

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

Document DCO 6.4/MCO 6.4

ENVIRONMENTAL STATEMENT

Main Statement

Chapter 4

Consideration of Alternatives

August 2025

04

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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4. Consideration of Alternatives

4.1. Introduction

4.1.1. Regulation 14(2)(d) of the EIA Regulations requires applicants to provide a description of the reasonable alternatives studied which are relevant to the proposed development and an indication of the main reasons for selecting the chosen option, taking into account the effects of the development on the environment.

4.1.2. It is good practice to:

- Assess the 'do nothing' option (i.e. the possibility of not carrying out the proposed development at all);
- Consider alternative locations for the proposed development; and
- Consider alternative scale, site layouts and approaches to scheme design.

4.1.3. This Chapter of the ES therefore outlines the main alternatives studied including the 'do nothing' alternative and alternative sites and scheme designs and provides an explanation why alternative options have not been selected. It provides an explanation why the EMG2 Project, and its three main components, as set out in **Table 4.1** below, has been chosen over the considered alternatives taking the effects of the development on the environment into account.

Table 4.1: The EMG2 Project Components

Main Component	Details	Works Nos.
DCO Application made by the DCO Applicant for the DCO Scheme		
EMG2 Works	Logistics and advanced manufacturing development located on the EMG2 Main Site south of East Midlands Airport and the A453, and west of the M1 motorway. The development includes HGV parking and a bus interchange. Together with an upgrade to the EMG1 substation and provision of a Community Park.	DCO Works Nos. 1 to 5 as described in the draft DCO (Document DCO 3.1). DCO Works Nos. 20 and 21 as described in the draft DCO (Document DCO 3.1).
Highway Works	Works to the highway network: the A453 EMG2 access junction works (referred to as the EMG2 Access Works); significant improvements at Junction 24 of the M1 (referred to as the J24 Improvements), works to the wider highway network including the Active Travel Link, Hyam's Lane Works, L57 Footpath Upgrade, A6 Kegworth Bypass/A453 Junction Improvements and Finger Farm Roundabout Improvements, together with other works.	DCO Works Nos. 6 to 19 as described in the draft DCO (Document DCO 3.1).

Main Component	Details	Works Nos.
MCO Application made by the MCO Applicant for the MCO Scheme		
EMG1 Works	Additional warehousing development on Plot 16 together with works to increase the permitted height of the cranes at the EMG1 rail-freight terminal, improvements to the public transport interchange, site management building and the EMG1 Pedestrian Crossing.	MCO Works Nos. 3A, 3B, 5A, 5B, 5C, 6A and 8A in the draft MCO (Document MCO 3.1).

4.2. Strategic Context

- 4.2.1. Before turning to consider the main alternatives that have been studied, it is important to set the strategic policy context for the EMG2 Project as this has a direct impact on the location, number and type of reasonable alternatives. This context includes relevant national and regional policies and objectives with regard to national infrastructure and economic growth. It draws upon the policy review contained in the Planning Statement (**Document DCO 5.4/MCO 5.4**) that accompanies the DCO Application and the MCO Application.
- 4.2.2. A key national policy theme that the EMG2 Project relates to is the Government's commitment to maximising the role of rail in the UK freight distribution and logistics sector expressed clearly through the National Policy Statement for National Networks (NPSNN, 2024) at Paragraph 3.73 onwards. The importance of, and need for, a network of strategic rail freight interchanges (SRFIs) is an explicit part of this national policy which not only seeks to help reduce the environmental impact of transport and distribution (relating to emissions and climate change), but also supports economic growth and development associated with national and international supply chains and distribution networks.
- 4.2.3. Likewise, Paragraph 111 of the National Planning Policy Framework (the Framework, as updated in December 2024) recognises the importance of providing for the operation or expansion of strategic facilities including SRFIs which contribute to the wider economy.
- 4.2.4. In addition, Section 6 of the Framework attaches significant weight to delivering sustainable economic development through planning and development, and the need to take account of local business needs and wider opportunities for economic development. The Framework is clear on the need to plan for, and respond to, market signals regarding the needs of the economy. This includes explicit recognition of the importance of the 'freight and logistics' sector, ensuring suitable strategic sites and locations are identified through plans, but also that policies are flexible enough to accommodate changing needs or economic circumstances.
- 4.2.5. Although the EMG2 Project does not include the provision of a new nationally significant SRFI, the MCO Scheme will directly deliver improvements to the existing EMG1 rail freight interchange and directly enable further use of that interchange through enhancements to the operational efficiency of the terminal and the DCO Scheme will directly increase usage of the EMG1 rail freight interchange through delivery of new strategic warehousing development proximate to it.
- 4.2.6. SEGRO's EMG1 has been an incredible success story for the region, having been delivered to meet demand, in a timescale that exceeded pre-construction projections and delivering significant investment and jobs. With common ownership, management, and integrated transport connectivity, the EMG2 Project would build on that success and be operated as an extension to EMG1.
- 4.2.7. The EMG2 Project is in a highly strategic location, at the nexus not only of national rail and road networks, but also of regionally significant operational employment sites, and other consented or planned development sites and opportunities. These include EMG1 and East Midlands Airport (EMA), as well as key sites nearby such as the former Ratcliffe-on-Soar

