The Great Grid Upgrade

Sea Link

Sea Link

Volume 9: Examination Submissions

Document 9.31: Agricultural Land Classification Survey Results - Kent

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Version: ~~B~~C
April 2026

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Contents

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Version History

Date	Version	Status	Description / Changes
March 2026	A	Final	For Deadline 5 submission
April 2026	B	Final	Update to account for small mapping error
April 2026	C	Final	Update to correct referencing error

Executive Summary

Ex1.0.1 This report has been prepared to provide updated, site-specific Agricultural Land Classification (ALC) information in support of the Sea Link Project (hereafter referred to as the 'Proposed Project') in Kent (also known as the Kent Onshore Scheme). It is submitted during Examination to supplement and refine the assessment presented within **Application Document 6.2.3.6 (B) Part 3 Kent Chapter 6 Agriculture and Soils [PDA-023]** in the Environmental Statement submitted as part of the Application.

Ex1.0.2 The ALC assessment originally submitted as part of the ES was informed by published available datasets and predictive modelling, including Defra Provisional ALC mapping, National Soil mapping, climatic data interpolation, purchased Cranfield University data, and professional judgment,

Ex1.0.3 Since submission, site-specific soil surveys have been undertaken in line with the methodology set out in the Defra & Welsh Government (2025) Agricultural Land Classification for England and Wales: Guidelines for grading the quality of agricultural land. Field survey work comprised hand-auger borings and soil profile pit assessments to characterise soil texture, structure, depth, wetness characteristics, and other relevant limiting factors. Climatic limitations were assessed using standard ALC climatic datasets.

Ex1.0.4 The purpose of this report is to:

- Present the findings of the detailed ALC surveys; and
- Compare the extent of surveyed grades against the previously reported predictive assessment.

Ex1.0.5 The detailed survey confirmed that 76.7 hectares (ha) of land within the Order Limits comprises Best and Most Versatile (Grades 1, 2 and Subgrade 3a) agricultural land. This is 8.~~3ha~~3 ha (4.9%) less than the predictive data indicated.

Ex1.0.6 While localised differences between predictive mapping and field-verified grades have been identified, the overall distribution of land quality across the Order Limits is broadly consistent with that previously reported.

Ex1.0.7 Accordingly, the conclusions of the ES in respect of the sensitivity, magnitude and significance of the effects on agricultural land remain unchanged.

Ex1.0.8 This report has been updated since the submission at Deadline 5 to account for a small mapping error, where Grade 4 land had been mapped instead of Grade 2 land and a road and railway line had been mapped as agricultural when they should have been mapped as non-agricultural. The overall results and conclusions remain the same as those previously published.

1. Introduction

1.1 Background

1.1.1 This report sets out the updated assessment undertaken to assign grades to agricultural land in accordance with the Agricultural Land Classification (ALC) system associated with the Proposed Project (as described in **Application Document 6.2.1.4 (D) Part 1 Introduction Chapter 4 Description of the Proposed Project** submitted at Deadline 5). This report forms an update to **Application Document 6.3.3.6.A Appendix 3.6.A Predictive Agricultural Land Classification Report – Kent [APP-174]**, which was prepared based on predictive modelling using available desk-based information.

1.1.2 This report presents the ALC survey methodology, the detailed ALC survey data, the ALC grades calculated from the survey data, the distribution of ALC grades, and a comparison between the results from the predictive modelling and the detailed survey. The ALC grades in this report confirm or supersede the previous grades derived from the predictive modelling. In addition, a reassessment of the impact on agricultural land has been undertaken using the survey results, which is presented in Appendix E.

1.1.3 This report should be read in conjunction with the following documents:

- **Application Document 6.3.3.6.A Appendix 3.6.A Predictive Agricultural Land Classification Report – Kent [APP-174]; and**
- **Application Document 6.3.3.6 Part 3 Kent Chapter 6 Agriculture and Soils [PDA-023]**.

1.1.4 This report is supported by the following figure:

- **Auger Bore Location and Agricultural Land Classification Grade Distribution** (Appendix A) submitted at Deadline 6

1.1.5 The Agricultural Land Classification (ALC) system provides a framework for classifying land according to the extent to which its physical or chemical characteristics impose long-term limitations on agricultural use. The ALC system divides agricultural land into five grades (Grade 1 ‘excellent’ to Grade 5 ‘very poor’), with Grade 3 subdivided into Subgrade 3a ‘good’ and Subgrade 3b ‘moderate’. Agricultural land classified as Grades 1, 2, and Subgrade 3a are categorized as Best and Most Versatile (BMV) (Defra & Welsh Government, 2025) (Natural England, 2012) . Further details of the ALC system and national planning policy implications are set out by Natural England (Natural England, 2021).

1.1.6 ALC surveys were undertaken between October 2025 and February 2026, with a total of 109 locations surveyed as identified in Appendix A: Auger Bore Location and ALC Grade Distribution.

Table ~~1~~1.1 Auger Bore Survey Status

Auger Bore Status	No. Augers
Surveyed	109
Cranfield University Information	0
Scoped Out (design reasons)	64
Un-surveyed	3
Total	**176**

1.1.7 The ALC surveys were undertaken in line with the standards set out by the ALC Guidelines (Defra & Welsh Government, 2025). There were 3 survey locations where access wasn't possible. A total of 64 survey locations were scoped out, as the updated design indicates that land and soil in these areas will not be disturbed. For these areas the predictive assessment conducted in **Application Document 6.3.3.6.A Appendix 3.6.A Predictive Agricultural Land Classification Report – Kent [APP-174]** has been used to cover this area as part of the assessment of the Proposed Project.

1.1.8 As only 3 proposed locations remained un-surveyed and 64 were scoped out due to no disturbance to soils and land, it is considered that no further ALC and soil surveys are required.

2. ALC Methodology

2.1 ALC Site Survey

2.1.1 The ALC survey and assessment was undertaken in accordance with:

- Soil Survey Field Handbook (Hodgson, 2022)
- ALC guidelines (Defra & Welsh Government, 2025); and
- Meteorological Office climatological data (Meteorological Office, 1989)

2.1.2 The survey points were set out at 100 m intervals along the Kent Onshore Scheme central alignment, and at a density of a 100 m grid within wider working areas such as the converter station and substation site. The survey density meets the requirements of one auger bore examination per hectare from the ALC guidelines where practicable.

2.1.3 Auger bore examinations were conducted where land access permitted and the condition of the land and soil were suitable for the survey (e.g. very dry ground can prevent the full depth of the soil profile being exposed).

2.1.4 A total of 176 auger bores (see Appendix A) were plotted in ArcGIS prior to the survey and were loaded using the FieldMaps app into smart devices to locate the auger bores in the field.

2.1.5 The survey examined 109 soil profiles through the use of a hand auger and 2 soil pits/profiles.

2.1.6 Soil profiles were examined up to a depth of 120 cm using a 50 mm insulated Dutch soil auger, or to a depth of 100 cm for soil pits using hand-held insulated spades.

2.1.7 The following soil properties and site conditions were observed, examined and recorded:

- Texture;
- Horizon depths;
- Stoniness;
- Carbonate; presence and quantity;
- Colour;
- Mottling; presence, abundance, size and colour;
- Soil structure;
- Slope and topography; and
- Land use.

2.1.8 10% hydrochloric acid was used to determine the presence and quantity of carbonate in the soil.

2.1.9 A Munsell Soil Colour Chart (Munsell, 2022) was used to describe soil and mottle colours.

2.1.10 A small number of soil samples were collected and sent to NRM Laboratory (UKAS accredited) for particle size distribution analysis to confirm the hand texturing undertaken during the surveys (see Appendix D).

2.1.11 A Cable Avoidance Tool and Signal Generator (CAT and Genny) was used to scan each auger bore and soil pit prior to breaking ground to ensure buried services were avoided. Soils from each auger bore and soil pit were reinstated immediately following examination and record of description.

2.1.12 In areas where a medium or higher UXO risk had been identified through a detailed desk study, a UXO specialist was present on site to undertake scanning prior to augering. No UXO were found.

2.1.13 The observed and recorded soil data from the field surveys were collated, analysed and used to determine the following limitations to ALC Grades:

- Climatic limitations
- Site limitations
  - Gradient
  - Microrelief
  - Flooding
- Soil limitations
  - Texture and structure
  - Depth
  - Stoniness
  - Chemical
- Interactive limitations
  - Soil wetness
  - Droughtiness
  - Erosion

2.1.14 Based on the most limiting factor, the final ALC Grades and their distribution were subsequently determined and mapped.

2.1.15 Where the ALC surveys were not were not conducted, the original desk based predictive assessment (as presented in **Application Document 6.3.3.6.A Appendix 3.6.A Predictive Agricultural Land Classification Report – Kent [APP-174]**) was utilised.

2.2 Predictive ALC Grading Methodology

2.2.1 This site-based ALC assessment of agricultural land within the Order Limits for the Kent Onshore development is supported by predictive modelling of agricultural grades for 3 auger bore locations where access was not feasible.

2.2.2 These predictive modelling locations were arranged on a 100 m grid pattern at a density of approximately one sample point per hectare. The coordinates for all predictive ALC

grading locations are listed in Annex A of **Application Document 6.3.3.6. A ES Appendix 3.6.A Predictive Agricultural Land Classification Report – Kent [APP-174]**.

2.2.3 The predictive ALC grading comprised an assessment of the likely soil types present and the factors affecting soils at the given locations to assess the potential land grades as detailed in **Application Document 6.3.3.6.A Appendix 3.6.A Predictive Agricultural Land Classification Report – Kent APP-174]**.

2.2.4 A summary of the methodology for the predictive assessment is detailed in Appendix C.

3. Baseline Information

3.1 Land Use

3.1.1 Aerial imagery indicates that the land use across the Kent Onshore Scheme is predominately a mixture of arable land and seasonal grazing land. This has been confirmed through detailed site surveys.

3.2 Topography and Relief

3.2.1 Using available desk-based information the land within the Order Limits across the Kent Onshore Scheme is shown as relatively level and with an average gradient of 2.84°. On average, the quality of agricultural land is generally not limited by gradient as the angle of slope does not exceed 7° (See Table 1 of the ALC Guidelines; (Defra & Welsh Government, 2025)).

3.2.2 As part of the original predictive assessment there were 17 locations (as identified in **Application Document 6.3.3.6.A Appendix 3.6.A Predictive Agricultural Land Classification Report – Kent [APP-174]**) where calculated gradient exceeded 7°. Following the site surveys there were no grade-limiting gradients recorded. This discrepancy is likely due to the level of granularity available in the original GIS data set.

3.2.3 Following the site survey, it is concluded that the quality of land within the Order Limits is not limited by microrelief.

3.3 Flooding

3.3.1 From the Environment Agency Flood Map for Planning website (Environment Agency, 2021) the land within the Order Limits for the Kent Onshore Scheme contains significant areas of land classified as being in Flood Zone 3, as well as further areas in Flood Zone 2. For Flood Zone 3 this means that there is a high probability of flooding in these areas, quantified as a 1% or more chance of flooding from rivers, or a 0.5% or more chance of flooding by sea. For Flood Zone 2 these risks are noted as a 0.1% risk of flooding from rivers and a 0.05%-0.1% chance of flooding from the sea.

3.3.2 These flood zones primarily follow the coastal strip and the southern bank of the River Stour.

3.3.3 Land within areas identified as Flood Zone 3 would be limited to Grade 3b.

3.4 Geology

3.4.1 The solid geology underlying the study area is described as comprising Thanet Formation. This comprises sand, silt, and clay sedimentary rocks formed approximately 56 to 59 million years ago in the Palaeogene Period.

3.4.2 This solid geology is in the main overlain by tidal flat deposits within the study area. This material comprises clay and silt and was deposited around two million years ago in the

Quaternary Period. Along the alignment of Richborough Way these superficial deposits are absent.

3.5 Previous ALC

3.5.1 Provisional 1:250,000 scale ALC mapping showed the land within the Kent Onshore Scheme to be indicatively mapped as predominately Grade 2 land to the north of the Stour River, with the land to the south of the river mapped as Provisional Grade 3 land.

3.5.2 A detailed survey had previously been undertaken over a small area either side of Richborough Way (as shown on **Application Document 6.4.3.6 ES Figures Kent Agriculture and Soils [APP-265]**). Whilst the current surveys re-visited these areas, at several of the auger bore locations it was not possible to auger to the full profile depth for most locations due to ground conditions. The ALC grade for these locations makes an assumption on the subsoil characteristics and as such the report relies on the previous ALC survey data undertaken by Ministry for Agriculture, Food and Fisheries (MAFF) (Ministry for Agriculture, Food and Fisheries). This is clearly stated in the auger logs in Appendix A.

