East Midlands Gateway
Phase 2 (EMG2)

Document DCO 6.15/MCO 6.15

ENVIRONMENTAL STATEMENT

Volume 1 Main Statement

Chapter 15

Agriculture and Soils

July 2025

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The East Midlands Gateway Phase 2 and Highway Order 202X and The East Midlands Gateway Rail Freight and Highway (Amendment) Order 202X

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15. Agriculture and Soils

15.1. Introduction

15.1.1. This Chapter considers the potential for significant environmental effects upon soil resources, agricultural land quality and agricultural land users arising from the **EMG2 Project**, as described in full in **Chapter 3: Project Description (Document DCO 6.3/MCO 6.3)**.

15.1.1. In the case of agriculture and soils, the only aspect of the **EMG2 Project** which is relevant is the **EMG2 Works** component of the DCO Application, with the exception of the small area of land for the sub-station within the EMG2 Works that is proposed for a sub-station upgrade. It relates therefore solely to the EMG2 Main Site and the Community Park elements of the **EMG2 Works,** both of which currently comprise of agricultural land. The **Highway Works** within the DCO Application, and the **EMG1 Works** within the MCO Application are scoped out as they contain either hardstanding or land that provides no agricultural land resource. This Chapter therefore solely relates to the DCO Application and not the MCO Application**.**

15.1.2. This Chapter is supported by the following:

- Soils and Agricultural Land Quality Report (**Appendix 15A**) – **Document DCO 6.15A**
- EMG2 Main Site and Community Park Land Ownership Plan (**Appendix 15B**) – **Document DCO 6.15B**

15.2. Scope and Methodology of the Assessment

15.2.1. The approach to assessment of effects on soils and agriculture has been developed over a number of years with reference to a number of sources of published guidance including:

- *ICE (2019) Environmental Impact Assessment Handbook*
- *IEMA Guide (2022). A New Perspective on Land and Soil in Environmental Impact Assessment*
- *DMRB (2019) LA109 Geology and Soils*
- *The LCRM (Environment Agency, 2023) and Agricultural Land Classification: Protecting the Best and Most Versatile Agricultural Land Technical Information Note TIN049 (Natural England, 2012)*

15.2.2. In the approach taken, ‘moderate’ and ‘major’ effects are those regarded as significant.

Agricultural land

15.2.3. Assessment of effects of development on the agricultural land resource focus on potential losses of Best and Most Versatile land (ALC land grade 1 to Subgrade 3a). This is in line with guidance in the NPPF (2024) and National Planning Practice Guidance (2024). The broad principles and justifications in the approach taken are as follows:

i. Lower quality land is not afforded protection from development in the planning system of England and Wales and therefore losses of lower quality land are not considered significant, regardless of the magnitude of loss.

ii. ALC Grade 1 (excellent) and Grade 2 (very good) quality land is relatively scarce both nationally and regionally and is always regarded as high sensitivity. In some parts of the country (principally lowland areas of the South, East and East Midlands) Subgrade 3a quality land is relatively common and difficult to avoid in large scale development. Conversely in some localities (principally the North and West) Subgrade 3a represents the best in the area. Accordingly Subgrade 3a land can either be afforded moderate or high sensitivity based on the evaluation of its availability in the locality of the Proposed Development.

iii. The critical threshold for significance is considered to be 20 ha. This is based on thresholds set out in the Schedule 4, paragraph (y) of the Town and Country Planning (Development Management Procedure) (England) Order 2015 only requires Natural England to be consulted (on behalf of the Secretary of State for the Environment, Food and Rural Affairs) on development that is not in accordance with the development plan and that involves the loss of not less than 20 ha of grades 1, 2 or 3a agricultural land. Accordingly, a loss of 20 ha or more of Best and Most Versatile Land is always considered significant and is consistent with the IEMA Guide and EIA handbook. Increased significance is given to a) losses above 80 ha, equivalent to that of a medium sized farm and b) losses of the highest quality land (Grades 1 and 2). Losses of 20 ha of Grade 1 land would be considered a major effect, as would losses of 80 ha of Subgrade 3a. Losses of less than 20 ha Grade 1 or 2 are still to be regarded as significant (moderate).

