

16 Agricultural Land and Soil

16.1 Introduction

- 16.1.1 This chapter has been prepared by Kernon Countryside Consultants Ltd and presents an assessment of the likely significant effects of the Development on agricultural land and soils during the construction stage of the project. This includes the results of a detailed Agricultural Land Classification (ALC) survey. Mitigation measures are identified, where appropriate, to avoid, reduce or offset any significant adverse effects identified and/or enhance likely beneficial effects. The nature and significance of the likely residual effects are then reported. An assessment of the cumulative effects of the project with other cumulative developments (as identified in Chapter 3 and Appendix 3.4) is also presented.
- 16.1.2 The chapter is supported by the following appendices:
- Appendix 16.1: Agricultural Land Classification (ALC) Report, MAFF (1996); and
 - Appendix 16.2: ALC Report, Amet Property Ltd (2025).

Competence

- 16.1.3 This Chapter has been prepared by Tony Kernon. Tony is a Chartered Surveyor and a Fellow of the British Institute of Agricultural Consultants, with almost 40 years of experience in assessing the effects of development on agricultural land, soils and rural businesses, nationwide.

16.2 Legislation, Planning Policy and Guidance

- 16.2.1 The following sections provide a summary of the legislation, planning policy and guidance that is of relevance to this assessment and the Development.

Legislation Context

- 16.2.2 There is no legislation governing the development of agricultural land for non-agricultural purposes. The Town and Country Planning (Development Management Procedure) (England) Order 2015¹, as amended, Schedule 4 part (y) requires consultation with Natural England for any development which is not for agricultural purposes and involves the loss of not less than 20 ha of Grades 1, 2 or 3a agricultural land which is not in accordance with the development plan.

Planning Policy Context

National

- 16.2.3 The National Planning Policy Framework (NPPF)² (December 2024, updated 2025) is relevant:
- Paragraph 187 requires that planning decisions recognise the economic and other benefits of the best and most versatile (BMV) agricultural land. Such land is defined

in Annex 2 of the NPPF as land in Agricultural Land Classification (ALC) Grades 1, 2 and 3a; and

- In respect of plan making, paragraph 188 sets out that plans should allocate land with the least environmental or amenity value. Footnote 65 states that *'where significant development of agricultural land is demonstrated to be necessary, areas of poorer quality land should be preferred to those of a higher quality'*.

Regional

16.2.4 There is no regional planning policy relevant to the Development.

Local

16.2.5 The following local planning policy is relevant to the Development:

- Draft SADC Local Plan – Draft Local Plan 2041 ('Emerging Local Plan')³. Emerging policy NEB9 requires a detailed ALC for sites of over 20 ha. Where BMV will be lost, it will normally be refused unless there is an overriding need and no poorer quality land which could be reasonably be used; and
- Draft SADC Local Plan Part B proposes to allocate the Site and additional land to the north-east under allocation H1.

Guidance

16.2.6 This Chapter has drawn from the Institute of Sustainability and Environmental Professionals (ISEP, formerly IEMA) Guide: A New Perspective on Land and Soil in Environmental Impact Assessment (IEMA, February 2022)⁴, although adjusted as identified in some cases.

16.2.7 This assessment has been carried out in accordance with the following other guidance documents:

- Natural England's TIN049 (2012) 'Protecting the best and most versatile agricultural land'⁵;
- MAFF (1988) ALC of England and Wales: revised guidelines and criteria for grading the quality of agricultural land⁶;
- Defra (2009) Construction Code of Practice for the Sustainable Use of Soils on Construction Sites⁷;
- Institute of Quarrying (2021) Good Practice Guide for Handling Soils⁸.

16.3 Assessment Methodology

Consultation

EIA Scoping Opinion

16.3.1 A request for a Scoping Opinion was submitted by the Applicant to SADC on 27th March 2025. An EIA Scoping Report accompanied the request (Appendix 3.2). A Scoping Opinion (Appendix 3.3) was issued by SADC on 23rd May which included comments from statutory consultees. In relation to this assessment the Scoping Opinion confirmed that the proposed scope was considered to be acceptable.

Table 16.1: EIA Scoping Response Summary

Consultee and Comment	Response
<i>SADC Scoping Opinion (23 May 2025)</i>	
The scope is considered to be acceptable	The assessment has followed the approach set out in the Scoping Report
<i>Natural England –Scoping Response (8 April 2025)</i>	
The degree to which agricultural land and soils would be disturbed should be considered. A detailed ALC may be required.	A detailed ALC has been completed and the effects on agricultural land and soils are assessed in this Chapter.

Pre-Application Consultation

16.3.2 No further consultation was undertaken over and above the EIA Scoping process.

Summary of Assessment Scope

16.3.3 As outlined within the EIA Scoping Report (Appendix 3.2), the scope of the assessment within this chapter is limited to the following assessment of effects: :

- Agricultural land for biomass production;
- Soils as a physical resource; and
- Farm businesses for their economic and other benefits.