power station site. For these reasons, the broader area in which the EMG2 Project sits has been identified as a major focus for growth locally.

- 4.2.8. This locational advantage around East Midlands Airport (EMA) is recognised in the Midlands Engine Strategy (March 2017), the Leicester and Leicestershire Strategic Growth Plan (September 2018) and the Leicester and Leicestershire Economic Growth Strategy (November 2021). The latter strategies introduced the concept of the 'Leicestershire International Gateway' area which is focussed in and around East Midlands Airport and EMG1 and is identified as a key and important strategic growth location.
- 4.2.9. The culmination of these strategies and the strength of this location played an important role in the Government's decision to designate the East Midlands Freeport in 2022. The East Midlands Freeport is the only inland Freeport in England and is intended to create a globally connected, world-leading advanced manufacturing and logistics hub at the heart of the UK.
- 4.2.10. Businesses that locate within the Freeport can take advantage of lower trade costs as, until September 2031, they benefit from tax reliefs including business rates, investment incentives and simplified customs procedures. These economic measures are designed to incentivise businesses to open, expand and invest in the Freeport area, with the view to boosting employment and encouraging economic growth. The East Midlands Freeport anticipates an economic output of £9 billion over the next 25 years and the creation of 28,000 Freeport jobs. As Business Rates are retained locally, it is expected that £1 billion can be re-invested back into the region.
- 4.2.11. The spatial extent of the East Midlands Freeport covers three complementary locations. The first is the 'East Midlands Airport and Gateway Industrial Cluster' (EMAGIC) which includes the land covered by the EMG2 Main Site and the Community Park. Uniper's Ratcliffe-on-Soar site is the second location and the East Midlands Intermodal Park (EMIP) at Derby is the third location. Given the focus of the Freeport programme on trade and development, and on attracting new employment and investment, the inclusion of the EMG2 Main Site (as well as parts of EMG1) within the Freeport further emphasises their role as effective 'inland ports' which enable and support the strategic environmental and economic objectives described earlier.
- 4.2.12. The importance of this location to economic growth is also being recognised by the emerging North West Leicestershire Local Plan. The EMG2 Main Site (substantial part thereof) was identified as a draft allocation for strategic employment land in the Preferred Options document which was published for consultation in Spring 2024.
- 4.2.13. In summary, national policy lends strong support to the provision and expansion of a network of SRFIs as this will make the freight industry more efficient, sustainable and effective in its operation bringing environmental and economic benefits. There is strong regional support for additional logistics growth within Leicestershire and in light of its excellent connectivity by road, rail and air, land in and around East Midlands Airport and EMG1 is recognised by regional economic strategies as a strategic location suitable for further growth. The suitability and importance of this location as a growth hub, both regionally and nationally, was further strengthened with the designation of the East Midlands Freeport.

- 4.2.14. The EMG2 Project clearly benefits from a distinctive set of locational strength and characteristics not easily replicated elsewhere and is uniquely placed to support the delivery of economic and environmental objectives including the national Freeports programme.
- 4.2.15. The remainder of this Chapter is structured as follows:
- Section 4.3 considers the options of firstly 'doing nothing' (and not responding to the strategic policy context);
 - Section 4.4 considers what other sites in this location could reasonably be considered to meet the identified growth and economic development objectives;
 - Section 4.5 considers alternative development schemes; and
 - Section 4.6 sets out the summary and conclusions.

