East Midlands Gateway
Phase 2 (EMG2)

Document DCO 6.18D/MCO 6.18D

ENVIRONMENTAL STATEMENT

Volume 2 Technical Appendices

Appendix 18D

Site Waste Management and Materials Plan

July 2025

18

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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EXECUTIVE SUMMARY

This Site Waste and Materials Management Plan provides a comprehensive framework for sustainable materials use and waste management for the EMG2 Project, covering both construction and operational phases. By aligning with the CL:AIRE Definition of Waste Code of Practiceclaire.co.uk and rigorously applying the waste hierarchy, the plan prioritises waste prevention, reuse of site-won materials, and high rates of recycling and recovery. Earthworks cut-and-fill is optimised to minimise surplus spoil, topsoil is preserved for landscaping, and construction methods are chosen to reduce waste at source. All construction waste streams – from concrete rubble to packaging – will be classified and segregated for appropriate reuse or recycling, with robust targets set (e.g. ≥90% diversion from landfill). Operationally, warehouses will implement efficient waste segregation systems focusing on the predominant packaging wastes, ensuring these are recycled and do not burden landfills.

The SWMMP has been formulated in accordance with all pertinent UK waste legislation and Environment Agency guidance, ensuring full compliance. Measures are included to handle hazardous wastes safely and to meet the Duty of Care obligations at all times. The plan also demonstrates that local and regional waste infrastructure has capacity to accommodate the project's needs without significant impact, a key consideration for the DCO examination.

Mitigation measures, both embedded in design and active during implementation, will drive waste minimisation and environmental protection. Roles and responsibilities are clearly defined from the developer and principal contractor through to individual tenants, establishing ownership of waste management tasks throughout the project lifecycle. Regular monitoring, auditing, and reporting will ensure the plan's effectiveness and allow for continuous improvement towards even higher recycling rates or new circular economy opportunities.

This SWMMP is intended to be a living document: it will be updated as necessary to reflect the final construction methodologies, any changes in waste forecasts, or new regulatory requirements up to the point of DCO approval and beyond. In doing so, it will remain a relevant and practical plan that site teams can use day-to-day to achieve the EMG2 Project's waste management objectives. Ultimately, successful implementation of this plan will result in the EMG2 development being constructed and operated with minimal waste and maximum resource efficiency – delivering not just compliance, but a positive contribution to sustainable development in the East Midlands.

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APPENDICES

1. INTRODUCTION

1.1 This Site Waste Management and Materials Plan (SWMMP) has been prepared in accordance with the requirements set out in the National Policy Statement for National Networks (NPSNN). It has been produced on behalf of SEGRO (Properties) Ltd in respect of a Development Consent Order (DCO) for the proposed East Midlands Gateway Phase 2 (EMG2) and the East Midlands Gateway Rail Freight Interchange Material Change Order (MCO).

1.2 This SWMMP is a framework document intended to guide both the appointed construction contractor(s) and occupants / tenants across the lifecycle of EMG. It is designed to be a 'live document' which should be updated throughout the construction phase as it progresses and adapted during the operational phase to reflect future legislation and recycling markets, where applicable.

Situational Context

1.3 The proposed development comprises a number of interrelated component parts as follows, and collectively they are referred to as the **EMG2 Project**:

- **EMG2 Works:**
  - Construction of logistics and advanced manufacturing development and ancillary buildings (DCO, Works No. 1);
  - Construction of road infrastructure (DCO, Works No. 2);
  - Construction of bus interchange (DCO, Works No. 3);
  - Construction of HGV parking (DCO Works No. 4);
  - Provision of hard and soft landscaping (DCO Works No. 5);
  - Creation of a Community Park (DCO, Work No. 21); and
  - Upgrade of the EMG1 substation (DCO, Work No. 20).
- **Highways Works**
  - A453 access junction works to the EMG2 Main Site (Works No. 6);
  - Hyam's Lane works (Works No. 7);
  - Works to the M1 northbound (Works No. 8);
  - Construction of link road from the M1 northbound to the A50 westbound (Works No. 9);
  - Works to the A50 westbound (Works No. 10);
  - Works to the link road from the M1 southbound and A50 eastbound to M1 Junction 24 (Works No. 11);
  - Works to the M1 Junction 24 roundabout and A453 northbound approaches (Works No. 12);
  - Improvements to the EMG1 access junction (Works No. 13);
  - Construction of the Active Travel Link between the EMG1 access junction and the A453 west of Finger Farm roundabout (Works No. 14);

- Provision of an uncontrolled crossing of the A453 at the East Midland Airport signalised access junction (Works No. 15);
- Works to M1 northbound signage on the approach to M1 Junction 23A (Works No. 16);
- Works to Long Holden (Works No. 17);
- Works to the A42/A453 Finger Farm roundabout (Works No. 18); and
- Upgrade to public footpath L57 to a cycle track (Works No. 19).

- **EMG1 Works (Plot 16)**
  - Construction of a new rail-served warehouse building on land adjacent to the rail-freight terminal referred to as Plot 16 (MCO, Works No. 3A) together with associated access (MCO, Works No. 5A) and landscaping (MCO, Works No. 6A).
  - Alterations to the existing rail-freight terminal to improve its operation and efficiency;
  - An expansion of the EMG1 Management Suite by the EMG1 site entrance to cater for the additional demand on management facilities resulting from EMG1 (MCO, Works No. 3B);
  - Enhancements to the Public Transport Interchange by way of the installation of EV charging infrastructure for buses and provision of a drop-off layby adjacent to the transport hub (MCO, Works No. 5B and 5C); and
  - Provision of a signalised crossing over the EMG1 exit road approach to the access junction to EMG1 (MCO, Works No. 8A).

1.4 An illustrative Site Location Plan is provided as **Figure 1.1**, which also identities the approximate extent of the development component parts. For ease of reference and for the purpose of the SWMMP, the individual components have been grouped together based upon the geographical location, as shown in **Figure 1.2.**

1.5 This SWMMP has been prepared in relation to the 'EMG2 Works' inclusive of the Highway Works within the immediate vicinity (Works Nos. 1 to 7, 12, 17 & 21), referred to as 'the study site' throughout.

Existing Site

1.6 The Site measures approximately 119 hectares (ha) and is located in the district of North West Leicestershire on land south of East Midlands Airport (EMA). The EMG2 Main Site is situated south of the airport together with land required for associated **Highway Works** to the east and north of EMA along the M1 corridor.

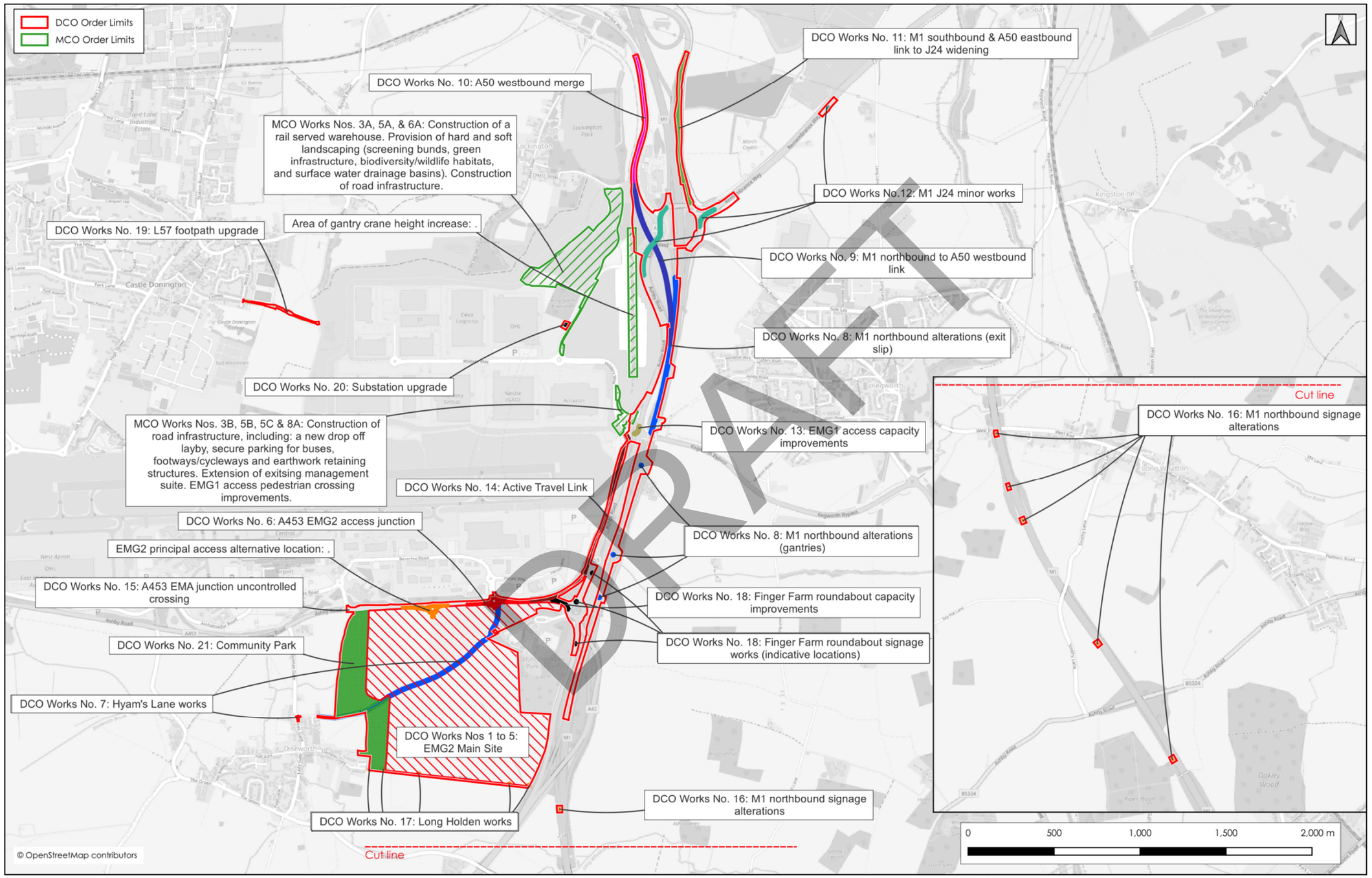

Figure 1.1: The EMG2 Project

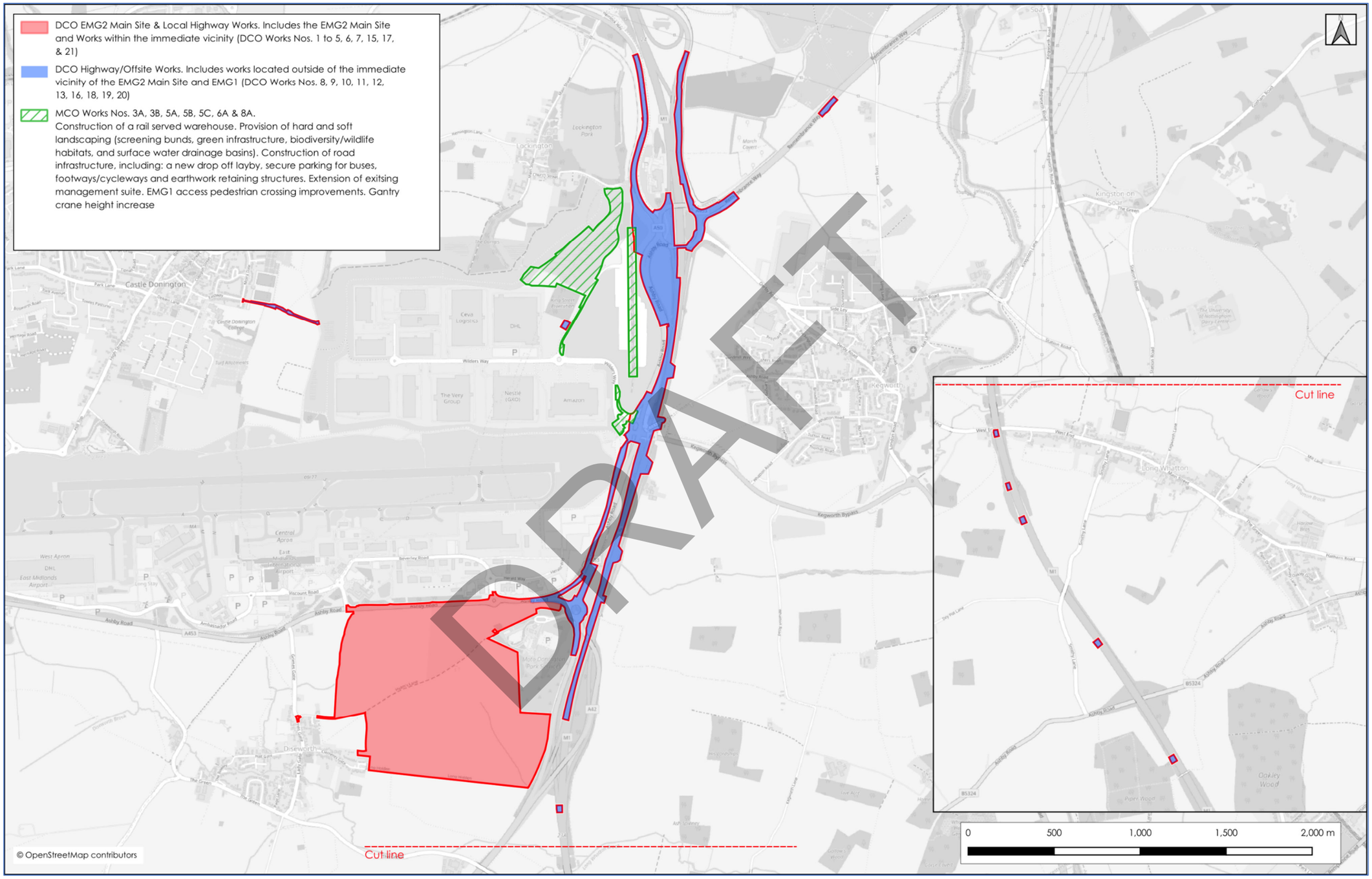

Figure 1.2: Grouping of EMG2 Project Components

Aim and Objectives

1.7 A SWMMP is a necessary component of the DCO process to ensure that the handling, reuse, and potential disposal of excavated and imported materials is carried out in a legally compliant, environmentally responsible, and transparent manner.

