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SHEPWAY DISTRICT LOCAL PLAN

SITES, 6, 12/26, 19, 24, 27 AND 44
AGRICULTURAL LAND CLASSIFICATION
ALC MAPS AND REPORTS
JULY 1993

AGRICULTURAL LAND CLASSIFICATION SURVEY

SHEPWAY LOCAL PLAN

1.0 INTRODUCTION

1.1 A survey was carried out over 6 sites in the vicinity of New Romney which are included within the Shepway Local Plan. The sites are located on the edge of the urban area of New Romney and Littlestone-on-Sea.

1.2 The following sites were visited during a survey carried out on 5-7 July 1993 and their location is shown on the accompanying site location plans:

Site 6
Site 12/26
Site 19
Site 24
Site 27
Site 44

1.3 Each site has been surveyed at a density of one auger boring per hectare, although the density on the smaller sites is generally greater so as to ensure that the limited number of observations are representative. In addition at least one soil pit has been dug per site to help characterise the soils. The sites have been graded using the guidelines contained in the Agricultural Land Classification of England and Wales (MAFF, 1988).

2.0 CLIMATE

2.1 Climatic information for each of the sites has been interpolated from the 5 km grid dataset produced by the Meteorological Office (Met. Office, 1989) and is set out in the table below.

Site No.	6	12/26	19	24	27	44
ATO (deg)	1508	1507	1508	1507	1508	1508
AAR (mm)	666	667	664	664	667	662
FCD (days)	137	137	137	137	137	136
MD Wheat (mm)	129	130	130	130	130	130
MD Pots (mm)	128	129	129	129	128	129

2.2 Due to the low lying flat nature of the land and the proximity of the sites to each other, the above data is very similar for all the sites. The area has a moderately low rainfall (AAR) and the period that soils within the area are at field capacity (FCD) is also relatively low at 137 days.

2.3 The accumulated temperature (ATO) for the sites is moderately high. This parameter indicates the cumulative build up of warmth available for crop growth and in conjunction with the moderately low rainfall results in high soil moisture deficits (MD) for both 'reference' crops, wheat and potatoes.

2.4 Due to the proximity of the sites to the coast, the area is moderately exposed especially to the prevailing south westerly winds, which precludes any of the area from Grade 1. However the major restriction in this area is likely to be caused by the interaction between climate and soils where the high moisture deficits will increase the risk of a droughtiness restriction except for soils with a high moisture holding capacity.

3.0 GEOLOGY

3.1 The geology map for the area (Geol. Surv., 1978) shows the area around New Romney to comprise mainly Marine Alluvium, with some areas of Blown Sand. The Alluvium has been subdivided into two categories, clayey and sandy.

3.2 Sites 6, 19, 24 and 44 are shown to be underlain wholly by Marine Alluvium (Sand) whilst the two sites to the north of the town are more complex. Site 12/26 is shown to comprise Marine Alluvium (Clay) over the majority of the site with a narrow band of Blown Sand along the southern edge and a small area of Marine Alluvium (Sand) in the south west corner. Site 27 is mapped as Blown Sand in the north east and south west of the site with Marine Alluvium (Sand) in the north west and an area of Marine Alluvium (Clay) in the middle.

4.0 SITE 6: Church Road, New Romney

Introduction

4.1 Site 6 comprises two small areas, the smaller one (0.3 ha) on Church Road and the larger (0.7 ha) alongside Lydd Road. Both areas are under permanent grass which is currently used for grazing sheep. The larger area is relatively flat with some localised minor undulations and the soils were examined in three locations using a dutch auger and in addition a soil pit was dug to assess subsoil conditions in greater detail. The smaller area which forms part of a larger field, slopes gently toward the north although a short distance to the west and south of the site are short steep banks which relate to the old course of the River Rother. Three auger borings were made on this site.

Soils

4.2 The site has been mapped by the Soil Survey of England and Wales (Soil Surv., 1968) as Lydd series on the larger area and Romney on the smaller. Lydd series is described as free draining sandy soils whilst Romney series comprises coarse silty soils.