Construction

- Loss by sealing or irreversible downgrading of BMV and poorer quality agricultural land. Land of BMV quality is a resource recognised in planning policy. The reduction in quality by irreversible downgrading, or loss of BMV resource, has been assessed;
- Reduction or damage to the structure of soils that are sensitive to being damaged if handled when in an unsuitable condition. Soil is assessed as a resource in its own right and soil for use within the Site or reuse elsewhere has been included in the assessment; and
- Reduction in farmable land areas affecting farm operations and viability. Whilst farm businesses are often resilient to change, the effects of land use change and land loss can affect economic activity and have wider effects such as food production, and have therefore been assessed.

Completed Development

16.3.4 For the completed Development, no further potential effects have been assessed. All significant effects will likely occur at the construction phase, and there will be no additional effects during operation.

Cumulative Assessment:

16.3.5 The cumulative assessment has considered the same potential likely significant effects (where possible and where the necessary information is available) as identified for the Development (outlined above).

Non-Significant Effects

- 16.3.6 All other agricultural land effects were scoped out of further assessment within this ES. This includes effects on field drainage of surrounding agricultural land.

Study Area

- 16.3.7 The study and assessment areas for agriculture and soils are limited to land within the Site boundary. Agricultural land, soils, and farm businesses beyond the Site boundary are not likely to be adversely affected.

Baseline Characterisation Approach

Existing Baseline

- 16.3.8 The approach to defining the baseline conditions within the study area for the assessment involved a combination of desk-based research and historic and recent surveys, as identified in the following sections.

Desk Study

- 16.3.9 The baseline conditions for the study area were informed by a review of the following information sources:
- 'Provisional' ALC maps⁹;
 - 'Likelihood of BMV' maps¹⁰; and
 - Available ALC survey data on www.magic.gov.uk.

Field Study

- 16.3.10 The baseline conditions for the study area were also informed by the following field surveys;
- Detailed ALC survey of part of the Site, completed by MAFF in 1996 (Appendix 16.1);
 - Detailed ALC field survey of all land subject to development not previously surveyed which was completed by Kernon Countryside Ltd in January 2025 using standard ALC method (Appendix 16.2); and
 - Farm interviews with key affected landowners and Site survey, completed in September 2025.

Future Baseline

- 16.3.11 Without the Development it is likely that the land will continue to be farmed or used for agri-environmental uses. Climate change may alter the range of crops and land uses, but farming is expected to continue. The quality and quantity of soil and ALC is unlikely to change significantly from current baseline conditions for the mid to long term in these locations.

Assessment Method

Construction

- 16.3.12 The assessment methodology is based on determining the magnitude of change on the relevant receptors of agricultural land and soil resources, and the sensitivity of those receptors.

- 16.3.13 The determination of the significance of an effect on agricultural land and soil resources has had regard to guidance from Natural England, and to the ISEP Guide on Assessing Land and Soils.
- 16.3.14 The assessment assumes that, in respect of agricultural land quality, there will be a permanent change of use, and therefore the areas proposed for Green Infrastructure are also considered to be irreversibly developed and taken out of agricultural use.
- 16.3.15 However, in relation to the assessment of effect on soils, it has been assumed that across the majority of areas identified as being used for Green Infrastructure as part of the Development, there will not be any significant movement or disturbance of soils.

Cumulative Effects

- 16.3.16 The cumulative schemes that have been agreed with SADC for assessment have been reviewed to determine their potential to interact cumulatively with the Development during the construction and completed development phases.

Assessment Criteria

Sensitivity of Receptor

- 16.3.17 The sensitivity of agricultural land is determined according to its ALC grade, with Grade 1 being the most sensitive and Grade 5 the least. The best and most versatile (BMV) land is defined in Annex 2 of the NPPF as Grades 1, 2 and 3a. The sensitivity of soil resources is determined according to their resilience to handling and disturbance, which is determined largely by their texture and moisture content. The sensitivity of each receptor is as set out in Table 16.2.

Table 16.2: Receptor Sensitivity Descriptors

Value (Sensitivity)	Descriptor
'High'	Land of Grades 1, 2 and 3a. High clay soils where field capacity days (FCD) is >150, or medium textured soils where the FCD is >225.
'Medium'	Land of Subgrade 3b. High clay soils where field capacity days (FCD) is <150, or medium textured soils where the FCD is <225. Full time farm businesses where the location of land is particularly important such as dairy farms. Farms affected outwith the Site boundary.
'Low'	Land of ALC Grades between 4 and 5. Soils with a high sand fraction where the FCD is <225. Farms with low sensitivity to change such as arable farms, part time farms or where land is held on short term arrangements.
'Negligible'	Indirect or unproven links to agriculture. Agricultural land that is not farmed or does not form part of an agricultural business.

Magnitude of Impact

16.3.18 The magnitude of change on agricultural land is determined according to the area of land that would be permanently removed from agricultural use, having regard to the existing arrangements for local planning authorities to consult Natural England on developments that involve the loss of 20ha or more of BMV land and that do not accord with a development plan. The magnitude of change on soil resources will be related to the degree to which soils can continue to perform their various ecosystem functions following disturbance from construction.