3.6 Soil Auger Bore Data

3.6.1 Local auger bore data was purchased from Cranfield University to support in the original development of the predictive modelling (**Application Document 6.3.3.6.A Appendix 3.6.A Predictive Agricultural Land Classification Report – Kent [APP-174]**).

3.7 Climatological Data

3.7.1 The available climate data for ALC which have been used to represent 5 km grid squares covering the Order Limits are shown in Table 1. These are the values that have been used to calculate interpolated values for each of the auger locations.

Table 2 Available Met Office climate data for land within the Order Limits

5 km grid reference	Height (m)	AAR	AT0	FCD	MDW	MDP	Grade according to climate only[1]
TR300550	23	685	1468	141	122	119	1
TR300600	5	660	1487	134	128	127	1
TR300650	16	614	1472	123	125	123	1
TR350550	4	675	1489	138	126	125	1
TR350600	4	649	1487	133	131	130	1
TR350650	33	617	1452	125	125	123	1

[1] This is the grade according to climate only, excluding any other limiting factor, i.e., site, soil and/or interactive limitations.

5 km grid reference	Height (m)	AAR	AT0	FCD	MDW	MDP	Grade according to climate only[1]
TR350700	10	590	1476	117	131	131	1
TR400650	0	619	1488	124	131	131	1
TR400700	13	600	1471	119	130	129	1

Table 3 Key to Table 2

Parameter	Definition
AT0	Accumulated Temperature above 0˚C (January – June)
AAR	Average Annual Rainfall (mm)
FCD	Field Capacity Days
MDW	Moisture Deficit (mm) Wheat
MDP	Moisture Deficit (mm) Potatoes
Climate grade	Best ALC Grade According to Climate Limitation

3.7.2 With reference to Figure 1 *'Grade according to climate'* of the ALC Guidelines (Defra & Welsh Government, 2025), there is no overall climatic limitation to the quality of agricultural land within the Order Limits for the Kent Onshore Scheme. This means that agricultural land could be graded as ALC Grade 1 in overall climatic terms, in the absence of any other limiting factor, i.e., site, soil and/or interactive limitations.

3.7.3 The climatic data presented in Table 2 was used to calculate interpolated climatic values for each of the predicted auger locations, based upon the proximity of each location to the surrounding climatic points. The interpolated climatic values for each location are detailed in Appendix A.

3.7.4 Agricultural land within the Order Limits for the Kent Onshore Scheme is predicted to be at field capacity (i.e., near saturation point) for between 125 and 134 days (average 128) per year (see Appendix A). In combination with topsoil texture and wetness class, this will cause an interactive limitation to agricultural land quality, i.e., soil wetness and/or soil droughtiness.

4. ALC Assessment

4.1 Soil Type

4.1.1 The ALC survey indicated that the primary soils identified were deep silty and clayey soils predominantly over clayey subsoils.

4.2 Climatic Limitations

4.2.1 Prior to the commencement of the surveys, the climatic data shown in Table 2 were analysed to assess potential limitations to land grade based on the climate parameters. The climatic Grade, as detailed in Section 3.7, is identified as Grade 1. As such, climatic conditions do not present a limitation across the Kent Onshore Scheme.

4.3 Site Limitations

Gradient and Microrelief

4.3.1 As stated in Section 3.2, the Kent Onshore Scheme is predominantly flat. Field surveys confirmed this general topography within the Order Limits with land noted as predominately being level (0-1 degrees), with gently sloping (2-3 degrees) land in places. No complex microrelief was identified during the field surveys. As such, gradient and microrelief are not considered to represent a limitation to land grade.

Flooding

4.3.2 Auger points K2-K35 and N13-N15 are noted as being situated within the Flood Zone 3 area, as such they are limited to Grade 3b.

4.4 Soil Limitations

Soil Depth and Stoniness

4.4.1 The surveys, geological maps/data and national soil maps/data indicate that all the soils within the Order Limits are deeper than 1.2 m, as such soil depth is not a limiting factor.

4.4.2 The topsoils mostly contain few hard stones (1-5%) with large areas of stoneless soils also observed. Details regarding stone content for each auger bore are provided in Appendix A.

Soil Texture

4.4.3 Topsoil texture is not a direct limiting factor, as the topsoils are predominantly medium to heavy loams and clays, with light silts occurring in a small area. Details of the topsoil textures are provided in the Soil Log in Appendix A.

4.5 Chemical Limitations

4.5.1 No chemical limitations on soil physical conditions, crop yields or crop growth were observed during the surveys.

4.6 Interactive Limitations

4.6.1 Gleying was identified in 73 of the 109 surveyed locations within the Kent Onshore Scheme. The wetness class for these soils is typically II or III depending on the depth of the gleying layer and slowly permeable layer (SPL). Details regarding gleying depth, wetness class, grade and SPL are provided in the Auger Bore Log (Appendix A).

4.6.2 The majority of auger points south of the River Stour are noted as having observed gleying layers and heavy clay topsoils.

4.6.3 Moisture Balance (MB) values for wheat and potato were calculated for each of the surveyed locations and are presented in the Auger Bore Log (Appendix A).

4.7 Most Limiting Factors

4.7.1 Droughtiness, wetness, and flooding were the most common limiting factors for the agricultural land within the Order Limits, with Droughtiness being the dominant across the route, with flooding limitations occurring only south of the River Stour.

5. ALC Grade Distribution

5.1.1 The final ALC grade, soil properties, moisture balance, and limiting factors for each auger bore are presented in Appendix A. The ALC grade distribution for the Kent Onshore Scheme is presented in Table 4 below.

5.1.2 ALC grades per auger are provided in Appendix A. Maps showing the grade distribution can be found in Appendix A. The map is accurate to a scale of 1:10,000, any further enlargement could lead to inaccuracies.

5.1.3 As described in the ALC Guidelines, the grade or subgrade of the land is determined by the most limiting factor present. When classifying land, the overall climate and site limitations should be considered first as these can have an overriding influence on the grade.

5.1.4 The land has been graded and mapped without regard to present land boundaries, except where they coincide with permanent physical features. A degree of variability in physical characteristics within a discrete area is to be expected.

Table 4 ALC Grade Distribution

ALC Grade	Area (ha)	Percentage (%)
Grade 1	10.4	6.1
Grade 2	6.9	4.1
Grade 3a	59.4	35.0
BMV land	*76.7*	*45.2*
Grade 3b	76.9	45.4
Grade 4	0	0
Grade 5	0	0
Non-Agricultural	16.0	9.4
Total	**169.6**	**100**

6. ALC Result Comparison

6.1.1 Table 5 summarises and compares the area and percentage of each ALC grade based on the Predictive Modelling and the detailed Site Survey.

Table 5 ALC Distribution Comparison for Kent Onshore

ALC Grade	Predictive Modelling		Detailed Site Survey		Comparison
	Area (ha)	Area (%)	Area (ha)	Area (%)	Change
Grade 1	0.00	0.00	10.4	6.~~13~~215	+10.4ha, +6.1%
Grade 2	31.6	18.7	6.9	4.1	-24.7ha, -14.6%
Grade 3a	53.4	31.5	59.4	35.0	+6.0ha, +3.5%
BMV Land	*85.0*	*50.1*	*76.7*	*45.2*	*-8.3ha, -4.9%*
Grade 3b	71.1	41.8	76.9	45.4	+5.8ha, +3.6%
Grade 4	0.00	0.00	<0.1%	<0.1%	~~No change~~+<0.1ha, +<0.1%
Grade 5	0.00	0.00	0.00	0.00	No change
Non-Agricultural	14.6	8.02	16.0	9.4	1.4ha, +1.4%
Total	**169.7 ha**	**100**	**169.6**	**100**	**0**

*0.9ha of the ~~5.5ha~~6.9ha of ALC Grade 2 land and 13.1ha of the 76.9ha ALC Grade 3b land were derived from predictive modelling due to inaccessibility for survey or scope-out.

6.1.2 For the purpose of the comparison presented in Table 5 the values for land take hectarage and proportion (%) have been rounded to one decimal place, as such there may be minor inconsistencies between the presented values and those presented elsewhere in the assessment.

~~6.1.2~~6.1.3 The detailed ALC results indicate that the area of BMV land identified through the survey is largely consistent with the predicted area and distribution. The total area of BMV land identified in the survey is 8.3ha lower, representing a reduction of approximately 4.9%.

~~6.1.3~~6.1.4 The areas of ALC Grades 3a, 3b and 4 identified in the detailed ALC survey are also broadly consistent with the results of predictive modelling, with changes of up to 3.5% recorded. ALC Grade 1 land was not identified in the Predictive Modelling; however, 10.4ha of Grade 1 land was identified in the detailed ALC survey. This discrepancy likely arises due to the predictive modelling for the Kent area being based on limited soil auger bore data and the coarse resolution of the National Soil Map (1:250,000 scale).

6.1.46.1.5 ALC Grade 2 land was overestimated in the Predictive Modelling, 24.7ha more compared to the detailed ALC.

6.1.56.1.6 A comparison of the ALC grade distributions between the detailed ALC survey map and the Predictive Modelling ALC map indicates that they are largely consistent and match.

7. Conclusion

7.1.1 The detailed ALC survey has identified the ALC grades and distribution as follows:

- ALC Grade 1: 10.4ha, accounting for 6.1%;
- ALC Grade 2: 6.9ha, accounting for 4.1%;
- ALC Grade 3a: 59.4ha, accounting for 35%;
- ALC Grade 3b: 76.5ha, accounting for 45.4%;
- ALC Grade 4: ~~0ha~~<0.1ha, accounting for ≤0.1%; and
- BMV land: 76.7 ha, accounting for 45.2%.

7.1.2 The outcome of the detailed ALC survey is largely in line with the Predictive Modelling, particularly for ALC Grades 3a, 3b and 4, which together account for approximately 71% (prediction) and 80% (survey) of the total area.

7.1.3 The predicted extent of BMV land is also broadly in line with the results of the detailed ALC survey, with 50.1% predicted compared with 45.2% identified in the survey.

7.1.4 The ALC grade distributions in the detailed ALC survey map and the Predictive Modelling ALC map mostly match as well.

7.1.5 ALC Grades 1 and 2 were not accurately predicted, with differences of +6% and -14.6% respectively. However, this is not unexpected given the limited soil auger bore data (only two samples) and the absence of a localised soil series maps for this area. Nevertheless, predictive modelling provided a robust basis for the assessment of the likely impact on agricultural land.

7.1.6 The reassessment of the likely significant effects on BMV land and the comparison of the outcome of the reassessment with the ES conclusion confirms that there is no change in the significance of likely significant effects on BMV land. Therefore, the conclusions of the ES regarding the sensitivity, magnitude and significance of effects on BMV land remain unchanged and valid.

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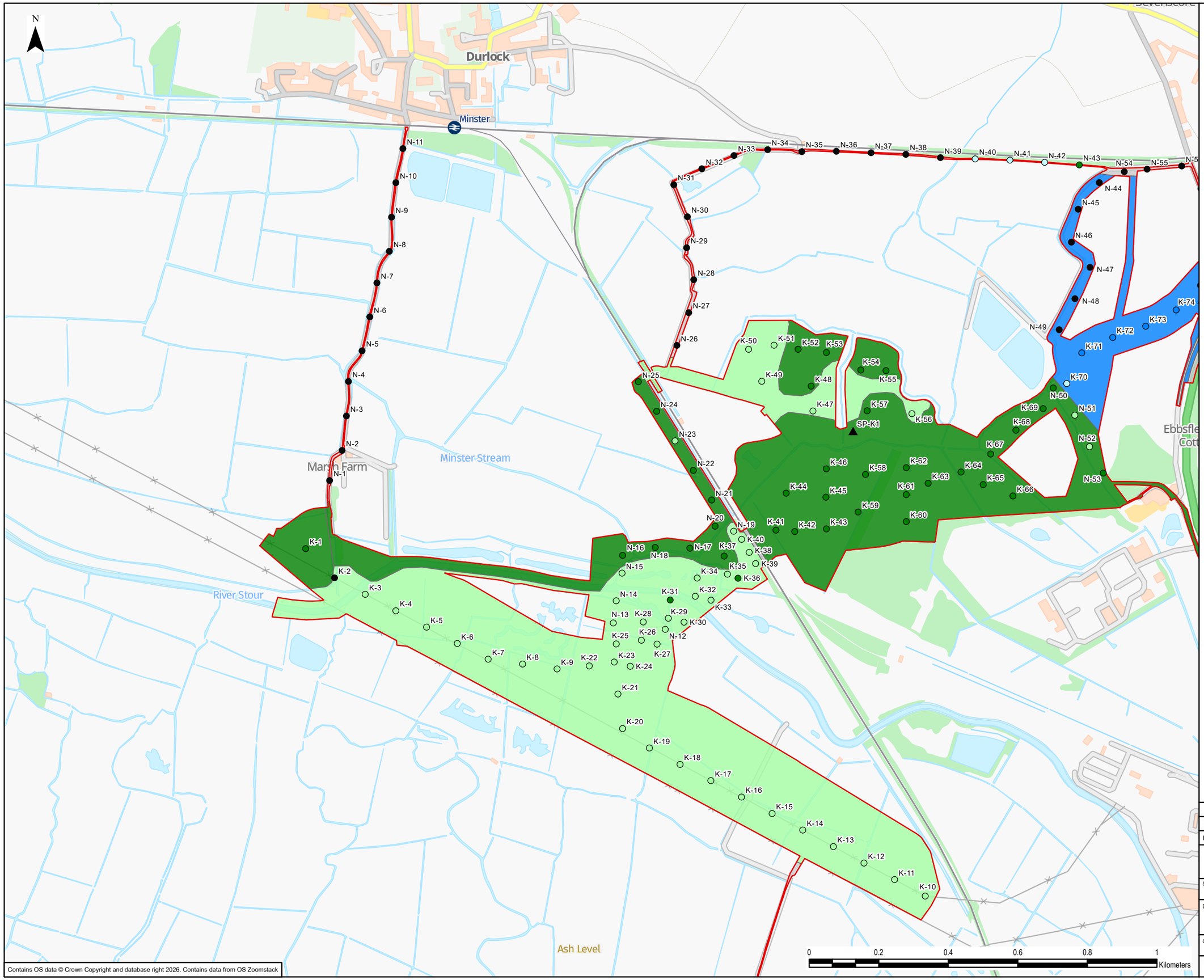
Appendix A Auger Bore Log and ALC Mapping