Soils

15.2.4. The approach taken accords with the soil functions approach outlined in the IEMA Guide (2022). The key consideration is whether, as a critical finite resource, soils are available in suitable condition and sufficient volume to fulfil their key functions post development. This approach acknowledges that many types of built development generate large surpluses of soil and maximising their function in reuse (e.g. by exporting elsewhere) is not always a more sustainable approach than retaining them on-site with lower function. The key consideration in these circumstances is considered to be ensuring sufficient volume of quality soil is retained on site to fulfil proposed after-uses.

15.2.5. Impacts of a project can be: adverse, causing negative impacts on a receptor; beneficial, resulting in advantageous or positive impacts on a receptor; or negligible. They are further explained in the sections below.

Consultation

15.2.6. A summary of the PINS **Scoping Opinion** in relation to Agriculture and Soils is set out in Table 15.1 below.

Table 15.1: Summary of PINS Scoping Opinion Response

PINS ID	Description / Theme	Inspectorate's Comment	How and where addressed?
3.8.1	Impacts on agricultural land from rail freight expansion land and wider highway network improvements	The Scoping Report states that there would be no impact on agricultural land as a result of the proposals for the rail freight expansion land and land required for the highway network. The extent of highways works is subject to review and refinement as the transport assessment is finalised. The Inspectorate agrees that loss of agricultural land is unlikely to occur as a result of the highway network improvements, however, and can be scoped out of further consideration. The Inspectorate notes in the Scoping Report Site Description, paragraph 3.7, however, that the Proposed Development description includes reference to 'undeveloped land' within the area proposed for rail freight expansion north of East Midlands Airport. No details are supplied of the spatial extent of this undeveloped land nor its current land use. The ES should confirm the current land use for the rail freight expansion, whether it is agricultural land and if so, confirm its classification. Where agricultural land is identified, this should be included in the assessment of effects within the ES.	Paragraph 15.1.1 confirms that The **Highway Works** and **EMG1 Works** areas do not contain any agricultural land or soil resources and are therefore scoped out of this assessment. The land to be used for the **EMG1 Works** is described in Chapter 2: Site and Surroundings which makes clear it is not agricultural land.
3.8.2	Loss of Best and Most Versatile (BMV) agricultural land	The ES should contain a clear tabulation of the areas of land in each BMV classification to be temporarily or permanently lost as a result of the Proposed Development, with reference to accompanying map(s) depicting the grades. Specific	The areas of land in each BMV classification to be temporarily or permanently lost as a result of the **Scheme** are

PINS ID	Description / Theme	Inspectorate's Comment	How and where addressed?
		justification for the use of the land by grade should be provided. Consideration should be given to explaining the use of BMV land in the Applicant's discussion of alternatives.	tabulated at Table 15.5 and mapped within **Appendix 15A**. Consideration of alternatives is set out within **Chapter 4** of this ES.

15.2.7. A six-week period of statutory consultation was undertaken between Monday 3rd February 2025 and Monday 17th March 2025. This included the presentation of draft application material for the **EMG2 Project**, including draft ES Chapters.

15.2.8. These responses are summarised within **Table 15.2** below, accompanied by how the responses have been addressed.

Table 15.1 Statutory Consultation Commentary

Originator	Comment, Description or Theme	How and where addressed
Natural England	NE confirmed ALC survey was robust and has no concerns over the validity of the survey. NE also support use of Technical Information Note 049. The ES and the associated Soil Management Plan need to demonstrate how the ALC grades and soil types will inform soil handling and restoration, setting out the site specific mitigation with reference to best practice guidance.	Noted.
Natural England	NE advised that they disagree with the initial conclusions on the effect of a loss of 20ha of BMV and that magnitude of impact should follow the ICE (2019) EIA handbook and IEMA guidelines (2022). In this regard NE advised they disagree with the statement that there is no widely accepted assessment criteria and refer to using the approach above. NE also disagree with the initial cumulative impacts assessment which should be considered against the national BMV figure.	The methodology is robust and finds the loss of 20 ha of BMV land to be significant which is consistent with the IEMA guidelines. The only difference in methodology used is in relation to the magnitudes for the loss of 3b land, which is not found significant because this is not a

Originator	Comment, Description or Theme	How and where addressed
		protected resource in National Planning Policy or in Natural England thresholds. Soil functions are considered as part of soil resources through the ability of soil types to provide habitat/landscapes. The cumulative impact assessment has been undertaken in line with IEMA guidance.
Natural England	NE supports reference to using a Soil Management Plan and provides guidance on what such could contain.	Noted. The Soil Management Plan is included within **Appendix 15A** and the guidance has been followed in its production.
Natural England	NE notes that the NN NPS should be referenced as relevant policy in addition to NPPF and local plan policy.	This chapter includes relevant paragraphs from the NN NPS in the policy section at paragraph 15.3.