16.3.19 Table 16.3 sets out the magnitude of impact descriptors used in the assessment.

Table 16.3: Magnitude of Impact Descriptors

Impact Magnitude	Descriptor
'High'	The Development would directly lead to the loss of over 50ha of soil related features; or potential for improvement in one or more soil functions over an area of more than 50ha. Full-time agricultural business would be rendered non-viable.
'Medium'	The Development would directly lead to the loss of between 20 – 50ha of soil related features; or potential improvement in one or more soil functions over an area of between 20 – 50ha. Major changes in the day-to-day management of a full-time agricultural business, or a closure of a part time agricultural business. Loss of buildings or impacts on drainage or water supplies affecting the potential for at least 5ha of adjacent land to be farmed fully.
'Low'	The Development would directly lead to the loss of less than 20ha of soil related features; or potential improvement in one or more soil features over an area under 20ha; temporary, reversible loss of soil related features. Minor changes in the day-to-day management / structure of a full-time agricultural business or land required would have a significant impact on a part time business. Minor impacts, direct or indirect on surrounding land beyond the boundaries of the Site.
'Negligible'	No discernible loss or reduction or improvement of soil functions or volumes. Land required would require only negligible changes in the day-to-day management of a fulltime agricultural business. Impacts on non-farming land, e.g. horse grazing.

Assessing Significance

16.3.20 The significance is determined according to the matrix in Table 16.4. There is a degree of flexibility to account for the professional judgement required for some of the assessments.

16.3.21 Effects classified as moderate or major in scale are considered 'Significant.' Effects classified as minor or negligible in scale are considered 'Not Significant.'

Table 16.4: Significance of Effect Matrix

Sensitivity / Value of Receptor	Magnitude of Impact			
	High	Medium	Low	Negligible
High	Major	Moderate	Minor	Minor
Medium	Moderate	Minor	Minor	Minor
Low	Minor	Minor	Negligible	Negligible
Negligible	Negligible	Negligible	Negligible	Negligible

Assumptions and Limitations

16.3.22 There are no significant limitations to the assessment.

16.3.23 This assessment assumes that all agricultural land at the Site would be removed from agricultural production if the Development was to proceed. Baseline Conditions

Existing Baseline

16.3.24 The Site extends to 105.60 ha of mostly arable land, used for growing cereals and arable break crops. The Site is gently sloping and there are no physical constraints to agricultural use.

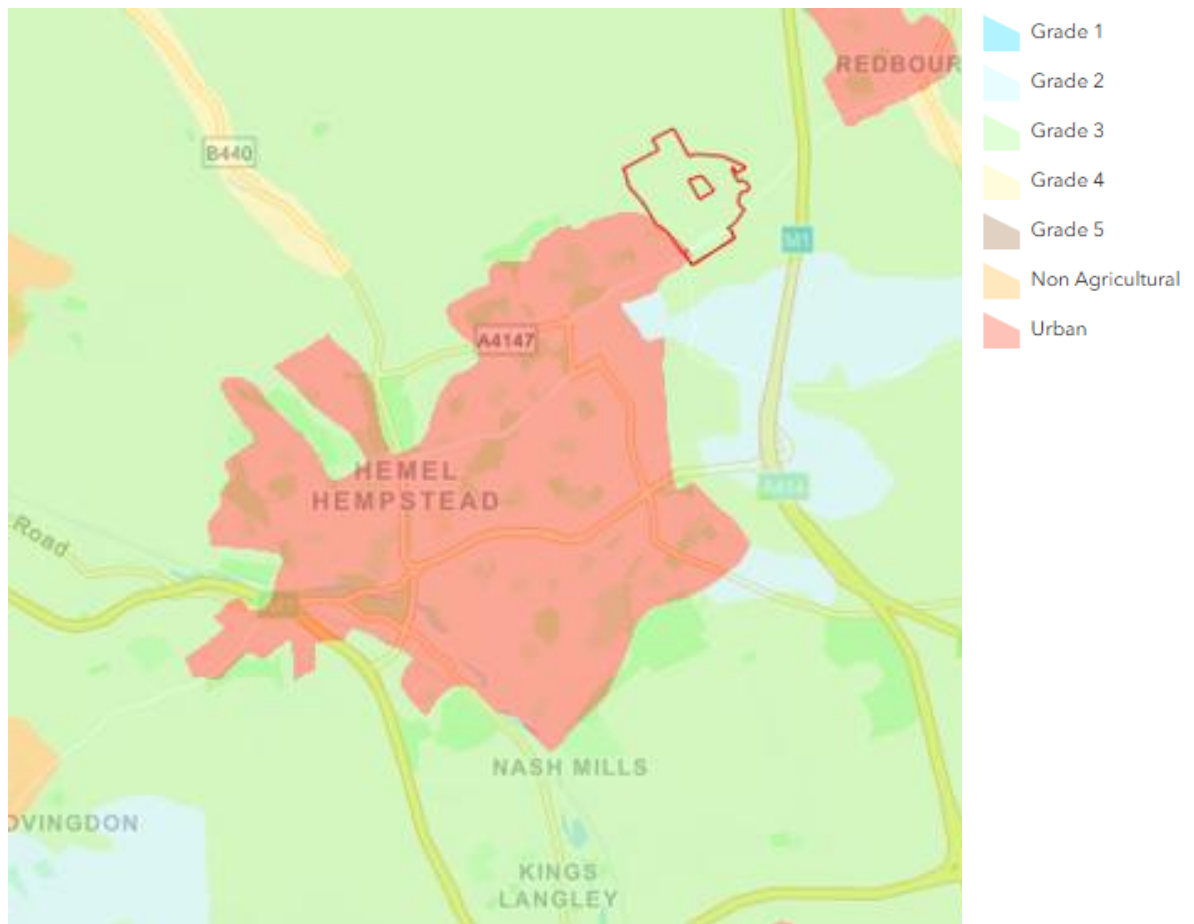
16.3.25 The climate is described in the ALC reports, **Appendix 16.1** and **Appendix 16.2**. The climate for ALC purposes has average annual rainfall of under 700mm, and a field capacity days period (days when soils are replete with water) of 147.