Legend

- Order Limits
- Augur Survey Result
  - 1
  - 2
  - 3a
  - 3b
  - Not Surveyed
  - Soil Pit
- Surveyed Agricultural Land Classification
  - 1
  - 3a
  - 3b
  - Non-Agricultural

Rev	Date	Description	GIS	Chk	App
02	09/04/2026	AMENDMENT TO DATA	RE	JP	BL
01	03/03/2026	INITIAL ISSUE	RE	ZL	BL

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Scheme: SEA LINK

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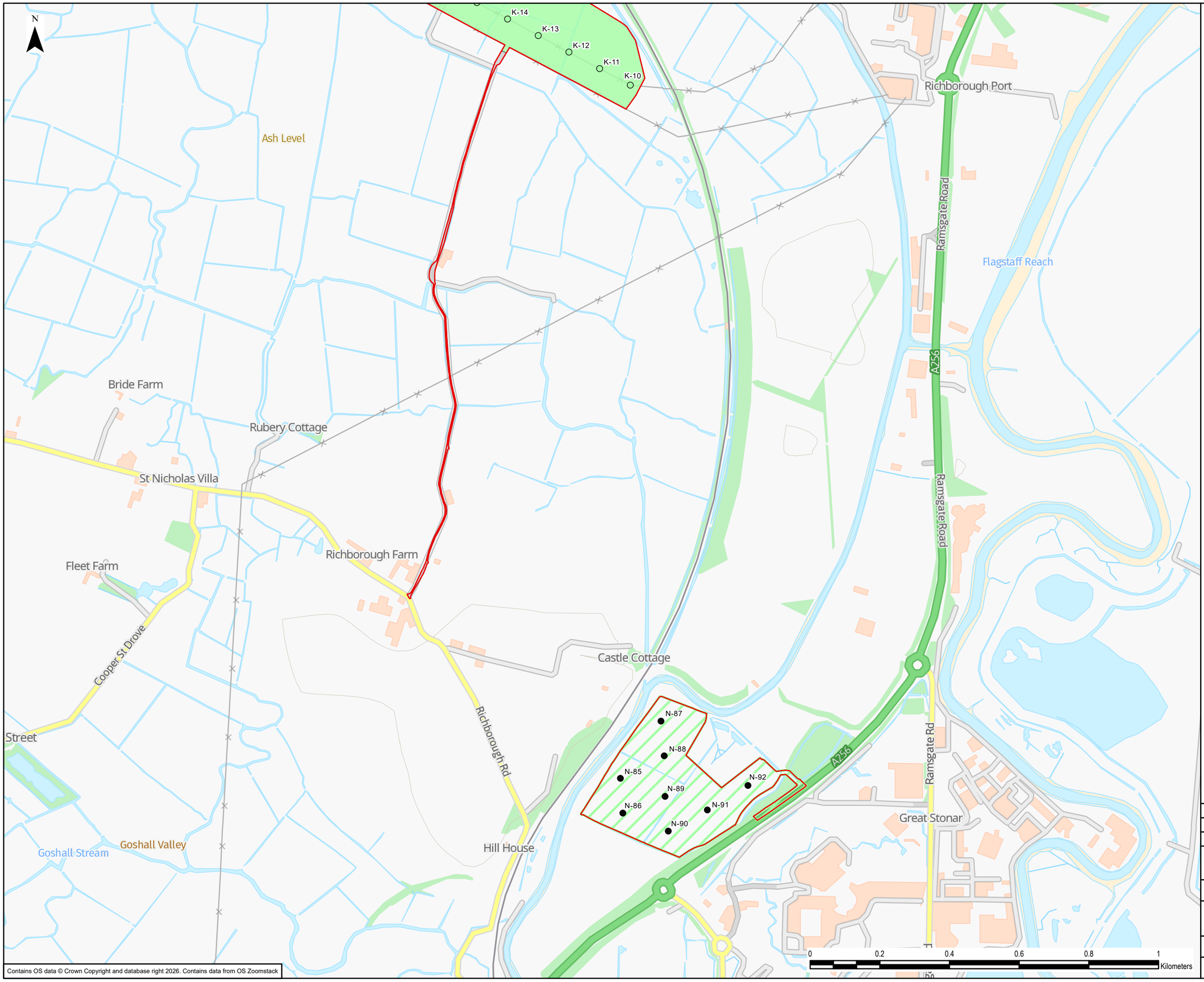

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Legend

- Order Limits
- Augur Survey Result
  - 3b
  - Not Surveyed
  - Soil Pit
- Surveyed Agricultural Land Classification
  - 3b
  - Non-Agricultural
- Predicted Agricultural Land Classification
  - 3b

Rev	Date	Description	GIS	Chk	App
02	09/04/2026	AMENDMENT TO DATA	RE	JP	BL
01	03/03/2026	INITIAL ISSUE	RE	ZL	BL

nationalgrid

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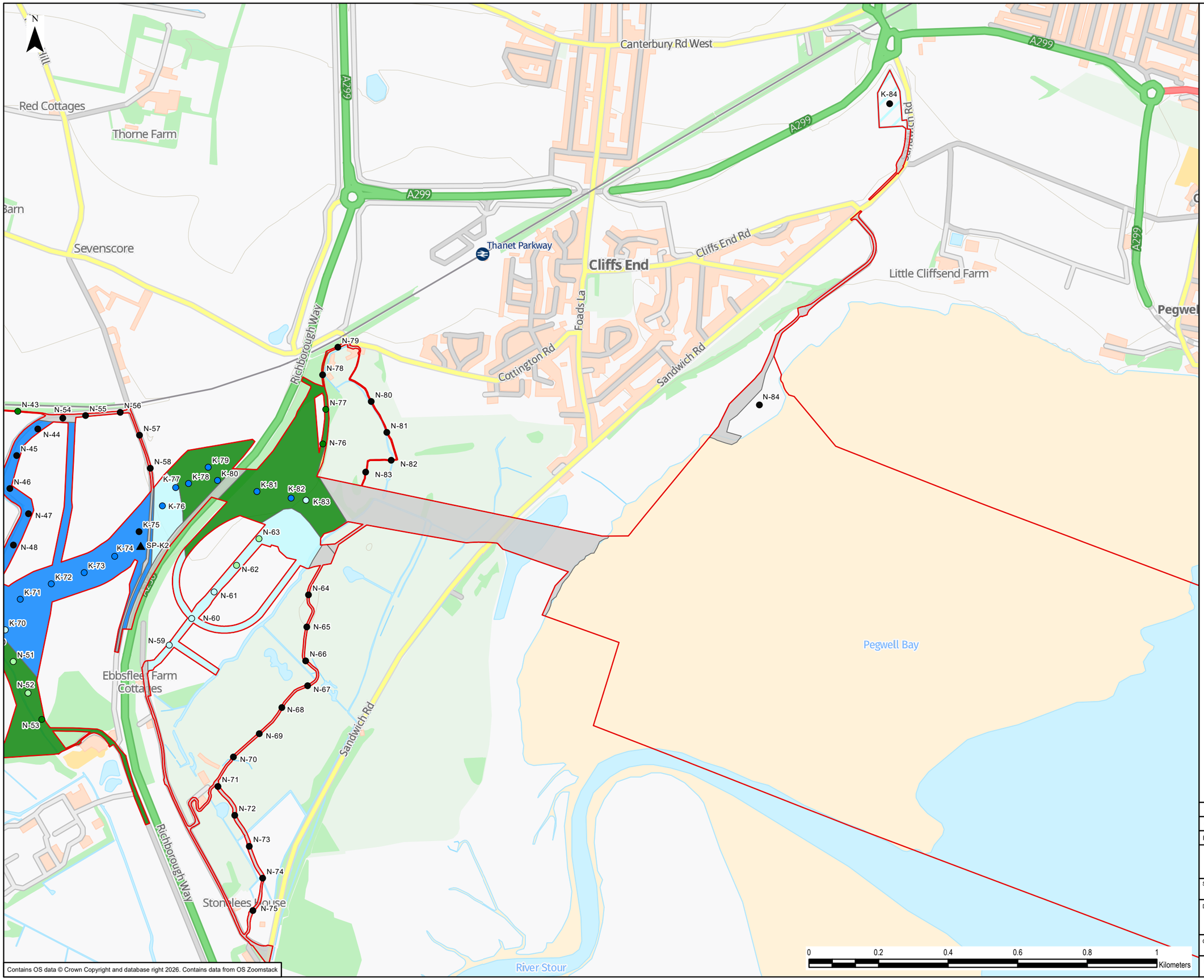

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Legend

- Order Limits

Augur Survey Result

- 1
- 2
- 3a
- 3b
- Not Surveyed
- Soil Pit

Surveyed Agricultural Land Classification

- 1
- 2
- 3a
- 4
- Non-Agricultural

Predicted Agricultural Land Classification

- 2

Rev	Date	Description	GIS	Chk	App
02	09/04/2026	AMENDMENT TO DATA	RE	JP	BL
01	03/03/2026	INITIAL ISSUE	RE	ZL	BL

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Scheme: SEA LINK

Document Title: Auger Bore Location and Agricultural Land Classification Grade Distribution – Kent

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FIGURE 9.31.3	1:10,000	A3	PAGE 3 OF 3	02