Study Area

15.2.9. As noted at Paragraph 15.1.1, this Chapter assesses the effects on soils and agriculture, therefore the study area comprises the **EMG2 Works** within the DCO Application, with the exception of the small area of land for the sub-station within the EMG2 Works that is proposed for a sub-station upgrade. The **Highway Works** within the DCO Application and the **EMG1 Works** within the MCO Application do not contain any agricultural land or soil resources and are therefore scoped out of this assessment.

Receptor Sensitivity/Value

15.2.10. The following section expands on the general significance criteria guidance set out within **Chapter 1: Introduction and Scope** of this ES (**Document DCO 6.1**), but with specific reference to agriculture and soils. The criteria that has been used to establish the sensitivity of receptors, magnitude of impact and significance of effect

15.2.11. All natural soils are finite resources, but where sites are to be developed, their quality as a resource for reuse varies. Medium and coarse loamy soils are regarded as of higher value for reuse and so of the highest sensitivity, since these soils are most effective at mitigating the effects of flooding and are of highest quality for reuse in gardens and planting schemes (the most likely to meet British Standards for topsoil (BS 3882:2015) and subsoil (BS 8601:2013) criteria for use at other sites). Lower quality soils such as sandy or clayey topsoils are susceptible to damage and less valuable if lost.

15.2.12. Permeable coarse or medium textured subsoils are reusable for planting schemes (e.g. to support tree growth) and have a greater function in mitigating the effects of flooding than heavy and slowly permeable subsoils. In some instances, soils have important properties which make them able to support rare habitats (e.g. species diverse calcareous grassland or lowland heath habitats).

15.2.13. Best and most versatile agricultural land (defined as Grades 1, 2 & 3a on MAFF's 1988 Agricultural Land Classification system) is considered to be a finite national resource, is given special consideration in national policy, and can be considered to be of higher sensitivity than land in Grades 3b, 4 and 5. In the Midlands where best and most versatile land is widespread, the best land (Grades 1 and 2) is considered of higher sensitivity than Subgrade 3a. The loss of lower quality land is considered of lower importance under the planning system and not protected, so considered low sensitivity.

15.2.14. Agricultural businesses which have a secure long-term tenancy are more likely to invest resources in land improvement and related infrastructure, in the knowledge that they will receive a return on this investment. Consequently, agricultural businesses operating on land under long term agreements are considered as of greater sensitivity to loss see **Table 15.2** below.

Table 15.2: Sensitivity/Value Criteria

Receptor	**Sensitivity**		
	High	**Medium**	**Low**
Soil resource	Permeable coarse loamy and medium loamy soils, or other soils capable of supporting valuable habitats, peats	Fine textured or sandy topsoils not capable of supporting valuable habitats Mixed permeable and slowly permeable subsoils.	Damaged or contaminated soils Slowly permeable subsoils
Agricultural land quality	Grades 1 & 2	Subgrade 3a	Subgrade 3b and grades 4 & 5
Agricultural land user	Long-term Agricultural Holdings Act tenant.	Mixed business farming some owned and some medium- or short-term rented land.	Full time owner-occupied farm business that will gain sufficiently from sale of land to be economically unaffected OR agricultural user on a short-term tenancy or licence.

Magnitude of Impact

15.2.15. The magnitude of impact on topsoil resources makes the assumption that, as a valuable finite resource, the requirement should be to protect topsoils from damage. However, since built developments often generate large surpluses of topsoil, the primary requirement is considered to be that sufficient topsoil should be protected to complete all on-site landscaping/greenspace requirements (provided the baseline resource is suitable for the proposed uses). Failure to do so is regarded as a major magnitude effect. If all topsoil is protected from damage, the effect is regarded as negligible. As few built developments are likely to require more than 50% of topsoil for reuse, losses below this figure are regarded as minor.

15.2.16. Subsoil compaction under greenspace areas increases flood risk (and is not typically accounted for in sustainable drainage system (SuDS) design). Severe compaction is also likely to adversely affect the success of landscaping/ecological planting schemes. Magnitude is considered as a percentage of the development scheme. Compaction of greater than 10% of the site is considered as major magnitude as it is likely to result in tangible increases in runoff volumes, of a magnitude which could affect the efficacy of SuDS design capacity.