1.8 The SWMMP sets out how materials will be managed throughout the construction phase of the project, including the classification, segregation, storage, reuse, treatment, and disposal of waste and surplus materials. It provides a structured framework to minimise waste generation, optimise the reuse of site-won and imported materials, and reduce the need for off-site disposal—supporting the project's wider sustainability and circular economy objectives.

1.9 Critically, the SWMMP ensures that the proposed activities align with the Contaminated Land: Applications in Real Environments (CL:AIRE) (2011) Definition of Waste: Development Industry Code of Practice (DoWCoP) Version 2[1]. This Code of Practice sets out a recognised industry standard for determining when excavated materials can be considered non-waste and reused without the need for an environmental permit. It also provides guidance for the appropriate use of materials that may require remediation, treatment, or off-site disposal under waste regulatory controls.

1.10 Incorporating the SWMMP into the DCO supports early engagement with the Environment Agency ('EA') and other regulators, facilitates post-consent compliance, and demonstrates that robust procedures are in place for managing materials and waste in accordance with legal requirements. It also ensures that a CL:AIRE Qualified Person will review and validate the Materials Management Plan (MMP), providing assurance that the project meets the technical and procedural expectations set out in the DoWCoP.

1.11 Ultimately, the inclusion of a SWMMP within the DCO framework helps to reduce environmental risks, prevent regulatory delays, and ensure effective resource management across the project lifecycle.

1.12 Both the construction (**Section 3**) and operational (**Section 4**), phases of the Scheme will inevitably lead to the production of waste streams. The purpose of this SWMMP is to ensure that waste and materials are managed sustainably at the study site in accordance with both local and national guidance and best practice during both of these phases of development, in line with local plan policies and the 'waste hierarchy'.

- Section 3 creates the basis upon which the appointed construction contractor(s) should utilise materials and undertake methods of construction which adhere to the waste hierarchy and apply the principles of the circular economy to provide resource savings.
- Section 4 creates a framework which would maximise the amount of materials that would be re-used, recycled or recovered during the operation of the Scheme.

[1] CL:AIRE (2011) 'The Definition of Waste: Development Industry Code of Practice Version 2' Available at: https://www.claire.co.uk/component/phocadownload/category/8-initiatives?download=212:definition-of-waste-development-industry-code-of-practice

Waste Definitions

1.13 This SWMMP uses the legal definition of waste as defined in the 2008 Waste Framework Directive (2008/98/EC)[2];

> "*Any substance or object which the producer discards or intends or is required to discard*"

1.14 This definition of waste also covers substances and objects that fall outside of the commercial cycle, in particular, items that are sold or taken off-site for recycling are wastes, as they require treatment before they can be resold or reused. Therefore, waste includes, but not limited to, surplus spoil, scrap, recovered spills, unwanted surplus materials, packaging, office and retail waste, wastewater, broken, worn-out, contaminated or otherwise spoiled plant, equipment and materials, and general waste.

1.15 Definitions for the categories of waste in this SWMMPare presented in **Table 1.1**.

Table 1.1: Categories of Waste Definitions

Waste Category	Definition
Inert waste	Defined as waste: • that does not undergo any significant physical, chemical or biological transformations; • that does not dissolve, burn or otherwise physically or chemically react, biodegrade or adversely affect other matter from which it comes into contact in a way likely to give rise to environmental pollution or harm to human health; and • where its total leachability and pollutant content and the ecotoxicity of its leachate are insignificant and, in particular, do not endanger the quality of any surface water or groundwater (see Directive 1999/31/EC 'The Landfill Directive').
Hazardous waste	Any waste that displays one or more of the hazardous properties listed in Annex III of the Waste Directive (2008/98/EC).
Non-hazardous waste	Waste that is neither classified as inert nor hazardous.

1.16 It should be noted that for the purposes of this SWMMP, it is assumed that any residual waste during both the construction and operational phases of the DCO Scheme would be disposed of within waste facilities located in either Leicestershire, Nottinghamshire or Derbyshire. This assumption accords with Chapter 18 Materials and Waste of the Environmental Statement (**Document DCO 6.18/MCO 6.18**), which has been submitted with the application.

[2] European Parliament and Council 'Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives'. Available from: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32008L0098

2. POLICY AND LEGISLATION

2.1 The policy, legislation, and guidance relevant to the assessment of materials and waste for the Scheme is detailed in **Table 2.1**.

Table 2.1: Relevant Legislation, Policy and Guidance

Legislation, Policy or Guidance	Description
Legislation	
Environment Act 1995, as amended in 2021[3]	The Environment Act 1995 makes provision for targets, plans and policies for improving the natural environment. It sets out clear statutory targets for the protection and regeneration of the natural world in four priority areas, one of which is waste. Part 3 specifically refers to waste and resource efficiency, incorporating: producer responsibility obligations; resource efficiency; managing waste; and waste enforcement and regulation.
The Revised EU Waste Framework Directive 2008/98/EC	Provides a comprehensive foundation for the management of waste across the European Community and gives a common definition of waste. While the UK is no longer a member of the European Union, many of the concepts underpinning the Directive are relevant to the UK's domestic law. Article 3 of the Waste Framework Directive defines waste as "*any substance or object that the holder discards or intends or is required to discard*".
The Waste and Environmental Permitting etc. (Legislative Functions and Amendment etc.) (EU Exit) Regulations 2020	Aims to streamline the legislative system for industrial and waste installations into a single permitting structure for those activities which have the potential to cause harm to human health or the environment.
Environmental Damage (Prevention and Remediation) (England) Regulations 2015[4]	Under the Regulations, businesses are made financially liable for any damage they cause to land, air, water and biodiversity in England. These Regulations places the onus on businesses to reduce potential sources of pollution from waste during the construction and operational phases of development.
The Construction (Design and Management) Regulations 2015[5]	These Regulations set out the duties involved and the respective duty holders during the construction phase of a development.
The Waste Electrical and Electronic Equipment Regulations 2013 (as amended)	Aims to reduce the impact of electrical waste on the environment by encouraging reuse or recycling. Ensures electrical and electronic equipment is recycled in a sustainable way when it reaches end of life.

[3] HM Government (2021) 'Environment Act 2021' Available from: https://www.legislation.gov.uk/ukpga/2021/30/contents/enacted
[4] HM Government (2015) 'Environmental Damage (Prevention and Remediation) (England) Regulations' Available from: https://www.legislation.gov.uk/uksi/2015/810/contents
[5] HM Government (2015) 'The Construction (Design and Management) Regulations 2015' Available from: https://www.legislation.gov.uk/uksi/2015/51/contents/made

The Controlled Waste (England and Wales) Regulations 2012 (as amended)	Classifies waste as household, industrial or commercial waste. It allows local authorities to implement charges for the collection of waste from non-domestic properties.
The Waste (England and Wales) Regulations 2011 (as amended)	Stipulates the requirement for industry and businesses to implement the waste hierarchy. The Waste (England and Wales) (Amendment) Regulations 2014 amend the 2011 Regulations to clarify that the transfer of controlled waste can be recorded on alternative documentation, such as invoices, instead of waste transfer notes.
The Site Waste Management Plans Regulations 2008[6]	The Site Waste Management Plans Regulations 2008 set out how to correctly undertake a Site Waste Management Plan. Although these regulations have been repealed, the provisions within have been considered in the preparation of the Site Waste Management Plan.
The Clean Neighbourhoods and Environment Act 2005	Part 5, Chapter 3 of this Act specifically refers to site waste, where there may be a regulatory requirement to prepare Site Waste Management Plans and to ensure compliance with them.
The Hazardous Waste (England and Wales) Regulations 2005 (as amended)[7]	Introduces measures to control storage, transport and disposal of hazardous waste. The Regulations provide a means to ensure that hazardous waste and any associated risks are appropriately managed.
The Waste Minimisation Act 1998	Enables local planning authorities to take the appropriate steps to reduce and minimise the generation of household, commercial or industrial waste within their area.
The Environmental Protection Act 1990[8]	As of 2008, defines within England, Scotland and Wales the fundamental structure and authority for waste management and control of emissions into the environment. The Act outlines the requirement of the manager of a development to ensure that any excess materials or waste resulting from construction activities are recovered or disposed of without any subsequent adverse effects upon the surrounding environment.
The Control of Pollution (Amendment) Act 1989	The Control of Pollution (Amendment) Act 1989 makes it a criminal offence for a person who is not a registered carrier to transport controlled waste to or from any place in Great Britain. The Act also provides for the seizure and disposal of vehicles used for illegal waste disposal.
Policy	
National Planning Policy for Waste (NPPW) 2014[9]	The NPPW sets out detailed waste planning policies for local authorities to consider within their Local Plan or when assessing development. According to the NPPW, local authorities are required to: • Ensure that the planned provision of new capacity and its spatial distribution is based on robust analysis of the best available data and information;

[6] HM Government (2008) 'The Site Waste Management Plans Regulations 2008' Available from: https://www.legislation.gov.uk/uksi/2008/314/contents/made
[7] HM Government (2011) 'Waste (England and Wales) Regulations 2011' Available from: https://www.legislation.gov.uk/uksi/2011/988/contents/made
[8] HM Government (1990) 'Environmental Protection Act'. Available from: https://www.legislation.gov.uk/ukpga/1990/43/contents
[9] UK Government (2014) 'National Planning Policy for Waste'. Available from: https://www.gov.uk/government/publications/national-planning-policy-for-waste

	• Work jointly and collaboratively with other planning authorities to collect and share data and information on waste arisings; • Ensure that the need for waste management facilities is considered alongside other spatial planning concerns; • Identify need for waste management facilities; • Identify suitable sites and areas for new or enhanced waste management facilities in appropriate locations; and • Monitoring and report on waste arisings and the amounts of waste recycled, recovered or going for disposal.
National Policy Statement for National Networks (NPSNN)	The NPSNN sets out the UK Government's policy for the delivery of nationally significant road and rail networks and how these should be applied, with the following paragraphs of relevance to materials and waste. It recognises the importance of protecting human health and the environment by reducing waste safely and carefully in accordance with the principles set out in the waste hierarchy, and to maximise resource use by moving towards a more circular economy as per Paragraph 5.70. Paragraph 5.71 states that: "*The applicant should demonstrate that they will adhere to the waste hierarchy, preventing and reducing waste produced in the first place and maximising preparation for reuse and recycling for waste that cannot be prevented. Where possible, applicants are encouraged to use existing materials first, then low carbon materials, sustainable sources, and local suppliers. Consideration should be given to circular economy principles wherever practicable, for example by using longer lasting materials efficiently, optimising the use of secondary materials and how the development will be maintained and decommissioned. Applicants should consider and take into account emerging government policy, including Maximising Resources, Minimising Waste, constituting the new Waste Prevention Programme for England and Defra's Construction Code of Practice for the Sustainable Use of Soils on Construction-sites, which provides practical guidance on how to improve appropriate soil reuse on construction-sites and reducing the volume that is sent to landfill*."
National Planning Policy Framework (NPPF) 2025[10]	The NPPF sets out the Government's planning policies for England and how these should be applied, with the following paragraphs relating to materials and waste. Paragraph 8 highlights that the purpose of the planning system is to contribute to the achievement of sustainable development through three overarching objectives: economic, social and environmental. The environmental objective requires the planning system to protect and enhance the natural, built and historic environment by "*using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy*". Paragraphs 222 to 225 outline the sustainable use of minerals, which are "*a finite natural resource and can only be worked where they are found*". Therefore, it is essential that sufficient supply is maintained through various planning policies, including safeguarding mineral

