East Midlands Gateway Phase 2 (EMG2)

Document DCO 6.20A/MCO 6.20A

ENVIRONMENTAL STATEMENT

Technical Appendices

Appendix 20A

Major Accidents and Disasters Long List

October 2025



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



Table 1: Major Accidents and Disasters – Scoped In or Out of Further Assessment

MAD Group	MAD Category	MAD Type	Basis of Decision (for consideration in assessment)	Considered in Assessment and Phase
Natural	Geophysical	Earthquakes	Civil Emergencies states that "Earthquakes in the UK are moderately frequent but rarely result in large amounts of damage. An earthquake of sufficient intensity (determined on the basis of the earthquake's local effect on people and the environment) to inflict severe damage is unlikely".	Further consideration of this risk is not required as part of the ES.
			The EMG2 Project is not located in, or close to, an active area.	
Natural	Geophysical	Volcanic Activity	The EMG2 Project is not located in, or close to, an active area. It is highly unlikely that an ash cloud could significantly impact on any aspect of the EMG2 Project .	Further consideration of this risk is not required as part of the ES.
Natural	Geophysical	Landslides	The EMG2 Project is surrounded by flat topography. There are no records of historical landslides in the area. No steep slopes or embankments are expected to be constructed as part of the EMG2 Project .	· · · · · · · · · · · · · · · · · · ·
Natural	Geophysical	Sinkholes	There are no geophysical sinkholes in the vicinity of the EMG2 Project . The geotechnical design of the EMG2 Project will take into consideration the underlying geology and any potential ground stability issues.	
Natural	Hydrological	Fluvial Flooding	The EMG2 Project is located outside of or above the floodplain, and any necessary culverted crossings of minor watercourses for the purpose of footpath crossings, will be designed appropriately to convey flood events without any adverse attenuation.	
			A surface water drainage strategy for the EMG2 Project has been developed to ensure that run-off generated by the EMG2 Project is dealt with in a sustainable manner in accordance with local and national standards.	
			These mitigation measures will prevent an adverse impact to the flood risk on the EMG2 Project .	
			Full details of the drainage strategy and flood risk assessment is provided in Chapter 13: Flood Risk and Drainage (Document DCO6.13/MCO 6.13) and the associated appendices.	
Natural	Hydrological	Groundwater Flooding	The construction and operation of the EMG2 Project is not expected to elevate groundwater flooding risk. There is not a high risk of groundwater flooding within the area of the EMG2 Project , and no significant excavations are proposed.	
			Full details of the drainage strategy and flood risk assessment is provided in Chapter 13: Flood Risk and Drainage (Document DCO 6.13/MCO 6.13) and the associated appendices and groundwater risk is included within Chapter 14: Ground Conditions (Document DCO 6.14/MCO 6.14) .	

Natural	Hydrological	Avalanches	The EMG2 Project 's topography is relatively flat and therefore an avalanche will not occur.	Further consideration of this risk is not required as part of the ES.
Natural	Meteorological	Cyclones, hurricanes, typhoons, storms and gales	Cyclones, hurricanes and typhoons do not occur in the UK. It is anticipated that the risk of vulnerability to a MAD for the EMG2 Project would be comparable to that for the existing EMG1 and design standards would take into account these weather conditions which would be pursuant to the requirements of the draft DCO. Specific measures are therefore not considered to be required as part of the EMG2 Project .	Further consideration of this risk is not required as part of the ES.
Natural	Meteorological	Thunderstorms	This type of event could result in lightning strikes to temporary elevated structures during construction (e.g. tower cranes) and new elevated structures (such as with works to increasing the permitted height of the cranes by 4m to 24m at the rail-freight terminal) introduced as part of the EMG2 Project . New elevated structures will be designed considering historical site experience and current design standards that consider climate change resilience Specific measures are therefore not considered to be required as part of the EMG2 Project .	
Natural	Meteorological	Extreme temperatures: Heatwaves, Low (sub-zero) temperatures and heavy snow	The EMG2 Project may be vulnerable to extreme temperatures. However, the EMG2 Project is not expected to increase or change risks associated with extreme weather. The following will be included within the management of the EMG2 Project through the requirements in the DCO to ensure a high quality environment is maintained throughout: • Emergency response and contingency plans in place to be secured through the requirements in the DCO.; • Ensure effective, essential winter maintenance; • Regularly reviewed and updated winter maintenance plans; • Regular maintenance of assets to detect deterioration and damage; • Use of construction materials with superior properties which offer increased tolerance to fluctuating temperatures; • Road user warning systems in place in areas exposed to high winds; • Regular maintenance and cleaning of drainage systems. The EMG1 Works will be completed and managed under the existing site management protocols.	