4.3 The current survey correlated reasonably well with the Soil Survey description with coarse loamy over sandy soils dominating the area alongside Lydd Road. These soils generally have a slightly stony, fine sandy loam topsoil over a very gravelly medium sandy loam subsoil. Below 35-45 cm the soils become medium sands or loamy medium sands.

4.4 On the smaller area the soils have a silt loam topsoil over a similar textured subsoil which becomes fine sandy loam with depth with slight ochreous mottling.

Agricultural Land Classification

4.5 The sandy soils which occur on the land adjacent to Lydd Road have been classified as Grade 3b. The major limitation associated with this land is droughtiness. These soils have a moderately low available water capacity (AWC) due to the gravelly upper horizons and a sandy subsoil, which means that in this low rainfall area with the high soil moisture deficits that are prevalent, crops will suffer severe drought stress in most years.

4.6 On the smaller area, the coarse silty soils have a moderately high AWC and as such droughtiness is not a limiting factor. These soils have also been assessed as wetness class I and as such do not suffer from any wetness or workability restriction. The main limitation therefore is due to exposure from the winds blowing in off the sea and as such the land has been assessed as Grade 2. It should however be mentioned that due to the steep slopes in the other parts of the field, referred to in para 4.1 above, the field as a whole would probably be no better than Grade 3a.

4.7 The following table shows the areas of the individual grades:

Grade	Area (ha)	% total agricultural land
2	0.3	30
3b	0.7	70
Total area surveyed	1.0	100

5.0 SITE 12/26: St Mary's Road, New Romney

Introduction

5.1 Site 12/26 lies to the north of New Romney and forms two blocks of land on either side of the minor road to St Mary in the Marsh. The site comprises parts of five fields, two to the east of the road which are under grass and linseed, and three to the west, one in linseed and the other two under grass, with cattle in one field and horses in the other small paddock.

5.2 A total of 13 auger borings were made on the site to a depth of 1.2 m unless prevented by stone. In addition 2 soil pits were dug to help assess subsoil conditions in greater detail. The land is generally flat with open ditches comprising most of the field boundaries.

Soils

5.3 The area was mapped by the Soil Survey (Soil Surv., 1968) as mainly Lydd series (free draining sandy soils) with Dymchurch-Brenzett complex (imperfectly drained fine silty over clayey soils) along the northern boundary.

5.4 The current survey found little evidence of sandy soils apart from a small area on the south eastern boundary of the site. The land on either side of the road on the northern half of the site comprises predominantly fine over coarse silty soils having a medium silty clay loam topsoil over a similar upper subsoil with silt loam or fine sandy loam horizons below 50-60 cm depth. These soils are generally assessed as wetness class I/II.

5.5 In the eastern and western corners of the northern half of the site, fine silty over clayey soils were mapped. These soils have a heavy silty clay loam topsoil over a strongly mottled silty clay subsoil with a coarse prismatic structure. Despite the gleying and coarse structure within the subsoil, the soils were porous containing many vertically orientated coarse pores and as such are assessed as wetness class II.

5.6 The remainder of the site comprises fine loamy soils with occasional sandy layers and in some profiles with clay at depth. These soils typically have a fine sandy clay loam topsoil over a clay loam or sandy clay loam subsoil with ochreous mottling and in some profiles clay at depth. They have been classed as wetness class II.

Agricultural Land Classification

5.7 The fine over coarse silty soils referred to in para 5.4 above have been classified as Grade 2. These soils have a slight droughtiness restriction for potatoes, due to the high moisture deficits in this area and also with the medium silty clay loam topsoil textures have a slight wetness and workability restriction in the wetter period of the year.

5.8 The remainder of the site has been mapped as Grade 3a with the fine silty over clayey soils restricted to this grade as a result of a wetness/workability restriction.

These soils are assessed as wetness class II and as a result of a heavy silty clay loam topsoil are restricted to this grade. The main limitation associated with the remainder of the site is droughtiness. Moisture balance calculations on these soils indicate that they are moderately droughty for both reference crops restricting them to a Grade 3a potential.