16.3.26 The soils across the Site are generally silty clay or silty clay loam topsoils, mostly very stony with both smaller stones and medium-sized subrounded flinty stones. In many places the stoniness is a limitation to agricultural use.

Agricultural Land Quality

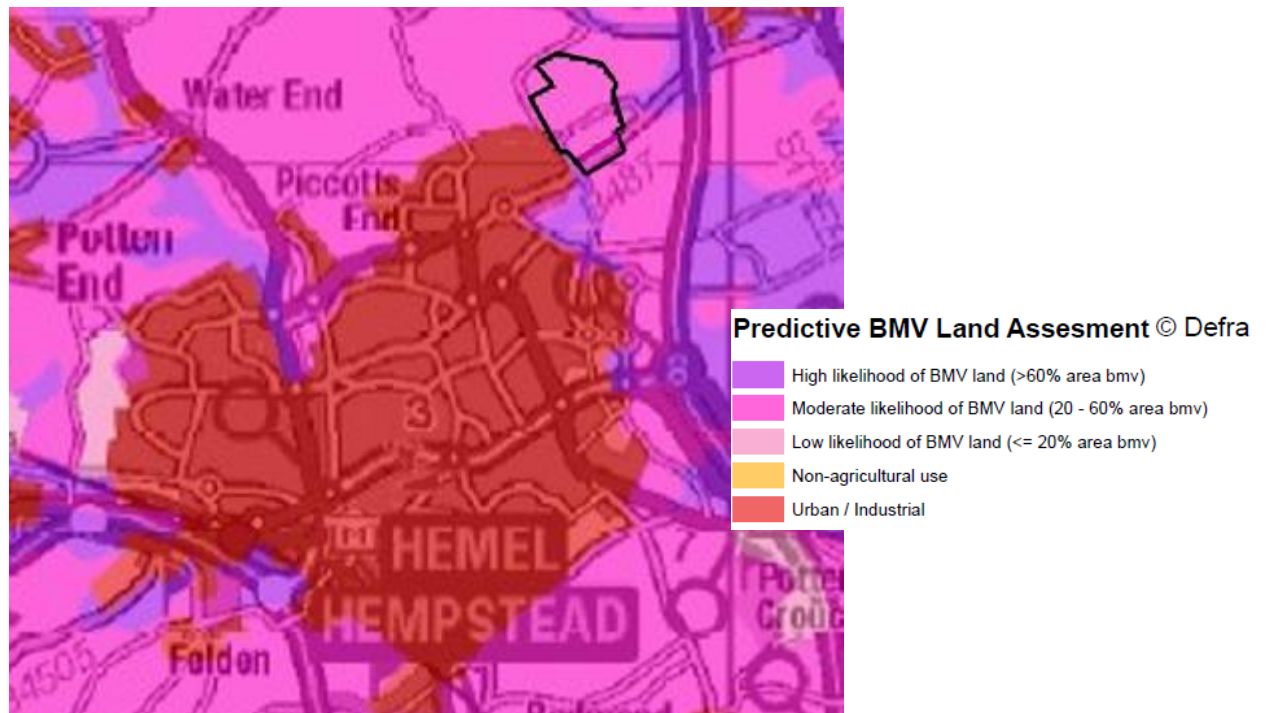
16.3.27 The Site is shown on the provisional ALC plans, published at 1:250,000 scale by MAFF¹¹ originally in the 1970's, and since digitised, as undifferentiated Grade 3 (i.e. no differentiation between subgrades 3a and 3b). Most of the periphery of Hemel Hempstead is shown as undifferentiated Grade 3, with areas of Grade 2 to the west. This is shown on Figure 16.1.

Figure 16.1: Provisional ALC (with Site marked approximately)



