

A47 Wansford to Sutton Dualling

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6.3 Environmental Statement Appendices

Appendix 10.2 – Outline site waste management plan (SWMP)

APFP Regulation 5(2)(a)

Planning Act 2008

Infrastructure Planning (Applications: Prescribed
Forms and Procedure) Regulations 2009

July 2021

Infrastructure Planning

Planning Act 2008

**The Infrastructure Planning
(Applications: Prescribed Forms and
Procedure) Regulations 2009**

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ENVIRONMENTAL STATEMENT APPENDICES
Appendix 10.2 - Outline site waste management plan (SWMP)

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Appendix 10.2 (Outline site waste management plan)

10.1. Outline site waste management plan

Overview

- 10.1.1. In December 2018, the Government published the Resources and Waste Strategy for England. This strategy aims to put sustainable resource management at the centre of its strategic ambitions on resources and waste. This includes the preservation of material resources by minimising waste, promoting resource efficiency and moving towards a circular economy.
- 10.1.2. The strategy provides longer-term policy direction in line with the United Kingdom's 25 Year Environment Plan, the United Kingdom's goals for improving the environment.
- 10.1.3. This outline site waste management plan (SWMP) supports Environmental Statement Chapter 11 (Material assets and waste (**TR010039/APP/6.1**)) and has been prepared to demonstrate how waste generated during the Proposed Scheme will be minimised and controlled to reduce impacts during the construction phase.
- 10.1.4. A SWMP is no longer a legal requirement following withdrawal of the Site Waste Management Regulations in December 2013 although their use is regarded as best practice.
- 10.1.5. Preliminary information included in this outline SWMP will be updated and used by the Principal Contractor to develop the SWMP at detailed design stage. The SWMP will be included as part of the Proposed Scheme's environmental management plan (EMP) (**TR010039/APP/7.5**).
- 10.1.6. The SWMP will be prepared in accordance with best practice guidance from the Waste and Resources Action Programme (WRAP), Contaminated Land: Application in Real Environments (CL:AIRE) and Construction Industry Research and Information Association (CIRIA).
- 10.1.7. The SWMP will be prepared in accordance with best practice guidance and protocols from the WRAP and Buildings Research Establishment (BRE):
 - WRAP Achieving good practice Waste Minimisation and Management, Guidance for construction clients, design teams and contractors. Available online at:
<http://www.wrap.org.uk/sites/files/wrap/WMM%20guide%20Mid%20level.pdf>

- WRAP Net Waste Tool. Available online at:
<http://nwtool.wrap.org.uk/Home.aspx?intM=1>
- WRAP Designing Out Waste Tool for Civil Engineering. Available online at:
<http://www.wrap.org.uk/sites/files/wrap/DoWT-CE%20User%20Guide1.pdf>
- WRAP Quality Protocols. Available online at:
<https://wrap.org.uk/content/quality-protocols>
- BRE developed BES (BRE Environmental and Sustainability standard) 6001 Responsible Sourcing of Construction Products

Aims

- 10.1.8. The SWMP will ensure materials are considered at each stage of the Proposed Scheme and that all waste streams are dealt with appropriately and as sustainably as possible.
- 10.1.9. The SWMP will identify the types of material to be produced by the Proposed Scheme and forecast the amounts to be generated. Throughout construction, quantities of waste produced will be recorded and the SWMP updated accordingly.

Waste management procedures

Waste hierarchy

- 10.1.10. EU Waste Framework Directive 2008/98/EC (WFD 2008) (published November 2008) sets out the basic concepts and definitions in relation to waste management. Article 4 of the directive sets out five steps for dealing with waste, ranked according to environmental impact - the 'waste hierarchy'. This is shown in Figure 10-1.

Figure 10-1 Waste hierarchy:



Source: <http://ec.europa.eu/environment/waste/framework/>

- 10.1.11. Prevention, which offers the best outcomes for the environment, is at the top of the priority order, followed by preparing for re-use, recycling, other recovery and

disposal, in descending order of environmental preference. These principles will be applied in waste prevention and management.

