1993 when soils were examined by hand auger borings, at points pre-determined by the National Grid. Most sites were surveyed at a boring density of one per hectare, except sites HAM/E and SEL/F which were surveyed at two borings per hectare. Soil inspection pits were dug at representative points on each site to assess subsoil structure.

Land quality was assessed using methods described in "Agricultural Land Classification of England and Wales: Revised guidelines and criteria for grading the quality of agricultural land". (MAFF, 1988).

1.2 Land Use and Relief

The majority of land in the Selby district is in mixed arable use. Grassland covers a relatively small area. At the time of survey, most arable land had been cultivated after cereal harvesting, with smaller areas remaining under crops such as sugar beet, potatoes and field beans.

The Selby district is low lying, all sites being between 5 and 10 metres A.O.D. Relief is mainly level or very gently sloping.

1.3 Climate

One common reference point was used to derive climatic information for sites around Hambleton and Thorpe Willoughby. Climatic information for these sites is presented in Tables 1 and 2.

Separate reference points were used to derive climatic information for the sites at Selby (SEL/F and Camblesforth DPS/C). This information is presented in Tables 3 and 4 respectively.

1.4 Geology, Soils and Drainage

The district is underlain by Bunter Sandstone, mantled with thick unconsolidated drift deposits of lacustrine clay, glacio-fluvial sand and fine wind blown (aeolian) sand.

Two main soil types occur within the areas covered by this report:-

1. Medium to heavy textured topsoils overlying heavy textured, slowly permeable subsoils. These soils are generally imperfectly drained, falling within Wetness Class III. They are similar to the Foggathorpe series as mapped by the Soil Survey and Land Research Centre. Agricultural quality of soils of this type is limited by soil wetness.

2. Deep, well drained soils with coarse loamy, medium or fine sandy textured topsoils and subsoils. These include the Newport, Everingham and Blackwood series. The agricultural quality of these soils is limited, to varying degrees, by soil droughtiness and by the risk of wind erosion. Other soils are transitional between those described above. Most common are profiles consisting of course loamy or sandy textured topsoils and upper subsoils overlying heavy textured, slowly permeable lower subsoils. These soils are well drained to imperfectly drained (Wetness Class I to III) and agricultural quality may be limited by soil droughtiness, soil wetness or susceptibility to erosion by wind.

SECTION 2: AGRICULTURAL LAND CLASSIFICATION: SITES AROUND HAMBLETON (SITES HAM/D AND HAM/E)

SUMMARY

An Agricultural Land Classification survey was carried out on 2.5 ha of land on site HAM/D and 11.5 ha of land on site HAM/E in September 1993. 2.1 ha of site HAM/D and 8.5 ha of site HAM/E were in agricultural use.

Grade 2 land covers 3.9 ha of site HAM/E. Soil profiles are stoneless and moderately well drained (Wetness Class II) typically consisting of medium textured topsoils and gleyed, similarly textured upper subsoils over heavy textured lower subsoils which are slowly permeable between 60 and 80 cm depth. This land is limited to Grade 2 by slight soil wetness and summer droughtiness.

There is no Subgrade 3a land on either site.

All of the agricultural land on site HAM/D (2.1 ha) and 4.6 ha of site HAM/E falls within Subgrade 3b. Soil profiles are stoneless and well drained (Wetness Class I), and typically consist of light textured (loamy medium sand) topsoils and upper subsoils over medium sand lower subsoils. This land is limited to Subgrade 3b by severe soil droughtiness.

Non-agricultural land consists of a sports field, which covers 2.3 ha of site HAM/E, and an orchard which covers 0.2 ha of site HAM/D. Urban land consists of roads and buildings covering 0.2 ha of site HAM/D and 0.7 ha of site HAM/E.