4.3. 'No Development' Option

- 4.3.1. As already set out, national policy provides strong support for the logistics industry which is considered to provide a critical role in enabling an efficient, sustainable and effective supply of goods for consumers and businesses, as well as contributing to local employment opportunities and economic growth. A network of SRFIs, particularly when supported by intermodal rail freight interchanges, is seen as critical in making the logistics industry more sustainable by aiding the transfer of freight from road to rail.
- 4.3.2. The preceding section confirms there is strong regional support for additional logistics growth within Leicestershire, which given its location at the centre of the UK and access to excellent road, rail and air services, is an important existing logistics hub offering further growth potential. Regional and local policy recognises that land in and around the East Midlands Airport and EMG1 is a strategic location suitable for further employment growth, particularly in light of the area's designation as part of the East Midlands Freeport, which is anticipated to deliver significant social and economic benefits.
- 4.3.3. Given this context, it is considered that the 'no development' option is not a reasonable alternative as it would not fulfil the aspirations of national, regional and local economic strategies and would result in the loss of the substantial social and economic benefits arising from the EMG2 Project. The economic benefits are quantified in **Chapter 5: Socio-Economic** of this ES (**Document DCO 6.5/MCO 6.5**), and they are considered to be significant in EIA terms.

4.4. Consideration of Alternative Sites

- 4.4.1. This section of the Chapter focuses on the DCO Scheme and considers whether an alternative site is available to accommodate the EMG2 Works component. Alternative sites for the Highway Works are not considered as the works comprise highway improvements to parts of the existing network and mitigate the EMG2 Works.
- 4.4.2. Regarding the MCO Application, there is no need to consider alternative sites as permission can only be sought for a material change to the EMG1 DCO. Consideration is, however, given to alternative site layout and scheme design for the MCO Scheme at Section 4.5 of this Chapter.
- 4.4.3. Given the strategic context set out in Section 4.2 of this Chapter, it is clear that only a site closely related to East Midlands Airport and EMG1 would genuinely offer a reasonable alternative. The Freeport designation of the EMG2 Main Site, limits the sites that can be considered to provide a realistic alternative. That qualification apart, the remainder of this section considers the potential options to expand EMG1 on land immediately bordering it, before considering whether there are alternative sites in close proximity which would compare to the EMG2 Main Site. The potential alternative locations that have been considered are indicated on a map provided at **Appendix 4A** to this Chapter (**Document DCO 6.4A/MCO 6.4A**).
- 4.4.4. Consideration is given to whether the identified alternative sites would be of a strategic scale. No such definition is provided by the local and regional evidence base for Leicestershire or the East Midlands. However, the West Midlands Strategic Employment Sites Study (Iceni, August 2024), prepared on behalf of the West Midlands authorities, has assessed strategic scale sites as at least 25ha. In the absence of other available guidance, a site threshold of 25ha has been applied to the assessment of alternative sites.
- 4.4.5. The other East Midlands Freeport sites are not considered as reasonable alternatives. As referenced at Paragraph 4.2.11 above, the Freeport comprises three complementary locations, East Midlands Airport and Gateway Industrial Cluster (EMAGIC) (including the EMG2 Main Site), Uniper's Ratcliffe-on-Soar site located south-west of Nottingham, and Goodman's East Midlands Intermodal Park (EMIP) site located south-west of Derby on the A50/A38 Interchange adjacent to the Toyota plant. To realise the Freeport's ambitions of delivering significant investment and creating thousands of new job opportunities, all three sites are proposed to come forward and it is therefore not a matter of progressing one in preference to another.
- 4.4.6. All three sites are, in fact, being progressed at the moment, but are at different stages in the planning and development programme. The redevelopment of the former Ratcliffe-on-Soar power station, for example, was approved by way of a Local Development Order granted in July 2023. This proposed the site's redevelopment for a range of employment, energy generation and energy storage uses. The power station is in the process of being decommissioned and Uniper is currently working up detailed plans for the development. With regard to Goodman's EMIP site, that site is proposed for a circa 500,000 sq.m SFRI. It is also classed as a Nationally Significant Infrastructure Project (NSIP) and is at the pre-submission consultation stage. It has also been included as a proposal in the Regulation 19

South Derbyshire Draft Local Part 1 Plan which was subject to public consultation in Spring 2025. For these reasons, these sites are not considered as reasonable alternatives.