			Chapter 19: Energy and Climate Change (Document SCO 6.19/MCO 6.19).summarises potential changes in climatic parameters at the EMG2 Project location and considers potential risks during construction or operation, and the significance of effects from the risks.	
Natural	Meteorological	Droughts	The EMG2 Project would not be vulnerable to drought as water is not used in the operational processes.	Further consideration of this risk is not required as part of the ES.
Natural	Meteorological	Severe Space Weather: Solar Flares	The EMG2 Project will use construction materials with superior properties which offer increased tolerance to fluctuating temperatures.	Further consideration of this risk is not required as part of the ES.
			The EMG2 Project is no more vulnerable than the current baseline.	
Natural	Meteorological	Fog	Fog is one of the most common weather conditions in the UK, particularly throughout autumn and winter. Severe disruption to transport occurs when the visibility falls below 50m over a wide area. However, the EMG2 Project , as a stationary installation, will not be vulnerable to fog.	· · ·
			The only risks would be to staff travelling to the EMG2 Project , but this risk would not be significantly different from the baseline. The health and safety of staff is also managed by occupational health and safety legislation.	
Natural	Meteorological	Wildfires: Forest fire, Bush / brush, pasture	The EMG2 Project has vegetation in the surrounding area, however, it does not have a potential high fuel load (e.g. gorse) and it is unlikely that a wildfire would occur.	Further consideration of this risk is not required as part of the ES.
Natural	Meteorological	Poor Air Quality	Construction: Construction effects would be temporary for the duration of the construction phase. Increased dust emissions from construction activities and traffic could lead to potential loss of amenity at sensitive receptors. Traffic management measures may result in both positive and adverse changes to emissions from vehicle exhausts and roadside pollution concentrations.	ES.
			Significant residual air quality effects which could result in a MAD are not anticipated during construction and operation of the EMG2 Project as reported in Chapter 8: Air Quality (Document DCO 6.8/MCO 6.8).	
Natural	Biological	Disease epidemics	The construction and use of the EMG2 Project is not going to give rise to any disease epidemics.	Further consideration of this risk is not required as part of the ES.
Natural	Biological	Animal Diseases	The construction and use of the EMG2 Project is not going to give rise to any disease epidemics.	Further consideration of this risk is not required as part of the ES.
Natural	Biological	Plants	Standard control measures in the CEMP (Document DCO 6.3A), for the DCO Application, and within the existing EMG1 CEMP for the MCO Application, would be	· · · ·

			implemented by the appointed contractor during construction to handle, and dispose	
			of any diseased plants and/or injurious, weeds and prevent their spread.	
			For the MCO Application , no CEMP applies, however, all construction will be complete under a CDM Health & Safety Plan, which ensures that that risks associated with construction accidents are ALARP.	
Technological or Manmade	Societal	Extensive public demonstrations which could lead to violence and loss of life.	The EMG2 Project should not lead to high profile public demonstrations or disorder.	Further consideration of this risk is not required as part of the ES.
Technological or Manmade	Societal	Widespread damage to societies and economies.	The EMG2 Project positively addresses key policy priorities for climate change.	Further consideration of this risk is not required as part of the ES.
Technological or Manmade	Societal	Displaced population	There will be no significant displacement of populations as a result of the EMG2 Project.	Further consideration of this risk is not required as part of the ES.
Technological or Manmade	Aerodrome safeguarding	East Midlands Airport	The EMG2 Project is located on land close to East Midlands Airport. The EMG2 Project may be vulnerable to accidents at the East Midlands Airport. Consultation with the statutory aerodrome safeguarding authority will be undertaken. Information and assessment of drainage in the area which surrounds the EMG2 Project is provided in Chapter 13: Flood Risk and Drainage (Document DCO 6.13/MCO 6.13). In summary, with appropriate mitigation measures in place, the EMG2 Project will not have significant adverse effects upon the flood risk and drainage. Information and assessment of bird strikes is provided in Chapter 9: Ecology and Biodiversity (Document DCO 6.9/MCO 6.9). Protective Provisions applicable to aerodrome safeguarding in favour of MAG are included in Schedule 13 Part 6 of the draft DCO. Identical provisions were contained in the EMG1 DCO and will remain unaffected by the MCO Application. An Aerodrome Safeguarding Statement (Document DCO 6.20C) has been prepared on the basis of the information available to date for the EMG2 Project. Whilst it is known that buildings will be constructed as part of the scheme, the design detail and specifics are not yet fixed in relation to their design and subsequent construction. In particular, the inclusion and configuration of photovoltaics, and therefore any potential for glint and glare effects, cannot be meaningfully assessed at this stage. The document does cover glint and glare as a wider consideration, and once the building designs are finalised, an addendum to the safeguarding document would be produced to incorporate these details, including a targeted glint and glare assessment as required.	Further consideration of this risk is required as part of the ES at this stage. In relation to glint and glare impacts specifically, an addendum to the safeguarding document would be produced to incorporate building design details, including a targeted glint and glare assessment as required.