[10] HM Government (2024) 'National Planning Policy Framework' Available from: https://www.gov.uk/government/publications/national-planning-policy-framework--2

	resources by defining Mineral Safeguarding Areas and Mineral Consultation Areas. Specific guidance under this framework (Planning Practice Guidance) provides further information in support of the implementation of waste planning policy.
Waste Management Plan for England 2021	This Plan provides a detailed analysis of the present state of waste management at the national level and considers how the objectives of the Waste Framework Directive will be supported effectively. It outlines the waste hierarchy, which gives priority to waste prevention, followed by preparing for reuse, recycling, other types of recovery and finally disposal (e.g., landfill).
25 Year Environment Plan	The 25 Year Environment Plan sets out government actions to improve, regain and retain the natural world. The Plan sets out high level goals, which includes "*using resources from nature more sustainably and efficiently*" and "*minimising waste*".
Our Waste, Our Resources: A Strategy for England 2018	This Strategy sets out how the UK Government will preserve material resources by minimising waste, promoting resource efficiency and moving towards a circular economy. The Strategy also outlines the Government's aims to minimise the damage caused to the natural environment by reducing and managing waste safely and carefully, and by tackling waste crime. It combines actions to take now with firm commitments for the coming years and gives a clear longer-term policy direction in line with the 25 Year Environment Plan.
Leicestershire Minerals and Waste Local Plan up to 2031	This Plan includes the spatial vision, spatial strategy, strategic objectives, and core policies which guides the future winning and working of minerals within Leicestershire. These also guide the waste management development within the County. Key policies are outlined as follows: • Policy W1: Waste Management Capacity - "*The County Council will make provision for a sufficient range of waste facilities within the County of Leicestershire to manage the equivalent of the predicted arisings for the County up to and including 2031 and to meet the recycling, composting and recovery targets…*"; • Policy DM1:Sustainable Development - "*[…]Proposals should contribute to the three dimensions (economic, environmental and social) of sustainable development, as well as providing clear evidence of how a proposal would make a positive contribution to reducing its effects on climate change…*" ;*Policy DM11: Cumulative Impact – "Planning permission will be granted for minerals and waste development where it is demonstrated that cumulative impacts on the environment of an area or on the amenity of a local community, either in relation to the collective effect of different impacts of an individual proposal, or in relation to the effects of a number of developments occurring either concurrently or successively, are acceptable.*"
Resources and Waste Strategy (2022-2050) for Leicestershire	This strategy reflects current global thinking on achieving net-zero climate change targets. It describes the recycling and waste management services to be delivered in Leicestershire from 2022 up to 2050, with a vision to work towards a circular economy and contribute to achieving net-zero carbon by 2050.

Resources and Waste Strategy for England (2022-2050)[11]	This Strategy sets out the UK's planned transition from the linear economic model of 'take, make, use, throw', to a more circular and sustainable model of waste management. The Strategy includes the following overarching targets: • zero avoidable waste by 2050; • double resource efficiency by 2050; • zero plastic waste by 2042; and • zero food waste to landfill by 2030.
Guidance	
Planning Practice Guidance (PPG) on waste (2015)	The PPG, which supplements the NPPF, provides specific guidance to support the implementation of waste planning policy. It focuses on promoting sustainable waste management and ensuring that waste is managed in line with the principles of the waste hierarchy. This hierarchy prioritises waste prevention, followed by reuse, recycling, recovery, and disposal as a last resort. The PPG elaborates on how planning authorities should consider waste management in decision-making, including: • Safeguarding Waste Infrastructure: Ensuring existing waste management facilities are protected from incompatible developments; • Site Allocations: Identifying appropriate sites and areas for new waste management facilities to meet the needs of the local area while minimising environmental impacts; • Plan-Making: Integrating waste management considerations into local plans to align with national strategies and local waste needs; and • Climate Change and Waste: Encouraging facilities and practices that contribute to a circular economy and reduce greenhouse gas emissions. This guidance aims to ensure that waste management is integral to the planning process, promoting sustainable practices that reduce reliance on landfill and encourage resource efficiency. It serves as a key tool for local authorities and developers in implementing waste policies effectively.
Waste Duty of Care: Code of Practice (2018)[12]	This Waste Duty of Care: Code of Practice was issued under Section 34 of the Environmental Protection Act 1990 and sets out detail on how to safely and responsibly manage wastes. The Code details the actions to be taken to prevent unauthorised treatment or disposal of waste, ensure adequate storage to prevent uncontrolled escape of waste and to properly transfer wastes to third parties.
British Standards Institution (2005) BS 5906:2005 Waste Management in	The Standard details the requirements for the safe storage, collection, segregation and on-site treatment for residential and non-residential developments. The standard requires designers to ensure safe and easy access to waste facilities which adhere to the aesthetics of the

[11] HM Government (2018) 'Our Waste, Our Resources: A Strategy for England'. Available from: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/765914/resources-waste-strategy-dec-2018.pdf
[12] Defra (2018) 'Waste duty of care code of practice'. Available from: https://www.gov.uk/government/publications/waste-duty-of-care-code-of-practice

Buildings – Code of Practice[13]	site whilst avoiding social nuisance. Facilities should support the waste hierarchy and be designed in consultation with service users.

2.2 The Waste Hierarchy is set out in Article 4 of the European Union's revised Waste Framework Directive[2] and guidance on how to apply it is provided by the Department of Environment, Food and Rural Affairs (Defra)[14]. Priority should be given to prevention, reusing and recycling on the Site before considering off-site re-use or recycling, and then other types of recovery or disposal. The hierarchy is depicted in **Figure 2.1** and is summarised in **Table 2.2**.

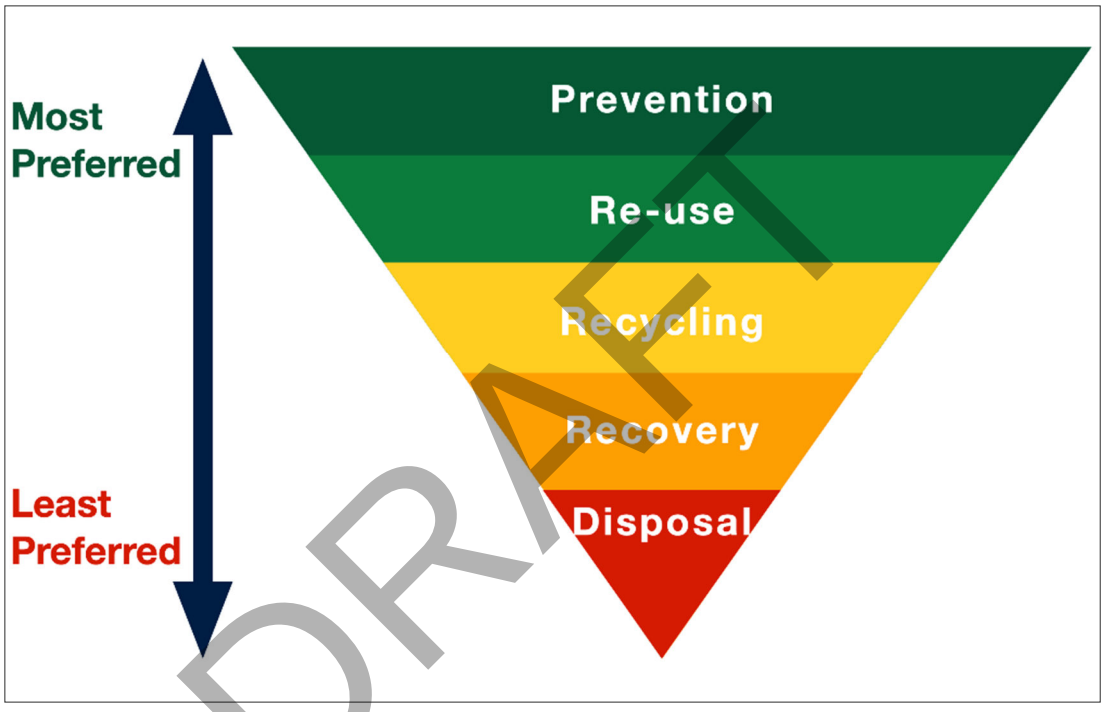

Figure 2.1: The Waste Hierarchy

[13] British Standards Institution 'Waste management in buildings – Code of practice'. Available from: https://shop.bsigroup.com/ProductDetail/?pid=000000000030050097
[14] DEFRA (2011) 'Guidance on applying the Waste Hierarchy' Available from: https://assets.publishing.service.gov.uk/government/uploads waste-hierarchy-guidance.pdf

Table 2.2: The Stages of the Waste Hierarchy

Stages	Examples (as provided by DEFRA)
Prevention	• Using less material in design and manufacture. • Keeping products for longer; re-use. Using less hazardous materials.
Re-using on-site / Preparing for re-use off-site	• Checking, cleaning, repairing, refurbishing, whole items or spare parts.
Recycling	• Turning waste into a new substance or product. • Includes composting if it meets quality protocols.
Other Recovery	• Includes anaerobic digestion, incineration with energy recovery, gasification and pyrolysis.
Disposal	• Landfill and incineration without energy recovery.

3. CONSTRUCTION WASTE MANAGEMENT AND MATERIALS PLAN

Introduction

3.1 The advancement of a SWMMP is generally an iterative process and requires revision as a development progresses. The SWMMP is considered a live document, initially prepared before construction begins and subsequently updated by the appointed construction contractor(s).

3.2 The primary objective of this document is to lay the foundation for a detailed SWMMP for the construction phase of the Proposed Development to ensure that on-site waste is managed in line with the 'Waste Hierarchy' and supports the UK's transition to a circular economy. It describes the best-practice procedures by which waste will be managed during the demolition and construction of the DCO Scheme to reduce the amount of overall waste produced.

3.3 The SWMMP outlines the methods required to minimise waste, manage waste produced responsibly, measure the quantities of waste produced effectively and, on review, provide lessons learned to advance the future phases.

3.4 The Principal Contractor is expected to take ownership of, and update, the SWMMP. The SWMMP would identify the types and quantities of waste that would be produced throughout the demolition and construction of the Proposed Development and would identify management options for each type of waste.

3.5 The adoption of the SWMMP will help to ensure that the development fulfils its legal obligations towards waste management and 'Duty of Care' during each phase of the development. The SWMMP shall be communicated to all staff and sub-contractors working on each phase of the development.

3.6 In summary, this SWMMP has:

- Outlined key legislation and policies which should be considered when planning for waste management;
- Encouraged the appropriate design of the Proposed Development in order to ensure the effective management of on-site waste;
- Summarised guidance which should be followed in the preparation of a SWMMP;
- Outlined the key responsibilities involved in the management of on-site waste and the parties who would be responsible for each one;
- Provided information on how known construction activities for the Proposed Development will accord with the Waste Hierarchy; and
- Outlined the key methods of how to minimise waste streams for the Proposed Development and how to effectively manage waste which arises on-site.

Sequence of Construction and Outline Programme

3.7 At the time of writing, it is assumed that works to construct the DCO Scheme will commence in the middle of 2027. An indicative programme and sequence of construction activities is provided in **Table 3.1**.

Table 3.1: DCO Scheme Construction Programme

Work Stream	Timescales		Construction Phase Activities
	From	To	
Pre-construction	Q4 2026 / Q1 2027	Q2 2027	o Discharge of DCO requirements; o Surveys; o Detailed design; o Mitigation required prior to commencement of development; o Site set up including provision of temporary construction access and site compounds; and o Public rights of way diversions.
EMG2 Works - Infrastructure	Q2 2027	Q3 2029	o Site clearance; o Bulk earthworks; o Structural landscaping including provision of landscape bunds; o Installation of strategic drainage infrastructure; o Construction of access and roads; and o Diversion of utilities and installation of new utilities connections.
EMG2 Works - Buildings	Q1 2028	Q3 2032	o Phased construction of buildings and associated plot access, service yards and parking; o Landscaping; and o Installation of plot-specific drainage and utilities connections.
Highway Works	Q2 2027	Q2 2029	Alterations to local and strategic road networks and provision of new road infrastructure.

3.8 It is currently anticipated that the earthworks would commence in May 2027 and will take approximately 18 months to complete to create all the development plateaus, provide the mounding and the ground works for the strategic landscape and drainage infrastructure. It is anticipated that these works will be delivered in two main phases. Phase 1 involves the completion of the earthworks for Development Zones 5-7 and

provision of landscape bunds along these Development Zones with the landscape bunds to be planted within the first planting season following completion of these works. In Phase 2 the earthworks will be completed for the remainder of the study site and the landscape bunds along the southern boundary will be provided with the planting to these landscape bunds to be undertaken within the first planting season following completion of the works. A **Development Sequencing Plan** (Document XX) has been included with the application and shows the phased approach to the earthworks and provision of development plateaus and landscape bunds.