AGRICULTURAL LAND CLASSIFICATION: SITES AROUND HAMBLETON (SITES HAM/D AND HAM/E)

2.1 LOCATION

These two sites lie approximately 8 km west of Selby town centre to the south and west of Hambleton Village on the A63 trunk road. Site HAM/D is bordered by Stocking Lane to the west and Westcroft Lane to the north and is centred on National Grid Reference SE546303. Site HAM/E is bordered by the A63, Bar Lane and Stocking Lane and is centred on National Grid Reference SE549305.

2.2 Land Use and Relief

At the time of the survey most of the land on the two sites was in arable use under sugar beet or ploughland. The fields adjoining Stocking Lane were under grassland. Non-agricultural land consists of playing fields in the west of site HAM/E and gardens adjacent to Westcroft House on site HAM/D. Urban land consists of roads and houses.

2.3 Climate

Climatic data for the sites at Hambleton and Thorpe Willoughby was derived from one central reference point and is presented below in Table 1.

Table 1

Grid Reference	: SE560308 (Central point for Hambleton and Thorpe Willoughby)
Altitude (m)	: 9
Accumulated Temperature above 0°C (January - June)	: 1402 day °C
Average Annual Rainfall (mm)	: 613
Climatic Grade (mm)	: 1
Field Capacity Days	: 130
Moisture Deficit (mm) Wheat	: 107
Moisture Deficit (mm) Potatoes	: 99

2.4 Geology, Soils and Drainage

The area is underlain by Bunter Sandstone, mantled by thick, unconsolidated drift deposits of sand and clay.

Two soil types occur across the sites, the first consisting of medium textured topsoils (typically medium clay loam or sandy clay loam) overlying similar textured, gleyed upper subsoils and heavy textured (heavy clay loam or clay) lower subsoils which are slowly permeable between 60 and 80 cm depth. These soils are moderately well drained, falling within Wetness Class II.

The second soil type consists of well drained (Wetness Class I) stoneless, light textured soils. Topsoils and upper subsoils generally consist of loamy medium sand,with medium sand generally lying below 45 cm depth.

2.5 Agricultural Land Classification

The ALC grades on the two sites are as follows:

Grade/Subgrade	Area (ha)		Percentage of Total Land	
	Site HAM/D	Site HAM/E	Site HAM/D	Site HAM/E
2		3.9		33.9
3b	2.1	4.6	84.0	40.0
(Sub total)	(2.1)	(8.5)	(84.0)	(73.9)
Non-Agricultural	0.2	2.3	8.0	20.0
Urban Sub Total	0.2	0.7	8.0	6.1
Sub Total	(0.4)	(3.0)	(16.0)	(26.1)
Total	2.5	11.5	100	100

Grade 2

Grade 2 land occurs in the centre of Site HAM/E to the north of Old Lane. Soil profiles consist of stoneless, medium textured topsoils (typically medium clay loam or sandy clay loam) over similarly textured, generally gleyed upper subsoils and heavy textured (heavy clay loam or clay) lower subsoils which are slowly permeable between approximately 60 and 80 cm depth. Profiles are moderately well drained (Wetness Class II) and soils are limited to Grade 2 by slight soil wetness and summer droughtiness.

Subgrade 3b

The remaining agricultural land falls within Subgrade 3b. Soil profiles are stoneless and well drained, falling within Wetness Class I. Light textured topsoils and upper subsoils (typically loamy medium sand) generally overlie medium sand below 45 cm depth. This land is limited to Subgrade 3b by severe soil droughtiness and pattern restrictions.

Non-Agricultural

The sports fields in the west of site HAM/E and the orchard the adjacent to Westcroft House in Site HAM/D are classified as Non-Agricultural land.

Urban

This includes roads, houses and the changing rooms adjacent to the sports field.

MAP

SECTION 3: AGRICULTURAL LAND CLASSIFICATION: SITES AROUND THORPE WILLOUGHBY (SITE THW/F AND THW/G)

SUMMARY

7.6 of land at Site THW/F and 6.3 ha at Site THW/G were surveyed in September 1993. All of this is agricultural land.