5.9 The following table gives the areas of the individual grades:

Grade	Area (ha)	% total agricultural land
2	4.3	37.7
3a	7.1	62.3
Urban	0.3	100
Total area of site	11.7	

6.0 SITE 19: Station Road, New Romney

Introduction

6.1 Site 19 is a small area of land on the northern side of the road linking New Romney with Littlestone-on-Sea, bounded on two sides by housing with open fields on the other two sides. At the time of survey the majority of the site was under potatoes with a small area at the north western corner of the site under very rough grass and scrub. It is understood that this latter area has been worked for clay for brickmaking in the past and was never properly restored, leaving the area without proper topsoil and also with an uneven microtopography.

6.2 A total of 3 auger observations together with a soil pit were made within the cultivated portion of this site. With the exception of the derelict area the land is flat.

Soils

6.3 The site is mapped as Agney series (moderately/imperfectly drained loams and clay loams and silty clay loams) by the Soil Survey (Soil Surv., 1968). The current survey indicates similar soils having stoneless, medium silty clay loam topsoils over silty clay loam upper subsoils, becoming loamy fine sand with depth. The soils are strongly calcareous throughout with distinct ochreous mottling and many coarse pores in the subsoil. The soils have been assessed as wetness class II although the mottling may be a relic of former drainage conditions.

Agricultural Land Classification

6.4 The arable part of the site has been mapped as Grade 2 with the soils being susceptible to slight droughtiness for potatoes although no restriction would exist for deeper rooting crops such as wheat. In addition due to the medium silty clay loam topsoil and the slight impedance to water movement, these soils will have a minor workability restriction in the wetter periods of the year restricting them to this grade.

6.5 The small area at the north east of the site which it is understood has been subject to quarrying activities has been mapped as urban.

6.6 The following table shows the areas of the individual grades:

Grade	Area (ha)	% total agricultural land
2	2.5	100
Urban	0.5	
Total area of site	3.0	

7.0 SITE 24 : Lawrence Field, New Romney

Introduction

7.1 Site 24 lies on the northern boundary of the built up area of Littlestone-on-Sea and to the east of the Romney, Hythe and Dymchurch railway line. To the north and east of the site is Littlestone Golf Course.

7.2 The site is wholly under permanent grass which is used for horses. The western part of the area has been subdivided into a number of small paddocks.

7.3 At total of 9 auger borings and one soil pit were made over the site.

Soils

7.4 The site has been mapped predominantly as Greatstone series (sandy loam over loamy sands and sands) by the Soil Survey (Soil Surv., 1968), with narrow bands of Guldeford series (silty clay and silty clay loam) and calcareous Dunes on the north eastern boundary.

7.5 The current survey has mapped similar soils over the entire site. These soils have a fine sandy loam or fine sandy silt loam topsoil over a loamy fine sand becoming fine sand below approximately 50-90 cm depth and are stonefree throughout. Faint ochreous mottling is evident in many of the subsoils, which is considered to reflect a fluctuating groundwater table of former times, although groundwater may be present in the deeper horizons during the wetter periods of the year. The soils however are assessed as wetness class I.

Agricultural Land Classification

7.6 The whole site has been classified as Grade 3a as a result of a moderate droughtiness limitation. These soils have a low AWC due to the sandy subsoil horizons. The soil pit indicated that grass roots did not penetrate more than 15 cm into the fine sand layer at depth and consequently even if a groundwater table does exist within the sand at certain times of the year, the roots do not appear to be able to exploit it fully.

7.7 The following table shows the area of the grades:

Grade	Area (ha)	% total agricultural land
3a	10.7	100
Total area of site	10.7	

8.0 SITE 27: Land South of Cockreed Lane, New Romney

Introduction

8.1 Site 27 is located to the north of New Romney and is bounded on two sides by roads, with housing on the southern boundary and a playing field to the west. The site which is generally flat, is currently under set-aside, supporting volunteer cereals and rape and a wide range of agricultural weeds. Straw from the previous cereal crop is still lying in bands across the site.

8.2 A total of 6 auger borings together with a soil pit were made on this site.

Soils

8.3 The Soil Survey of England and Wales (Soil Surv., 1968) have mapped the site as Lydd series (free draining sandy soils) over the eastern side of the site, with small areas of moderately well drained Dymnchurch-Brenzett complex (fine silty over clayey soils) and decalcified Snargate-Finn complex (moderately well drained loams) to the north and west.

