

Lower Thames Crossing Tunnels & Approaches Tilbury Landfill Management Systems and Procedures 2026

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Lower Thames Crossing

Tilbury Landfill Management Systems and Procedures 2026

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1 Introduction

1.1 Summary of the scheme

- 1.1.1 The A122 Lower Thames Crossing ('LTC' and the scheme) is a new road that will connect the A2 and M2 in Kent to the A13 in Thurrock and junction 29 of the M25 in the London Borough of Havering (Figure 1-1). The scheme is a nationally significant infrastructure project which is authorised by Development Consent Order (DCO).
- 1.1.2 It will be approximately 23 kilometres long, with approximately 4.2 kilometres of new tunnel under the Thames. The tunnel portals will be located to the east of the village of Chalk on the southern side of the Thames, and to the west of East Tilbury on the northern side.
- 1.1.3 The project has been divided into three zones:
- Roads North of the Thames.
 - Tunnel and Approaches.
 - Kent Roads.

Figure 1-1 Tunnels and Approaches package



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1.2 Scope and objectives

- 1.2.1 National Highways is seeking approval for a new Environmental Permit at the former Tilbury Ash Disposal Site (formerly Environmental Permit EPR/GP3733DZ). National Highways wishes to create the required development levels for the LTC scheme using waste derived from the adjacent Goshems Farm Deposit for Recovery site (formerly Environmental Permit EPR/WP3094EP).
- 1.2.2 The site was formerly permitted to operate as a non-hazardous landfill receiving inert waste soils under the conditions of an Environmental Permit, with the most recent variation (EPR/GP3733DZ/V007) issued on 09 December 2025. This new permit application proposes to continue the disposal of inert waste soils at the site and the recovery of PFA, as previous permitted.
- 1.2.3 This Management Systems and Procedures document for Tilbury Landfill has been prepared by the Arup and Mott MacDonald Design Joint Venture (AMJV) on behalf of National Highways, who will be the permit holder and legal operator of the landfill. Day to day running of the landfill will be undertaken by the Bouygues-Murphy Joint Venture (BMJV). This document provides an updated set of Management Systems and Procedures for the new permit, which reflects the intention to continue the activities authorised under the former permit.
- 1.2.4 This document forms part of a suite of documents that together are required to be submitted to the Environment Agency as part of an application for an environmental permit for the landfill operation.
- 1.2.5 This document provides the following information:
- A summary of the management systems that will be implemented;
 - Details of the management and staffing of the site;
 - Details of the training provided for staff and management;
 - Procedures to control operations that may have an adverse impact on the environment;
 - Complaints and incident management procedures;
 - Assurance and performance evaluation; and
 - Methods outlining continual improvement.

1.3 Associated documents

- 1.3.1 This report should be read in conjunction with the following documents which have been submitted as part of the permit application:
- Environmental Permit Application Form parts A, B2, B4, F1;
 - Environmental Setting and Installation Design Report (HE540039-BMJ-EAC-TA_SNZ_ZZ-RP-GS-000005);
 - Standard Operating Procedures and Waste Acceptance Procedures (HE540039-BMJ-EAC-TA_SNZ_ZZ-RP-GS-000014);

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- Dust and Emissions Management Plan (HE540039-BMJ-EAC-TA_SNZ_ZZ-RP-GS-000008);
- Hydrogeological Risk Assessment (HE540039-BMJ-EAC-TA_SNZ_ZZ-RP-GS-000011);
- Closure and Aftercare Management Plan (HE540039-BMJ-EAC-TA_SNZ_ZZ-RP-GS-000007);
- Stability Risk Assessment (HE540039-BMJ-EAC-TA_SNZ_ZZ-RP-GS-000010); and
- Environmental Risk Assessment (HE540039-BMJ-EAC-TA_SNZ_ZZ-RP-GS-000006).