15.2.17. The magnitude of impact on best and most versatile land will depend on the amount to be taken by the proposed development. Schedule 4, paragraph (y) of the Town and Country Planning (Development Management Procedure) (England) Order 2015 only requires Natural England to be consulted (on behalf of the Secretary of State for the Environment, Food and Rural Affairs) on development that is not in accordance with the development plan and that involves the loss of not less than 20 ha of grades 1, 2 or 3a agricultural land. Consequently, the magnitude of losses smaller than this threshold is considered to have a minor effect on the national stock of best and most versatile land. Losses of BMV land greater than 20 ha are considered to be significant (moderate to major). Losses of over 80 ha of best and most versatile land are equivalent to the size of a medium to large farm and consequently the magnitude of effect is considered to be major.

15.2.18. In considering the magnitude of the impact on farm businesses it is necessary to consider what proportion of the land utilised by the business will be taken by the proposed development, whether the farm will remain a viable business after development is complete and how much restructuring might be necessary as a result of the proposed development. Where land is farmed by the owners of the land, and the sale is voluntary (as opposed to a compulsory purchase order) the effect is considered beneficial, and no further assessment is made. This is also the case where land is leased from the owner for mineral extraction. **Table 15.3** below gives examples of adverse effects of different magnitude.

Table 15.3: Magnitude of Impacts

Receptor	Magnitude			
	High	**Medium**	**Low**	**Negligible**
Soil resource	Loss of >80% of topsoil resources and insufficient topsoil protected for on-site uses. Subsoil compaction of >10% of Site	Loss or irreversible damage to 50-80% of topsoil resources. Compaction of 5-10% of subsoils	Loss or irreversible damage to <50% of topsoil resources. Compaction of <5% of subsoils	Only minor disturbance of soils within the Site.
Agricultural land quality	Irreversible loss of >80 ha of best and most versatile land	Irreversible loss of 20-80 ha of best and most versatile land	Irreversible loss of 5-20 ha of best and most versatile land	Irreversible loss of <5 ha of best and most versatile land Loss of non-best and most versatile land
Agricultural land user	Full-time farm business rendered unworkable and unviable. The farmer will have to seek alternative means of income.	Reduction in net farm income requiring such that substantial restructuring is required.	Reduction in net farm income that only minor restructuring is necessary.	Minimal effects, such as changed field accesses, not necessitating farm restructuring.

Significance of Effect

15.2.19. Significance of effect has been determined with reference to the sensitivity of the asset affected and the magnitude of the impact. **Table 15.4** below provides a matrix to act as a guide to determining significance.

15.2.20. The matrix is not intended to mechanise judgement of the significance of effect, but to act as a check to ensure that judgements regarding sensitivity, magnitude of impact and significance of effect are reasonable and balanced in order to allow for professional judgement. In some cases, the matrix allows a choice of significance of effect when a magnitude of impact and a value are combined. In these cases, the individual attributes of a specific asset, along with any relevant site-specific factors and consideration of other influencing elements, have been taken into account when considering which is the most appropriate significance of effect to apply.

15.2.21. Based on professional judgement, a “significant” effect in terms of the EIA Regulations is considered to be one of moderate significance or above. All effects that are considered to be significant with regard to the EIA Regulations are highlighted with an asterisk in **Table 15.4** below.

Table 15.4: Significance matrix

Magnitude	Sensitivity			
	High	**Medium**	**Low**	**Negligible**
High	Major *	Major *	Moderate*	Minor
Medium	Major *	Moderate*	Minor	Negligible
Low	Moderate*	Minor	Minor	Negligible
Negligible	Minor	Negligible	Negligible	Negligible

Limitations and Assumptions

15.2.22. The assessment methodology has been developed in-house over a number of years and been found to be robust and agreed as acceptable on many previous proposals and EIAs with consultees and Local Planning Authorities. The approach has been accepted on a number of schemes in Leicestershire most recently including Padge Hall Farm, Hinckley (June 2023). Impact magnitudes for loss of best and most versatile land relates to consultation thresholds in Technical Information Note 049 (TIN049), published by Natural England to provide general guidance. Impact decisions can also be based on the loss of such land in relation to the quantum of best and most versatile land in the local area.