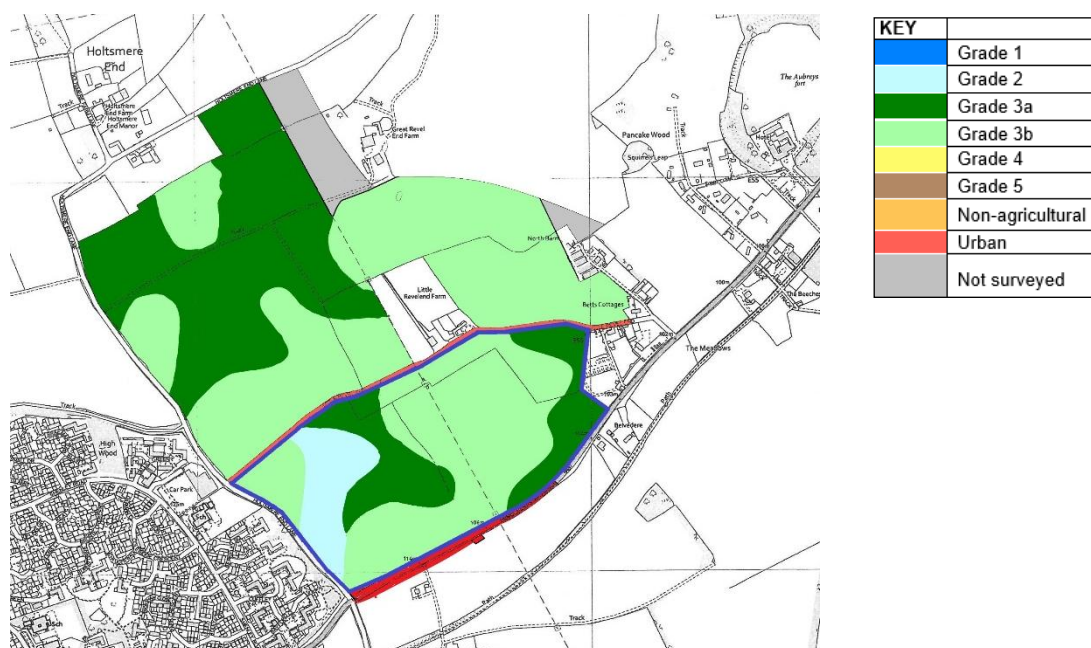
16.3.28 The Site is shown on the 1:250,000 series 'Likelihood of BMV' maps¹² as falling into the moderate likelihood of BMV, meaning 20-60% of land is expected to be of BMV quality. As shown in Figure 16.2, most of the periphery of Hemel Hempstead falls into this category, with a higher proportion of BMV land (>60%) predicted in the area between Hemel Hempstead and St Albans.

Figure 16.2: Likelihood of BMV (Site boundary marked approximately)



- 16.3.29 Part of the Site was surveyed by MAFF as part of a larger survey in 1996. Their ALC was carried out under the current ALC methodology, and remains valid. The results for the area are set out in Appendix 16.1.
- 16.3.30 The majority of the Site had not previously been surveyed. Accordingly, a detailed ALC survey was carried out, the results of which are described in Appendix 16.2.
- 16.3.31 The results from the two ALC surveys have been combined and are presented in Figure 16.3. The origins of the survey data are identified.

Figure 16.3: Combined ALC Results



Note: The blue line identifies the extent of MAFF survey results

16.3.32 The combined results for the Site are set out in Table 16.5.

Table 16.5: Combined ALC Results (rounded to the nearest 0.1 ha)

Grade	Description	Area (ha)	Proportion (%)
1	Excellent	0	0
2	Very good	4.1	4
3a	Good	32.3	30
3b	Moderate	60.8	58
4	Poor	0	0
5	Very poor	0	0
Urban	-	3.2	3
Not Surveyed	-	5.2	5
Total	-	105.6	100

16.3.33 Soils. The soils are described in the two ALC survey reports (Appendices 16.1 and 16.2). The topsoil is either a silty clay or a silty clay loam usually over a moderately structured and relatively free-draining clay subsoil. The subsoil is either stopped by a stoney horizon at between 30cm and 120cm, or continues to the full depth assessed for ALC of 120cm.

16.3.34 Farming Circumstances. The Site forms part of a holding of approximately 210 ha. This is an all-arable holding, operated from farm buildings to the east of the Site. The farm crops cereals (wheat and barley) with break crops of winter beans or oilseed rape. The holding is run by contractors. Periodically sheep are brought in to graze winter stubbles.