Subgrade 3a land covers all of Site THW/G (6.3 ha) and 5.6 ha of Site THW/F. Soils are stoneless and well drained (Wetness Class I) and generally consist of medium to light textured topsoils (medium sandy loam or loamy fine sand) over light textured subsoils. This land is limited to Subgrade 3a by soil droughtiness and/or susceptibility to wind erosion.

2.0 ha of Site THW/G fall within Subgrade 3b. Soil profiles are stoneless and well drained (Wetness Class I), generally consisting of loamy medium sand topsoils and subsoils. This land is limited to Subgrade 3b by a more severe soil droughtiness restriction.

AGRICULTURAL LAND CLASSIFICATION: SITES AROUND THORPE WILLOUGHBY (THW/F AND THW/G)

3.1 Location

These two sites are situated to the west of Thorpe Willoughby, approximately 5 Km west of Selby Town Centre on the A63 trunk road. Site THW/F is centred around National Grid Reference SE570307 and Site THW/G is centred around National Grid Reference SE572308.

3.2 Land Use and Relief

At the time of the survey, both sites were entirely in agricultural use, mostly having been recently ploughed, except for a small part of site THW/G which was under sugar beet.

The two sites are level and lie at an altitude of approximately 9 m AOD.

3.3 Climate

Climatic data for the sites at Hambleton and Thorpe Willoughby was derived from one central reference point and is given below in Table 2.

Table 2

Grid Reference	: SE560308 (Central point for Hambleton and Thorpe Willoughby)
Altitude (m)	: 9
Accumulated Temperature above 0°C (January - June)	: 1402 day °C
Average Annual Rainfall (mm)	: 613
Climatic Grade	: 1
Field Capacity Days	: 130
Moisture Deficit (mm) Wheat	: 107
Moisture Deficit (mm) Potatoes	: 99

3.4 Geology, Soils and Drainage

The two sites are underlain by Bunter Sandstone, over which there is a thick cover of unconsolidated sandy drift deposits.

Soil profiles are generally deep, stoneless and well drained, falling within Wetness Class I. Medium to light textured topsoils and upper subsoils (generally medium sandy loam, loamy medium sand or loamy find sand) overlie light textured subsoils (loamy medium sand, loamy fine sand, medium sand or fine sand).

3.5 Agricultural Land Classification

The ALC grades on these two sites are as follows:

Grade/Subgrade	Area (ha)		Percentage of Total Land	
	Site THW/F	Site THW/G	Site THW/F	Site THW/G
3a	5.6	6.3	73.7	100%
3b	2.0		26.3	
Total	7.6	6.3	100	100%

Subgrade 3a

All land on Site THW/G and the northern part of Site THW/F fall within this Subgrade.

Soil profiles are stoneless and well drained (Wetness Class I), generally consisting of light textured topsoils (medium sandy loam or loamy fine sand) over light textured subsoils (loamy medium sand, loamy fine sand, medium sand or fine sand). These soils are limited to Subgrade 3a by slight soil droughtiness and risk of wind erosion.

Subgrade 3b

Subgrade 3b land occurs in the southern part of site THW/F. Soil profiles are deep, stoneless and well drained (Wetness Class I), generally consisting of loamy medium sand throughout the profile. The loamy medium sand topsoils on this land have a lesser capacity to retain water than the medium sandy loam and loamy fine sand topsoils on the Subgrade 3a land. This land is, therefore, limited to Subgrade 3b by more severe droughtiness restrictions.

MAP

SECTION 4: AGRICULTURAL LAND CLASSIFICATION: SITE DPS/C, CAMBLESFORTH SUMMARY

An Agricultural Land Classification survey was carried out on 62.7 ha of land at Camblesforth in September 1993.

47.2 ha of this is agricultural land, of which 4.4 ha is of Grade 2 quality. Soils within this Grade are moderately well drained or imperfectly drained (Wetness Classes II and III) and generally consist of medium sandy loam or medium clay loam topsoils over, in places, similar textured upper subsoils and clay lower subsoils which are slowly permeable below 40 cm. This land is limited to Grade 2 by slight soil wetness and droughtiness restrictions.