15.3. Policy, Guidance and Legislative Context

National Policy Statement National Networks (NPS)

15.3.1. The National Networks National Policy Statement (NPS) (Department for Transport, 2024) sets out the UK Government's policy for the delivery of nationally significant road and rail networks. It sets out requirements for assessing agricultural land and its mitigation.

15.3.2. Paragraph 5.189 states that:

> *Applicants should take into account the economic and other benefits of the best and most versatile agricultural land (defined as land in grades 1, 2 and 3a of the Agricultural Land Classification). Where significant development of agricultural land is demonstrated to be necessary, applicants should seek to use areas of poorer quality land in preference to that of a higher quality. Applicants should also identify any effects, and seek to minimise impacts, on soil health and protect and improve soils, taking into account any mitigation measures proposed. Soil is an important natural capital resource, providing many essential services such as storing carbon (also known as a carbon sink), reducing the risk of flooding, providing wildlife habitats and delivering global food supplies. Guidance on sustainable soil management can be found in Defra's Construction Code of Practice for the Sustainable Use of Soils on Construction Sites.*

15.3.3. Paragraph 5.190 states:

> *The Agricultural Land Classification 121 is the only approved system for grading agricultural quality in England and Wales. If necessary, field surveys should be used to establish the Agricultural Land Classification grades in accordance with the current grading criteria, or any successor to it and identify the soil types to inform soil management at the construction, operation and 91 decommissioning phases in line with the Defra Construction Code 122. Applicants are encouraged to develop and implement a Soil Resources and Management Plan which could help to use and manage soils sustainably and minimise adverse impacts on soil health and potential land contamination. This is to be in line with the ambition set out in the Environmental Improvement Plan for sustainable management of agricultural soils.*

15.3.4. In relation to mitigation, the NPS states at Paragraph 15.192 that:

> *Applicants can avoid, or minimise, the direct effects of a project on the existing use of the proposed site or proposed uses near the site, by the application of good design principles, including the layout of the project and the protection of soils during construction.*

National Planning Policy Framework

15.3.5. The National Planning Policy Framework (2024) states in Chapter 15, paragraph 187 that:

> *Planning policies and decisions should contribute to and enhance the natural and local environment by:*
>
> *a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);*
>
> *b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land*

15.3.6. Paragraph 188 states that:

> *Plans should: distinguish between the hierarchy of international, national and locally designated sites; allocate land with the least environmental or amenity value, where consistent with other policies in this Framework*

15.3.7. At Footnote 65, the NPPF 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*

Local Planning Policy

15.3.8. The North West Leicestershire Local Plan 2011-2031 (adopted 2021) is the adopted development plan for the District and the relevant policies are set out below.

15.3.9. Policy En6 states that:

> *Development should avoid any unacceptably adverse impact upon soils of high environmental value (for example wetland and other specific soils) and ensure that soil resources are conserved and managed in a sustainable way.*

15.3.10. The supporting text at Paragraph 5.40 under Policy S3 – Countryside states:

> *Whilst policy seeks to facilitate the diversification of the rural economy, there are also benefits to the protection of the best and most versatile agricultural land. Where appropriate we shall seek the use of areas of poorer quality land in preference to that of agricultural land of a higher quality.*

15.4. Baseline Conditions

Soil Resources

15.4.1. The **EMG2 Works** has three main soil types: coarse loams; loamy over slowly permeable soils; and heavy slowly permeable soils. The coarse loamy soils comprise sandy loam topsoil and subsoil that overlie clay at depth and are moderately-freely to imperfectly draining. The loamy and heavy slowly permeable soils overlie reddish dense clay at shallower depth and tend to be less well draining (imperfectly to poorly-draining). Full details can be found in the Technical Baseline report provided as **Appendix 15A (Document DCO 6.15A**).

Agricultural Land Quality

15.4.2. The agricultural quality of the **EMG2 Works** is a combination of Grades 1, 2, Subgrade 3a and Subgrade 3b. The **EMG2 Works** is predominantly limited by wetness constraints. The better draining land where coarse loams and fine loams have clay at depth gives 35.2 ha of higher quality agricultural land, best and most versatile land (Grade 1 – Subgrade 3a). The heavy soils directly over slowly permeable clays gives 64.2 ha of poorly draining land of Subgrade 3b agricultural quality. Full details can be found in the Soils and Agricultural Land Quality report (Appendix 15a). The grade areas are provided in **Table 15.5** below and their distribution shown on Map 3 in **Appendix 15A** (**Document DCO 6.15A**).