- 10.1.12. The waste hierarchy aims to ensure delivery of the best environmental outcome associated with the Proposed Scheme, by gaining the maximum benefits from material assets and generating the minimum amount of waste. To achieve this, the techniques detailed in the following sections will be implemented prior to and during the works.

Proximity principle

- 10.1.13. As part of their construction assessment, the Principal Contractor will include the option of using local waste management facilities for waste management, in line with the proximity principle, which is to manage waste as close to the point of generation as possible, so as to reduce the carbon footprint of managing waste from the Proposed Scheme.

SWMP roles and responsibilities

- 10.1.14. Clear staff responsibilities will be defined for the SWMP. Reference will also be made to the roles and responsibilities defined in the EMP (TR010039/APP/7.5).
- 10.1.15. The environmental manager appointed by the Principal Contractor will be responsible for updating and distributing the SWMP.
- 10.1.16. The environmental manager will ensure that the SWMP is communicated to staff through site inductions and toolbox talks to ensure that procedures are implemented.

Waste prevention methods

- 10.1.17. Prior to the start of any works, primary aims will be to avoid the creation of waste. Actions taken during the detailed design phase and prior to construction have the potential to reduce waste production.
- 10.1.18. The detailed design team will seek to optimise material efficiency wherever possible. Such efficiencies may include:
- use of standardised components and prefabricated materials
 - avoidance of using hazardous materials
 - specifying materials for design which generate limited wastes
 - prioritising use of secondary or recycled materials over primary materials
 - consideration of the life cycle for all materials used
- 10.1.19. Prevention methods will be in accordance with the design out waste principles (in accordance with WRAP best practice guidance listed in section 11.1.5).

10.1.20. Waste prevention will also be achieved by minimising and or reducing the potential for waste such as:

- ensuring only correct amounts of materials are delivered
- use of 'just in time' deliveries onto the Proposed Scheme to reduce storage requirements and minimise the potential for accidental damage or weather damage
- employment of appropriate design control methods
- maintaining good communication with suppliers and tradesmen (ensuring returns are acceptable and no abortive works are undertaken)
- management of subcontractors to ensure they adhere to appropriate waste minimisation procedures (consider penalties for non-compliance)

Preparing for re-use

10.1.21. Once waste generation has been prevented or minimised wherever possible, then opportunities for the re-use of excavated materials will be considered. Opportunities may include:

- the re-use of road surfacing, paving, concrete and rubble in temporary haul roads or as make-up for the new road layout
- use of soil improvement techniques to improve the engineering properties of excavated material's to increase their potential for retention on the Proposed Scheme
- seeking opportunities to re-use unsuitable or surplus excavated materials outside of the Proposed Scheme redline boundary on local developments concurrent to the construction phase of the Proposed Scheme.

10.1.22. An environmental permit or a registered exemption under the Environmental Permitting (England and Wales) Regulations 2016 (published December 2016) or management in accordance with the CL:AIRE Definition of Waste Code of Practice (DoW CoP), Version 2, 2011 (published March 2011) will be required to enable re-use (both on or outside of the Proposed Scheme's redline boundary) of suitable excavated materials in accordance with the current waste regulatory framework.

Recycle

10.1.23. Following best endeavours to prevent generation of waste and promote the re-use of excavated materials, waste may still be generated as a result of the Proposed Scheme. In this case, reprocessing of waste will be considered to allow re-use either on or off the Proposed Scheme and is a more sustainable way to manage waste.

10.1.24. To promote recycling of materials during the Proposed Scheme, the following methods will be considered:

- Waste segregation on-site (including plastics, timber, steel and general waste) and by selected waste management contractors at waste sorting facilities.
- Identify potential for reusing recycled materials on-site (such as excess timber recycled for use as chipboard), with recycling points clearly identified and conveniently located during the works.
- Implement penalties for contractors who contaminate segregated skips.