Subgrade 3a land covers 17.6 ha of the site. Two soil types fall within this subgrade. Well drained to moderately well drained soils (Wetness Classes I - II) consisting of medium textured topsoils over light textured subsoils, occasionally passing to heavy textured, slowly permeable material at depth. This land is limited to Subgrade 3a by soil droughtiness. Imperfectly drained soils (Wetness Class III) consist of medium clay loam topsoils over clay subsoils which are slowly permeable within 40 cm depth. This land is limited to Subgrade 3a by soil wetness.
Subgrade 3b land covers 11.1 ha. Profiles are well drained (Wetness Class I) and generally consist of loamy medium sand topsoils over loamy medium sand and medium sand subsoils. This land is limited to Subgrade 3b by severe soil droughtiness.

Urban land covers 1.0 ha, made up of tarmac tracks crossing the site. A golf course in the east of the site covers 23.1 ha of land classified as being in non-agricultural use. Three separate areas of farm woodland together occupy 5.5 ha.

AGRICULTURAL LAND CLASSIFICATION: SITE DPS/C, CAMBLESFORTH

4.1 Location

The site is located between Camblesforth and the mineral railway to Drax Power Station. It is centred on Grid Reference SE655258.

4.2 Land Use and Relief

The site covers an area of 62.7 ha, 33% of which is in agricultural production. The remainder of the site consists of tracks, farm woodland and a golf course.

4.3 Climate

Table 3

Grid Reference	: SE655258	
Altitude (m)	: 5	
Accumulated Temperature above 0°C (January - June)	: 1408	day °C
Average Annual Rainfall (mm)	: 601	
Climatic Grade	: 1	
Field Capacity Days	: 126	
Moisture Deficit (mm) Wheat	: 111	
Moisture Deficit (mm) Potatoes	: 104	

4.4 Geology, Soils and Drainage

The site is underlain by Triassic Sherwood (Bunter) sandstone over which lie Glaciofluvial clay and sand deposits. Soils are well to imperfectly drained (Wetness Classes I - III) and generally have light to medium textured topsoils and upper subsoils with heavy textured lower subsoils at depth in places.

4.5 AGRICULTURAL LAND CLASSIFICATION

The ALC grades occurring on this site are as follows:

Grade/Subgrade	Hectares	Percentage of Total Area
1		
2	4.4	7.0
3a	17.6	28.1
3b	11.1	17.7
4		
5		
(Sub total)	(33.1)	(52.8)
Urban	1.0	1.6
Non Agricultural	23.1	36.8
Woodland - Farm	5.5	8.8
Woodland - Commercial		
Agricultural Buildings		
Open Water		
Land non surveyed		
(Sub total)	(29.6)	(47.2)
Total	62.7	100

Grade 2

A small area of Grade 2 land occurs near the centre of the site. Profiles are moderately well or imperfectly drained (Wetness Classes II or III) and consist of medium sandy loam topsoils over either medium sandy loam or sandy clay loam upper subsoils and clay lower subsoils, or a clay subsoil which is slowly permeable below 40 cm.

The land is limited to Grade 2 by slight soil wetness and, in places, slight droughtiness.

Subgrade 3a

Subgrade 3a land occurs in the central part of the site. Profiles are typically well or moderately well drained (Wetness Classes I and II) and consist of medium sandy loam topsoils over loamy medium sand or medium sand subsoils, occasionally with clay at depth. These soils are limited to Subgrade 3a by droughtiness.

In places profiles are imperfectly drained (Wetness Class III) and consist of medium clay loam topsoils over a clay subsoil which is slowly permeable at less than 40 cm depth. These soils are limited to Subgrade 3a by wetness.

Subgrade 3b

Subgrade 3b land occurs in the western part of the site. Profiles are well drained (Wetness Class I) and consist of loamy medium sand topsoils over loamy medium sand or medium sand subsoils. This land is limited to Subgrade 3b by severe droughtiness.