Table 15.5: Areas occupied by the different land grades

Grade/Subgrade	Area (ha)	% of the land
Grade 1	2.0	2
Grade 2	6.4	6
Subgrade 3a	26.8	27
Subgrade 3b	64.2	64
Non agricultural	0.9	1
Total	100.3	100

Agricultural Land Users

15.4.3. There are four landowners within the **EMG2 Works** (excluding the EMG1 sub-station land), hereafter referred to as Landowner 1, Landowner 2, Landowner 3 and Landowner 4 (see **Appendix 15B** for a plan of landownerships) (**Document DCO 6.15B**).

15.4.4. Landowner 1 and 2 own parcels of land to the north of Hyam's Lane, both of whom rent out their land on a short term tenancy agreement to a local farmer and landowner who used to own parcel 2.

15.4.5. Landowner 3 owns and farms all land to the south of Hyam's Lane.

15.4.6. Landowner 4 owns and manages land in the north-east of the site.

15.5. Potential Impacts

Construction Phase

Soil resources

15.5.1. The proposed development could potentially result in the loss of all topsoils within the construction area during stripping and stockpiling if not carefully managed, meaning insufficient resources are available to complete landscaping. These are permanent effects.

15.5.2. The proportion of proposed built development within the site is approximately 60%, the remaining 40% of the proposed development comprises green infrastructure and SUDS attenuation basins. There is a risk that the subsoils of the greenspace surrounding the built development could become compacted through handling and trafficking (40%). Such compaction would adversely affect drainage, and would lead to increased surface water flood risk (beyond that mitigated by proposed SUDS schemes). It would also restrict rooting depth and affect the success of proposed planting schemes.

15.5.3. The soil resources within the **EMG2 Works** are a combination of coarse and fine loamy over slowly permeable, and therefore are considered to be medium sensitivity receptors. The potential loss of all topsoil resources and compaction of 40% of subsoils is a major magnitude. This is a potential **major adverse** impact of the **EMG2 Works**.

15.5.4. Soil management measures are outlined at **Appendix 15A** (**Document DCO 6.15A**) and are also set out in the Construction Environmental Management Plan (CEMP) included as **Appendix 3A** (**Document DCO 6.3A/MCO 6.3A**) to this ES. Adherence to the soil management measures will protect soil resources ensuring their availability for use in landscaping and maintaining subsoil drainage through preventing compaction. This would be a negligible magnitude effect of only minor disturbance to a medium sensitivity receptor. A **negligible** effect of the **EMG2 Works.**

Agricultural Land Quality

15.5.5. The loss of the agricultural land resource will be progressive through construction. The significance of this impact is considered post-completion, however, at which point all land will be removed from agricultural use (a long term effect).

Agricultural Land User

15.5.6. The agricultural land will be sold prior to the construction phase starting. Landowners 1, 2, 3 and 4 are all low sensitivity receptors as owners of land or farm businesses that will receive financial compensation from the sale of the land. There are no adverse effects from the sale of the land and these receptors are not considered further.

15.5.7. The tenant farmer north of Hyam's Lane will lose this land used on short term tenancy which is low sensitivity due to the nature of the tenancy not offering long term security or investment. The loss of this area will have negligible affects to the farmer's wider business following the financial compensation from the sale of other land within the **EMG2 Works**. This is a **negligible** effect of the **EMG2 Works**.

Operational Phase

Soil Resources

15.5.8. Any adverse impacts caused during construction will be remediated in line with the SMP and will result in a **negligible** effect.

Agricultural Land Quality

15.5.9. There will be a low magnitude loss of 8.4 ha of high sensitivity Grade 1 and 2 land and a medium magnitude loss of 26.8 ha of medium sensitivity Subgrade 3a agricultural quality land. This permanent loss of best and most versatile agricultural land equates to a **significant moderate adverse effect** of the **EMG2 Works**.