Technological or Manmade	Rail freight			EMG1	The EMG2 Project includes elements of land within parts of the original EMG1 site including service areas for the rail freight terminal itself. The EMG2 Project may be vulnerable to accidents at EMG1.	Further consideration of this risk is required as part of the ES.
Technological or Manmade	Industrial Accidents	and	Urban	Major Accident Hazard Chemical sites	There are no Control of Major Accident Hazard (COMAH) sites within a 5km radius of the Proposed Development.	Further consideration of this risk is not required as part of the ES.
Technological or Manmade	Industrial Accidents	and	Urban	Major Accident Hazard sites	The EMG2 Project is located within the consultation zones for Major Hazard Site H4798; known as Gasrec Ltd, Zone B East Midlands Gateway, DE74 2DL. This site comes under planning hazardous substance consent.	Further consideration of this risk is required as part of the ES.
Technological or Manmade	Industrial Accidents	and	Urban	East Midlands Freeport	As part of the cumulative assessment, three developments within the East Midland Freeport area have been considered:	Further consideration of this risk is required as part of the ES.
					SEGRO's Logistics Park East Midlands Gateway (EMG1)	
					Redevelopment of the Ratcliffe-on-Soar Power Station site	
					East Midlands Intermodal Park (EMIP) near Derby.	
					Whilst the EMG2 Project is vulnerable to accidents associated with the projects an accident at either the project's or EMG2 Project could result in a domino effect.	
					From a MAD perspective, all committed developments nearby will be subject to health and safety requirements, to ensure that the risk of accidents is ALARP. As such, there are predicted to be no cumulative effects with other committed development with regards to MAD.	
Technological or Manmade	Industrial Accidents	and	Urban	Major Accident Hazard Pipelines	There are no Major Accident Hazard Pipelines and High Pressure Gas mains within the EMG2 Project Boundary.	Further consideration of this risk is not required as part of the ES.
Technological or Manmade	Industrial Accidents	and	Urban	Fuel storage	 There are four commercial fuel stations within 2km of the EMG2 Project, including: A BP at Donington Services 200m north-west of the EMG2 Project Boundary. A BP off the A453 200m north of the EMG2 Project Boundary. A BP off Station Road, 1.2km north-west of the EMG2 Project Boundary. A BP off Derby Road, 1.2km east of the EMG2 Project Boundary. The inventory of fuel held at the fuel station sites is relatively small (i.e. below COMAH thresholds) and the hazardous area classification zones will not extend beyond the petrol station boundary. Therefore, further assessment is not required. 	Further consideration of this risk is not required as part of the ES.
Technological or Manmade	Industrial Accidents	and	Urban	Fires	Fires could be initiated by construction related activities which impact areas adjacent to the construction activities. During construction, standard control measures would be implemented by the appointed contractor to manage the risk of fire. Therefore, further consideration is not considered necessary.	

Technological or Manmade	Transport accidents	Road	Construction: During construction there will be an increase in heavy construction plant and equipment on local road network which may increase the risk of accidents. It is not however envisaged that the construction of the EMG2 Project would generate or attract any hazardous loads.	Further consideration of this risk is required as part of the ES
			Operation: Chapter 6: Traffic and Transportation (Document DCO6.6/MCO 6.6) assesses the potential transport impacts of the EMG2 Project.	
			A central part of the sustainable transport strategy for the EMG2 Main Site will be a Gateway Shuttle Bus service. This will be a free service for all site employees providing a highly sustainable and affordable alternative to single occupancy car travel. It will operate by providing a 'last mile' service for employees with links from their workplaces to existing local bus operator services through a dedicated on-site interchange at the site entrance. Using state of the art fully electric shuttle buses, patronage at EMG1 has to date far exceeded expectations, with some 4,800 trips per week achieved in 2023. The EMG2 shuttle service will be co-ordinated through an expanded Transport Working Group already in operation at EMG1. This ensures that through close	
			cooperation between all parties, bus services operate throughout the day to support the shift patterns of the businesses. Full details of the Sustainable Transport Strategy and Framework Travel Plan for EMG2 are provided as part of the DCO Application in Appendix 6B and Appendix 6C (Document DCO 6.6B and DCO 6.6C).	
Technological or Manmade	Transport accidents	Rail	The EMG2 Project includes rail infrastructure which is connected to Network Rail assets which are under strict regulation to prevent accidents. Therefore, risk of rail accidents are considered ALARP.	1
Technological or Manmade	Pollution accidents	Air	Construction: Construction effects would be temporary for the duration of the construction phase. Increased dust emissions from construction activities and traffic could lead to potential loss of amenity at sensitive receptors. Traffic management measures may result in both positive and adverse changes to emissions from vehicle exhausts and roadside pollution concentrations.	· · · ·
			Significant residual air quality effects which could result in a MAD are not anticipated during construction and operation of the EMG2 Project as reported in Chapter 8: Air Quality (Document DCO 6.8/MCO 6.8).	
Technological or Manmade	Pollution accidents	Land	During construction there may be an increased risk of leaks and spillages of hazardous materials associated with the construction activities. During construction, standard control measures would be implemented by the appointed contractor and identified in the CEMP to manage the risk of spillages and leaks. It is therefore proposed not to evaluate this further for the construction phase.	· · · ·
			For the MCO Application , no CEMP applies, however, all construction will be complete under a CDM Health & Safety Plan, which ensures that that risks associated with construction accidents are ALARP.	