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Auger Bore No	BNG	Horizon Top (cm)	Horizon Bottom (cm)	Texture	Matrix Colour	Mottle Colour	Mottle %	Mottle Range	Gley	Depth to Gley	CaCo3 %	Slope	Hard Stone Content % >2mm	Hard Stone Content %>2cm	Hard Stone content %>6cm	Soft Stone Content % >2mm	Wetness Class	Wetness Grade	Droughti-ness - MB Wheat	Droughti-ness - MB Potato	Droughtines s Grade Converted	Droughti-ness Grade	Grade by Depth	Grade by Topsoil Texture	Grade by Topsoil Stoniness	Limiting Factor 1	Limiting Factor 2	Limiting Factor 3	Final ALC Grade
K1	TR307629	0	32	ZC	2.5Y4/2				Yes	45	very calcareo	level	1				II	3a	-3.3	-27.1	3.1	3a	1	1	1	Droughtiness	Wetness		3a
		32	42	ZC	2.5Y4/2						very calcareous																		
		42	120	ZC	2.5Y5/2	.5Y6/1;10YR5/	40	many			very calcareous																		
K2																	I		0.0	0.0	0	0		1	1	Flood Risk			3b
Pylon Footing																													
K3	TR309627	0	18	mCL	7.5YR3/1						very calcareo	level					I	1	5.4	-16.5	3.1	3a	1	1	1	Flood Risk			3b
		18	32	mCL	7.5YR3/2						very calcareous																		
		32	52	hCL	7.5YR6/4						very calcareous																		
		52	120	C	7.5YR6/3	7.5YR6/1	5	common			very calcareous																		
K4	TR310627	0	22	mCL	7.5YR3/1				Yes	22	very calcareo	level					III	2	2.2	-21.6	3.1	3a	1	1	1	Flood Risk			3b
		22	38	hZCL	7.5YR6/4	.5YR6/1, 5YR5.	30	many			very calcareous																		
		38	120	ZC	7.5YR6/2	.5YR6/1, 5YR5.	5	common			very calcareous																		
K5	TR310626	0	23	mCL	7.5YR3/2				Yes	23	very calcareo	level					III	2	-0.4	-24.3	3.1	3a	1	1	1	Flood Risk			3b
		23	35	hCL	7.5YR4/1	.5YR6/1, 5YR5.	30	many			very calcareous																		
		35	120	ZC	7.5YR6/2	.5YR6/1, 5YR5.	10	common			very calcareous																		
K6																	I		0.0	0.0	0	0		1	1	Flood Risk			3b
UXO high																													
K7	TR312625	0	22	hCL	7.5YR3/1				Yes	40	very calcareo	level					III	3a	6.8	-15.1	3.1	3a	1	1	1	Flood Risk			3b
		22	36	hCL	7.5YR3/2						very calcareous																		
		36	55	hCL	7.5YR6/4	;YR6/1, 7.5YR5	10	common			very calcareous																		
		55	120	C	7.5YR6/2	;YR6/1, 7.5YR5	10	common			very calcareous																		
K8	TR313625	0	18	hCL													I	2	7.5	-14.4	3.1	3a	1	1	1	Flood Risk			3b
		18	29	hCL																									
		29	60	hCL																									
		60	120	C																									
K9	TR314625	0	25	hCL	7.5YR3/1				Yes	45	very calcareo	level					II	2	26.8	-10.1	3.1	3a	1	1	1	Flood Risk			3b
		25	38	hCL	7.5YR3/2						very calcareous																		
		38	120	hCL	7.5YR6/2						very calcareous																		
K10	TR325619	0	29	ZC	7.5YR4/1				Yes		very calcareo	level					I	2	-5.5	-29.5	3.1	3a	1	1	1	Flood Risk			3b
		29	50	ZC	7.5YR4/1						very calcareous																		
		50	120	ZC	7.5YR6/2	;YR6/1, 7.5YR5	20	common			very calcareous																		
K11	TR324619	0	27	hZCL	7.5YR4/2				Yes	55	very calcareo	level	1				II	2	-1.5	-25.5	3.1	3a	1	1	1	Flood Risk			3b
		27	55	ZC	7.5YR6/3	;YR6/1, 7.5YR5	15	common			very calcareous																		
		55	120	ZC	7.5YR6/2	;YR6/1, 7.5YR5	20	common			very calcareous																		
K12	TR323620	0	35	hZCL	7.5YR4/1				Yes	46	very calcareo	level	1				II	2	4.0	-20.0	3.1	3a	1	1	1	Flood Risk			3b
		35	46	ZC	7.5YR5/2	.5YR6/1, 5YR5.	20	common			very calcareous																		
		46	120	ZC	7.5YR6/2	.5YR6/1, 5YR5.	15	common			very calcareous																		
K13	TR322620	0	29	hZCL	7.5YR4/2				Yes	37	very calcareo	level	1				III	3a	0.0	-24.0	3.1	3a	1	1	1	Flood Risk			3b
		29	60	ZC	7.5YR5/2	.5YR6/1, 5YR5.	20	common			very calcareous																		
		60	120	ZC	7.5YR6/2	.5YR6/1, 5YR5.	20	common			very calcareous																		
K14	TR321621	0	27	hZCL	10YR4/2				Yes	55	very calcareo	level					II	2	5.3	-18.7	3.1	3a	1	1	1	Flood Risk			3b
		27	39	hZCL	10YR4/2	;YR6/1, 7.5YR5	5	common			very calcareous																		
		39	55	ZC	10YR6/4	;YR6/1, 7.5YR5	15	common			very calcareous																		
		55	120	ZC	10YR6/2	;YR6/1, 7.5YR5	30	many			very calcareous																		
K15	TR320621	0	29	hZCL	10YR4/2				Yes	55	very calcareo	level					II	2	5.7	-18.2	3.1	3a	1	1	1	Flood Risk			3b
		29	39	hZCL	10YR4/2	;YR6/1, 7.5YR5	5	common			very calcareous																		
		39	58	ZC	10YR6/4	;YR6/1, 7.5YR5	20	common			very calcareous																		
		58	120	ZC	10YR6/2	.5YR6/1, 5YR5.	30	many			very calcareous																		
K16	TR319621	0	25	ZC	10YR4/2				Yes	39	very calcareo	level					III	3a	-7.1	-31.0	3.2	3b	1	1	1	Flood Risk			3b
		25	39	ZC	10YR4/2						very calcareous																		
		39	120	ZC	10YR6/2	;YR6/1, 7.5YR5	20	common			very calcareous																		
K17	TR319622	0	27	ZC	7.5YR4/2				Yes	46	very calcareo	level					II	3a	-6.1	-30.0	3.2	3b	1	1	1	Flood Risk			3b
		27	39	ZC	7.5YR4/2						very calcareous																		
		39	120	ZC	7.5YR6/2	;YR6/1, 7.5YR5	15	common			very calcareous																		
K18	TR318622	0	32	ZC	7.5YR4/3				Yes	65	very calcareo	level					II	3a	-3.5	-27.5	3.1	3a	1	1	1	Flood Risk			3b
		32	65	ZC	7.5YR5/2	;YR6/1, 7.5YR5	5	common			very calcareous																		
		65	120	ZC	7.5YR6/3	;YR6/1, 7.5YR5	10	common			very calcareous																		
K19	TR317623	0	29	ZC	7.5YR4/4				Yes	66	very calcareo	level	1				II	3a	-5.4	-29.3	3.1	3a	1	1	1	Flood Risk			3b
		29	66	ZC	7.5YR5/4	;YR6/1, 7.5YR5	5	common			very calcareous																		
		66	120	ZC	7.5YR6/4	;YR6/1, 7.5YR5	10	common			very calcareous																		
K20	TR316623	0	35	ZC	7.5YR4/4						very calcareo	level					I	2	-1.9	-25.8	3.1	3a	1	1	1	Flood Risk			3b
		35	58	ZC	7.5YR5/4	;YR6/1, 7.5YR5	5	common			very calcareous																		
		58	120	ZC	7.5YR6/4	;YR6/1, 7.5YR5	10	common			very calcareous																		
K21	TR316624	0	32	ZC	7.5YR4/3				Yes	35	very calcareo	level	1				III	3a	-4.5	-28.2	3.1	3a	1	1	1	Flood Risk			3b
		32	120	ZC	7.5YR6/4	;YR6/1, 7.5YR5	30	many			very calcareous		1																
K22	TR315625	0	33	ZC	7.5YR4/1				Yes	40	very calcareo	level	0				III	3a	-2.7	-26.7	3.1	3a	1	1	1	Flood Risk			3b
		33	60	ZC	7.5YR5/2	.5YR6/1, 5YR5.	15	common			very calcareous																		
		60	120	ZC	7.5YR6/3	.5YR6/1, 5YR5.	40	many			very calcareous																		
K23	TR316625	0	27	hZCL	7.5YR3/3						very calcareo	level	0				I	2	32.1	-2.8	2	2	1	1	1	Flood Risk			3b
		27	36	hZCL	7.5YR3/4						very calcareous																		
		36	120	hZCL	7.5YR6/4						very calcareous																		
K24	TR316625	0	26	hZCL	7.5YR3/3						very calcareo	level	0				I	2	31.9	-3.0	2	2	1	1	1	Flood Risk			3b
		26	42	hZCL	7.5YR3/4						very calcareous																		
		42	120	hZCL	7.5YR6/4						very calcareous																		
K25	TR316626																I		-128.2	-127.1	4	4		1	1	Flood Risk			3b
Scoped Out																													
K26	TR317626	0	35	hZCL	7.5YR3/4						very calcareo	level	0				I	2	32.2	-4.7	2	2	1	1	1	Flood Risk			3b
		35	120	hCL	10YR6/4	5YR5/8	2	common			very calcareous																		
K27	TR317626	0	30	hZCL	7.5YR3/4						very calcareo	level	0				I	2	30.8	-6.1	2	2	1	1	1	Flood Risk			3b
		30	120	hCL	10YR6/4	5YR5/8	2	common			very calcareous																		
K28	TR317627	0	22	mCL	7.5YR3/1				Yes	50	very calcareo	level	0				II	2	1.3	-20.6	3.1	3a	1	1	1	Flood Risk			3b
		22	37	hCL	7.5YR6/4						very calcareous																		
		37	120	C	7.5YR6/3	;YR6/1, 7.5YR5	5	common			very calcareous																		