8.4 The current survey shows the north western part of the site to comprise fine silty over clayey soils. These soils have a heavy silty clay loam topsoil over a faintly mottled silty clay upper subsoil which becomes more distinctly mottled with depth. These soils have been classified as wetness class II.

8.5 The eastern half of the site comprises loamy soils with sandy lenses. These soils typically have a sandy silt loam topsoil over a faintly mottled sandy clay loam, beneath which is a loamy sand or sand. Below 70-90 cm the soils generally have a clayey texture, being sandy clay or silty clay and these horizons are generally slowly permeable. These soils are generally assessed as wetness class II.

Agricultural Land Classification

8.6 The whole site has been classified as Grade 3a. The major limitation associated with this site is droughtiness, although there may also be a wetness and workability restriction over the north western part of the site. Moisture balance calculation indicate that both soil types described above have a moderate droughtiness restriction limiting them to this grade.

8.7 The following table shows the areas of the grades:

Grade	Area (ha)	% total agricultural land
3a	5.3	100
Total area of site	5.3	

9.0 SITE 44: South of Victoria Road, Littlestone

Introduction

9.1 Site 44 is located on the southern boundary of Littlestone-on-Sea, approximately 250 m from the coast, with built development along the northern and eastern boundaries, a caravan park to the south and fields to the west.

9.2 The site is relatively flat, but has an irregular microtopography of small humps and hollows and is also dissected by a series of open drainage channels or former creeks (approximately 0.5-0.7 m deep). At the eastern end is a 2 m high bund which is probably the remnant of the former sea defences of the area.

9.3 The whole site is under very old permanent pasture which at the time of survey was being grazed by a herd of cattle.

9.4 A total of 10 auger borings were made over the site to a depth of 1.2 m, together with a soil pit to help assess subsoil conditions.

Soils

9.5 The area has been mapped by the Soil Survey of England and Wales (Soil Surv., 1968) as the Greatstone series which comprises imperfectly drained silty clay and silty clay loam over sand.

9.6 The current survey has identified two soil types over the site, with the majority of the area correlating with the soils described above. A typical soil profile has a very calcareous silty clay topsoil over a greyish brown silty clay or silty clay loam upper subsoil with distinct ochreous mottling and a coarse angular blocky structure with fine sandy coatings on the horizontal ped faces. Below approximately 45-50 cm depth the soil becomes loamy fine sand and fine sand below 60-70 cm with common ochreous mottles. The upper subsoil has many coarse pores and is therefore not considered to be slowly permeable but evidence exists of a fluctuating groundwater table with many profiles waterlogged between 70-90 cm depth at the time of survey. These soils have therefore been assessed as wetness class III.

9.7 At the eastern end of the site, the upper clayey layers are absent and the soils comprise a thin humose sandy loam over mottled sand which becomes black and waterlogged below 50-60 cm depth.

Agricultural Land Classification

9.8 The whole site has been classified as Grade 3b, with the major limitation being caused by the irregular microtopography, old creeks and the ridges at the eastern end of the site referred to in para 9.2 above. This means that the land is unlikely to be cultivated and would therefore likely remain under permanent pasture, which is consistent with this grade. Further limitations also exist in the form of wetness and droughtiness, although these on their own would result in a Grade 3a classification.

9.9 The clayey soils which cover the majority of the site (see para 9.6) have a wetness limitation. These soils have been assessed as wetness class III due to a fluctuating groundwater table, which during the wetter periods of the year, will be relatively shallow, causing the heavy textured upper horizons to be susceptible to a workability restriction. This was evident from the poaching caused by the cattle.

9.10 In addition a droughtiness restriction during the summer months will exist and moisture balance calculations indicate that these soils, which have a moderately low AWC, will cause crops to suffer from moderate drought stress during the summer of most years due to the high soil moisture deficits that are prevalent in this area.

9.11 At the eastern end of the site, the extremely sandy soils have a severe droughtiness restriction, although this may be offset to some extent by the shallower depth of the groundwater table.

9.12 The following table shows the areas of the grades:

Grade	Area (ha)	% total agricultural land
3b	11.0	100
Total area surveyed	11.0	

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79
81
82
83
84
89/93
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Resource Planning Team
Guildford Statutory Group
ADAS Reading

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