1.3.2 In addition to the environmental controls required under the Environmental Permit, the work will be carried out in accordance with the Environmental Management Plan (EMP2) for LTC, which includes a suite of control documents as follows:

- Environmental Management Plan 2, North Portal Surface Works - Work no. 5/CA5 (in part) and Utilities HE540039-BMJ-EGN-TA_S07_ZZ-PL-ZZ-000001
- Site Waste Management Plan - North Portal Surface Works (Work no. 5) HE540039-BMJ-EMW-TA_S07_ZZ-PL-ZZ-000002
- Materials Handling Plan - North Portal Surface Works (Work no. 5) HE540039-BMJ-EMW-TA_S07_ZZ-PL-ZZ-000001
- Noise and Vibration Management Plan- North Portal Surface Works (Work no. 5) HE540039-BMJ-ENV-TA_S07_ZZ-PL-ZZ-000001
- Air Quality Management Plan - North Portal Surface Works (Work no. 5) HE540039-BMJ-EAQ-TA_S07_ZZ-PL-ZZ-000001
- Ecology Management Plan - North Portal Surface Works (Work no. 5) HE540039-BMJ-ECO-TA_S07_ZZ-PL-ZZ-000001
- Soils Management Plan - North Portal Surface Works (Work no. 5) HE540039-BMJ-EGT-TA_S07_ZZ-PL-ZZ-000001
- Contaminated Land Management Plan - North Portal Surface Works (Work no. 5) HE540039-BMJ-EMW-TA_S07_ZZ-PL-ZZ-000003
- Substances Hazardous to Health Management Plan - North Portal Surface Works (Work no. 5) HE540039-BMJ-EMW-TA_S07_ZZ-PL-ZZ-000004
- Pollution Prevention Management Plan - North Portal Surface Works (Work no. 5) HE540039-BMJ-EMW-TA_S07_ZZ-PL-ZZ-000005

1.3.3 The information in this document is intended to align with the appropriate control documents. It will be kept on site along with the suite of other permit documents and updated as required in line with the EMP2 and control documents.

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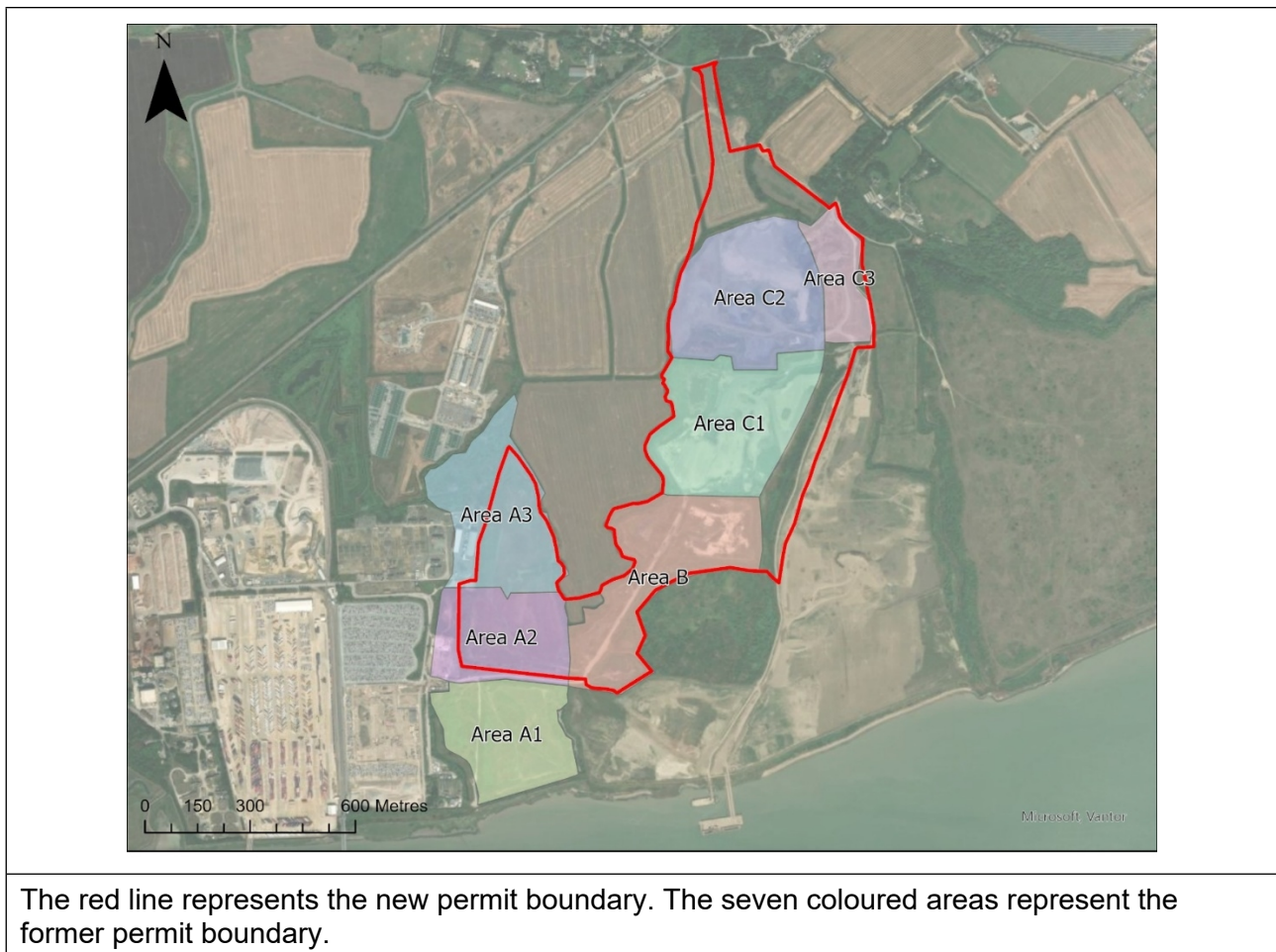
2 Site details