Sites contiguous with EMG1

- 4.4.7. EMG1 is located on land to the north of East Midlands Airport, east of Castle Donington, south of the villages of Lockington and Hemington, and immediately west of the M1 Junction 24.
- 4.4.8. Within the original EMG1 site, the only remaining availability is Plot 16. This plot is only capable of accommodating some 26,500 sq.m and is already included within the EMG2 Project. It is not therefore an alternative.
- 4.4.9. In terms of adjacent land, there are no options available for expansion for the reasons set out below:
- To the east, EMG1 is bounded by existing transport infrastructure comprising the A453, M1 and M1 Junction 24, and the A50 and beyond this infrastructure corridor there is no land available of a strategic scale for further expansion in this direction;
 - To the immediate south EMG1 is bound by East Midlands Airport, with the airport's runway and land required for its operation located immediately against the EMG1 boundary. There is therefore no opportunity for a southern expansion;
 - Along the northern and western boundaries of EMG1, a significant landscape buffer has been established as part of the EMG1 consenting process including bunding which was created to substantially screen views towards EMG1 from locations within Castle Donington to the west, and Hemington and Lockington to the north. Beyond the EMG1 landscape buffer to the west lies a narrow strip of agricultural fields providing separation between Castle Donington and EMG1. The landscape proposals implemented to the north of EMG1 comprise retained woodlands and the establishment of new habitats and landscaping including shrub and tree planting, grassland and meadow areas and wetland and pond habitats associated with the SUDS features located within this area. This only leaves a small ribbon of agricultural land between EMG1 and the two villages to the north for potential development. An expansion of EMG1 to the west or north has therefore been discounted as the land available is not of a strategic scale to accommodate a development of the size and type proposed.

Sites in close proximity to EMG1

- 4.4.10. Looking beyond land immediately bordering EMG1, alternative sites in close proximity to East Midlands Airport and Junction 23a and 24 of the M1 and the A50 have also been considered. The EMG2 Main Site, which forms the main built element of the EMG2 Works, is located circa 1.5km to the south of EMG1. For robustness, a search radius of twice this distance (3km) has been applied. Any site at a greater distance from this core search area would no longer align with the central justification for the EMG2 Project and proposals for the EMG2 Main Site. In this regard the following alternative locations have been considered:
- Land around Kegworth to its north, west and south-west;

- Land to the south of Kegworth Bypass; and
- Land north and south of the A50, Sawley Junction.

Land to the north, west and south-west of Kegworth

- 4.4.11. Land around Kegworth comprises a number of different site parcels, none of which are large enough to accommodate the proposals.
- 4.4.12. Land to the north-east of M1 Junction 24 is largely located within Flood Zone 2 and 3 and is at high risk of flooding. The EMG2 Main Site is located within Flood Zone 1 and is therefore sequentially preferable to sites within areas at higher flood risk. A parcel of land in Flood Zone 1 is available in this location and is included in the emerging North West Leicestershire Local Plan as a suitable location for small scale employment uses. The site is, however, not of a strategic scale and therefore does not provide a suitable alternative.
- 4.4.13. Land to the north-west of the village, north of Derby Road adjoins existing employment uses, but the land available outside Flood Zone 2 and 3 is not of a sufficient size to accommodate an employment scheme of a strategic scale.
- 4.4.14. Land to the immediate west of the village, including land to the north of Ashby Road and south of Derby Road, has been allocated for (and received planning approval for) housing, although development is yet to fully commence.

Land south of Kegworth Bypass

- 4.4.15. The land to the south of Kegworth Bypass was submitted by the landowner to North West Leicestershire District Council (NWLDC) through the Call for Site process and promoted as a potential employment site. It was also submitted (in part) as part of a more recent Call for Sites for HGV parking.
- 4.4.16. The suitability of this location as a strategic employment site has, however, been strongly questioned by the local highway authority which has voiced significant concerns about the achievability of securing an acceptable access arrangement for this site having regard to the function of the Kegworth bypass. This is highlighted in the site-specific assessment undertaken by NWLDC (SA Detailed Site Assessment: Outcomes, 2024) as part of the Local Plan evidence gathering process. The site assessment highlights that the development of land south of Kegworth Bypass would be contingent on the identification of acceptable access arrangements and sufficient highway mitigation. Whilst highway capacity upgrades to the local and strategic road network will also need to be delivered as part of the proposed DCO Application, LCC Highways has not raised the same concerns over the proposed road access to the EMG2 Main Site. Indeed, as demonstrated by the Transport Assessment contained in **Appendix 6A (Document DCO 6.6A)**, safe and suitable access can be provided to the EMG2 Main Site.
- 4.4.17. NWLDC's site assessment also highlights that substantial upgrades would be required to provide pedestrian links between the land south of Kegworth Bypass and EMG1 to access public transport services, and there is a clear challenge with this site with regards to severance for active travel as it is divorced from EMG1 by the M1 corridor. In contrast, the EMG2 Main Site has a far superior location being on the route of existing frequent bus