3.9 The phasing allows for commencement of some of the buildings on the EMG2 Main Site from January 2028 as and when individual plateaus are complete. Delivery of the buildings will ultimately be market driven and will therefore be built out depending upon occupier requirements and market conditions and timed to maximise the benefit of the Freeport incentives.

3.10 It is anticipated that construction of both the on-site and off-site infrastructure and the construction of buildings will be completed by the end of 2032.

Hours of Work

3.11 Standard working hours for the construction phase will be confined to the following unless otherwise agreed in writing with the local planning authority:

- 07:00 - 19:00 hours Monday to Friday; and
- 07:00 - 16:00 hours Saturday.

3.12 No works will be undertaken on Sundays or public holidays unless otherwise agreed in writing with the local planning authority.

3.13 Certain limited works would fall outside of the above days and hours including, for example, highway works, emergency works and works which do not give rise to noise or vibration which could have an adverse impact.

Construction Traffic Routing

3.14 Principal routes for construction access to the EMG2 Works and Highway Works and delivery of materials and goods will be taken from the A453. The A453 is a good standard single carriageway road which links into the strategic road network in the form of the M1 via Junctions 23A and 24. Access to the EMG2 Works will not involve the use of any roads that principally serve established residential areas. Specifically, no construction access will be taken via Diseworth village, Hyam's Lane or Long Holden.

Safety and Security

3.15 Perimeter Site hoarding/fencing and access/egress gates will be erected and maintained throughout the duration of the construction works around the relevant construction area. This will segregate the general public from the construction works and help to contain the works within the construction area boundary. The perimeter hoardings will also provide noise mitigation.

Construction Waste Management Responsibilities

3.16 The SWMMP should specify the accountable party to which any specified measures apply. The below represents the previous responsibility requirements of the 2008 Site Waste Management Plan Regulations[15]. While these have since been repealed and are no longer a statutory requirement, they act to provide a good source of guidance for the requirements of an effective SWMMP. These duties and duty holders are as follows:

- 'The Applicant' will be responsible for ensuring that the SWMMP will be prepared before construction work commences;
- An Applicant who intends to use one or more contractors for any project must appoint a contractor as the 'Principal Contractor';
- The Applicant must give reasonable directions to any contractor so far as is necessary to enable the Principal Contractor to comply with the SWMMP requirements;
- The Principal Contractor who will be responsible for reviewing, revising and refining the SWMMP;
- The Principal Contractor will be responsible for ensuring that all personnel on-Site are given the appropriate information and / or training needed to meet requirements within the SWMMP;
- The Principal Contractor will ensure that the SWMMP is kept up to date and located on-Site at all times. Every contractor must be aware of its location;
- Waste management tasks in the SWMMP will be undertaken by the relevant contractors and sub-contractors within a co-operative environment that encourages the development of effective waste management strategies;
- The contractors will ensure that, as far as is practically possible, the Waste Hierarchy preferential system is applied to waste management decisions on-site; and
- Recovery or disposal of on-site waste will be undertaken in compliance with the environmental permitting, waste duty of care and waste carrier legislation[16], [17].

3.17 It is assumed that a Principal Contractor will be appointed by the Applicant through a competitive tender process, and they will ensure compliance with, and update, this SWMMP.

3.18 It is further assumed that the Principal Contractor will register with the 'Considerate Constructors Scheme,' seeking to achieve a satisfactory score in all categories, including waste management.

3.19 The Principal Contractor will update the SWMMP to include a statement on the consideration given to materials resource efficiency in designing and planning the construction. This will include design specifications, choice of materials, consideration of where to source materials from and methods of construction such as pre-fabricated materials.

[15] Gov.uk (2008) 'The Site Waste Management Plans Regulations 2008' Available from: https://www.legislation.gov.uk/uksi/2008/314/contents
[16] HM Government (2016) 'The Environmental Permitting (England and Wales) Regulations'. Available from: https://www.legislation.gov.uk/uksi/2016/1154/contents/made
[17] HM Government (1990) 'Environmental Protection Act'. Available from: https://www.legislation.gov.uk/ukpga/1990/43/contents

3.20 A suitably qualified person will be appointed to fulfil the Construction Waste Management role (e.g. Site Manager). This person will be responsible for overall waste management issues which arise during the construction phase such as:

- Implementation and monitoring of waste minimisation, segregation and safe disposal measures; and
- Dissemination of waste reduction and waste management procedures to all relevant personnel on-site.

Environmental Training

3.21 The Principal Contractor will provide general information on waste and specific information relating to the SWMMP in site inductions and Toolbox Talks. This training will include information on the waste segregation strategy and recovery targets in place at the study site.

3.22 During the construction of the Scheme, regular environmental training will take place to ensure that the health and safety of Site staff is maintained but also to prevent and reduce waste being produced. This will be achieved by:

- Conducting Site inductions and regular toolbox training sessions with on-Site workers and sub-contractors;
- Adopting good on-Site working practices; and
- Carrying out spot checks and monitoring staff regularly to make sure they are following procedures.

3.23 Any construction subcontractors working on the DCO Scheme should be made aware of where to find the SWMMP and all construction workers should be trained on how to undertake their work in accordance with the plan. This includes informing all workers on the different types of waste skips and the importance of not mixing waste types.

Monitoring

3.24 Monitoring waste generation and disposal in construction in the UK is essential for several reasons, primarily driven by environmental, economic, and regulatory considerations.

3.25 There are three elements of importance when it comes to monitoring waste:

- Compliance with Duty of Care;
- Monitoring waste production; and
- Monitoring waste route and destination (e.g. reuse, recycling, waste to energy, landfill etc.).

3.26 These three elements can be managed in a number of ways including simple spreadsheets that are either created in-house or are based on the Waste and Resources Action Programme (WRAP) templates, or via a sustainability reporting system. Waste monitoring will take place using the Principal Contractor's standard protocols.

3.27 Construction materials are finite resources, and the construction industry is a major consumer of raw materials. Monitoring waste generation allows for a better understanding of resource use patterns, promoting more efficient material management. By tracking waste, construction professionals can identify opportunities for waste reduction, material optimisation, and the adoption of circular economy principles.

3.28 Furthermore, the UK has regulations and legislation in place to govern waste management, including construction waste. Monitoring waste generation and disposal helps construction companies comply with legal requirements, ensuring that waste is handled in accordance with environmental standards. Failure to comply with these regulations may result in penalties and legal consequences.

3.29 To fulfil these requirements, the Principal Contractor may be asked to implement waste management plans, track waste quantities, report on waste diversion efforts, and adhere to best practices for sustainable construction.

3.30 The Principal Contractor should assign an appropriately qualified person to routinely collect relevant construction waste data throughout the duration of construction as part of the SWMMP with the purpose of identifying whether any targets set are likely to be met and what corrective actions, if any, need to be taken.

3.31 Once the SWMMP submitted with the DCO Application has been approved, it shall be reviewed regularly (typically once every six months but can be more frequent) during the demolition and construction phases of DCO Scheme by the Principal Contractor, to ensure that targets are being achieved and that realistic solutions are provided for unplanned events or abnormal wastes.

3.32 Should the SWMMP need to be revised, it will be refined in consultation with the local planning authority, as required, to ensure it remains relevant to each phase of DCO Scheme and is consistent with environmental regulatory requirements and conditions of planning approval.

Incident Reporting

3.33 It is expected that CDM Regulations (2015)[18] and Hazardous Waste Regulations (2005)[19] will be followed to reduce the likelihood of incidents occurring on-site.

3.34 The Principal Contractor will be responsible for giving every Site worker a Site induction which will include the accident and incident reporting arrangements. A safety incident reporting flow chart will be created and disseminated to all Site staff so that the chain of responsibility for an incident is made clear. This will be reiterated during toolbox talks to ensure Site staff know how to quickly report any incidents.

3.35 An emergency environmental incident response plan will be formulated by the Site Manager and Environmental Advisor.

[18] HM Government (2015) 'The Construction (Design and Management) Regulations' Available from: https://www.legislation.gov.uk/uksi/2015/51/contents
[19] HM Government (2005) 'The Hazardous Waste (England and Wales) Regulations 2005' Available from: https://www.legislation.gov.uk/uksi/2005/894/contents/made

3.36 The 'Site Supervisor' will report any incident to the 'Site Manager' and 'Environmental Advisor' (or equivalent). Any serious incidents will be reported to the Contract Manager and Environmental Advisor.

3.37 The Site Manager and / or Principal Contractor will be responsible for recording any environmental incidents, dangerous occurrences or near misses in an Accident Report form.

3.38 It is the responsibility of the Environmental Advisor to review any incidents and implement actions to be taken to avoid an incident happening again. Site procedures should be updated based on the review of the incident, and all Site staff should be made aware of any changes made.

Construction Waste Management

General

3.39 The development of a SWMMP is generally an iterative process and requires revision as a development progresses. It should initially be prepared before construction begins. Subsequently, updates may be made by the construction contractor.

3.40 Waste produced during all construction activities on-site will be subject to the 'Duty of Care' under The Waste (England and Wales) Regulations 2011[7]. It is the joint responsibility between the Principal Contractor and the Applicant to ensure that waste produced on-site is disposed of in accordance with legislation. The Waste Duty of Care Practice (2018)[12] sets out practical guidance on how to meet waste duty of care requirements. It is issued under section 34(7) of the Environmental Protection Act (1990)[8] in relation to the duty of care set out in Section 34(1) of that Act.

3.41 The Principal Contractor will audit waste carriers and disposal facilities and maintain documentary evidence that these requirements are being met. A register of waste carriers, disposal sites (including transfer stations) and relevant licensing details will be produced and maintained on-site.

3.42 An area for waste collection and materials delivery and storage is expected to be provided within the Site boundary. Materials that can be beneficially used in the future development of the Site will be segregated directly on-site.

Current Construction Waste Management in England

Non-hazardous Waste

3.43 Defra data[20] shows that within England the recovery rate for non-hazardous construction and demolition wastes (excluding excavation wastes) has remained above 90% since 2010.

3.44 As of November 2024, the most recent data available from DEFRA on the recovery rates for non-hazardous construction and demolition (C&D) waste in England extends up to

[20] Department for Environment, Food and Rural Affairs. (2024). 'UK Statistics on Waste'. Available at: https://www.gov.uk/government/statistics/uk-waste-data/uk- statistics-on-waste

the year 2020. According to DEFRA's 'UK Statistics on Waste' publication, the recovery rate for non-hazardous C&D waste in England was 93.6% in 2020, the highest percentage across the 11 years for which data is available. Data for the years 2021, 2022, and 2023 have not yet been published. DEFRA typically releases waste statistics with a time lag to ensure data accuracy and completeness. Therefore, the most recent figures available are up to 2020.

Hazardous Waste

3.45 Based on the EA's Remaining Landfill Capacity dataset (2023), there are only seven Hazardous Restricted Landfill sites within England for which information on capacity is available, although none of these sites are within 30 miles of **EMG2 Project**. The total capacity across all seven sites in 2023 was 694,790 m^3. The nearest site for which data is available is Grange Top Quarry Landfill in Ketton Works, Stamford which is located 35 miles to the south-east of **EMG2 Project**. According to the Interrogator, this site currently has no capacity to receive hazardous waste. Of the seven sites, the nearest site that have remaining capacity is located in Kingsbury Road, Sutton Coldfield located 44 km to the south-west of **EMG2 Project**, which currently has a capacity of 195,048 m^3.

Current Regional Construction Waste Management

3.46 Based on the Environment Agency's 2023 Waste Data Interrogator – Wastes Received[21], (the most recent database at the time of writing) Leicestershire, Derbyshire and Nottinghamshire host a variety of waste management facilities. The categorisation and number of these facilities are as listed in **Table 3.2**.

Table 3.2: Waste Management Facilities Summary

Facility Type	Number of Sites
Landfill	15
Incineration	9
Transfer	133
Treatment	125
Metal Recovery	57
Processing	8
Storage	9
Total	**356**

Non-hazardous Waste

[21] Environment Agency. 2023. *Waste Data Interrogator – Wastes Received*. Data Services Platform. Published 16 June 2025. Includes an Excel extract of waste received at permitted sites.

3.47 The operational capacity of C&D waste facilities is shown in **Table 3.3**. The table shows that there is currently a total operational capacity of 1.30 Mt per annum of landfill and 2.95 Mt per annum of recycling, reuse and/or transfer respectively.