16.3.35 The fields are illustrated in the following photographs, taken as shown on Figure 16.4.

Figure 16.4: Location of Photographs on ALC Base Plan

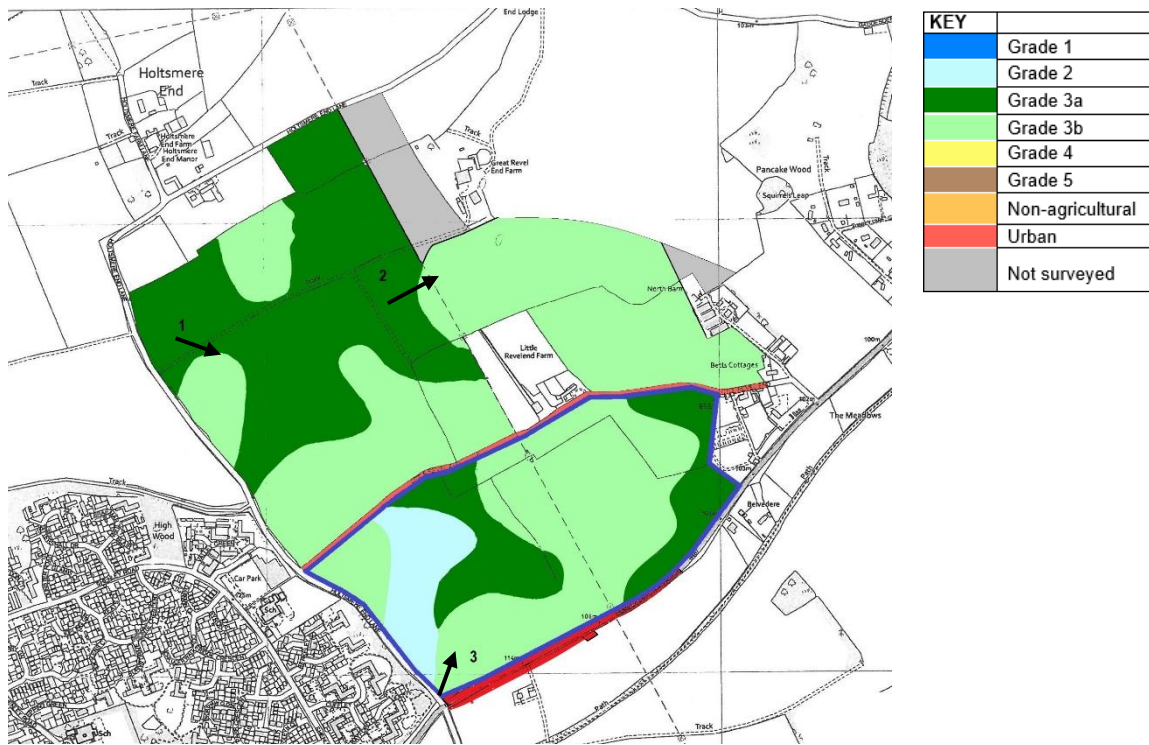


Photo 1: Looking SE over Grade 3a and 3b land



Photo 2: Looking East over mostly Grade 3b land



Photo 3: Looking NE over a mix of Grades 2, 3a and 3b



Future Baseline

16.3.36 Without the Development it is likely that the land will continue to be farmed or used for agri-environmental benefits. The current soil and ALC baseline conditions are expected to remain unchanged for the foreseeable future. In the longer term, it is expected that climate change will affect the quality of the land and the functioning of soils on the Site, in the absence of the Development proceeding, although the potential effects on soils and ALC are complex.

Summary of Receptors and Sensitivity

16.3.37 Table 16.6 provides a summary of the sensitive receptors.

Table 16.6: Summary of Receptor Sensitivity

Receptor	Sensitivity (Value)	Rationale
<i>Existing</i>		
BMV land	High	There is land of BMV quality in parts of the Site, mostly Grade 3a with an area of Grade 2. This amounts to

Receptor	Sensitivity (Value)	Rationale
		approximately 34% of the Site. The BMV land is of high sensitivity.
Soils	Medium	The soils are silty clay and silty clay loams where the Field Capacity Days are below 150. Clayey soils are susceptible to structural damage.
Farm Business	Low	The Site comprises arable land with farming operations undertaken by contractors. The particular location of land is therefore of low sensitivity.

Future

As above.

16.4 Embedded Mitigation (Scheme Design and Management)

16.4.1 Table 16.7 summarises the embedded mitigation measures that have been accounted for within this assessment. As set out in Chapter 3: EIA Methodology, and in line with IEMA guidance, this includes both primary and tertiary mitigation measures.

Table 16.7: Summary of Embedded Mitigation

Embedded Mitigation Measure	Description	How Secured
<i>Construction</i>		
CEMP	Standard good soil management practices and mitigation measures would be implemented via the Outline CEMP (Appendix 6.1), to be secured via an appropriately worded planning condition.	Planning condition

Completed Development

None required.

16.5 Assessment of Effects - Construction

Agricultural Land Quality

- 16.5.1 Across the Site the land quality is a mixture of Grade 2 and Subgrades 3a and 3b. Grade 2 and Subgrade 3a, being land of BMV quality, is of high sensitivity and Subgrade 3b is of medium sensitivity.
- 16.5.2 The Development will result in the irreversible loss or downgrading of 36.4 ha of land of BMV quality. As set out in Table 16.3, this is a medium magnitude impact.
- 16.5.3 A medium magnitude impact on a receptor of high sensitivity results in a permanent moderate adverse effect, which is significant.
- 16.5.4 The effect will need to be assessed in context. The published information indicates that this area is representative of the poorest quality land around Hemel Hempstead. The Site is a

proposed allocation in the emerging Local Plan. Land of BMV quality is not a rare resource (Natural England estimate that 42% of agricultural land is of BMV quality). Any development of the periphery of the settlement is likely to result in a similar effect.

Soils

- 16.5.5 The sensitivity of soils to disturbance depends upon how wet the soils are, measured by Field Capacity Days, and the type of soil. This is set out in the ISEP Guide Table 4 and summarised in Table 16.2. The field capacity days for this Site, as determined in the ALC is 147 days per year. The soils have mainly been identified as medium clay loam or silty clay. In the ISEP Guide Table 4, such soils are defined as a medium sensitivity (medium resilience to structural damage).
- 16.5.6 Soils across the Site are therefore susceptible to structural damage if handled in sub-optimal conditions, particularly when they are wet. The adverse impacts on soil structure can be avoided by handling soils in suitable conditions, and as soils are generally resilient adverse impacts can often, over time, be rectified by restorative management. Impacts therefore are usually temporary.
- 16.5.7 As stated in Chapter 5: Description of Development, the overall maximum net developable area of the Development is 45 ha (i.e. residential, school and mixed-use areas). Some of the Green Infrastructure will be undisturbed, but some will involve soil movement. Overall, it is assessed that the Development will affect of the order of, but potentially in excess of, 45 ha of soils. The use of good soil management practices will reduce the impact, but in excess of 45 ha are still likely to be affected. Therefore, the magnitude of impact will be high, as determined in Table 16.3. However, the impacts can be restored. Consequently, the impact is assessed to be temporary and reversible, which is of low magnitude.
- 16.5.8 The resultant impact will therefore be of low magnitude on a medium sensitivity resource. Overall, the resultant impact is expected to be a temporary (short-term), minor adverse significance effect, which is not significant.