services running past the site towards Pegasus Business Park and East Midlands Airport, and additional opportunities to easily divert or link these services into the site (all as demonstrated by the Sustainable Travel Strategy included as **Appendix 6B (Document DCO 6.6B)**). In addition, as part of the DCO Application an off-road footpath/cycleway along the edge of East Midlands Airport will be delivered to provide a convenient connection between the EMG2 Main Site and EMG1. An equivalent level of public transport and active travel links could not be provided to land south of Kegworth Bypass as pedestrians and cyclists would always be required to negotiate a number of crossing points across the A6, M1 and EMG1 gyratory junction. These existing roads and junctions have a detrimental impact on pedestrian/cyclist's amenity and are likely to discourage journeys by foot or cycle to EMG1. This deterrent effect, or community severance, is not an issue affecting the EMG2 Main Site as evidenced by **Chapter 6: Traffic and Transportation** of this ES (**Document DCO 6.6**).

- 4.4.18. The land south of Kegworth Bypass also lies to the east of the East Midlands Airport runway and the northern extent of the site falls within the airport's Public Safety Zone. In accordance with Policy Ec6 of the adopted North West Leicestershire Local Plan (2021), there is a general presumption against new development within the designated East Midlands Airport Public Safety Zone. A similar policy is proposed to be included in the emerging Local Plan.
- 4.4.19. Other constraints highlighted by NWLDC's site assessment in respect of the land south of Kegworth Bypass are heritage, landscape and amenity impacts. These are of course all matters that also affect the EMG2 Main Site and have been considered in respect of the chosen DCO Scheme with mitigation identified to address and minimise impacts as set out in this ES. We therefore do not see land south of Kegworth Bypass being a better alternative in that regard.
- 4.4.20. Bringing all the analysis together, it is clear that land south of Kegworth Bypass does not offer any advantages in terms of its location or site characteristics. The EMG2 Main Site, however, offers greater potential to achieve significant economic benefits, as in contrast to land south of Kegworth Bypass, the site forms part of the East Midlands Freeport designation and is more closely related to the commercial uses at East Midlands Airport and EMG1. The EMG2 Main Site also offer significant potential to make the development truly accessible by sustainable travel modes and the site is less constrained in terms of road access. It is also located outside the East Midlands Airport Public Safety Zone.

Land north and south of the A50, Sawley Junction

- 4.4.21. A number of employment proposals have been granted on land to the north and south of the A50 around Sawley Junction. This includes Aldi's regional distribution centre which was granted planning permission in June 2017 (Application Ref. 17/00366/CVCIM) and is now fully operational. Outline planning permission for a further 60,000 sq.m. of employment floorspace on land immediately adjoining Aldi's logistics centre was also granted in 2017, but has not been brought forward yet.
- 4.4.22. A new planning application for a development of similar scale is currently with NWLDC for consideration (Application Ref. 24/01200/FULM). There is also an extant planning permission in place for a logistics development of 77,480 sq.m. on land at Netherfields Lane, Sawley (Ref. 20/00316/OUTM and 22/00954/REMM).

- 4.4.23. In addition, planning permission for an employment development of up to 92,500 sq.m. to the south of Sawley Junction was granted at appeal in January 2023 (Application Ref. 19/01496/OUT) and the first application for Reserved Matters for enabling works (Application Ref. 24/00074/REMM) was recently approved by NWLDC.
- 4.4.24. The three proposals that are still to be built out are being brought forward by national developers of industrial and logistics space (Indurent and Newlands). These sites are included as existing employment sites/commitments in the emerging North West Leicestershire Local Plan and are also included as commitments in the regional and local evidence base. They are therefore not an alternative to the proposed EMG2 Main Site.

Conclusion

- 4.4.25. In conclusion, it is considered that there are no growth options on land bordering EMG1 or in close proximity that offer a reasonable alternative to the EMG2 Main Site proposals.

4.5. Alternative Development Scheme

- 4.5.1. Looking separately at the DCO Scheme and the MCO Scheme, this section of the chapter considers alternative approaches to site layouts and scheme design.