2.1 Site location

- 2.1.1 Tilbury Ash Disposal Site was a non-hazardous landfill east of Tilbury, Essex, centred on national grid reference TQ 67100 76300. The 80ha site was spilt into seven areas A1 to A3, B1 and C1 to C3.
- 2.1.2 This new Tilbury Landfill permit application covers some of the area included in the previous permit boundary but also includes additional areas to the north and east which form part of the LTC project, which are included to allow the land to be raised in these areas. Some areas of the previous permit boundary are not included in the new permit boundary as they lie outside the DCO order limits, and the land is not required for LTC. The previous environmental permit boundary (the site) and the proposed boundary for the new permit are shown on Figure 2-1.
- 2.1.3 The site is bounded by agricultural land to the north and west, with Port of Tilbury land also bounding the site to the west. The land to the east comprises a mix of agricultural land and Goshems Farm Deposit for Recovery site. The land to the south comprises Goshems Farm Deposit for Recovery site and a wildlife area created from former landfill. The LTC project includes the development of land to the north and south of the proposed new landfill permit boundary, as shown in Figure 1-1.
- 2.1.4 The main access to the site for commercial vehicles is from the former Tilbury Power Station area to the west. A second access point is located in the north of the site via Station Road, but this access is for use only by staff vehicles.

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Figure 2-1 Proposed new Tilbury Landfill permit boundary



2.2 Background information

2.2.1 The site was originally permitted in April 2007 (permit EPR/GP3739BQ) as Tilbury Ash Disposal Site to accept PFA from Tilbury B Power Station until its closure in 2013. The permit was transferred to Ingrebourne Valley Limited (IVL) in May 2017 (EPR/GP3733DZ/T001), with a variation granted in October 2017 to facilitate the restoration of site using imported inert wastes to a maximum elevation of nine metres above ordnance datum (mOD). The site formerly operated under permit variation EPR/GP3733DZ/V007.

2.3 Material reuse

2.3.1 The earthworks design within the Tunnels and Approaches package is based on the principle of reusing site-won excavated material to satisfy the engineering and environmental mitigation earthworks material requirements where possible, in order to reduce the need for imported materials and the amount of excavated material requiring offsite disposal.

2.3.2 Tilbury Landfill is to be created to allow the reuse of suitable inert material excavated from the former Goshems Farm Deposit for Recovery site. The Environment Agency has advised that the reuse of materials from Goshems Farm will be a waste disposal activity, which will require an environmental

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permit for landfill, hence an application for a landfill permit is now being made on behalf of National Highways, who will be the permit holder.

- 2.3.3 Where excavated material does not meet the waste acceptance criteria for Tilbury Landfill, it will be disposed of off-site to a suitably licensed facility offsite.

3 Environmental Management system

- 3.1.1 National Highways will be the Environmental Permit holder and the legal operator of the landfill site. BMJV will manage the site for National Highways and is contractually bound to comply with the agreed environmental management systems and procedures for the landfill. National Highways retains overall responsibility for environmental compliance, as the permit holder.
- 3.1.2 BMJV operates an externally audited Environmental Management System (EMS) which is certified to ISO140001:2015. A copy of the EMS certificate is included in Appendix A.