Urban

This consists of three hard surfaced tracks running through the site.

Non Agricultural

This consists of the golf course at the eastern end of the site.

Farm Woodland

This includes three separate areas of woodland. One in the north west corner, another alongside the golf course and Underwit Wood.

MAP

SECTION 5: AGRICULTURAL LAND CLASSIFICATION: SITE SEL/F, STAYNOR HALL, SELBY

SUMMARY

An Agricultural Land Classification survey was carried out on 6.8 ha of land at Staynor Hall in September 1993.

All of the land was in arable production of which 2.4 ha falls within Grade 2. Soils are well drained (Wetness Class 1) and consist of medium sandy loam topsoils over fine sand to loamy medium sand upper subsoils and heavy silty clay loam lower subsoils. This land is limited to Grade 2 by slight soil droughtiness.

Subgrade 3a land covers 3.4 ha. Soils are well drained (Wetness Class I) and consist of medium sandy loam topsoils over loamy medium sand to medium sand upper subsoils and clay lower subsoils. This land is limited to Subgrade 3a by slight soil droughtiness.

Subgrade 3b land covers 1.0 ha. Soils are imperfectly drained (Wetness Class III) and consist of heavy clay loam topsoils over slowly permeable clay subsoils. This land is limited to Subgrade 3b by soil wetness.

AGRICULTURAL LAND CLASSIFICATION: SITE SEL/F, STAYNOR HALL, SELBY

5.1 Location

The site is located approximately 1 km south of Selby town centre and is centred around Grid Reference SE625309.

5.2 Land Use and Relief

The site covers 6.8 ha, all of which is in arable use. The area is flat and lies at an altitude of 6 m AOD.

5.3 Climate

Table 4

Grid Reference	: SE 625309
Altitude (m)	: 6
Accumulated Temperature above (January - June)	: 1405 day °C
Average Annual Rainfall (mm)	: 590
Climate Grade	: 1
Field Capacity Days	: 123
Moisture Deficit (mm) Wheat	: 109
Moisture Deficit (mm) Potatoes	: 101

5.4 Geology, Soils and Drainage

The area is underlain by Triassic Sherwood (Bunter) sandstone which is covered by lacustrine clay and aeolian sand deposits. Most soils are well drained (Wetness Class I) and light textured. Profiles in the south and western edge of the site however are imperfectly drained (Wetness Class III) and consist of medium to heavy textured topsoils (medium or heavy clay loam) over gleyed slowly permeable clay subsoils.

5.5 AGRICULTURAL LAND CLASSIFICATION

The ALC grades occurring on this site are as follows:-

Grade/Subgrade	Hectare	Percentage of Total Area
1		
2	2.4	35.3
3a	3.4	50.0
3b	1.0	14.7
4		
5		
(Sub total)	(6.8)	(100)
Urban		
Non Agricultural		
Woodland - Farm		
Commercial		
Agricultural Buildings		
Open Water		
Land not surveyed		
(Sub total)		
TOTAL	6.8	100

Grade 2

Grade 2 land occurs in the centre of the site. Soil profiles are typically well drained (Wetness Class I) and consist of medium sandy loam topsoils over loamy fine sand upper subsoils and heavy silty clay loam or clay lower subsoils. This land is limited to Grade 2 by slight droughtiness.

Subgrade 3a

Subgrade 3a land covers the northern part of the site. Soils are well drained (Wetness Class 1) and consist of medium sandy loam topsoils over loamy medium sand or medium sand upper subsoils and clay lower subsoil at around 90 - 100 cm depth.. This land is limited to Subgrade 3a by droughtiness which is somewhat more restricting than on the adjoining Grade 2 land.

Subgrade 3b

Land within this subgrade occurs in the south and west of the site. Profiles are imperfectly drained (Wetness Class III) and consist of heavy clay loam topsoils over gleyed slowly permeable clay subsoils. They are limited to Subgrade 3b by wetness and workability problems.

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