DCO Application/DCO Scheme

EMG2 Works

Alternative Land Uses

- 4.5.2. As outlined at **Section 4.2** above, regional economic strategies have identified land in and around the East Midlands Airport and EMG1 as a strategic location for employment growth. Importantly, the EMG2 Works (excluding the substation) fall within the EMAGIC cluster, which forms part of the East Midlands Freeport designated by the Government in 2022. The vision for the East Midlands Freeport is to create a globally connected, world-leading advanced manufacturing and logistics hub at the heart of the UK. In this context, alternative land uses (such as for example residential uses) are not considered to be appropriate in this location as they would not help to realise the potential economic benefits and job creation envisaged for this site as part of regional and local policy, and in line with the Freeport objectives.

Alternative Development Scale

- 4.5.3. Similarly, only bringing part of the EMG2 Works forward instead of the whole site identified as part of the Freeport designation would not enable the full benefits of the Freeport to be realised.
- 4.5.4. A comprehensive approach to the delivery of the EMG2 Works will maximise the economic benefits of the scheme and the Freeport initiative. It also enables the implementation of a comprehensive package of mitigation including a holistic approach to mitigating highway impacts including the proposed major upgrade to Junction 24 of the M1 to support the delivery of the significant planned residential and employment growth in the region, and an integrated approach to the provision of pedestrian and cycle access and sustainable transport as further outlined below.

Alternative Design and Layout

- 4.5.5. The EMG2 Works proposals have been subject to an iterative design process and a variety of options have been considered in response to key issues identified through the EIA process including environmental constraints and opportunities presented by the site and surroundings.
- 4.5.6. A wide range of specialist consultants has provided input into the evolving scheme and detailed consultation with other stakeholders has also informed the design process and assisted the team in developing the Parameters Plan (**Document DCO 2.5**).

- 4.5.7. The design evolution of the development, including the key reasons for the choices made, are described below. Further detail on the approach to the design and layout of the development is provided by the Design Approach Document (DAD) (**Document DCO 5.3**).

Design Development

- 4.5.8. From the outset, the key aim has been to balance the functional needs and requirements of large-scale logistics and advanced manufacturing, and to create a high quality and sustainable development, whilst also seeking to minimise environmental and residential amenity effects. The key considerations that have influenced the development parameters from an early stage can be summarised as follows:

- Topography – the EMG2 Main Site is generally sloping towards the south and overall has a significant fall of approximately 35m from its northern to its southern boundary. The proposals are for large strategic logistics and advanced manufacturing development which requires the creation of development plateaus capable of accommodating large footprint buildings.
- Residential amenity – the village of Diseworth lies to the west of the site with properties at the eastern edges of the village located within close proximity to the EMG2 Main Site. The development proposals comprise buildings of a significant scale with associated access and services yards that will be lit and operate 24/7.
- Heritage – the historic core of Diseworth is designated as a conservation area and contains a number of individually listed buildings including the Grade II* Church of St Michael and All Angels.
- Public Rights of Way – Hyam's Lane, which is bounded by hedgerows on both sides, dissects the EMG2 Main Site from south-west to north-east. A public right of way generally follows the route of Hyam's Lane. The proposals need to consider how to incorporate this public right of way, and how to improve pedestrian and cycle connectivity to the surrounding areas, particularly to and from Diseworth, to the Airport and EMG1.
- Ecology – the EMG2 Main Site mainly comprises arable fields, which are of limited ecological interest. Habitats of greater ecological value include the hedgerows along field boundaries, scattered mature trees and improved and semi-improved grassland fields to the west closest to the village of Diseworth.
- Flood risk and drainage – the EMG2 Main Site itself is located in Flood Zone 1 and is at low risk of flooding, but there has been flooding in the nearby village of Diseworth in a number of recent years. The site lies within the catchment of Hall Brook and Diseworth Brook and a carefully considered drainage strategy is therefore required to ensure that this situation is not made worse by the proposed development.
- Access and accessibility – vehicular access is to be taken off the A453. Existing bus stops are located within close proximity to the EMG2 Main Site and there is also an existing network of pedestrian and cycle routes providing connection to the airport and EMG1 to the north.