Farm Businesses Effects

- 16.5.9 Stanbridge Farm grows mainly barley, wheat, oilseed rape and beans. The land within the Site is used for arable fields that are being cropped. Arable farms are defined as a low sensitivity business, as set out in Table 16.2, because the particular location of land is not critical to the enterprises run.
- 16.5.10 The impact on the business will be of medium magnitude, being a major change in day to day operations. Approximately half the farm is included in the Site. The land is, however, arable land and the operations are carried out by contractors. The result is a medium magnitude impact on a receptor of low sensitivity which results in a minor adverse effect, which is not significant.

Additional Mitigation, Monitoring and Residual Effects

- 16.5.11 Good practice of handling of soils will be embedded mitigation through a Soil Management Plan, to be part of the CEMP, and is assumed in the assessment above. No further mitigation is possible.

16.6 Assessment of Effects - Completed Development

- 16.6.1 The impacts on agricultural land, soils and farm businesses occur during the construction phase. The effects on agricultural land and farm businesses are permanent. The effects on soils are temporary. In all cases no further impacts will occur during the completed Development phase.

Additional Mitigation, Monitoring and Residual Effects

- 16.6.2 There are no additional measures available to mitigate the direct loss of agricultural land.

16.7 Cumulative Effects

- 16.7.1 The Development is now assessed in conjunction with the list of cumulative schemes provided in Appendix 3.4. Information on soils and farm businesses is generally not available for these sites, so the assessment considers only agricultural land quality. As analysed, for many site-specific ALC data is not available, and a number of sites are non-agricultural.

Construction

Assessment

- 16.7.2 ID No. 1 – 5/2016/2845 **Land Between Three Cherry Trees Lane and Cherry Tree Lane, Hemel Hempstead** – outline planning application for up to 600 dwellings. The total BMV with in site 1 is 7.94ha. when this is assessed in conjunction with the Development Site the total BMV at risk of loss is 44.3ha a Moderate Adverse effect on agricultural land.
- 16.7.3 ID No. 2 - 5/2021/3631 **Land at Gaddesden Lane, Redbourn, Hertfordshire** – outline planning application for up to 300 homes. There is no ALC data for the site, however on the provisional mapping the site is mapped as undifferentiated Grade 3 land. Assuming that the Grade 3 land is of Subgrade 3a quality the total BMV at risk of loss or downgrading rises to 49.8 ha, a Moderate Adverse effect on agricultural land.
- 16.7.4 ID No. 3 – 5/2024/2171 **Land to East of Hemel Hempstead, Hemel Hempstead Road, Redbourn, Hertfordshire** – scoping opinion for the construction of up to 4000 new homes. The site has partially been surveyed by MAFF, the parts of the site that were surveyed were found to contain approximately 86ha of BMV land, Grade 2 and Subgrade 3a. The total amount of BMV land at risk of loss or downgrading rises to approximately 122.4 ha, a **Major Adverse** effect on agricultural land.
- 16.7.5 ID No. 4 – 21/03793/MOA **Land at Green Lane, Hemel Hempstead, Hertfordshire** – hybrid application for redevelopment of the site in 4 plots to provide up to 26,640sqm of new commercial floorspace. The site has not been subject to an ALC survey; however, the site is provisionally mapped as mostly Grade 2 with areas of undifferentiated Grade 3. Assuming that the site is wholly of BMV quality the total BMV land area at risk of loss or downgrading rises to 43.3ha, a **Moderate Adverse** effect on agricultural land
- 16.7.6 ID No. 5 – 22/03812/MFA **Land at Eastman Way, Atlas Copco Hemel Hempstead Industrial Estate, Swallowdale Lane, Hemmel Hempstead, Hertfordshire, HP2 7DU** – Demolition of existing building and redevelopment of the site to provide a commercial

building. The land where site 5 is situated is non-agricultural. Therefore, the cumulative effects on agricultural land are unchanged.