K29	TR317627	0	20	mCL	7.5YR3/1						very calcareo	level	0				I	1	25.8	-11.1	3.1	3a	1	1	1	Flood Risk			**3b**
		20	35	mCL	7.5YR3/2						very calcareous																			
		35	50	hCL	7.5YR5/4						very calcareous																			
		50	120	hCL	10YR6/4	;YR6/1, 7.5YR	1	few			very calcareous																			
K30	TR318627	0	22	C	7.5YR4/3						very calcareous		0				I	2	-5.4	-27.3	3.1	3a	1	1	1	Flood Risk			**3b**
		22	36	C	7.5YR6/4						very calcareous																			
		36	120	C	7.5YR6/3	7.5YR6/1	2	common			very calcareous																			
K31	TR317627	0	20	hCL	7.5YR3/4						very calcareo	level	0				I	2	5.2	-16.7	3.1	3a	1	1	1	Flood Risk			**3b**
		20	35	hCL	7.5YR4/3						very calcareous																			
		35	51	hCL	7.5YR6/4						very calcareous																			
		51	120	C	7.5YR6/3	7.5YR6/1	2	common			very calcareous																			
K32	TR318627	0	22	mZCL	10YR3/2						very calcareo	level	5	3		1	I	1	26.4	-7.7	2	2	1	1	1	Flood Risk			**3b**
		22	88	mZCL	10YR4/2						very calcareous		2			1														
		88	120	hZCL	10YR4/3						very calcareous		1			4														
K33	TR319627	0	25	ZC	10YR4/2				Yes	55	very calcareo	level	1				II	3a	0.8	-22.1	3.1	3a	1	1	1	Flood Risk			**3b**
		25	55	ZC	2.5Y4/2						very calcareous																			
		55	120	ZC	2.5Y5/2	.5Y5/1;2.5Y5/	35	many			very calcareous																			
K34	TR318628	0	22	ZC	10YR3/2				Yes	22	very calcareo	level	1				III	3a	-8.6	-32.5	3.2	3b	1	1	1	Droughtiness	Flood Risk		**3b**
		22	120	ZC	2.5Y5/2	.5Y5/1;2.5Y5/	35	many			very calcareous																			
K35	TR319628	0	25	hZCL	10YR3/2				Yes	45	moderately ca	level	0				II	2	5.7	-18.2	3.1	3a	1	1	1	Flood Risk			**3b**
		25	40	hZCL	10YR3/3						moderately calcareous																			
		40	90	ZC	2.5Y5/2	.5Y5/1;2.5Y5/	30	many			very calcareous																			
		90	120	ZC	GLEY15/10Y	10YR5/8	30	many			very calcareous																			
K36	TR319628	0	30	hZCL	10YR3/2						non-calcareo	level	0				I	2	3.7	-18.2	3.1	3a	1	1	1	Droughtiness			**3a**
		30	80	C	2.5Y5/3	)YR5/1;10YR5	35	many	Yes	35	non-calcareous																			
		80	120	ZC	10YR5/3	)YR5/1;10YR5	30	many			very calcareous																			
K37	TR319628	0	22	hZCL	10YR3/2				Yes	45	moderately ca	level	1				II	2	5.7	-18.2	3.1	3a	1	1	1	Droughtiness			**3a**
		22	42	hZCL	10YR3/3						moderately calcareous																			
		42	120	ZC	2.5Y5/2	.5Y5/1;2.5Y5/	25	many			very calcareous																			
K38	TR320629	0	25	ZC	10YR3/2				Yes	55	non-calcareo	level	0				II	3b	-6.8	-30.7	3.2	3b	1	1	1	Droughtiness	Wetness		**3b**
		25	45	ZC	10YR3/3						non-calcareous																			
		45	78	ZC	10YR5/3	)YR5/1;10YR5	30	many			moderately calcareous																			
		78	120	ZC	GLEY15/10Y	10YR5/8	30	many			very calcareous																			
K39	TR320628	0	30	ZC	10YR3/2				Yes	35	non-calcareo	level	0				III	3b	-2.4	-24.3	3.1	3a	1	1	1	Wetness			**3b**
		30	90	C	2.5Y5/3	)YR5/1;10YR5	35	many			non-calcareous																			
		90	120	ZC	10YR5/3	)YR5/1;10YR5	30	many			non-calcareous																			
K40	TR320629	0	32	ZC	10YR3/2				Yes	50	non-calcareo	level	0				II	3b	1.1	-20.9	3.1	3a	1	1	1	Wetness			**3b**
		32	45	ZC	10YR3/3						non-calcareous																			
		45	90	C	10YR5/3	)YR5/1;10YR5	35	many			moderately calcareous					1														
		90	120	ZC	GLEY15/10Y	10YR5/8	30	many			very calcareous																			
K41	TR320629	0	37	ZC	10YR4/2				Yes	45	very calcareo	level	1			1	II	3a	-0.3	-22.2	3.1	3a	1	1	1	Droughtiness	Wetness		**3a**
		37	78	C	10YR5/3	)YR5/1;10YR5	18	common			very calcareous																			
		78	120	C	GLEY15/10Y	10YR5/8;Mn	25	many			very calcareous																			
K42	TR321629	0	30	hZCL	10YR4/2				Yes	45	very slightly c	level	3	2	1	1	II	3a	7.0	-15.0	3.1	3a	1	1	1	Droughtiness	Wetness		**3a**
		30	43	hZCL	10YR4/2						very slightly calcareous																			
		43	120	C	GLEY15/10Y	10YR5/8	40	many			very slightly calcareous																			
K43	TR322629	0	38	ZC	10YR4/2				Yes	40	very calcareo	level	4	2		2	III	3a	-2.2	-24.3	3.1	3a	1	1	1	Droughtiness	Wetness		**3a**
		38	65	C	10YR5/3	)YR5/1;10YR5	35	many			very calcareous					2														
		65	120	C	GLEY15/10Y	10YR5/8	35	many			very calcareous																			
K44	TR321630	0	38	ZC	10YR4/2				Yes	45	very calcareo	level	2			2	II	3a	-0.9	-22.9	3.1	3a	1	1	1	Droughtiness	Wetness		**3a**
		38	80	C	10YR5/3	)YR5/1;10YR5	40	many			very calcareous					2														
		80	120	C	GLEY15/10Y	10YR5/8	30	many			very calcareous																			
K45	TR322630	0	42	ZC	10YR4/2				Yes	52	very calcareo	level	1			1	II	3a	1.5	-20.4	3.1	3a	1	1	1	Droughtiness	Wetness		**3a**
		42	70	C	10YR5/3	)YR5/1;10YR5	18	common			very calcareous																			
		70	120	C	GLEY15/10Y	10YR5/8	25	many			very calcareous																			
K46	TR322631	0	38	hZCL	10YR4/2				Yes	40	very calcareo	level	1			1	III	3a	7.5	-14.4	3.1	3a	1	1	1	Droughtiness	Wetness		**3a**
		38	72	C	10YR5/3	)YR5/1;10YR5	25	many			very calcareous																			
		72	120	C	10YR5/3	)YR5/1;10YR5	25	many			very calcareous																			
K47	TR322633	0	38	ZC	10YR4/2				Yes	45	non-calcareo	level	1				II	3b	0.4	-21.5	3.1	3a	1	1	1	Wetness			**3b**
		38	72	C	10YR5/3	)YR5/1;10YR5	40	many			non-calcareous																			
		72	120	C	GLEY15/10Y	10YR5/8	30	many			very calcareous																			
K48	TR321633	0	30	ZC	10YR4/2				Yes	30	very calcareo	level	1				III	3a	-2.6	-24.5	3.1	3a	1	1	1	Droughtiness	Wetness		**3a**
		30	72	C	10YR5/3	)YR5/1;10YR5	45	very many			very calcareous																			
		72	120	C	GLEY15/10Y	10YR5/8	25	many			very calcareous																			
K49	TR320633	0	37	ZC	10YR4/2				Yes	38	non-calcareo	level	1			1	III	3b	-0.2	-22.1	3.1	3a	1	1	1	Wetness			**3b**
UXO high		37	78	C	10YR5/4	5YR5/8;10YR6	45	very many			very calcareous					1														
		78	120	C	GLEY15/10Y	7.5YR5/8	50	very many			very calcareous																			
K50	TR320634	0	38	ZC	10YR4/2				Yes	48	non-calcareo	level	1				II	3b	0.6	-21.3	3.1	3a	1	1	1	Wetness			**3b**
		38	80	C	10YR5/3	'R5/1;10YR5/8	35	many			moderately calcareous																			
		80	120	C	GLEY15/10Y	10YR5/8	20	common			very calcareous																			
K51	TR320634	0	38	ZC	10YR4/2				Yes	55	non-calcareo	level	1			1	II	3b	0.2	-21.7	3.1	3a	1	1	1	Wetness			**3b**
		38	100	C	10YR5/3	)YR5/1;10YR5	45	very many			very calcareous					1														
		100	120	C	GLEY15/10Y	10YR5/8	20	common			very calcareous																			
K52	TR321634	0	38	ZC	10YR4/2				Yes	48	very calcareo	level	1			1	II	3a	0.2	-21.8	3.1	3a	1	1	1	Droughtiness	Wetness		**3a**
		38	78	C	10YR5/3	)YR5/1;10YR5	45	very many			very calcareous					2														
		78	120	C	GLEY15/10Y	10YR5/8	20	common			very calcareous																			
K53	TR322634	0	35	ZC	10YR4/2				Yes	45	very calcareo	level	1			1	II	3a	-1.0	-23.1	3.1	3a	1	1	1	Droughtiness	Wetness		**3a**
		35	78	C	10YR5/3	)YR5/1;10YR5	45	very many			very calcareous					2														
		78	120	C	GLEY15/10Y	10YR5/8	25	many			very calcareous																			
K54	TR323634	0	23	ZC	10YR5/2				yes	38	slightly calca	level	0				III	3a	-3.2	-27.1	3.1	3a	1	1	1	Droughtiness	Wetness		**3a**
		23	38	ZC	10YR5/2						slightly calcareous																			
		38	56	ZC	10YR5/4	5YR5/8;10YR6	55	very many			very calcareous																			
		56	120	ZC	10YR5/4	5YR5/8;10YR6	60	very many			very calcareous																			
K55	TR324634	0	23	ZC	10YR5/2				Yes	36	slightly calcareous						III	3a	-3.9	-27.8	3.1	3a	1	1	1	Droughtiness	Wetness		**3a**
		23	36	ZC	10YR5/2						slightly calcareous																			
		36	58	ZC	10YR5/4	5YR5/8;10YR6	40	many			very calcareous																			

		58	120	ZC	10YR6/3	5YR5/8;10YR6	50	very many			very calcareous																				
K56	TR324633	0	38	ZC	10YR4/2				Yes	38	non-calcareo	level	1			1	III	3b	0.0	-22.0	3.1	3a	1	1	1	Wetness					**3b**
		38	70	C	10YR5/4	5YR5/8;10YR6	45	very many			very calcareous					1															
		70	120	C	GLEY15/10Y	7.5YR5/8	50	very many			very calcareous																				
K57	TR323633	0	37	ZC	10YR4/2				Yes	45	very calcareo	level	1			1	II	3a	4.8	-14.5	3.1	3a	1	1	1	Droughtiness	Wetness				**3a**
		37	64	C	10YR5/3	)YR5/1;10YR5	35	many			very calcareous					2															
		64	120	C	GLEY15/10Y	10YR5/8	35	many			moderately calcareous																				
K58	TR323631	0	25	hZCL	10YR4/2				Yes	50	very calcareo	level	1			1	II	2	7.2	-14.8	3.1	3a	1	1	1	Droughtiness					**3a**
		25	43	hZCL	10YR4/2						very calcareous																				
		43	74	C	10YR5/3	)YR5/1;10YR5	35	many			moderately calcareous																				
		74	120	C	GLEY15/10Y	10YR5/6	25	many			non-calcareous																				
K59	TR323630	0	38	ZC	10YR4/2				Yes	45	very calcareo	level	2			2	II	3a	-1.4	-23.5	3.1	3a	1	1	1	Droughtiness	Wetness				**3a**
		38	60	C	10YR5/3	)YR5/1;10YR5	20	common			very calcareous					2															
		60	120	C	GLEY15/10Y	10YR5/8	30	many			very calcareous																				
K60	TR324629	0	28	hZCL	10YR4/2				Yes	35	very calcareo	level	1			1	III	3a	0.7	-21.5	3.1	3a	1	1	1	Droughtiness	Wetness				**3a**
		28	70	C	10YR5/3	)YR5/1;10YR5	25	many			very calcareous					2															
		70	120	C	GLEY15/10Y	10YR5/6	35	many			very calcareous																				
K61	TR324630	0	32	hZCL	10YR4/2				Yes	60	very calcareo	level	1			1	II	2	3.9	-18.1	3.1	3a	1	1	1	Droughtiness					**3a**
		32	60	C	10YR4/3	)YR5/2;10YR5	4	common			very calcareous																				
		60	82	C	10YR5/3	)YR5/1;10YR5	45	very many			very calcareous																				
		82	120	ZC	GLEY15/10Y	10YR5/6	30	many			very calcareous																				
K62	TR324631	0	25	hZCL	10YR4/2				Yes	48	very calcareo	level	1			1	II	2	6.7	-15.2	3.1	3a	1	1	1	Droughtiness					**3a**
		25	42	hZCL	10YR4/2						very calcareous																				
		42	85	C	10YR5/3	)YR5/1;10YR5	35	many			very calcareous																				
		85	120	ZC	GLEY15/10Y	10YR5/6	30	many			very calcareous																				
K63	TR325631	0	30	ZC	10YR4/2				Yes	38	moderately c	level	1			1	III	3a	-3.2	-25.1	3.1	3a	1	1	1	Droughtiness	Wetness				**3a**
		30	72	C	GLEY15/10Y	10YR5/8	40	many			moderately calcareous																				
		72	120	C	GLEY15/10Y	10YR5/8	30	many			non-calcareous																				
K64	TR326631	0	25	C	10YR4/2				Yes	65	very calcareo	level	1				II	3a	1.6	-22.4	3.1	3a	1	1	1	Droughtiness	Wetness				**3a**
		25	43	hZCL	10YR4/2						very calcareous																				
		43	120	ZC	10YR5/3	)YR5/2;10YR5	18	common			very calcareous																				
K65	TR326630	0	35	hZCL	10YR4/2				Yes	45	very calcareo	level	2			1	II	2	2.7	-21.0	3.1	3a	1	1	1	Droughtiness					**3a**
		35	120	ZC	2.5Y5/2	.5Y6/2;10YR5/	25	many			very calcareous					1															
K66	TR327630	0	35	hZCL					Yes	45	very calcareo	level	1			1	II	2	5.5	-16.5	3.1	3a	1	1	1	Droughtiness					**3a**
		35	120	C	2.5Y5/2	.5Y6/1;10YR5/	25	many			very calcareous																				
K67	TR327631	0	22	hZCL	10YR4/2				Yes	52	very calcareo	level	1				II	2	-4.6	-28.5	3.1	3a	1	1	1	Droughtiness					**3a**
		22	52	ZC	10YR4/4	)YR5/1;10YR5	10	common			very calcareous																				
		52	78	ZC	10YR4/4	)YR5/1;10YR5	25	many			very calcareous																				
		78	120	ZC	GLEY15/10Y	10YR5/8	40	many			very calcareous																				
K68	TR327632	0	24	hZCL	10YR4/2				Yes	75	very calcareo	level	1				I	2	9.9	-14.1	3.1	3a	1	1	1	Droughtiness					**3a**
		24	50	hZCL	10YR4/3						very calcareous																				
		50	75	ZC	10YR5/4	)YR5/1;10YR5	10	common			very calcareous																				
		75	120	C	GLEY15/10Y	10YR5/8	35	many			very calcareous																				
K69	TR328633	0	24	hZCL	10YR4/2				Yes	48	very calcareo	level	2	1		1	II	2	6.7	-15.2	3.1	3a	1	1	1	Droughtiness					**3a**
		24	45	hZCL	10YR4/2						very calcareous		1			1															
		45	120	C	10YR5/3	)YR6/1;10YR6	25	many			very calcareous																				
K70	TR329633	0	25	ZL	10YR4/2				Yes	58	non-calcareo	level	2	1			II	2	48.4	21.6	1	1	1	1	1	Wetness					**2**
		25	52	ZL	10YR4/2						non-calcareous		0																		
		52	78	hZCL	10YR5/3	)YR6/1;10YR6	25	many			non-calcareous		0																		
		78	120	ZC	10YR5/4	)YR6/1;10YR6	30	many			very slightly calcareous		0																		
K71	TR329634	0	32	ZL	10YR4/2				Yes	84	non-calcareo	level	1				I	1	60.9	28.4	1	1	1	1	1	None					**1**
		32	48	ZL	10YR4/2						non-calcareous		1																		
		48	78	mZCL	7.5YR5/4	5YR5/8;7.5YR	6	common			non-calcareous																				
		78	120	hZCL	Y10R5/4	)YR6/1;10YR6	20	common			non-calcareous																				
K72	TR330635	0	38	ZL	10YR4/2						non-calcareo	level	2				I	1	95.0	28.0	1	1	1	1	1	None					**1**
		38	70	fSZL	10YR5/6						non-calcareous		2																		
		70	120	IMP																											
K73	TR331635	0	38	ZL	10YR4/2						non-calcareo	level	1				I	1	97.1	30.3	1	1	1	1	1	None					**1**
		38	40	fSZL	10YR5/6						non-calcareous																				
		40	120	IMP																											
K74	TR332635	0	35	ZL	10YR4/2						non-calcareo	level	3	2			I	1	68.4	24.5	1	1	1	1	1	None					**1**
		35	88	mZCL	10YR5/6						non-calcareous		1																		
		88	120	mSL	10YR5/6						very slightly calcareous																				
K75	TR333636	0	36	ZL	10YR4/2						moderately c	level	2			1	I	1	19.3	32.6	2	2	1	1	1	Droughtiness					**2**
		36	70	ZL	10YR5/6						non-calcareous																				
		70	120	Bedrock																											
K76	TR333637	0	28	ZL	10YR4/2						very slightly c	level	4	2	1												Post 1988 ALC mapping from MAGIC				**2**
		28	46	ZL	10YR4/2						very slightly calcareous		1																		
		46	50	ZL	10YR5/6						moderately calcareous					2															
		50	120	IMP																											
K77	TR334637	0	28	ZL	10YR4/2						non-calcareo	level	2														Post 1988 ALC mapping from MAGIC				**2**
		28	46	ZL	10YR4/2						non-calcareous																				
		46	50	ZL	10YR5/6						non-calcareous																				
		50	120	IMP																											
K78	TR334638	0	28	ZL	10YR4/2						non-calcareo	level	2														Post 1988 ALC mapping from MAGIC				**3a**
		28	46	ZL	10YR4/2						non-calcareous																				
		46	50	ZL	10YR5/6						non-calcareous																				
		50	120	IMP																											
K79	TR335638	0	28	ZL	10YR4/2						non-calcareo	level	4	3	1												Post 1988 ALC mapping from MAGIC				**3a**
		28	42	ZL	10YR4/2						non-calcareous																				
		42	55	ZL	10YR5/4						slightly calcareous					4															
		55	92	ZL	10YR5/6	)YR6/8;10YR6	2	common			non-calcareous																				
		92	120	LmS	10YR5/6	10YR6/8	4	common			very calcareous																				
K80	TR335638	0	28	ZL	10YR4/2						moderately c	level	6	3	2												Post 1988 ALC mapping from MAGIC				**3a**
		28	40	ZL	10YR4/4						moderately calcareous		3																		
		40	120	IMP									25																		