Technological or Manmade	Pollution accidents	Water	During construction there may be an increased risk of leaks and spillages of hazardous materials associated with the construction activities. During construction, standard control measures would be implemented by the appointed contractor and identified in the CEMP to manage the risk of spillages and leaks. It is therefore proposed not to	
			evaluate this further for the construction phase. A surface water drainage strategy for the EMG2 Project has been developed to ensure that run-off generated by the EMG2 Project is dealt with in a sustainable manner in accordance with local and national standards. The drainage strategy has been designed to intercept and store rainwater falling on the development, before discharging it to the local watercourse in the south east corner of the site at a runoff rate that will be agreed with the drainage authorities. This will require the installation of a series of attenuation basins and swales along the western and southern boundaries to store and treat surface water run-off from the development. This strategic drainage infrastructure will be installed as the earthworks progresses. Additional treatment facilities, such as on-plot attenuation basins, will be provided as	
			each development zone is brought forward and will connect into the strategic drainage infrastructure. Full details of the drainage strategy and flood risk assessment is provided in Chapter 13: Flood Risk and Drainage (Document DCO 6.13/MCO 6.13) and the associated appendices. For the MCO Application, no CEMP applies, however, all construction will be complete under a CDM Health & Safety Plan, which ensures that that risks associated with construction accidents are ALARP.	
Technological or Manmade	Utilities failures	Electricity	The EMG2 Main Site component of the EMG2 Works , requires diversion of the existing on-site overhead and underground 11kV (HV) and LV cables. The Highways Works require diversion of the existing underground 11kV (HV) and LV cables within the highway. All works will be undertaken in accordance with National Grid guidance and protocols. Safe clearances for existing overhead lines must be maintained in all circumstances.	Further consideration of this risk is not required as part of the ES.
Technological or Manmade	Utilities failures	Gas	There are no Major Accident Hazard Pipelines and High Pressure Gas mains within the EMG2 Project Boundary. The Highway Works require diversion of the existing underground Medium Pressure and Low Pressure gas mains within the EMG2 Access Works. All works will be undertaken in accordance with Cadent Gas Networks guidance and protocols.	Further consideration of this risk is not required as part of the ES.
Technological or Manmade	Utilities failures	Water supply	A small amount of water would be required during construction and a constant supply will be required during operation. However, in the event of water scarcity, additional	· · · ·

			supplies could be brought in by tanker, or the facility could be safely shut down until supplies are restored. The Highways Works require diversion of the existing underground potable water mains within the EMG2 Access Works. All works will be undertaken in accordance with STW guidance and protocols.	
Technological or Manmade	Utilities failures	Telecommunications	The Highway Works require diversion of the existing underground duct network within the Highway Works to accommodate the proposed alterations to the existing highway. All works will be undertaken in accordance with Openreach, Virgin Media and Vodafone guidance and protocols.	, , ,
Technological or Manmade	Utilities failures	Sewage system	The only use of the sewage system will be facilities for use by construction and operational staff, which will be covered by H&S welfare requirements. During the construction phase temporary portable systems will be in place. As such, a failure to existing systems is anticipated to have low impact and not result in significant effect.	·
Technological or Manmade	Malicious Attacks	Malicious Attacks	Malicious attacks reported in the UK's current National Risk Register include attacks on transport systems and infrastructure. The EMG2 Project includes security infrastructure including fencing, gates, security kiosks, and security lighting. The EMG2 Main Site has emergency and security access from the A453 via a new arm off the Hunter Road roundabout (the EMG2 access junction works), with an alternative/second roundabout access further to the west along the A453. The EMG2 Project is not considered to be more vulnerable to attack than other similar infrastructure in the UK.	Further consideration of this risk is required as part of the ES.
Technological or Manmade	Engineering accidents and failures	Property or bridge demolition accidents	There are no demolition works associated with the proposed development as all parts of the EMG2 Project are proposed on land that is either presently undeveloped or contained within or adjacent to highway infrastructure.	·