- 16.7.7 ID No. 6 – 4/03266/18/MFA **Land at West Hemel Hempstead** – Hybrid planning application for mixed use proposed development at west Hemel Hempstead comprising of up to 1100 dwellings. The site is comprised of Subgrade 3b, the site contains no BMV land. This leads to a **Moderate adverse** effect on agricultural land.
- 16.7.8 ID No. 7 – 21/04556/MFA **Plots 1 & 2 Maylands Avenue Hemel Hempstead HP2 4FQ** – construction of 234 apartments and 1486sqm of commercial floorspace. The land where site 7 is located is non-agricultural. Therefore, the cumulative effects on agricultural land from this site are unchanged.
- 16.7.9 ID No. 8 – 19/02749/MOA **Land at Marchmont Farm, Piccotts End Lane, Hemmel Hempstead, HP2 6JH** – outline planning for up to 350 dwellings. There is no ALC survey data for the site, however, the site is provisionally mapped as undifferentiated Grade 3. Assuming the whole 18.3ha site is of Subgrade 3a, the total BMV at risk of loss or downgrading rises to 54.7ha, a **Major Adverse** effect on agricultural land.
- 16.7.10 ID No. 9 – 21/04508/MOA **Land West of Leighton Buzzard Road, and North of Galley Hill Leighton Buzzard Road, Hemmel Hempstead** – construction of up to 390 dwellings. The land where site 9 is situated, is agricultural land. The site has 7ha of Grade 2 land. The rest of the site is made up of non BMV quality land. The total amount of BMV at risk of loss or downgrading, when assessed in conjunction with the Development, rises to 43.4ha. This is a **Moderate Adverse** effect on agricultural land.
- 16.7.11 ID No. B3 – **West Redbourn, Redbourn, AL3 7HZ** – proposed site for 545 residential units. The B3 site allocation has not been subject to a ALC survey, the site is provisionally mapped as undifferentiated Grade 3, assuming that the site is wholly of Subgrade 3a the total BMV at risk of loss or downgrading, when assessed in conjunction with the Development, rises to 63.4ha, a **Major Adverse** effect on agricultural land.
- 16.7.12 ID No. M6 – **South of Harpenden Lane, Redbourn, AL3 7RQ** – 12.04 proposed site for 68 housing units. Much of the site is within flood zone 3 and as such any development must be cautious of this, SADC has stated no built form can be within flood zone 3. Much of the site has been provisionally mapped as being urban with the north most 3ha of the site being mapped as undifferentiated Grade 3. Assuming the 3ha of Grade 3 are of Subgrade 3a quality the total BMV at risk of loss or downgrading rises to 39.4ha, a **Moderate Adverse** effect on agricultural land.
- 16.7.13 DCO – **London Luton Airport Expansion** – part of the expansion site has been subject to an ALC survey. The survey found 49.5ha of Subgrade 3a land and 58.9ha of Subgrade 3b. the rest of the site is mapped as undifferentiated Grade 3. Assuming the provisionally mapped area of the site is of Subgrade 3a quality alongside the historical ALC completed by MAFF, the total area of BMV at risk of downgrading or loss rises to over 100ha, a **Major Adverse** effect on agricultural land.
- 16.7.14 Hm01 – **North Hemel Hempstead Growth Area** – the Hm01 site allocation covers 455.3ha with the goal of 1500 dwellings by 2041 and an additional 3500 dwellings thereafter. The site has not been subject to an ALC survey; however, it has been provisionally mapped as undifferentiated Grade 3 land. The total amount of BMV at risk when the whole of Hm01 is

assessed in conjunction with the Development totals 491.7ha. This is a **Major Adverse** effect on agricultural land.

- 16.7.15 Hm03 – **Hemel Hempstead Hospital** – the Hm03 site allocation covers 7.21ha of non-agricultural land. The site is mapped on provisional mapping as being urban. The total BMV at risk of loss does not change therefore, there are no cumulative effects on agricultural land.
- 16.7.16 Hm04 – **Paradise** – the Hm04 site allocation extends to 2.29ha with the provision of up to 350 dwellings. The site is situated on non-agricultural land and is shown on the provisional mapping as being urban. Due to this the total amount of BMV land at risk does not change and there are no cumulative effects upon agricultural land.
- 16.7.17 Hm06 – **Riverside** – the Hm06 site allocation extends to 1.79ha with the provision for up to 500 homes. The Hm06 site is mapped as urban on the provisional mapping. The total BMV land at risk of downgrading or loss does not change when assessed in conjunction with the Development. Therefore, there are no cumulative effects on agricultural land.
- 16.7.18 Hm13 – **Polehanger Lane** – the Hm13 site allocation extends to 51.94ha with the goal of 750 homes and associated infrastructure. The site has not been subject to a ALC survey. The site is provisionally mapped as undifferentiated Grade 3 land. Assuming the total site is of Subgrade 3a quality agricultural land, the total BMV land at risk rises to 88.34ha, this is a **Major Adverse** effect on agricultural land.

16.8 Summary

- 16.8.1 A summary of the residual effects is provided in Table 16.8.

Table 16.8: Summary of Residual Effects

Effect	Receptor (Sensitivity)	Magnitude of Impact	Scale of Effect	Additional Mitigation and Monitoring	Residual Effect
<i>Construction</i>					
Loss of land of BMV quality	High	Medium	Moderate adverse, permanent	None	Moderate adverse, permanent
Loss or damage to sensitive soils	Medium	Low	Minor adverse, temporary	None	Minor adverse, temporary
Adverse effects on farm businesses	Low	Medium	Minor adverse, permanent	None	Minor adverse, permanent
<i>Completed Development</i>					
There will be no further effects at this stage					
<i>Cumulative Scenarios</i>					
<i>Construction</i>					
Loss of land of BMV quality	High	High	Major adverse, permanent	None	Major adverse, permanent
<i>Completed Development</i>					
There will be no further effects at this stage					

References

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- ¹¹ 1:250,000 Agricultural Land Classification Eastern Region (reprinted by Natural England, 2010)
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