Table 3.3: Operational Capacity of C&D Waste Facilities

County	Facility Type	Operational Capacity (Mt per annum)
Leicestershire[22]	Landfill	1.00
	Recycling, Reuse or Transfer	1.06
Derbyshire[23]	Landfill	0.14
	Recycling, Reuse or Transfer	0.26
Nottinghamshire[24]	Landfill	0.16
	Recycling, Reuse or Transfer	1.63
Total	**Landfill**	**1.30**
	Recycling, Reuse or Transfer*	**2.95**
Note: There is also permission granted for two facilities which would provide 0.23 Mt of capacity per annum		

3.48 A review of the latest data on landfill capacity from the Environment Agency[25,26] shows a general decrease in the capacity of non-hazardous and inert waste across the three counties, with no capacity available for hazardous (restricted) waste in 2022 or 2023. The most significant reduction is in inert landfill capacity, which fell by 21.89% between 2022 and 2023. Overall, the total remaining landfill capacity across the three counties decreased by approximately 3.2% during this period, highlighting ongoing pressures on waste management infrastructure.

3.49 Baseline data indicates that inert, non-inert and total landfill capacity is likely to become an increasingly sensitive receptor throughout the duration of the construction phase of **EMG2 Works** and **Highways Works**.

3.50 As of November 2024, Leicestershire hosts one operational energy from waste (EfW) facility: the Newhurst Energy Recovery Facility (approximately 8 miles / 13 kilometres from **EMG2 Project**). Located near Shepshed, this facility began full operations in June 2023. It processes up to 455,000 tonnes of residual waste annually, generating approximately 42 megawatts (MW) of electricity—sufficient to power around 80,000 homes.

3.51 There are two other EfW facilities within the expansive study area. The first is the Biomass Power Plant in Widmerpool, Nottingham which is approximately 12.5 miles / 20 km to the

[22] Leicestershire County Council (2024) Authority Monitoring Report 2022-2023
[23] 'Derbyshire County Council's Waste Collection and Disposal Update' (2024) and 'Strategy for Dealing with Derbyshire's Waste' (2022).
[24] Nottinghamshire County Council and Nottingham City Council (2024): Nottinghamshire and Nottingham Waste Needs Assessment: 2022-2023 update
[25] Environment Agency. (2023). '2022 Remaining Landfill capacity, England'
[26] Environment Agency. (2024). '2023 Remaining Landfill capacity, England'

east of **EMG2 Project**. This plant recycles around 52,000 tonnes of waste wood annually, generating approximately 6.8 megawatts of electricity. The Drakelow Energy Generation Facility near Burton Upon Trent (approximately 13.6 miles / 21.9 kilometres from **EMG2 Project**) has the capacity to process 169,000 tonnes of non-recyclable Refuse Derived Fuel (RDF) each year, generating 18MW of electricity.

Hazardous Waste

3.52 According to the EA's 2023 Wastes Received Interrogator, there is a total of 15 hazardous waste facilities that accept C&D waste in Leicestershire, Derbyshire and Nottinghamshire. The nearest of these sites is the Bardon Waste Transfer Station located in Coalville, which is approximately 8.7 miles / 14km from EMG2 Project. Across these 15 sites, a total of 46,025 tonnes of waste was received in 2023 and a total of 24,021 tonnes was removed.

Identifying Waste Streams

Demolition Waste

3.53 The DCO Scheme will involve minimal demolition, limited to possible removal of some overhead gantries as part of the **Highways Works**. Therefore, demolition waste will not be considered further within this SWMMP.

Earthworks

3.54 An earthworks cut and fill assessment for the **EMG2 Works** which has been undertaken concluded that the majority of excavated material (non-organic) will be reused on-site and that there will be an approximate deficit of 17,000m^3, which is considered to be well within the tolerance for when major earthworks can be deemed to provide a balanced cut and fill exercise.

3.55 Material quality would be assessed to ensure material is placed in a suitable location on-site, such as within the mitigation mounding, minimising the requirement to dispose of excavated material.

3.56 Only if excavated material is not required or is unsuitable for the development or specified receiver sites, it would become waste. At the time of writing, there are no known contamination sources that would cause the ground to be impacted to levels that could classify soils as hazardous waste.

Construction Waste

3.57 The main potential waste streams from the construction of the DCO Scheme are as follows:

- Construction waste - e.g. cement, concrete, aggregates, pipe work, sand;
- General waste (produced from temporary accommodation on site) - e.g. cardboard, plastic, glass, wood; and
- Materials packaging.

3.58 Key construction materials estimated to be required are presented in **Table 3.4**. The information provided describes the material type, estimated quantity and any available information relating to the use of the material in the construction of all of the components of the DCO Scheme.

Table 3.4: Construction Material Estimations for the DCO Scheme

Material Assets	Quantity (Tonnes)	Use of Material in the Proposed Scheme
Steel	19,731	Used in concrete reinforcement, sheet piling and drainage equipment.
Concrete	309,817	This includes reinforced concrete for structures, foundations, piling and pre- cast concrete for drainage.
Asphalt Concrete	183,869	Used for the construction of roads.
Stone Mastic Asphalt	16,884	Used as the surface material in the construction of roads.
Aggregates	229,428	Used as material components in concrete and asphalt concrete.
Insulation	3,473	Used to insulate buildings to improve energy efficiency.
Reinforcing Bar (Rebar)	4,243	Used to reinforcement concrete.
Aluminium	373	Used for a variety of purposes, including structural components, enclosure, roof panels, shelving, and equipment for automated systems.
Glazing	216	Used to allow natural light and views while also providing a barrier against the elements.
Membranes	63	Used for protection and moisture management
Raised Access Floor	169	Used to hide and protect utilities while allowing easy access for maintenance and upgrades.
Paint	71	Used as a decorative enhancement and protective barrier.
Glass Fiber Reinforced Polymer	109	Used to reinforce concrete structures.
Plasterboarding	972	Used for lining interior walls and ceilings in buildings.
Tiles	98	Used for covering surfaces like floors and walls.
Timber	34	Used for decking and shelving.
Coatings	145	Used for protecting concrete floors.

Screed	353	Used to create a smooth, level surface for flooring.
Vinyl	6	Used for flooring and signage/labels
Cladding	3	Used for providing insulation, enhancing aesthetics, and protecting the building's structure from the elements.
Blockwork	60	Used to build internal partition walls and retaining walls.
Earthworks (imported material)	28,900*	Engineered fill material for ground raising and topsoil.
* This figure assumes a soil weight of 1.7 tonnes per cubic meter		

3.59 The specification of materials is anticipated to be confirmed prior to the commencement of the construction of **EMG2 Works** and **Highway Works**. It is recommended that the Principal Contractor updates these estimations of materials required should they change. Each type of waste will be identified as inert, non-hazardous or hazardous as per Regulation 6 and 7 of The Hazardous Waste (England and Wales) Regulations 2005[27]. Advice on the nature of construction and demolition waste can be found on the following web address[28]: https://www.gov.uk/how-to-classify-different-types-of-waste/construction-and-demolition-waste.

Hazardous Wastes

3.60 While hazardous wastes are a small proportion, the plan specifically addresses them to ensure full compliance:

- Legal Compliance: All hazardous operational wastes will be handled in accordance with the Hazardous Waste Regulations and Duty of Care. This means they will be consigned with consignment notes, and only transferred to facilities permitted to take that specific waste. For instance, waste oils will go to a facility permitted under oil reclamation or incineration.
- Storage and Segregation: As mentioned, hazardous wastes like oils, chemicals, batteries will be stored safely and labeled. In no case will hazardous waste be mixed with general waste or poured down drains. This is part of the development's environmental management protocols. Small volumes of hazardous waste (like a drum of oil) can be temporarily stored, but will be kept below thresholds that might trigger any need for an on-site permit (the 2016 consolidation of Environmental Permitting regs removed the hazardous waste registration, but best practice storage will still be adhered to).

Common Hazardous Streams:

[27] GOV.UK (2005) 'The Hazardous Waste (England and Wales) Regulations 2005'. Available from: https://www.legislation.gov.uk/uksi/2005/894/contents/made
[28] GOV.UK (no date). 'Classify different types of waste.' Available from: https://www.gov.uk/how-to-classify-different-types-of-waste/construction-and-demolition-waste

- Forklift batteries: If lead-acid, these will be exchanged with battery suppliers (often they do swaps). End-of-life batteries will be sent to battery recyclers (lead can be fully recovered).
- Waste oils and filters: Collected in drums, picked up by a waste oil contractor. They often send oils for re-refining or use as secondary fuel.
- E-waste (WEEE): The Site's IT waste (computers, monitors, etc.) should be handled by WEEE recyclers. Under the WEEE Regulations, producers (manufacturers) have obligations, but such wastes will be stored and handed to certified WEEE recyclers.
- Fluorescent tubes: Usually collected in special containers (coffin-like boxes) and sent to processors that recover mercury and phosphors.
- Chemicals/paints: If a tenant has leftover paints or chemicals, they will need to dispose of them as hazardous waste, likely through a hazardous waste contractor that can incinerate or stabilize them.

3.61 If any types of waste are classified as hazardous under Regulation 6 of the Hazardous Waste Regulations[19], the Principal Contractor must notify the Environment Agency (EA) that they are producing hazardous waste prior to removal of any waste from the study site.

3.62 If hazardous waste is identified, it should be transported to a licensed disposal site by a licensed waste transporter using permitted routes.

Waste Diversion Targets

3.63 It is anticipated that the DCO Scheme would target a minimum of 90% reuse / recycling / recovery of construction and demolition waste, with a maximum of 10% being sent to landfill.

3.64 A more robust estimate of the types and amounts of construction waste will be made by the Principal Contractor prior to construction. From this, targets will be set as to how much waste would be produced and re-used, recycled or disposed of throughout the construction phase. These targets will be continually re-assessed by the Principal Contractor throughout the construction phase to ensure they are being reached.

3.65 **Appendix 2** is an example of a pro forma document which must be completed by the Principal Contractor for the Scheme. It contains:

- Key details of the DCO Scheme;
- The anticipated streams of each type of waste during construction; and
- Details of how waste would be managed during construction, including who would transport waste off-site and where this waste would be transported to.

Waste Prevention and Minimisation

3.66 As previously mentioned, the Scheme would target a minimum of 90% reuse / recycling / recovery of construction and demolition waste, with a maximum of 10% being sent to landfill.

3.67 Construction should be fully controlled and documented to conform to the waste hierarchy. Full control measures for the safety of workers and the environment will be in place as required by relevant health and safety law.

3.68 Measures detailed within the Construction Industry Research and Information Association (CIRIA) – Environmental Good Practice on Site Guide (C741)[29], will be adhered to in the ordering, delivery, storage and handling of materials to avoid waste.

3.69 Quantities of waste will be reduced by simple decisions early in the design process, such as considering pre-ordering materials to specification or purchasing materials with returnable packaging. Accurate ordering will be used to reduce Site waste as well as reduce costs and space required for storage. Reuse and recycling of existing Site materials will be used to reduce waste and costs during construction.

3.70 In advance of construction, the Site would be secured by the installation of perimeter fencing, which would be maintained throughout the construction phase. This would ensure materials are safely secured throughout the works.

3.71 This SWMMP should be updated with a statement on the consideration given to materials resource efficiency in designing and planning the construction to ensure the principles of the circular economy are adhered to. This may include design specifications, choice of materials, consideration of where to source materials from, and method of construction such as pre-fabricated materials.

Appropriate Storage of Raw Materials and Waste

3.72 The correct storage of raw material and waste on the Site will be a crucial step in preventing the production of waste. Furthermore, the appropriate storage of waste which cannot be re-used will be essential for transporting this waste to recycling or landfill facilities, as appropriate.

3.73 All materials imported on-site will be securely stored as per the manufacturer's instructions. A plan setting out where materials and waste would be stored during construction will be provided by the Principal Contractor once appointed.

3.74 Dedicated waste storage areas should be set up for different types of waste to facilitate easy segregation. This is of particular importance for materials that be re-used on or off-Site or can be recycled in order to minimise waste disposal. Containers should be clearly labelled for construction debris, metals, wood, plastics, and hazardous waste to simplify the recycling and disposal process. Bins may be colour-coded to make waste separation clear for Site workers.

3.75 The Principal Contractor should carefully plan the provision of waste storage areas and how the Site will be kept tidy to ensure the safety of Site workers and the public and waste is managed securely.

3.76 The Flood Risk Assessments for the EMG2 Main Site (**Document DCO 6.13I / MCO 6.13I**) identified that the study site is located entirely within Flood Zone 1 (land at low risk of

[29] CIRIA (2015) 'Environmental Good Practice On Site Guide (C741)' Available from: https://www.ciria.org/ItemDetail?iProductcode=C741&Category=BOOK

flooding from rivers and sea) of the Environment Agency (EA) Flood Map for Planning[30]. This reduces the risk of wastage due to the potential flooding of storage areas, however, materials will still need to be stored off the ground to ensure they are not affected by surface water, leading to waste.