Waste targets

- 10.1.25. Prior to the start of construction works, measurable targets will be set to reduce the amount of waste generated during the Proposed Scheme. These will include, for example, sending 100% steel, metal and timber for recycling where it cannot be re-used on the Proposed Scheme.
- 10.1.26. The following standard industry key performance indicators (KPIs) and targets set out by WRAP in their Achieving good practice Waste Minimisation and Management guidance (referenced in section 11.1.5 of this appendix) will be used to report the progress of the Proposed Scheme from a waste perspective:
- reduction in tonnage of waste per unit of construction activity (evaluated as a continuous improvement target). If specific areas are to be targeted for improvement, then specific targets will be agreed
 - percentage of total waste sent to landfill
 - percentage recovery of waste materials for reuse and recycling. Different target levels may be appropriate for different stages of construction
 - percentage reuse of materials on the Proposed Scheme
 - waste created per build phase
- 10.1.27. Prior to the start of the construction works, these KPIs and targets will be set based on forecasted amounts. Forecasted amounts and planned management options will be recorded and actual amounts reported periodically throughout the works. An example site waste data record sheet is given in Table 10-1.

Waste types and management

- 10.1.28. 'Waste' is defined in the (WFD 2008) as any substance or object which the holder discards or intends or is required to discard.
- 10.1.29. The following key types of waste are anticipated:
- inert and non-hazardous excavation and construction waste
 - localised hazardous asphalt rich soils and stones encountered in the vicinity of exploratory hole BH21A

- asphalt road pavement was encountered in TP07. This asphalt road pavement was not tested and assessed to inform waste classification during the ground investigation. Where requiring disposal as part of the Proposed Scheme, these wastes may potentially be classified as hazardous waste
- green (clearance) waste

10.1.30. Additional wastes may include metals, timber, packaging, glass and building rubble.

10.1.31. Wastes will require segregation on the Proposed Scheme. To facilitate this:

- An appropriate number of waste handling and segregation areas will require establishment. Given the linear nature of the Proposed Scheme, several waste compounds may be required during construction.
- At these areas, waste streams will require segregation into separate skips and removed to a suitably licensed waste facility.
- Each skip will require clear labelling, indicating the type of waste contained within.
- Waste must be stored in a safe and controlled manner, without causing harmful impacts to human health and the environment. Containers used must be sufficient to prevent leaks or spills and all waste containers must be kept within a designated waste compound on the Proposed Scheme.

Hazardous waste

10.1.32. Hazardous wastes will be handled subject to the Control of Substances Hazardous to Health Regulations. Wastes will also be handled in accordance with the Health and Safety at Work Act 1974 (published July 1974) and any subsequent amendments there-to.

10.1.33. Risks to human health and controlled waters from encountering potentially hazardous waste will be mitigated by the Principal Contractor as detailed in the EMP. In the event of potential hazardous wastes being found during site clearance, works shall cease and advice from an environmental specialist sought.

Waste licensing and transport

10.1.34. The treatment or re-use of waste on-site will require an environmental permit or a registered exemption under the Environmental Permitting (England and Wales) Regulations 2016 (published December 2016) or management in accordance with the CL:AIRE DoW CoP.

10.1.35. Materials requiring off-site disposal shall be transported from the Proposed Scheme by a waste carrier registered under the Controlled Waste (Registration of Carriers and Seizure of Vehicles) Regulations 1991 (published July 1991).

- 10.1.36. The Principal Contractor and registered carrier will be subject to Section 34 (duty of care) of the Environmental Protection Act 1990 (published November 1990) and the Hazardous Waste Regulations 2005 (published March 2005) and shall complete descriptions of each load of waste removed using either a Waste Transfer Note or a Hazardous Waste Consignment Note, as appropriate.
- 10.1.37. Where multiple loads of material, having identical physical and chemical characteristics, are to be removed from a site, the Environment Agency may agree to such movements being covered by a single Waste Transfer Note or Hazardous Waste Consignment Note, where they are all delivered to the same permitted treatment or disposal facility.