- 4.5.9. The development parameters as shown on the Parameters Plan (**Document DCO 2.5**) have evolved through an iterative process informed by a range of assessments and consultations undertaken to prepare the ES. The key decisions that have been reached during this design process can be summarised as follows:
- Provision of a significant set back from the village of Diseworth and the creation of a Community Park with areas of new landscaping and green infrastructure. The proposals include mounding on the edge of the development area around the western and southern sides of the site to provide visual mitigation and screening to views predominantly from Diseworth;
 - The creation of the Community Park will provide enhanced public accessibility and the potential for informal recreation. This area will also provide the sustainable drainage attenuation features;
 - Retention of Hyam's Lane in its current position as it provides connectivity and, in light of, its ecological and heritage value;
 - Development of an earthworks strategy to create appropriate development plateaus to the north and south of Hyam's Lane working with the existing topography and with the aim of achieving a cut-and-fill balance. This has resulted in the creation of a number of development zones;
 - Buildings set back from the A453 to ensure that the new logistics/advanced manufacturing buildings do not have an overbearing impact;
 - Conservation of hedgerows and hedgerow trees, particularly along Hyam's Lane and around the perimeter of the site;
 - Development of a sustainable drainage strategy designed to ensure that surface water from the site is appropriately stored and managed;
 - Proposed vehicular access from the A453 is proposed via a new arm off the Hunter Road roundabout;
 - A bus terminal is proposed to be located at the EMG2 Main Site entrance to enable existing bus services to be diverted into the development site; and
 - Discussions revealed the need for HGV parking provision. This has resulted in the inclusion of a dedicated HGV parking area at the EMG2 Main Site entrance on land adjoining the existing Services.
- 4.5.10. The DAD (**Document DCO 5.3**) explores in more detail how the parameters and masterplan proposals have evolved through a series of stages involving an iterative process of assessment and engagement, scheme refinement, further assessment and further refinement.
- 4.5.11. Overall, it is considered that the chosen option successfully balances a range of environmental and operational considerations based on the constraints and opportunities presented by the site. A number of measures targeted at avoiding, reducing or mitigating environmental effects have been 'embedded' into the proposals and will ensure that any adverse impacts are minimised whilst maximising the benefits of the development.

Highway Works

- 4.5.12. As set out at **Chapter 6: Traffic and Transportation** to this ES (**Document DCO 6.6**) the DCO Applicant has engaged in extensive discussions with the highways authorities and Transport Working Group to assess the potential highway impacts of the **EMG2 Works** and identify an appropriate package of highway works to mitigate impacts.
- 4.5.13. As part of these discussions, alternative mitigation works were explored. This included potential highway improvements works to the A453 Finger Farm roundabout at Junction 23A of the M1, the EMG1 gyratory and Junction 24 of the M1.
- 4.5.14. The chosen package of mitigation measures is considered to provide the optimal solution as it will ensure that the highways impacts of the **EMG2 Works** are fully mitigated as part of the development whilst also contributing to, and forming part of, a wider highway mitigation scheme designed to support the delivery of the significant planned residential and employment growth in the region.

MCO Application/MCO Scheme

- 4.5.15. With regard to the MCO Scheme, the main alternative considered relates to Plot 16 and whether alternative uses such as container storage would be appropriate here.
- 4.5.16. Having discussed alternative land uses with the operator of the existing rail freight terminal, it was concluded that the land is not required to expand the existing intermodal facilities as there is still significant capacity within the existing site. In light of these discussions, it was concluded that the construction of an additional warehouse would be the most appropriate use for Plot 16.

4.6. Summary and Conclusions

- 4.6.1. To satisfy the requirements of the EIA Regulations, this Chapter has provided a description of the reasonable alternatives that have been considered and the reasons why the EMG2 Project was selected. This has included a consideration of the 'no development' options, alternative sites and alternative development scenarios and design approaches.
- 4.6.2. It has been shown that the 'no development' option is not a reasonable alternative as it would not fulfil the aspirations of national, regional and local economic strategies and would result in the loss of the substantial social and economic benefits arising from the EMG2 Project.
- 4.6.3. With regard to alternative sites to the EMG2 Works, it has been demonstrated that there are no growth options on land bordering EMG1 or in immediate proximity to it that offer a reasonable alternative to the EMG2 Works proposals taking the effects of development on the environment into account.
- 4.6.4. It is considered that the chosen EMG2 Project successfully balances a range of environmental and operational considerations based on the constraints and opportunities presented by the application sites. The EMG2 Project has evolved through an iterative process and measures have been embedded into the design to ensure that any adverse environmental impacts are minimised whilst maximising the benefits of the proposals.