3.77 The Health and Safety Executive has provided further guidance on the acceptable storage of materials during construction, as well as recommendations on waste management. The recommendation for the storage of materials and waste management during the construction of the Scheme are summarised in **Table 3.5**.

Table 3.5: Recommendations for Storage of Materials and Waste Management During Construction

Construction Element	Recommendation
Storage of Materials	
Storage Areas	Designate storage areas for plant, materials, waste, flammable substances (e.g. foam plastics, flammable liquids and gases such as propane) and hazardous substances (e.g. pesticides and timber treatment chemicals).
Pedestrian Routes	Do not allow storage to 'spread' in an uncontrolled manner on to footpaths and other walkways. Do not store materials where they obstruct access routes or where they could interfere with emergency escape.
Flammable Materials	Store flammable materials away from other materials and protect them from accidental ignition.
Storage at Height	If materials are stored at height (e.g. on top of a container), ensure necessary guard rails are in place to reduce the risk of people falling when stacking or collecting materials or equipment.
Tidiness	Keep all on-Site storage areas tidy.
Deliveries	Plan deliveries to keep the amount of materials on-Site to a minimum.
Waste Management	
Flammable Materials	Ensure that all flammable waste materials (such as packaging and timber offcuts) are cleared away regularly to reduce fire risks.
Work Areas	Ensure clearing waste is a priority for all trades. Check that everyone is aware of what is required and that it is being done.
Skips	Store waste materials safely before their removal from the Site. Ensure sufficient space for waste skips and bins. Plan where the skips can be positioned and how often they will need to be collected.
Waste Within Buildings	Consider waste generated inside the building and whether wheeled bins or chutes should be provided to enable waste to be brought out of the building safely.

3.78 Waste storage areas will be relocated at different stages of the construction process and multiple areas may be allotted for the purpose of waste storage and removal at peak turnovers. Waste management will also be dependent on the final Construction Logistics Plan. Once this information is agreed and approved, this section of the subsequent SWMMP will be updated as appropriate.

[30] Environment Agency (no date) Flood Risk Mapping. Available from: https://www.gov.uk/check-long-term-flood-risk

3.79 The Principal Contractor will consult with the relevant highway authority regarding the layout and positioning of Site accesses and undertake swept path analysis to determine suitability as an access/egress for all vehicle types, including waste collection vehicles, anticipated to be required to visit the Site.

3.80 Waste will be segregated into the following, where practicable and feasible:

- Recyclable Materials – Wood, Metals, Paper/Cardboard, Glass, Plastic;
- Plasterboard;
- Other inert waste;
- Batteries;
- Aerosols;
- General Waste;
- Hazardous Solid Wastes; and
- Hazardous Liquid Wastes.

Meeting BREEAM Requirements

3.81 It is understood that a BREEAM rating of 'Excellent' will be targeted as a minimum. Any work undertaken to achieve credits relating to the following BREAAM elements should be set out within the SWMMP:

- Wst 01 Construction waste management; and
- Wst 02 Use of recycled and sustainably sourced aggregates.

Waste Mitigation Measures

3.82 Mitigation measures are measures employed to prevent or minimise adverse environmental effects of developments.

3.83 It is recommended that the mitigation measures detailed in **Table 3.6** are employed during the demolition and construction of the DCO Scheme to help prevent and reduce waste, as well as to ensure unavoidable waste can be reused or recycled.

Table 3.6: Waste Mitigation Measures During Construction

Waste Aspect	Mitigation Measures
Preventing and Reducing Waste	• Ensure waste storage facilities are provided to appropriate standards; • Ensure adequate security measures are in place for the Site, storage facilities and waste storage facilities; and • Provide appropriate waste disposal routes.
Improving Resource Efficiency	• Identify / use recycled materials instead of new materials where applicable; • Store new and recovered materials effectively to minimise deterioration; • Identify materials to be reused / recycled / recovered during the decommissioning phase; • Segregate wastes to improve recovery potential and minimise waste production; and • Consider arranging for suppliers to 'take back' leftovers and/or packaging.
Re-using and Recycling Waste	• Reduce waste on-Site by recycling and by the efficient use of materials; • Use materials which can be re-used following decommissioning phase; • Ensure on-Site workers have easy access to waste recycling facilities; and • Ensure waste trucks have easy access to waste storage facilities.
Dust emanating from land clearance, skip stations, HGV movement	• Use locally sourced materials to reduce long distance transport where feasible; • Use of enclosed containers to store waste susceptible to spreading by wind or liable to cause litter; • Use water sprays or sprinklers on dusty ground during windy weather to suppress dust disturbance by HGV movement; • Use hybrid technology construction plant where feasible; • Use low sulphur diesel; • Use tools which can removes dust as it is being produced where feasible; and • Erect fencing around Site perimeter.
Use of hazardous chemicals on-site including paints, glues, oils, thinners and plastics	• Undertake a Control of Substances Hazardous to Health (COSHH) Assessment; • Correct storage of hazardous materials (e.g. provision of lockable COSHH store, store fuel within bunded areas); • Use of PPE by Site workers; • Identify all potential pathways to sensitive receptors; • Regular cleaning of on-Site drains; and • Install devices within drains which prevent pollution following a spill.

Re-use and Recycling of Waste

3.84 The re-use and recycling of waste comprise the second and third steps of the waste hierarchy, respectively and can provide the following benefits:

- Minimise the amount of waste the construction of a project produces;
- Contribute to the circular economy;

- Reduce the amount of embodied carbon within materials used; and
- Provide cost benefits to developers.

3.85 Opportunities for sourcing secondary or recycled materials from construction sites in the vicinity of the study site should be explored by the design team during the detailed design stage.

3.86 Waste during the construction phase of the DCO Scheme should be re-used on-site or recycled as much as possible.

3.87 The possibility of providing on-site recycling facilities for materials like concrete, asphalt, and metals, which can be crushed, processed, and reused in construction activities should be explored.

3.88 For materials that cannot be re-used on-site but can be recycled, collaboration with waste management companies that operate Material Recovery Facilities should be undertaken. This will ensure that recyclable materials will be sorted, processed, and recovered, diverting them from landfills.

3.89 Any materials which cannot be re-used on-site, but which can be recycled off-Site should be appropriately separated and stored on-Site prior to their transport to a waste recycling facility.

Management of Materials

3.90 A Materials Management Plan (MMP) is a mechanism by which those who are developing a site can comply with Environment Agency regulations for excavated ground materials.

3.91 CL:AIRE is an independent not for profit organisation established to stimulate regeneration of contaminated land. They have produced a voluntary Code of Practice (CoP) for the development industry to help facilitate the use of excavated materials as non-waste. The CoP sets out a mechanism for working out with the waste legislation framework in regard to the use of excavated materials, applicable to both greenfield and brownfield sites. The CoP, which was introduced in September 2008 and revised in March 2011, is now widely used as a means of managing and controlling the movement of materials both on and off site.

3.92 The reuse of this material can give significant environmental benefits, such as reducing resource consumption, as well as financial benefits, such as lower disposal and purchasing costs.

3.93 The independent body, Contaminated Land: Applications in Real Environments (CL:AIRE) promotes the sustainable remediation of contaminated land and groundwater. It produced a Code of Practice (CoP) to enable the reuse of excavated material without it being classified as waste.

3.94 If required, the MMP should be completed and authorised before any materials can be reused on site, showing that human health will not be harmed or the environment polluted.

3.95 The MMP must demonstrate consideration of the following:

- Protection of human health;
- Protection of the environment;
- Suitability of the material without treatment;
- Suitability of the material after treatment; and
- What is being used, how much is being used, where it is being used, and so on.

3.96 CL:AIRE has produced a form (**Appendix 1**)that supports the completion of an MMP. It should contain information about the project as well as supporting evidence such as risk assessments and site investigation reports.

3.97 A 'qualified person', registered with CL:AIRE, must review the completed MMP and provide a declaration to the Environment Agency to confirm that the requirements have been met.

3.98 The developer should then implement the MMP closely, recording any changes that are made during the course of the project, and reconciling them if necessary.

Materials Use on Site

3.99 For the purposes of this Outline MMP, 'on site' refers to land contained within the DCO limits.

3.100 Excavated materials can be used directly within the Site, subject to it being suitable for use, or following on site treatment under an appropriate Environmental Permit. Any surplus material should be taken to an authorised waste management facility, or donated to a Hub site within a Cluster Project (see Cluster Projects). If it is a clean natural soil material it may also be transferred directly to another development site (see Direct Transfer).

3.101 The CoP includes Direct Transfer of clean naturally occurring soils and mineral materials from one site to another development site for use, without the need for waste legislation to be applied. These materials can include topsoil, subsoil, clays, silts, sands and gravels, and the underlying geology. It can also include Made Ground, provided it is suitable for use without processing.

Movement and Tracking Systems

3.102 The movement of materials within the Site and between sites must be tracked throughout and evidence generated to provide an auditable trail. The tracking system must include:

- Annotated plans of the Site identifying excavation areas, stockpile locations, any treatment areas and placement locations;
- inspection and testing procedures to verify materials are as anticipated from the Site investigation information;
- tracking forms and control sheets to record the movement of materials, including delivery tickets if materials are moving between sites; and
- acceptance and testing procedures if materials are moving between sites.

Monitoring

3.103 Monitoring waste generation and disposal in construction in the UK is essential for several reasons, primarily driven by environmental, economic, and regulatory considerations.

3.104 Construction materials are finite resources, and the construction industry is a major consumer of raw materials. Monitoring waste generation allows for a better understanding of resource use patterns, promoting more efficient material management. By tracking waste, construction professionals can identify opportunities for waste reduction, material optimisation, and the adoption of circular economy principles.

3.105 Furthermore, the UK has regulations and legislation in place to govern waste management, including construction waste. Monitoring waste generation and disposal helps construction companies comply with legal requirements, ensuring that waste is handled in accordance with environmental standards. Failure to comply with these regulations may result in penalties and legal consequences.

3.106 To fulfil these requirements, the Principal Contractor may be asked to implement waste management plans, track waste quantities, report on waste diversion efforts, and adhere to best practices for sustainable construction.

3.107 The Principal Contractor should assign an appropriately qualified person to routinely collect relevant construction waste data throughout the duration of construction as part of the SWMMP with the purpose of identifying whether any targets set are likely to be met and what corrective actions, if any, need to be taken.

Qualified Person Assessment

3.108 The MMP would be subject to review and Declaration by a Qualified Person (QP), who must be registered with CL:AIRE. The MMP would then be submitted to EA for information and as a record of the plan. The Declaration serves as notification, that having reviewed the evidence relating to the proposed use of materials on site, the QP is satisfied the CL:AIRE Code of Practice can be utilised appropriately.

3.109 Once the Declaration has been made, the organisation commissioning the QP must then follow the MMP and produce a Verification Report on the works, which would form part of the audit trail upon completion of the Proposed Development.

3.110 The QP would be required to review the various documents relating to the excavation and movement of materials. They must be suitably qualified and experienced to undertake the review and be confident in signing the Declaration.

3.111 The QP assessment process would include the following main lines of evidence:

- Has the source site of the excavated materials been adequately described and appropriate information provided that confirms that these materials will not cause harm to the environment or harm to human health in the proposed location of future use;
- have all parties involved with the excavation and treatment of materials been identified;
- have all the materials been adequately characterised and fall within the scope of the CoP;
- has the MMP been completed using the correct CL:AIRE template;
- have all lines of evidence been followed and the appropriate regulators consulted and that they have no objection; and
- is there enough evidence to demonstrate certainty of use of the excavated materials and of the correct quantity.
- The QP does not need to inspect the site, carry out any additional assessment (including dialogue with the regulators) or produce/review the Verification Report. The QP can, however, be separately appointed to assist or prepare the Verification Report, but this would be outside the remit of the CoP.

3.112 Subject to acceptance and sign off of the MMP by the QP, there would be no requirement for EA to have any input to the process other than for auditing purposes. This could involve visiting the site and reviewing the MMP documentation, operation and management at the site and at any site(s) receiving the material.

Waste Collection and Disposal

3.113 No burning of any waste will be permitted on the EMG2 Main Site, including within the Site compound/storage areas.

3.114 Fly-tipping of waste on or adjacent to ongoing construction projects will be prohibited. Any waste carrier found to be fly-tipping will have their contract terminated immediately and reported to the appropriate authorities. Should waste be fly-tipped onto the EMG Main Site, the Principal Contractor has a 'Duty of Care' to ensure it is dealt with safely and disposed of correctly even though not the producer of the waste.

3.115 A swept path analysis should be undertaken to determine whether there would be sufficient space for service vehicles to access/egress the Site in a forward direction, as well as being able to manoeuvre throughout the Site safely.