K81	TR336637	0	25	ZL	10YR4/2						non-calcareo	level	4	2	1												Post 1988 ALC mapping from MAGIC			3a
		25	40	ZL	10YR4/2						non-calcareous																			
		40	70	mZCL	10YR5/6						non-calcareous																			
		70	120	ZL	10YR5/6	10YR6/3	3	common																						
K82	TR337637	0	28	ZL	10YR4/2						moderately ca	level	6	3	2	2											Post 1988 ALC mapping from MAGIC			3a
		28	45	ZL	10YR4/2						moderately calcareous		1			1														
		45	70	mZCL	10YR6/3	10YR6/8	3	common			very calcareous		1			1														
		70	80	mZCL	10YR6/3	10YR6/8	3	common			very calcareous		1			5														
		80	120	IMP																										
K83	TR337637	0	25	ZL	10YR4/2						non-calcareo	level	4	2	1		I	1	29.1	7.4	2	2	1	1	1	Droughtiness				2
		25	45	ZL	10YR4/2						non-calcareous																			
		45	120	C	10YR5/4	)YR5/8;10YR6	6	common			non-calcareous																			
K84																														
Not Surveyed																														
N1 -N11																														
Scoped Out																														
N12	TR317626	0	20	org-MCL	7.5YR3/1						very calcareo	level					I	1	35.7	-1.1676385	2	2	1	1	1	Droughtiness				2
		20	33	hCL	7.5YR3/3						very calcareous																			
		33	120	hCL	10YR6/4						very calcareous																			
N13	TR316626	0	22	mCL	7.5YR3/1				Yes	50	very calcareo	level	0				II	2	-128.3	-127.17492	4	4	1	1	1	Flood Risk				3b
		22	37	hCL	7.5YR6/4						very calcareous																			
		37	120	C	7.5YR6/3	5YR6/1, 7.5YR	5	common			very calcareous																			
N14	TR316627	0	20	hCL	7.5YR3/4						very calcareo	level	0				I	2	-128.2	-127.0491	4	4	1	1	1	Flood Risk				3b
		20	35	hCL	7.5YR4/3						very calcareous																			
		35	51	hCL	7.5YR6/4						very calcareous																			
		51	120	C	7.5YR6/3	7.5YR6/1	2	common			very calcareous																			
N15	TR316628	0	21	hZCL	10YR4/2						very calcareo	level					I	2	11.7	-11.184769	3.1	3a	1	1	1	Flood Risk				3b
		21	55	hZCL	10YR4/2						very calcareous																			
		55	80	ZC	2.5Y5/2	5YR5/6;10YR6	2	common			very calcareous																			
		80	120	ZC	10YR5/3	5YR5/6;10YR6	7	common			very calcareous				2															
N16	TR316628	0	32	ZC	10YR4/2				Yes	46	very calcareo	level	0			1	II	3a	-3.4	-27.385007	3.1	3a	1	1	1	Droughtiness	Wetness			3a
		32	42	ZC	10YR4/3						very calcareous					1														
		42	70	ZC	2.5Y5/3	.5Y6/2;10YR5/	30	many			very calcareous					1														
		70	120	ZC	2.5Y5/3	.5Y6/2;10YR5/	35	many			very calcareous					1														
N17	TR318629	0	23	hZCL	10YR5/2				Yes	58	moderately ca	level	1				II	2	18.4	-16.92187	3.1	3a	1	1	1	Droughtiness				3a
		23	44	hZCL	10YR5/2						moderately calcareous																			
		44	58	ZC	10YR5/4						slightly calcareous																			
		58	69	ZC	10YR5/4	5YR5/6;7.5YR	40	many			slightly calcareous																			
		69	82	ZC	GLEY16/5GY	7.5YR5/6	40	many			slightly calcareous																			
		82	120	mZCL	10YR5/4	5YR5/6;7.5YR	50	very many			slightly calcareous																			
N18	TR317629	0	33	hZCL	10YR4/2				Yes	65	very calcareo	level	1			1	II	2	3.0	-19.11234	3.1	3a	1	1	1	Droughtiness				3a
		33	52	ZC	10YR4/3						very calcareous					1														
		52	80	C	10YR4/4	'R5/2;10YR5/6	25	many			very calcareous					1														
		80	120	ZC	10YR5/3	)YR6/2;10YR6	35	many			very calcareous					1														
N19	TR319629	0	23	ZC	10YR4/2				Yes	78	very calcareo	level	0				I	2	-7.7	-31.627075	3.2	3b	1	1	1	Droughtiness				3b
		23	47	ZC	10YR4/2						very calcareous																			
		47	59	ZC	10YR4/3						moderately calcareous																			
		59	78	ZC	10YR5/3	5YR5/8;10YR7	35	many			slightly calcareous																			
		78	120	ZC	10YR6/2	5YR5/8;10YR7	50	very many			slightly calcareous																			
N20	TR319629	0	32	ZC	10YR4/2				Yes	75	very calcareo	level	1			1	I	2	-3.9	-25.879365	3.1	3a	1	1	1	Droughtiness				3a
		32	49	ZC	10YR4/3						very calcareous					1														
		49	70	C	10YR4/4	'R5/2;10YR5/6	10	common			very slightly calcareous					1														
		70	120	ZC	10YR5/3	)YR6/2;10YR6	25	many			moderately calcareous					1														
N21	TR319630	0	30	ZC	10YR4/2				Yes	50	very calcareo	level	1			1	II	3a	-5.0	-28.906004	3.1	3a	1	1	1	Droughtiness	Wetness			3a
		30	45	ZC	10YR4/3						very calcareous					1														
		45	120	ZC	2.5Y5/3	Y6/2;10YR5/8;	30	many			very calcareous					1														
N22	TR318631	0	32	ZC	10YR4/2				Yes	50	very calcareo	level	1			1	II	3a	-3.9	-27.812205	3.1	3a	1	1	1	Droughtiness	Wetness			3a
		32	48	ZC	10YR4/3						very calcareous					1														
		48	120	ZC	2.5Y5/3	Y6/2;10YR5/8;	40	many			very calcareous					1														
N23	TR318632	0	22	ZC	10YR4/2				Yes	48	slightly calca	level	1				II	3a	-8.4	-32.281706	3.2	3b	1	1	1	Droughtiness				3b
		22	37	ZC	10YR4/2						slightly calcareous																			
		37	48	ZC	10YR5/3						very calcareous																			
		48	67	ZC	10YR5/4	5YR5/6;7.5YR7	45	very many			very calcareous																			
		67	120	ZC	10YR5/3	'R5/6;GLEY16/	60	very many			very calcareous																			
N24	TR317633	0	28	ZC	10YR3/3				Yes	28	slightly calca	level	1			1	III	3a	-3.5	-25.392562	3.1	3a	1	1	1	Droughtiness	Wetness			3a
		28	75	C	10YR5/4	5YR6/8;10YR6	40	many			very calcareous					1														
		75	120	C	10YR5/4	)YR5/1;10YR5	45	very many			very calcareous					1														
N25	TR317633	0	28	hZCL	10YR3/2				Yes	50	non-calcareo	level	1				II	3a	2.3	-19.504208	3.1	3a	1	1	1	Droughtiness	Wetness			3a
		28	48	C	10YR3/3						non-calcareous																			
		48	120	C	GLEY15/10Y	7.5YR5/8	50	very many			non-calcareous																			
N26 -N39																														
Scoped Out																														
N40	TR326640	0	27	hZCL	10YR4/2						non-calcareo	level					I	2	32.2	-2.6516638	2	2	1	1	1	Droughtiness	Wetness			2
		27	46	hZCL	10YR4/2						non-calcareous																			
		46	78	hZCL	10YR5/6						moderately calcareous		1			1														
		78	120	mZCL	2.5Y5/4						slightly calcareous																			
N41	TR327640	0	28	mZCL	10YR4/2						non-calcareo	level	0				I	1	33.0	-1.7072144	2	2	1	1	1	Droughtiness				2
		28	56	mZCL	10YR4/3						non-calcareous																			
		56	120	mZCL	10YR5/4	10YR6/6	3	common			non-calcareous																			
N42	TR328640	0	30	ZL	10YR4/2						non-calcareo	level	0				I	1	51.3	16.5263142	1	1	1	1	1	None				1
		28	40	ZL	10YR4/3						non-calcareous																			
		56	120	mZCL	10YR5/4	10YR6/6	3	common			non-calcareous																			
N43	TR329640	0	30	mZCL	10YR4/2				Yes	60	very slightly c	level	2	1	0		II	2	15.5	-5.8562303	2	2	1	1	1	Droughtiness	Wetness			2
		28	44	mZCL	10YR4/3						non-calcareous		0																	
		44	55	hZCL	10YR5/4						non-calcareous		0																	
		55	85	ZC	10YR5/3	)YR6/6;10YR5	30	many			non-calcareous		0																	