15.6. Mitigation Measures

Soil Resources

15.6.1. A site-specific Soil Management Plan (SMP) has been prepared in accordance with the Defra Construction Code of Practice for the Sustainable Use of Soils on Construction Sites and provided within **Appendix 15A** (**Document DCO 6.15A**). Adherence to the SMP will protect soil resources ensuring their availability for use in landscaping and maintaining subsoil drainage through preventing compaction. This would be a negligible magnitude effect of only minor disturbance to a medium sensitivity receptor, resulting in a **negligible** effect of the **EMG2 Works.**

Agricultural Land Quality

15.6.2. There is no on-site mitigation available to offset the loss of agricultural land for built development. Therefore the only mitigation possible would be direct the development elsewhere, and this matter is considered in this ES at **Chapter 4: Consideration of Alternatives** (**Document DCO 6.4)**. Given the scale and locational requirements of such developments it is clear from **Chapter 4** that any alternative site would also involve loss of agricultural land or similar or greater quality.

Agricultural Land Users

15.6.3. The landowners will be financially reimbursed through the sale of the land. Therefore no additional mitigation is identified.

15.7. Residual Effects

Soil Resources

15.7.1. Adherence to the SMP will protect the soil resources and result in **negligible** effects arising from the **EMG2 Works**.

Agricultural Land Quality

15.7.2. The permanent loss of BMV land remains a **significant moderate adverse** effect arising from the **EMG2 Works**.

Agricultural Land Users

15.7.3. The **EMG2 Works** has a negligible effect to land users / owners.

15.8. Cumulative Impacts

15.8.1. Soil and agricultural land are finite resources and an agreed methodology for the cumulative effects of their loss has not yet been established. It is proposed in the IEMA guidelines that the loss of BMV land is compared to the change in national and regional average land loss over a set period of time. The data for the change in land use over three years (2019-2022)[1] has been used in **Table 15.6** and **Table 15.7** below. It is estimated that 42% of the agricultural land in England and Wales is BMV quality[2]. The guidance proposes that contribution to more than 1% of the average five year national land loss would be significant, however there is not a database for this yet.

[1] Live tables on land use change statistics – GOV.UK (www.gov.uk)
[2] MAFF press notice (1996), based on analysis undertaken in 1994 by ADAS *'Revised statistics for the proportion of ALC grades'*, for the revised (1988) ALC system.

Table 15.6: Regional cumulative losses of undeveloped and agricultural land

	NW Leicestershire			Proposed Development			
Type Of Land Loss	3-yr average undeveloped land loss in NWL (ha)	3-yr average Agricultural land loss in NWL (ha)	3-yr average BMV land loss in NWL (ha)	Area (ha)	Proportion of 3-yr average undeveloped land loss in NWL (%)	Proportion of 3-yr average agricultural land loss in NWL (%)	Proportion of 3-yr average BMV land loss in NWL (%)
Undeveloped	442	-	-	100.3	23%		
Agricultural	-	225	-	99.4		15%	
BMV	-	-	94.5	35.2			37%

Table 15.7: National cumulative losses of undeveloped and agricultural land

	England			Proposed Development			
Type Of Land Loss	3-yr average undeveloped land loss in England (ha)	3-yr average Agricultural land loss in England (ha)	3-yr average BMV land loss in England (ha)	Area (ha)	Proportion of 3-yr average undeveloped land loss in England (%)	Proportion of 3-yr average agricultural land loss in England (%)	Proportion of 3-yr average BMV land loss in England (%)
Undeveloped	48,491	-	-	100.3	0.21%		
Agricultural	-	26,303	-	99.4		0.38%	
BMV	-	-	11,047	35.2			0.32%

15.8.2. The data shows the development of the **EMG2 Works** will have a significant cumulative effect to the regional BMV land loss (37%). The data shows the **EMG2 Works** will not have a significant cumulative effect to the national stock of BMV land.

15.8.3. Following mitigation, regarding soil management and principally preventing soil compaction and its potential impacts in relation to drainage, landscaping and ecology, it is considered that there would be no intra-project (combined) effects.

15.9. Summary of Effects and Conclusions

15.9.1. This Chapter solely relates to the DCO Application as only the **EMG2 Works** component of the DCO Application includes agricultural land. The **Highway Works** within the DCO Application, and the **EMG1 Works** within the MCO Application are scoped out as they contain no agricultural land resource.

15.9.2. The assessment concludes there would be a **negligible** effect on soil resources following adherence to the SMP arising from the **EMG2 Works**.

15.9.3. The assessment concludes that loss of best and most versatile is a permanent **significant moderate adverse** effect of the DCO Application arising from the **EMG2 Works.** There is no on-site mitigation available to offset this loss without fundamentally altering the proposals.

15.9.4. The assessment concludes that **EMG2 Works** has **negligible** effects to the Landowners who will be reimbursed financially through the sale of the land.