3.116 In accordance with the Environmental Protection Act (1990)[8], waste should be transported off-site by carriers registered with the EA and taken to appropriately licensed facilities.

3.117 Any waste to be transported off-Site, will be collected by a registered waste carrier with the EA. This would need to be done by private waste contractors given that local authorities only provide these services for municipal waste. The following website can be used to confirm whether a waste collector is registered with the EA: https://environment.data.gov.uk/public-register/view/search-waste-carriers-brokers.

3.118 All generated waste will be sorted for reuse, recycling or disposal, and placed into their respective lorries. All non-hazardous waste that is not suitable for reuse on-site will be loaded out onto waste trucks from the registered waste contractor, and once full, transported to a licensed recycling centre or nominated landfill site.

3.119 Once a detailed SWMMP is developed by the Principal Contractor, it should be updated each time waste is removed from the Site. Prior to exiting the Site, waste must be described in paperwork in accordance with the waste classification codes. Detailed guidance on classification codes for waste has been provided by the EA, the Scottish Environmental Protection Agency (SEPA) and Natural Resources Wales (NRW)[31].

3.120 For each load of non-hazardous waste which is transported off the premises of a business, a waste transfer note or a document containing similar information, must be completed. The Site Manager would be responsible for maintaining documentation evidence that these requirements are being met, including a register of carriers, disposal sites (including transfer stations) and relevant licensing details for each waste stream.

3.121 According to the UK Government, a business can download and fill in a waste transfer note at the following web address: https://www.gov.uk/government/publications/duty-of-care-waste-transfer-note-template.

3.122 Alternatively, a business can be registered online at the following web address: https://portal.edoconline.co.uk/register. Following registration, a waste transfer note can be filled out for a single load, or a business can pay in advance for a series of loads.

3.123 The following EA website can be utilised to determine whether a waste carrier or waste facility is appropriately registered: https://environment.data.gov.uk/public-register/view/index.

3.124 It is the responsibility of the Principal Contractor to identify the capacity of landfill sites nearby to accept wastes from the construction of the DCO Scheme.

[31] EA, SEPA and NRW (2021) 'Guidance on the classification and assessment of waste' Available from: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1021051/Waste_classification_technical_guidance_WM3.pdf

4. OPERATIONAL WASTE MANAGEMENT PLAN

Introduction

4.1 This Operational Waste Management Strategy sets out the sustainable waste management principles for managing operational waste generated by the DCO Scheme.

4.2 The occupier will work with its waste management contractor to prepare and implement an Operational Waste Management Plan ('OWMP'). The OWMP will be substantially in accordance with this SWMMP.

4.3 This framework OWMP has been prepared to outline the waste management strategy that will be adopted for the buildings associated with the **EMG2 works**.

4.4 The OWMP will identify the types and amounts of waste that are likely to be produced by occupants of the buildings. Measures will be identified that will be incorporated into the design to ensure maximum recycling, reuse and recovery of waste, in accordance with national, regional and local policy.

4.5 Commercial and industrial (C&I) waste is generated by business and industrial activity and will therefore occur widely within the region with a particular concentration in more urbanised areas. Certain elements of the C&I waste stream, such as mixed ordinary C&I waste, can be very similar to household waste and can often be dealt with through similar treatment and disposal processes. C&I waste can also contain hazardous substances which require management at specialist facilities.

Duty of Care

4.6 Section 34 of the Environmental Protection Act 1990[8] and the Waste (England and Wales) Regulations 2011 (as amended)[7] requires anyone who produces, imports, keeps, stores or transports, treats or disposes of waste to take all reasonable steps to ensure that waste is managed properly. Anyone in possession of waste must take all reasonable steps to:

- Prevent unauthorised or harmful deposit, treatment or disposal of waste;
- Prevent a failure by any other person to meet the requirement to have an environmental permit, or a breach of a permit condition;
- Prevent the escape of waste;
- Ensure waste is transferred to an authorised person; and
- Provide an accurate description of the waste when it is transferred to another person, by using a compulsory system of Waste Transfer Notes that control the transfer of waste between parties.

Current Waste Management in England

4.7 Information on C&I waste generation in England is currently provided in the UK Statistics on Waste report[20]. Whilst this report does not provide a regional breakdown of C&I

arisings, it estimates that approximately 33.6 million tonnes of C&I waste was generated in England in 2022 with approximately 60% stemming from the commercial sector. Since 2010, the lowest amount of C&I arisings generated in England was 31.7 million tonnes in 2014, whilst the lowest amount was 37.2 million tonnes in both 2018 and 2019. C&I waste accounted for 19% of total waste generation in the UK in 2018. A large proportion of C&I waste comprises packaging, of which 64.8% was recycled in the UK in 2023, which was an increase from the 62.4% recycled in 2022.

4.8 A recycling rate of operational waste has been set at a minimum of 70% recovery as per the target set for 2030 in the Waste Strategy for England (2018)[11].

Current Regional Waste Management

4.9 C&I waste is currently collected within the region by a large number of private waste companies. There is also a considerable network of waste facilities that are used to bulk, transfer, treat and dispose of C&I waste.

4.10 EA data[26] shows that there is a general decrease in landfill capacity within Leicestershire, Derbyshire and Nottinghamshire, with no capacity available for hazardous (restricted) waste in 2022 or 2023. There is a current capacity of 36,868,132 m^3 for all landfill types across the three counties in 2023, compared to a total of 38,976,244 m^3 in 2022.

4.11 Details on the capacity of various types of facilities that accept C&I waste within the DCO area are set out in **Table 4.1**. All figures stated are in tonnes per annum (t/a). It should be noted that data on C&I waste is generally reported on alongside household waste as the waste streams are similar.

Table 4.1: Existing C&I Waste Capacity within the DCO Area

County	Composting	Disposal (not landfill)	Recovery	Recycling	Reuse	Transfer	Anaerobic Digestion
Leicestershire	897	182.5	51,289	637,994	2,013	97,760	0
Derbyshire	71,915	0	4,902	145,804	0	381,983	3,784
Nottinghamshire	80,345	0	0	1,367,501	0	749,958	394,226
Total	**153,157**	**182.5**	**56,191**	**2,151,299**	**2,013**	**1,299,701**	**428,010**

4.12 Further to the data in **Table 4.1**, according to LCC's Annual Monitoring Report (2024)[32] permission has been granted for the following which could accommodate C&I waste:

- Two recovery operations facilities with a combined capacity of 385,000 t/a; and

[32] Leicestershire County Council (2024) Authority Monitoring Report 2022-2023

- Two recycling operations facilities with a combined capacity of 150,000 t/a.

Waste Management Strategy

Identifying Waste Types

4.13 The exact tenants proposed for the buildings is currently unknown, therefore, it is not possible to accurately predict the waste materials that will be generated as a result of the operational phase. However, It is assumed that operational waste will comprise standard bi-products associated with warehouse and non-specialised industrial operations. These wastes can generally be grouped into categories based on their source and material composition. Below is an outline of standard wastes associated with warehousing operations:

- Packaging - plastics, cardboard, wood, metal strapping and synthetic polymers such as polystyrene);
- General Waste - includes non-recyclable items like food wrappers, office waste, or small quantities of miscellaneous items;
- Damaged or Unsellable Goods - products that cannot be resold or reused due to damage or expiration;
- Hazardous Waste – batteries, Electrical and Electronic Equipment (WEEE) including outdated or broken machinery, lighting fixtures, or IT equipment, cleaning products and paints, oils / lubricants and solvents used in maintenance; and
- Organic Waste – such as food waste and compostable materials such as biodegradable packaging.

4.14 It is anticipated that there will be minimal waste produced during the operational phase of the Highways Works, therefore, this is not considered further in this SWMMP.

Waste Hierarchy

4.15 The waste hierarchy ranks waste management options according to what is best for the environment. It gives top place to waste prevention. When waste has been generated, priority is given to preparing it for re-use, then recycling, then recovery, and last of all disposal (for example, landfill). The waste hierarchy is a key element of sustainable waste management. The Waste (England and Wales) Regulations 2011 (as amended) require those undertaking waste management activities such as the import, production, collection, transportation, recovery and/or disposal of waste take all reasonable measures to apply the waste hierarchy.

4.16 Defra has published guidance on how the waste hierarchy should be applied to a range of common wastes (Guidance on applying the Waste Hierarchy, Defra, 2011). It summarises the findings of current scientific research on the environmental impacts of various waste management options for a range of materials and products. The guidance states that for most materials the waste hierarchy ranking applies. However, the evidence suggests that for some materials, the preferred waste management option (i.e. with the lowest environmental impact) does not follow the waste hierarchy

order. This is true for lower grades of wood, where energy recovery options are more suitable than recycling.

4.17 All operational waste generated by buildings associated with the **EMG2 Works** would be managed in accordance with the waste hierarchy unless it can be demonstrated that an alternative option lower down the hierarchy is the best overall environmental outcome (for example, waste wood is often used for biomass heat recovery rather than being recycled). Waste transfer notes or consignment notes will include a declaration that the waste hierarchy has been applied.

4.18 Each individual unit / operation will be required to sort their waste into the following segregation categories:

- Dry Mixed Recycling (DMR)
- Mixed Non-Recycling (MNR)
- Organic Food & Landscaping Waste

4.19 Each occupant will be required to segregate their own waste at source. Each unit will be provided with information explaining exactly how waste materials should be segregated. The occupants will then be required to bring the suitable waste streams from their units to the labelled bin storage areas. The different bin types will be clearly colour coded and labelled in Waste Storage Areas (WSA).

4.20 In addition to the above waste streams, the chart given to each unit will encourage the reuse of the products below. Failing the occupant finding a reuse for the products, they will be encouraged to segregate and appropriately disposal of:

- Glass (segregated into clear, brown and green);
- Electrical goods (WEEE);
- Batteries;
- Chemicals (paints, adhesives, resins, detergents);
- Waste cooking oil;
- Textiles;
- Furniture.

4.21 WSAs will be equipped with wastewater drainage points for cleaning and disinfecting purposes.

4.22 WSAs must be adequately ventilated so as to minimise odours and potential nuisance from vermin/flies and take account of the avoidance of nuisance for habitable rooms nearby.

4.23 Provision must be given in the layout for sufficient access for waste collectors, proximity of, or ease of access. And should not present any safety risks to users and should be well-lit. Where WSAs are located internally, floor Surfaces should be fitted with a non-slip coating or suitable finished reinforced screed. The floor level shall not exceed 1:12 and

WSA's in basements should be avoided where possible, but where provided, must ensure adequate manoeuvring space for collection vehicles. Any access doors are to be of sufficient width to accommodate all users and, where self-closing devises are provided, then they are in accordance with requirements of Technical Guidance M[33]. All storage facilities will be subject to design and detail of a valid fire safety certificate.

Collection

4.24 Only companies who are approved and hold waste collection permits will be considered for the collection of the wastes stored in the WSA. This will ensure the wastes are collected and disposed of at an approved facility. Non-recyclable waste and organic waste will be collected no less than fortnightly, as there may be odour risks if the waste is left for longer periods before being collected.

4.25 To meet the requirements of Section 34 of the Environmental Protection Act 1990, waste materials arising from the operation of the buildings will only be transported by waste carriers and hazardous waste carriers holding a valid registration with the Environment Agency. All waste on-site will be characterised and recorded: the waste streams would be classified in line with technical guidance.

4.26 Requirements for transferring waste and registered waste carriers are set out in Part 8 and 9 of the Waste (England and Wales) Regulations 2011. The waste would only be transferred to facilities that have the benefit of a registered waste exemption, or an environmental permit and appropriate planning consent. Due diligence of planning consent and environmental permits would be undertaken before waste from the Site is taken to waste facilities.

4.27 All waste storage bins will be presented for collection in a manner that will not create a hazard to traffic. The movement will be closely co-ordinated to ensure bins are presented for a short period only as not create an excessive odour nuisance or generate litter. Records of the collections will be maintained by the facilities management company for the development.

[33] HM Government (2015) 'Building Regulations - Approved Document M Volume 2 – Buildings Other than Dwellings'

APPENDICES

APPENDIX 1: CL:AIRE Materials Management Plan Guide

Materials Management Plan (MMP) Form - October 2014

This form should be completed once the lines of evidence have been marshalled in relation to suitability for use, certainty of use and quantity required.

The answers to the questions posed within this form, together with the supporting information will constitute the MMP and must be provided to the Qualified Person.

A Qualified Person may comment on draft versions of this MMP, but will not complete the Declaration until all the relevant documents, demonstrating lines of evidence have been provided for each site.

The person / organisation who will pay the Declaration fee should confirm that they have read and understand the Terms and Conditions relating to the payment of the Declaration fee to CL:AIRE. These can be found on the CL:AIRE website.

