

**East Midlands Gateway
Phase 2 (EMG2)**

Document [6.16]

ENVIRONMENTAL STATEMENT

Volume 1 Main Statement

Chapter 15

Agriculture and Soils

[January] 2025

15

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

[SEGRO.COM/SLPEMG2](https://www.segro.com/slpemg2)

SEGRO

15. Agriculture and Soils

15.1. Introduction

15.1.1. This Chapter considers the potential significant environmental effects of the proposed development upon soil resources, agricultural land quality and agricultural land users.

15.1.2. This Chapter is supported by the following:

- Soils and Agricultural Land Quality report (**Appendix 15a**)
- **EMG2 Main Site** Land Ownership Plan (**Appendix 15b**);
- Soil Management Plan (**Appendix 15c**)

15.2. Scope and Methodology of the Assessment

15.2.1. There is not a nationally agreed scheme for classifying the impacts of development on agriculture or soils and the approach used in this chapter has been developed over a number of years using professional judgement. 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, and consultation thresholds stated in Planning Orders (see paragraph 14.3.8). 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.

Consultation

15.2.2. A summary of the PINS **Scoping Opinion** (Appendix 1b) 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	<p>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.</p> <p>The extent of highways works is subject to review and refinement as the transport assessment is finalised.</p>	Paragraph 15.2.3 confirms that The Highway Works and EMG1 Works areas do not contain any agricultural land or soil resources and are therefore

		<p>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.</p> <p>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.</p>	<p>scoped out of this assessment.</p>
<p>3.8.2</p>	<p>Loss of Best and Most Versatile (BMV) agricultural land</p>	<p>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 justification for the use of the land by grade should be provided.</p> <p>Consideration should be given to explaining the use of BMV land in the Applicant’s discussion of alternatives.</p>	<p>The areas of land in each BMV classification to be temporarily or permanently lost as a result of the Scheme are tabulated at Table 15.5 and mapped within Appendix 15a.</p> <p>Consideration of alternatives is set out within Chapter 4 of this ES.</p>

Study Area

15.2.3. This Chapter assesses the effects on soils and agriculture, therefore the study area comprises the **EMG2 Main Site**. The **Highway Works** and **EMG1 Works** areas do not contain any agricultural land or soil resources and are therefore scoped out of this assessment.

Receptor Sensitivity/Value

15.2.4. The following section expands on the general significance criteria guidance set out within Chapter 1 of this ES, 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

15.2.5. 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.

15.2.6. 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).

15.2.7. 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.

15.2.8. Agricultural businesses which have 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**.

Table 15.2: Sensitivity/Value Criteria

Receptor	Sensitivity		
	High	Medium	Low
Soil resource	Permeable coarse loamy and medium	Fine textured or sandy topsoils not capable of	Damaged or contaminated soils

	loamy soils, or other soils capable of supporting valuable habitats	supporting valuable habitats Mixed permeable and slowly permeable subsoils.	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

- 15.2.9. 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.
- 15.2.10. 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.
- 15.2.11. 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 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.

15.2.12. 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** 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	Reduction in net farm income requiring such that substantial	Reduction in net farm income that only minor restructuring is necessary.	Minimal effects, such as changed field accesses, not necessitating farm restructuring.

	have to seek alternative means of income.	restructuring is required.		
--	---	----------------------------	--	--

Significance of Effect

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

15.2.14. 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.

15.2.15. 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 All effects that are considered to be significant with regard to the EIA Regulations are highlighted with an asterisk in **Table 15.4**.

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

15.2.16. There is no one widely-accepted assessment criteria for impacts on agricultural land resources (i.e. best and most versatile land) or soil resources. 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)

[section to be completed]

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 Classification¹²¹ 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 91decommissioning phases in line with the Defra Construction Code¹²². 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 Main Site** 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 (**Appendix 15a**)

Agricultural Land Quality

15.4.2. The agricultural quality of the **EMG2 Main Site** is a combination of Grades 1, 2, Subgrade 3a and Subgrade 3b. The **EMG2 Main Site** 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**.

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 Main Site**, hereafter referred to as Landowner 1, Landowner 2, Landowner 3 and Landowner 4 (see **Appendix 15b** for a plan of landownerships).

15.4.4. Landowner 1 and 2 own land to the north of Hyam's Lane. Landowner 1 rents out their 24.7 ha of land to Landowner 2 on a short term tenancy agreement. Landowner 2 works all the land north of Hyam's Lane as a tenant and landowner/farmer of their own land.

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 Main Site** 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 Main Site**.

15.5.4. 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 (**Appendix 15c**). 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. A **negligible** effect of the **EMG2 Main Site**.

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 farm businesses that will gain financially 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. Landowner 2 will lose land on short term tenancy within the site which is low sensitivity due to the nature of the tenancy not offering long term security or investment. The loss of the 24.7 ha will have negligible affects to the farm business following the financial gain of the sale of other land within the **EMG2 Main Site**. This is a negligible effect of the **EMG2 Main Site**.

Operational Phase

Soil Resources

15.5.8. Any adverse impacts caused during construction will be remediated in line with the SMP. 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 **moderate adverse effect** of the **EMG2 Main Site**.

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 (**Appendix 15c**). 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. A **negligible** effect of the **EMG2 Main Site**..

Agricultural Land Quality

15.6.2. There is no on-site mitigation available to offset the loss of agricultural land for built development without fundamentally altering the proposals which would not align with the national and regional and emerging policy basis for this type of development. Therefore the only mitigation possible would be direct the development elsewhere, and this matter will be considered in this ES at **Chapter 4: Consideration of Alternatives**. Given the scale and locational requirements of such developments it is most likely that any alternative site would also involve loss of agricultural land.

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.

Agricultural Land Quality

15.7.2. The permanent loss of BMV land remains a **moderate adverse** effect.

Agricultural Land Users

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

15.8. Cumulative Impacts

15.8.1. Soil and agricultural land are finite resources and loss from an individual site should be considered on a site-by-site basis (against the benefits of the scheme) and therefore it is not considered there are any relevant cumulative inter-project effects to the **Scheme**.

15.8.2. 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 effects.

15.9. Summary of Effects and Conclusions

15.9.1. There would be a **negligible** effect on soil resources following adherence to the SMP.

15.9.2. The loss of best and most versatile is a permanent **moderate adverse** effect of the **EMG2 Main Site**. There is no on-site mitigation available to offset this loss without fundamentally altering the proposals which would not align with economic policy objectives the proposal is seeking to meet.

15.9.3. The **EMG2 Main Site** has **negligible** effects to the Landowners who will be reimbursed financially through the sale of the land.

DRAFT