		85	120	ZC	GLEY1 6/10Y	)YR6/6;10YR5	40	many			non-calcareous		0																
N44 - N49																														
Scoped Out																														
N50	TR328633	0	34	ZC	10YR3/2				Yes	66	moderately ca	level	1			1	II	3a	-1.7	-23.716689	3.1	3a	1	1	1	Droughtiness	Wetness		**3a**
		34	52	C	10YR3/3						very calcareous					1														
		52	66	C	10YR5/3	5YR5/8;10YR6	10	common			very calcareous					1														
		66	120	C	2.5Y5/3	5YR5/8;10YR6	40	many			very calcareous					1														
N51	TR329632	0	25	ZC	10YR5/2				Yes	47	very slightly c	level	2	1		1	II	3b	-8.1	-32.135881	3.2	3b	1	1	1	Droughtiness	Wetness		**3b**
		25	47	ZC	10YR5/2						slightly calcareous					1														
		47	55	ZC	10YR6/2	5YR5/8;7.5YR	50	very many			very calcareous					1														
		55	82	ZC	10YR6/2	5YR5/8;7.5YR	60	very many			very calcareous					1														
		82	120	ZC	10YR6/1	5YR5/8;7.5YR	65	very many			very calcareous					1														
N52	TR330632	0	32	ZC	10YR3/2				Yes	55	non-calcareo	level	1			3	II	3b	-3.0	-25.048832	3.1	3a	1	1	1	Wetness			**3b**
		32	52	C	10YR3/3						slightly calcareous					1														
		52	72	C	10YR5/4	5YR5/8;10YR6	45	very many			slightly calcareous					1														
		72	120	C	GLEY16/10Y	7.5YR5/8	50	very many			slightly calcareous					1														
N53	TR330631	0	23	ZC	10YR5/2				Yes	51	slightly calca	level	1			2	II	3a	-7.6	-29.639039	3.1	3a	1	1	1	Droughtiness	Wetness		**3a**
		23	37	ZC	10YR5/2						slightly calcareous					1														
		37	42	C	10YR5/3						moderately calcareous					1														
		42	51	C	10YR5/3	5YR5/8;10YR6	15	common			moderately calcareous					1														
		51	75	C	10YR5/3	5YR5/8;10YR6	55	very many			very calcareous					1														
		75	120	C	10YR5/3	5YR5/8;10YR6	65	very many			very calcareous					1														
N54-N58																														
Scoped Out																														
N59	TR334633	0	27	mZCL	2.5Y4/2						non-calcareo	level	0				I	1	32.3	-2.5253771	2	2	1	1	1	Droughtiness			**2**
		27	52	mZCL	2.5Y4/3						non-calcareous																			
		52	85	hZCL	2.5Y4/4	.5Y5/6;2.5Y6/	3	common			non-calcareous																			
		85	120	hZCL	2.5Y4/4	.5Y5/6;2.5Y6/	6	common			non-calcareous																			
N60	TR334634	0	38	mZCL	2.5Y4/2						non-calcareo	level	0				I	1	34.7	-0.1311505	2	2	1	1	1	Droughtiness			**2**
		38	80	hZCL	2.5Y5/4	.5Y5/6;2.5Y6/	2	common			non-calcareous																			
		52	120	hZCL	2.5Y5/4	.5Y5/6;2.5Y6/	3	common			non-calcareous																			
N61	TR335634	0	28	mZCL	2.5Y4/2						non-calcareo	level	0				I	1	32.8	-1.9856542	2	2	1	1	1	Droughtiness			**2**
		28	44	mZCL	2.5Y4/3						non-calcareous																			
		44	86	hZCL	10YR5/4	)YR6/2;10YR5	3	common			non-calcareous																			
		86	120	hZCL	10YR5/4	5YR6/8;10YR6	5	common			non-calcareous																			
N62	TR335635	0	25	mZCL	10YR4/2						non-calcareo	level	0				I	1	32.3	-2.4368435	2	2	1	1	1	Droughtiness			**2**
		25	35	hZCL	10YR4/2						non-calcareous																			
		35	78	hZCL	2.5YR5/4	7.5YR7/1	2	common			non-calcareous																			
		78	120	mZCL	2.5YR6/4	5YR7/1;7.5YR	7	common			non-calcareous																			
N63	TR336636	0	25	mZCL	10YR4/2						non-calcareo	level	1			1	I	1	17.4	-7.3130428	2	2	1	1	1	Droughtiness			**2**
		25	37	mZCL	10YR4/2						non-calcareous					1														
		37	66	hZCL	10YR4/3						non-calcareous					1														
		66	120	ZC	10YR5/4	5YR7/1;7.5YR	20	common			non-calcareous					1														
N64 -N75																														
Scoped Out																														
N76	TR338639	0	28	hZCL	10YR5/2						slightly calca	level	2	1			I	2	22.7	-10.996873	3.1	3a	1	1	1	Droughtiness			**3a**
		28	49	hZCL	10YR5/6						slightly calcareous		8	2																
		49	120	hCL	10YR5/6	5YR5/8;7.5YR	5	common			slightly calcareous		8	2																
N77	TR338640	0	26	hZCL	10YR4/2						non-calcareo	level	4	2	1	1	I	2	6.4	-17.39181	3.1	3a	1	1	1	Droughtiness			**3a**
		26	44	hZCL	10YR4/3						slightly calcareous					1														
		44	120	ZC	10YR5/4	)YR5/8;10YR6	8	common			slightly calcareous					1														
N78 -N92																														
Scoped Out																														

Keys: BNG-British National Grid; mS-medium sand; fS-fine sand; LS-loamy sand; LcS-loamy coarse sand; LmS-loamy medium sand; LfS-Loamy fine sand; SL-sandy loam; cSL-coarse sandy loam; mSL-medium sandy loam; fSL-fine sand loam; SZL-sandy silt loam; cSZL-coarse sandy silt loam; mSZL-medium sandy silt loam; fSZL-fine sandy silt loam; ZL-silt loam; ZCL-silty clay loam; mZCL-medium silty clay loam; hZCL-heavy silty clay loam; CL-clay loam; mCL-medium clay loam; hCL-heavy clay loam; SCL-sandy clay loam; SC-sandy clay; ZC-silty clay; C-clay; MZ-marine light silt; P-peat; PS-peaty sand; SP-sandy peat; LP-loamy peat; PL-peaty loam;

Appendix B Soil Pit Profile Descriptions

B.1 Soil Pit 01

- Slightly calcareous stoneless dark greyish brown silty clay topsoil over very calcareous yellowish brown silty clay to clay subsoil.
- Moderately weak coarse subangular blocky upper subsoil structure over weak firm coarse angular blocky lower subsoil structure.
- Gleying was observed from 35 cm, with very many distinct ocherous and grey mottles identified throughout the subsoil layers.
- A SPL was identified at 40 cm

B.2 Soil Pit 02

- Slightly stoney dark greyish brown medium silty clay loam topsoil over dark yellowish brown medium to heavy silty clay loam subsoils.
- Very weak medium subangular blocky upper subsoil structure over very weak coarse subangular blocky lower subsoil structure.
- No calcareous soils were identified
- No gleying or SPL were identified

Appendix C Predictive ALC Methodology

C.1.1 The predictive ALC mapping has utilised published information on climate, topography, flood risk, geology, soil types and associations, MAFF Provisional ALC (1:250,000) and Defra's Likelihood of BMV map (Defra, 2017) (Defra, 2024).

C.1.2 The data table in ~~**Error! Reference source not found.**~~Table C.1 Data used in predictive ALC is structured to follow the sequential approach of the ALC Guidelines accounting for the data featured in Annex A of **Application Document 6.3.3.6.A Appendix 3.6.A Predictive Agricultural Land Classification Report – Kent [APP-174].**

Table C.1 Data used in predictive ALC

Data	Description of data and source
Auger bore location- using the Ordnance Survey (OS) National Grid	
UID (A)	UID = Unique identification for sample point.
Easting (B)	This is a six-figure coordinate representing eastward distance on a map. The easting and northing figures are used to locate the sample point with precision and is especially useful when using a GPS.
Northing (C)	This is a six-figure coordinate representing northward distance on a map. The easting and northing figures are used to locate the sample point with precision and is especially useful when using a GIS.
Land use (D)	These are the terms and abbreviations used for soil pit and auger boring information collected during ALC surveys. These conform to definitions contained in the Soil Survey Field Handbook (Hodgson, 1997) and are available from Natural England (2016). For the purpose of this predictive ALC, the land use for each sample point was recorded from the latest available aerial imagery on Google Earth.
Climate limitations: The climate data listed below are interpolated from climatic data required for the assessment of ALC. The climatic data are provided as a grid dataset with 5 km spacings. The datasets are derived from data supplied by the Meteorological Office (1989), Bracknell, which were compiled and validated in collaboration with the Soil Survey and Land Research Centre (now National Soil Resources Institute) and the MAFF Agricultural Development and Advisory Service.	

Data	Description of data and source
For this predictive ALC, the representative climate for ALC has been interpolated for every predicted auger location covering the Order Limits, as shown in Annex A. The ALC climate data used for determining (i) overall climate limitation, (ii) soil wetness and (iii) soil droughtiness for each predictive ALC sample point depends upon the interpolated climate data from the available 5km dataset. Table 2 details the initial climatic data set from which the modelled values were interpolated. A key to the ALC climate data headings is given below.	
AAR (E)	AAR = Average Annual Rainfall (mm)
AT0 (F)	AT0 = Accumulated Temperature above 0°C between January and June (day °C)
MDW (G)	MDW = Moisture Deficit for Wheat (mm)
MDP (H)	MDP = Moisture Deficit for Potatoes (mm)
FCD (I)	FCD = Field Capacity Days (days). This is a meteorological parameter which estimates when the soil moisture deficit is zero.
Climate grade (J)	This is the overall climate limitation. This can be read from the graph (X-axis is AAR and Y-axis is ATO) given as Figure 1 of the ALC Guidelines (MAFF, 1988).
Site Limitations	
Elevation (K)	This is altitude (m) above ordnance datum (AOD). For this predictive ALC, the altitude per sample location (located using six-figure easting and northing coordinates) has been derived from the National LiDAR programmes 2022 composite DTM model.
Gradient (L)	This is the angle of slope in degrees (°). For this predictive ALC model, this was calculated using the slope geoprocessing tool to calculate from the DTM elevation model.
ALC grade according to gradient (M)	Where the angle of slope at a predictive auger point was calculated to be equal to, or less than, 7°the ALC grade at this location could be Grades 1, 2 and Subgrade 3a according to gradient. The gradient of such land is considered to be suitable for most kinds of agricultural machinery, including precision seeding and harvesting equipment, as per Table 1 of the ALC Guidelines (MAFF, 1988). All but 27 predictive auger locations were found to have a gradient less than or equal to 7°.
ALC grade according to micro-relief (N)	Following the ALC Guidelines (MAFF, 1988), a micro-relief limitation to agricultural land quality exists where complex changes in slope angle and direction over short distances, or where the presence of boulders or rock outcrops, even on level

Data	Description of data and source
	or gentle slopes, can severely limit the use of agricultural machinery. For the purpose of this predictive ALC, an assessment of potential micro-relief limitations was made for each sample location using OS maps (1:25,000) and aerial imagery on Google Earth (Google, 2022).
Flood zone (O)	This identifies the flood zone for each sample point. This information is available on the Environment Agency's (2020) Flood Map for Planning website. Flood zones refer to the probability of river and sea flooding, ignoring the presence of defences, as follows: • Zone 1 Low Probability – Land having a less than 1 in 1,000 annual probability of river or sea flooding. • Zone 2 Medium Probability – Land having between a 1 in 100 and 1 in 1,000 annual probability of river flooding; or land having between a 1 in 200 and 1 in 1,000 annual probability of sea flooding. • Zone 3a High Probability – Land having a 1 in 100 or greater annual probability of river flooding; or land having a 1 in 200 or greater annual probability of sea flooding. • Zone 3b The Functional Floodplain – This zone comprises land where water must flow or be stored in times of flood.
Predicted grade according to flood risk in summer (P)	This is the grade according to flood risk in summer, as per Table 2 of the ALC Guidelines (MAFF, 1988). No data were available to be able to assess flood risk in summer. For this assessment, the grade according to flood risk in summer was predicted to be Grade 1 (i.e., no limitation) at all sample points.
Predicted grade according to flood risk in winter (Q)	This is the grade according to flood risk in winter, as per Table 3 of the ALC Guidelines (MAFF, 1988). No data were available to be able to assess flood risk in winter. For this assessment, the grade according to flood risk in winter was predicted to be Grade 1 (i.e. no limitation) at most sample points. Where the sample point was in Flood Zone 3 the point was limited to Grade 3b.
Soil and Interactive Limitations	
Bedrock (R)	This is the bedrock underlying each predictive ALC sample point identified from British Geological Survey (BGS) information at a scale of 1:50,000. This information was provided per sample