The person / organisation agreeing to pay the Declaration Fee - Name, organisation and contact details inc. email address -	

☐ **I confirm I have read and understood the Terms & Conditions.**

Each question must be answered. If the question is not applicable please state this and provide a brief explanation.

1. Specify the scenario to which this MMP relates, as described in the Definition of Waste: Development Industry Code of Practice (DoW CoP) (1, 2, 3 or 4):

☐ 1. Reuse on the Site of Origin

☐ 2. Direct Transfer of clean naturally occurring soil / mineral materials

☐ 3. Cluster Project

☐ 4. Combination of any of the above

In the case of a combination of reuse scenarios, please describe it below (e.g. (i) Reuse on Site of Origin and Direct Transfer of clean naturally occurring unpolluted soils, (ii) Reuse on the Site of Origin with Direct Transfer of clean naturally occurring soil to x number of development sites etc:

(NB: A Declaration is required for reuse on the Site of Origin and for any 2 site arrangement i.e. there is no facility for a combination Declaration)

2. Organisation and name of person preparing this MMP	(Full address and contact details)

Document Control

Date issued	
Revision date	
Summary of revision 1	
Summary of revision 2	

Insert additional lines to the table above for any subsequent revisions.

Note - revisions to the MMP do not trigger an additional Declaration by a Qualified Person, unless an additional site is added to the project.

Revisions to the MMP must be recorded and summarised in the Document Control box above.

Site Details

3. Site / Project name(s)	
Reuse / receiving site name :	
Donor site name (if Direct Transfer)	

Landowners

4a. Name of Landowner(s) (full address and contact details) – where excavated materials are to be reused	
4b. Name of Landowner(s) (full address and contact details) – where excavated materials are arising from	

Summary and objectives

5a. Provide a brief description of the planned project and how excavated materials are to be reused.	

General Plans and Schematics

6. **Attach** a location plan for the site(s) and a plan of the site(s) which identifies where different materials are to be excavated from, stockpile locations (if applicable), where materials are to be treated (if applicable) and where materials are to be reused.	Plan Document Reference(s):

7. **Attach** a schematic of proposed materials movement. Where there is only one source area and one placement area briefly describe it. For all other projects a schematic is required.	Description & Schematic Document Reference:

Parties Involved and Consultation – if more than one party please provide additional details for them and identify the location that they will be working e.g. where a site is zoned

8a. Main earthworks contractor(s) (full address and contact details) – Where excavated materials are to be reused	
8b. Main earthworks contractor(s) (full address and contact details) - Where excavated materials are arising from	

9. Treatment contractor(s) (full address and contact details) – for treatment on site of origin, or at a Hub site within a fixed STF / Cluster Project	

10. Where wastes and materials are to be transported between sites, provide details of the transport contractor(s) (full address, contact details and waste carriers registration details (if applicable))	

11. Provide Local Authority contact details (full address and named contacts) where excavated materials are to be reused	

12a. For the site where materials are to be reused and for Hub Site locations provide Environment Agency contact details (full address and named contacts):	
For all Cluster Projects: 12b. Attach any relevant documentation	EA references:

from the EA relating to the excavation and reuse of the materials to demonstrate no objection to the proposals (see 3.37 of DoW CoP) If the EA has not been consulted please explain why (see paragraph 3.39 of the DoW CoP).	

Lines of Evidence

There is no one single factor that can be used to decide that a substance or object is waste, or when it is, at what point it ceases to be waste; as complete a picture as possible has to be created.

The following sections require completion to ensure the correct decision is made.

If a requested item is not relevant it is important to clearly state why this is so (e.g. no planning permission required because permitted development status exists).

Suitable for use criteria

13. Please describe or provide copies of the required specification(s) for the materials to be reused on each site.	Document Reference(s):

Where contamination is suspected or known to be present 14a. Please provide copies of or relevant extracts from the risk assessment(s) that has been used to determine the specification for use on the site. **This must relate to the place where materials are to be used.** This must be in terms of (i) human health (ii) controlled waters and (iii) any other relevant receptors. If a risk assessment is not relevant for a particular receptor given the site setting please explain why below:	Document Reference(s):
14b. Please attach any relevant documentation from the LA relating to the excavation and reuse of the materials to demonstrate no objection (see 3.37 of the CoP)	LA Document references:
14c. Please attach any relevant	EA Document references:

documentation from the EA relating to the excavation and reuse of the materials to demonstrate no objection (see 3.37 and Table 2 of the CoP)	
14d. Please attach any relevant documentation from any other regulators (if relevant) relating to the excavation and reuse of the materials to demonstrate no objection (see 3.37 of the CoP)	Document Reference(s):

Where contamination is not suspected 15a. Please attach copies or relevant extracts from the Desk Top Study that demonstrates that there is no suspicion of contamination.	Document Reference(s)
15b. Please attach copies of or relevant extracts from the site investigation/testing reports that adequately characterise the clean materials to be used (if appropriate).	Document Reference(s)
15c. Please attach copies of any other relevant information (if available) confirming that land contamination is not an issue.	Document Reference(s)

NB: It is your responsibility to assess the nature of the material to be used and that it fits within the limitations of the scenario under which it is to be used

Certainty of use

Various lines of evidence are required to demonstrate that the materials are certain to be used. This includes:

- The production of this MMP
- An appropriate planning permission (or conditions that link with the reuse of the said materials)
- An agreed Remediation Strategy(ies)
- An agreed Design Statement(s)
- Details of the contractual arrangements

Please identify in the following sections what lines of evidence relate to the site(s) **where the materials are to be used**.

16a. Planning Permission(s) relating to the site where materials are to be reused Please provide a copy of the relevant planning permission	Document Reference:
16b. Explain how the reuse of the excavated materials fits within the planning	

permission(s) for each site.	
16c. If planning permission is not required for any one site please explain why below e.g. permitted development, clean up of a chemical spill, surrender of an Environmental Permit, re-contouring within the existing permission.	

Where contamination is suspected or is known to be present 17. Please provide a copy of any Remediation Strategy(ies) that have been agreed with relevant regulators.	Document Reference(s):

Where contamination is not suspected 18. Please provide a copy of any Design Statement(s) that have been agreed (e.g. with the planning authority or in the case of permitted developments the client).	Document Reference(s):

Quantity of Use

19. Please provide a breakdown of the excavated materials for each site and how much will be placed at each site or sub area of each site. Where this is not specific to a single readily identifiable source refer to an annotated plan, schematic or attach a tabulated summary.	Document Reference(s):

20a. How has consolidation/compaction being considered in the above mass balance calculations?	
20b. How has loss due to treatment being considered in the above mass balance calculations (if applicable)?	
20c. How has the addition of treatment materials being considered in the above mass balance calculations (if applicable)? Note - An exact figure is not required but	

one that is reasonable in the circumstances and can be justified if challenged.	

Contingency arrangements

Explain what is to happen in the following situations and **identify the appropriate clauses** in the contract(s) (Such clauses must be provided to the Qualified Person, preferably as a summary document): or

21a. What is to happen to, and who is to pay for out of specification materials?	Reference:
21b. What is to happen to, and who is to pay for any excess materials?	Reference:
21c. What happens if the project programme slips in relation to excavated materials or materials under -going treatment?	Reference:
21d. Other identified risk scenarios for the project (relating to excavated materials)?	Reference:

The Tracking System

Where contamination is suspected or known to be present, state the procedures put in place to:

22a. For all sites please describe the tracking system to be employed to monitor materials movements.	
Where contamination is suspected or known to be present, state the procedures put in place to: 22b. Prevent contaminants not suitable for the treatment process being accepted	
Where contamination is suspected or known to be present, state the procedures put in place to: 22c. Prevent cross contamination of materials not in need of treatment, wastes awaiting treatment and treated materials	
Where contamination is suspected or known to be present, state the procedures put in place to: 22d. Demonstrate that materials that do not require treatment and successfully treated materials reach their specific destination	
Where contamination is suspected or known to be present, state the procedures put in place to:	

22e. Ensure that waste for off-site disposal or treatment is properly characterised and goes to the correct facility	

23. Please attach a copy of the tracking forms / control sheets that are to be used to monitor materials movements. To include transfer of loads on site into stockpiles prior to treatment (if applicable), stockpiled after treatment (if applicable), stockpiled awaiting use (as appropriate) and final placement.	Document reference(s)

For Hub Sites within Cluster Projects & where materials need treatment before reuse 24. Please attach a copy of the Environmental Permit covering the treatment process. Alternatively if the treatment is covered by a	Permit reference / EA letter reference:

Mobile Plant Permit and associated Deployment Form, attach a copy of the EA agreement to the Deployment Form.	

Records

25. Where, and in what form, are records to be kept? Note – records e.g. transfer notes, delivery tickets, Desk Top Study, Site Investigation, Risk Assessment(s), Verification Report(s) need to be kept for at least 2 years after the completion of the works and production of the Verification Report	

Verification Plan

26. Provide or explain the Verification Plan which sets out how you will record the placement of materials and prove that excavated materials have been reused in the correct location and in the correct	Document Reference

quantities within the development works (see 3.4 of the DoW CoP).	

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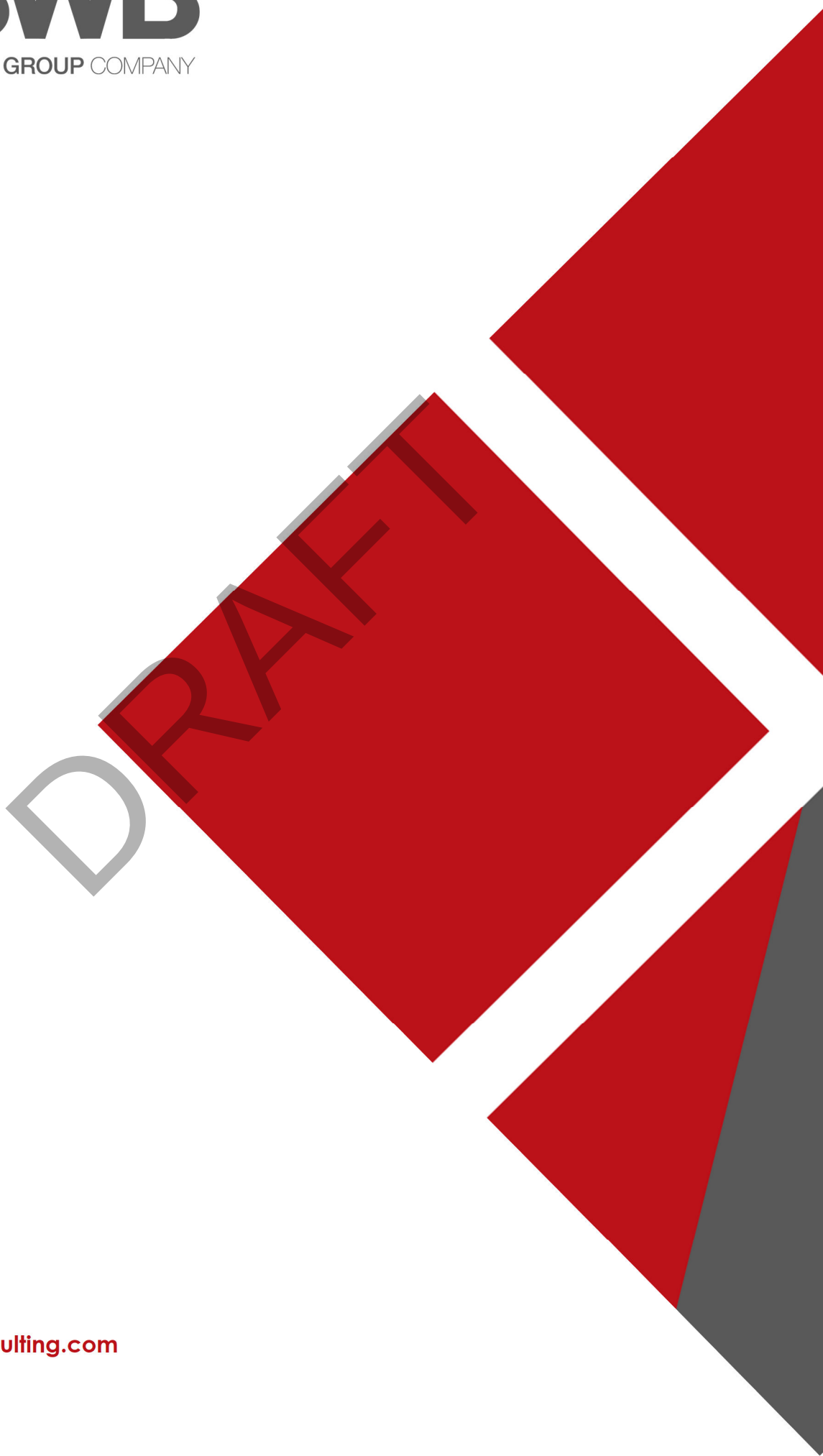

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