Waste documentation and monitoring

- 10.1.38. The project and environmental managers will ensure that all waste management is undertaken in accordance with the current waste regulatory framework, following appropriate 'duty of care' procedures and that waste management subcontractors are operating under the appropriate procedures and or licenses, in accordance with Section 34 of the Environmental Protection Act 1990 (published November 1990). This includes:
- preventing unauthorised or harmful treatment, placement or disposal of waste
 - preventing the escape of waste from their control
 - ensuring the transfer of waste is only to an authorised person or a person for authorised transport purposes where there is a written description of the waste to avoid a contravention of any environmental permits
- 10.1.39. Detailed records will be kept on-site and reviewed periodically. These records include:
- the SWMP, updated throughout the duration of the Proposed Scheme when required
 - environmental permit, registered exemption or CL:AIRE DoW CoP documentation
 - copies of licenses, registration numbers and or permit numbers obtained from each waste provider
 - waste transfer notes and or consignment notes to include all the following details:
 - the type of waste
 - list of waste (LoW) code (in accordance with Environment Agency, Technical Guidance WM3, Waste Classification, Guidance on the Classification and Assessment of Waste (Version 1.1: published May 2018))
 - type of container waste is in

- name of company collecting the waste
- permit number and vehicle registration
- date, time and location where the waste was collected
- waste transfer and or consignment note number
- amount (by estimated volumes and calculated weight where applicable) of material
- name of the licensed disposal facility used (including contact details and licence number)
- copies of any required discharge consents
- details of checks and or audits carried out on waste management procedures and details of any changes implemented as a result

10.1.40. A register of all named waste carrier and disposal providers will be detailed within the SWMP. A register example is given in Table 10-2. No waste haulier or disposal facility must be used unless they are listed in the SWMP and their licensing and documentation checked and verified.

Materials Management Plan

10.1.41. Material excavated from the Proposed Scheme will also be recorded and managed using a materials management plan (MMP) which will form part of the EMP (**TR010039/APP/7.5**). The MMP shall be developed in accordance with the CL:AIRE DoW CoP and detail:

- where material is excavated from and the amount (by estimated volumes and calculated weight where applicable) of material removed
- any treatment and or remediation undertaken
- the verification sampling and analysis undertaken to demonstrate chemical and geotechnical suitability for re-use
- mitigation measures implemented to minimise the amount of material removed from the Proposed Scheme
- the final placement of materials (including re-use on and offsite or disposal)

Training and awareness

10.1.42. All subcontractors and staff be made aware of the SWMP and their responsibility to ensure compliance with it during their induction. Copies of the SWMP will be available and displayed in all site offices and or compounds.

10.1.43. Additional training, toolbox talks or briefings will be undertaken periodically to inform staff of any updates to the SWMP, current legislation requirements and to provide feedback following reviews and audits, particularly where there have been any issues identified.

10.1.44. Posters detailing specific sections of the SWMP will be on display in all communal areas.

Table 10-1: Site waste data sheet (example)

Waste stream	LoW code	Waste category [inert, non-hazardous or hazardous]	Forecast amount m ³	Waste minimisation option [design out, re-use, recycle, segregate, offsite sorting, landfill]	Actual amount (Total) m ³	Actual amount (breakdown) m ³						
						Re-use on-site	Re-use on-site	Recycled for use on-site	Recycled for use on-site	Sent to transfer facility	Sent to exempt site	Sent to landfill

Table 10-2 Register of waste carrier and or disposal provider (example)

Waste details		Waste carrier and or broker			Disposal facility This may include more than facility. such as transfer station, treatment facility, landfill. Include details for each facility.		
Waste stream	LoW code	Contractor name	Registration No	Expiry date of registration	Facility name	Licence or permit No	Conditions of licence checked?