Data	Description of data and source
	point using GIS. This information is also publicly available on the BGS (2022) Geology of Britain viewer.
Superficial Deposits (S)	This is a superficial deposit (where present) which covers the bedrock. This information was determined for each predictive ALC sample point identified from BGS information at a scale of 1:50,000. This information was provided per sample point using GIS. This information is also publicly available on the BGS (2022) Geology of Britain viewer.
Soil association (T)	The whole of England and Wales is covered by the National Soil Map, comprising six soil maps at a scale of 1:250,000 with accompanying Regional Bulletins. The National Soil Map shows the location and extent of soil associations, which are groupings of spatially related soil types. Data and information on soil associations can be obtained from the Land Information System (LandIS) webpage.
Topsoil texture (U)	This is the texture of the topsoil used to represent each predictive ALC sample point It is derived from the SSEW description of the predominant soil series used to represent the soil at each predictive ALC sample point, as described in 'soil series' above. The SSEW description of soil series is available on the Land Information System (LandIS) 'Soils Guide'
Wetness Class (V)	The Wetness Class (WC) of a soil is classified according to the depth and duration of waterlogging in the soil profile and has six categories from WC I, which is well drained, to WC VI, which is very poorly drained. The procedure for assessing WC for ALC purposes is described in Appendix 3 of the ALC Guidelines (MAFF, 1988). For the purpose of this predictive ALC, the WC used to represent each sample point is the WC as shown in the Wetness Mapping available from Cranfield University.
Topsoil stoniness (W)	This is the indicative stone content in the topsoil at each predictive ALC sample point. It does not provide a predictive ALC grade according to stone content, as per Table 5, ALC Guidelines (MAFF, 1988), as insufficient data regarding stone size and content are available from published sources. The indicative information is derived from available auger logs for land within the Order Limits that has been purchased from Cranfield University. This auger bore information was used in conjunction with the Soil Association information available through LandIS.
Predicted grade according to soil depth (X)	This is a prediction of the ALC grade according to soil depth, as per Table 4 of the ALC Guidelines (MAFF, 1988). It utilises the average depth of topsoil as per the auger logs purchased from Cranfield University. This auger bore information was used to

Data	Description of data and source
	conjunction with the Soil Association information available through LandIS.
Predicted grade according to soil stoniness (Y)	This is a prediction of the ALC grade according to soil stoniness, as per Table 5 of the ALC Guidelines (MAFF, 1988). It utilises information from LandIS on Soil Associations, as well as accounting for average stoniness in the auger bore logs purchased from Cranfield University.
Predicted grade according to soil wetness (Z)	This is the predictive ALC grade according to soil wetness, as per Table 6 of the ALC Guidelines (MAFF, 1988). It utilises (i) topsoil texture, (ii) WC (see 'Wetness Class') and (iii) Field Capacity Days (see 'Climate Limitations' above).
Calculated moisture balance – wheat (AA)	The MB value for wheat is calculated in accordance with the ALC Guidelines (MAFF, 1988) as follows: MB for wheat = Crop Adjusted Available Water Capacity (AP) – Moisture Deficit (MD) for wheat. For the purpose of this predictive ALC, the MB value for wheat for each predictive ALC sample point is derived from calculated data using (i) soil profile data for the predominant soil series, and (ii) relevant climate data for the respective 1km square (see 'Climate Limitations' above).
Predicted grade according to soil droughtiness – wheat (AB)	This is the predicted ALC grade according to droughtiness for wheat per sample point, following Table 8 of the ALC Guidelines (MAFF, 1988). It is determined from the MB value for wheat, as described in 'Calculated Moisture Balance – Wheat' above.
Calculated moisture balance – potatoes (AC)	The MB value for potatoes is calculated in accordance with the ALC Guidelines (MAFF, 1988) as follows: MB for potatoes = Crop Adjusted Available Water Capacity (AP) – Moisture Deficit (MD) for potatoes. For the purpose of this predictive ALC, the MB value for potatoes for each predictive ALC sample point is derived from calculated data using (i) soil profile data for the predominant soil series (see 'Soil Series' above), and (ii) relevant climate data for the respective 1km square (see 'Climate Limitations' above).
Predicted grade according to soil droughtiness – potatoes (AD)	This is the predicted ALC grade according to droughtiness for potatoes per sample point, following Table 8 of the ALC Guidelines (MAFF, 1988). It is determined from the MB value for potatoes, as described in 'Calculated Moisture Balance – Potatoes' above.
Predicted grade according to erosion (AE)	This is the predicted ALC grade according to erosion, as per pages 28 and 29 of the ALC Guidelines (MAFF, 1988). For the purpose of this predictive assessment we have assumed erosion

Data	Description of data and source
	to be a non-limiting factor; this is a factor that would be verified through site-specific surveys.
Predicted ALC according to most limiting factor (AF)	This is the final predictive ALC grade for each of the 448 sample points. It represents the most limiting (worst) grade(s) according to the climate, site, soil and interactive limitations.
MAFF provisional ALC grade (AG)	This is the Provisional ALC grade per sample point derived from MAFF Provisional (Pre-1988) ALC maps at a scale of 1:250,000. The Provisional ALC grade per sample point was determined using GIS, but the Provisional ALC information is available via Landscape/Landscape Classifications/Post-1988 ALC on the MAGIC website (Natural England, 2020). Pdf versions of the 1:250,000 Provisional ALC maps are available for download from Natural England (2010).
Defra likelihood of encountering BMV (AH)	This is a prediction made by Defra of the likelihood of encountering BMV agricultural land, i.e. ALC Grade 1, Grade 2 and Subgrade 3a. High likelihood of BMV land (>60% area BMV); moderate likelihood of BMV land (20–60% area BMV); low likelihood of BMV land (<=20% area BMV); non-agricultural use; urban/industrial. The likelihood of encountering BMV at each sample point was derived using GIS information. A pdf version of the Likelihood of Encountering BMV maps is available from Defra, (2017).
Comments (AI)	This is additional information which is relevant to the predictive ALC grade per sample point.

Appendix D Laboratory Analyses

ANALYTICAL REPORT

Report Number	**33207-25**	**B106**	**ARCADIS HUMAN RESOURCES**
Date Received	**12-DEC-2025**		**LTD**
Date Reported	**22-DEC-2025**		**80 FENCHURCH STREET**
Project	**SOIL**		**LONDON**
Reference	**LIV HOYLAND**		**EC3M 4BY**
Order Number	**UK2512145**		

Laboratory Reference		**SOIL778090**	**SOIL778091**	**SOIL778092**	**SOIL778093**	**SOIL778094**	**SOIL778095**
Sample Reference		**K38 Topsoil**	**K44 Topsoil**	**K51 Topsoil**	**K61 Lower Subsoil**	**K63 Lower Subsoil**	**K64 Topsoil**
Determinand	**Unit**	**SOIL**	**SOIL**	**SOIL**	**SOIL**	**SOIL**	**SOIL**
Coarse Sand 2.00-0.63mm	% w/w	0	0	0	0	0	0
Medium Sand 0.63-0.212mm	% w/w	1	1	0	1	6	6
Fine Sand 0.212-0.063mm	% w/w	4	3	5	2	6	9
Silt 0.063-0.002mm	% w/w	49	46	45	41	41	43
Clay <0.002mm	% w/w	46	50	50	56	47	42
Textural Class **		ZC	ZC	C/ZC	C	C	C

Notes

Analysis Notes

The sample submitted was of adequate size to complete all analysis requested.
The results as reported relate only to the item(s) submitted for testing.
The results are presented on a dry matter basis unless otherwise stipulated.

Document Control

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** Please see the attached document for the definition of textural classes.

Reported by [redacted]

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ANALYTICAL REPORT

Report Number	**35387-26**	**B106**	**ARCADIS HUMAN RESOURCES**
Date Received	**12-JAN-2026**		**LTD**
Date Reported	**20-JAN-2026**		**80 FENCHURCH STREET**
Project	**SOIL**		**LONDON**
Reference	**SEAL**		**EC3M 4BY**
Order Number	**UK2512461**		

Laboratory Reference		**SOIL780225**
Sample Reference		**K-30**
Determinand	**Unit**	**SOIL**
Sand 2.00-0.063mm	% w/w	23
Silt 0.063-0.002mm	% w/w	37
Clay <0.002mm	% w/w	40
Organic Matter LOI	% w/w	9.7
Textural Class **		C

Notes

Analysis Notes

The sample submitted was of adequate size to complete all analysis requested.
The results as reported relate only to the item(s) submitted for testing.
The results are presented on a dry matter basis unless otherwise stipulated.

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Appendix E Comparison and Reassessment of Likely Significant Effect

E.1.1 The distribution of ALC grades in relation to the Kent Onshore Scheme was compared using both the Predictive Modelling data and the ALC survey data based on Table 5. This comparison was undertaken to assess differences and to reassess the reported likely significant effects on BMV land.

E.1.2 The ALC grades from the predictive modelling and the detailed ALC survey, in relation to the Kent Onshore Scheme, are presented in Table E.1 A summary of the original assessment of the likely significant effects on BMV land (based on the predictive modelling data) with the reassessment of the likely significant effects on BMV land using the detailed ALC survey data are presented in ~~**Error! Reference source not found.**~~Table E.2 Agricultural Land (BMV) Effect**Error! Reference source not found.**

E.1.3 The comparison between the two datasets indicates that the discrepancies in relation to the extent of BMV land affected are limited, and the reassessment confirms that there is no change in the significance of likely effects on BMV land. Therefore, the conclusions of the ES regarding the sensitivity, magnitude and significance of effects on BMV land remain unchanged and valid.

Table E.1 Permanent and Temporary Land Take Per ALC Grades

Project Aspect	Grade 1		Grade 2		Grade 3a		Grade 3b		Grade 4		Non-agricultural		Total land take – detailed survey
	Predicted	Survey	Predicted	Survey	Predicted	Survey	Predicted	Survey	Predicted	Survey	Predicted	Survey	
Order Limits (temporary)		10.44	31.65	6.91	53.36	59.38	71.05	76.91		0.05	13.61	15.98	169.67
Access (permanent)		0.31	0.33		0.58	0.6							0.91
Substation ~~and Converter Station~~ (permanent)					~~9.06~~2.26	~~9.06~~2.26							~~9.06~~2.26
Converter station (permanent)					6.8	6.8							6.80
Pylons (permanent)					0.04	0.03	0.06	0.07					0.10
Ecological change (permanent)		0.14	0.28	0.04	1.92	2.02						0.10	2.~~20~~30
Total land required permanently		0.45	0.61	0.04	11.6	11.71	0.06	0.07				0.10	12.~~27~~37
BMV land required permanently - predicted	12.21												
BMV land required	12.20												

Project Aspect	Grade 1		Grade 2		Grade 3a		Grade 3b		Grade 4		Non-agricultural		Total land take – detailed survey
	Predicted	Survey	Predicted	Survey	Predicted	Survey	Predicted	Survey	Predicted	Survey	Predicted	Survey	
Permanently – detailed survey													

Table E.2 Agricultural Land (BMV) Effect

Data source	Stage	Description of Impact	Likely Significant Effect			Additional Mitigation Measures	Residual Effect		
			Sensitivity	Magnitude	Significance of Effect		Sensitivity	Magnitude	Significance of Effect
(pre-examination assessment)									
	Construction	Temporary loss of BMV land	Very high and high	Small	Moderate to minor adverse - Significant	None - Impact is temporary and BMV land required temporarily will be reinstated by the end of the construction phase	Very high and high	Small	Minor adverse – Not Significant
	Operation		Very high and high	Small	Minor adverse - Not significant	None	Very high and high	Small	Minor adverse - Not significant
	Decommissioning		Very high and high	Small	Moderate to minor adverse - Significant	None - Impact is temporary and BMV land required temporarily will be reinstated by the end of the construction phase	Very high and high	Small	Minor adverse – Not Significant

	Construction	Permanent loss of BMV land	Very high and high	Medium	Major to moderate adverse - Significant	None	Very high and high	Medium	Major to moderate adverse - Significant
	Decommissioning	Permanent reinstatement of BMV land	Very high and high	Medium	Moderate to major beneficial -Significant	None	Very high and high	Medium	Moderate to major beneficial - Significant
Surveyed (during examination)	Construction	Temporary loss of BMV land	Very high and high	Small	Moderate to minor adverse - Significant	None - Impact is temporary and BMV land required temporarily will be reinstated by the end of the construction phase	Very high and high	Small	Minor adverse – Not Significant
	Operation		Very high and high	Small	Minor adverse - Not significant	None	Very high and high	Small	Minor adverse - Not significant
	Decommissioning		Very high and high	Small	Moderate to minor adverse - Significant	None - Impact is temporary and BMV land required temporarily will be reinstated by the end of the construction phase	Very high and high	Small	Minor adverse – Not Significant

	Construction	Permanent loss of BMV land	Very high and high	Medium	Major to moderate adverse - Significant	None	Very high and high	Medium	Major to moderate adverse - Significant
	Decommissioning	Permanent reinstatement of BMV land	Very high and high	Medium	Moderate to major beneficial -Significant	None	Very high and high	Medium	Moderate to major beneficial - Significant

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