4 Staff roles and responsibilities

- 4.1.1 The site will be operated in a safe and efficient manner using fully competent staff.
- 4.1.2 All new personnel will undergo induction training and will be supervised by an appropriate senior member of staff in respect of the Environmental Permit, the Environmental Management System, the Site Operating Procedures, Sustainability Policy and BMJV’s Environmental Policy. The induction training will allow all involved personnel to be aware of the designated roles and responsibilities before their work commences.
- 4.1.3 Any changes in the technically competent management of the site and any incoming person, together with evidence that such person has the required technical competence, will be submitted to the Agency in writing within five working days of the change in management. Technically Competent Management and Technical Competence shall be as defined under Section 74 of the Environmental Protection Act 1990.
- 4.1.4 Table 4-1 sets out the key roles and responsibilities that are applicable to this site.

Table 4-1 Key roles and responsibilities

Role	Responsibilities
National Highways Project Director	<p>General responsibilities for the National Highways Project Director include the following:</p> <ul style="list-style-type: none"> • Collate and provide Project information to prospective Contractors • Oversee implementation of the whole Project and the individuals undertaking specific roles and duties • Assume accountability for delivery of contract requirements and the EMS for the Project

Role	Responsibilities
	<ul style="list-style-type: none"> Responsible for the environmental permit
National Highways Environmental Manager	<p>General responsibilities for the National Highways Environmental Manager include the following:</p> <ul style="list-style-type: none"> Monitor and ensure compliance of the Project's works with the requirements of the environmental permit Monitor and ensure compliance with all environmental commitments set out in this document, relevant DCO documentation and relevant environmental legislation Develop and maintain a Project EMS compliant with ISO 14001:2015 Integrate with the Quality and Health Safety Security and Wellbeing (HSSW) teams for a joint assurance focus Take overall responsibility for environmental audit and inspection programme based on risk and opportunities, including undertaking assurance activities Coordinate a joined-up approach to environmental management and continual improvement across the Project, including Contractors Monitor environmental complaints and their investigation and resolution Report on Contractors' environmental performance Support development of scope of works to incorporate environmental management requirements suitable for delivery and integration of potential works interfaces.
BMJV Project Director	<ul style="list-style-type: none"> Ensuring that environment and sustainability are at the core of the project activities Responsibility for challenging performance and promoting environmental outcomes. Providing the necessary resources for effective environmental management to be delivered.
BMJV Environment and Sustainability Lead	<p>The Environment Lead co-ordinates a team including environmental managers, who ensure that activities are undertaken with due regard to environmental protection, and specialists who input to permanent and temporary works design in compliance with the environmental and sustainability requirements of LTC.</p> <ul style="list-style-type: none"> Managing environmental compliance process, legislation, consents, objectives, targets and other environmental commitments, including those contained within this document.
BMJV Consents Manager	<ul style="list-style-type: none"> Responsible for the implementation of the Consents Management Plan and Consents Register Ensuring that sufficient and suitable expertise is engaged in the identification and securing of the consents required

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Role	Responsibilities
	<ul style="list-style-type: none"> Responsible for managing overall compliance of the project against consents, including development and implementation of assurances and commitments compliance plans; reporting; dissemination of requirements processes through supply chain; interfacing with internal stakeholders, interfacing with other LTC contractors
<p style="text-align: center;">BMJV Environment Manager</p>	<p>Supporting the Environment and Sustainability Lead in the implementation of site activities. Enabling construction by providing production teams with advice, assistance, training and undertaking inspection to verify compliance with environmental requirements of BMJV’s EMP. Coordinating with environmental specialists.</p> <p>The BMJV Environment Manager undertakes the day to-day management of the EMP, including:</p> <ul style="list-style-type: none"> Ensuring that the project environmental and compliance risks are understood and adequate control measures are in place to address them. Arranging for BMJV to have suitable policies in place to ensure that the organisation’s environmental and sustainability management efforts are appropriately focused. Ensuring that appropriate measures are in place to monitor and assess the effectiveness of the system. Putting in place appropriate measures to ensure that any required changes and improvements to the EMP and the environmental performance of the organisation are identified and implemented. Ensuring that all environmental management documentation is in order. Ensuring that environmental and sustainability requirements and provisions are sufficiently understood. Responsible for ensuring that all environmental requirements are implemented at a work package/worksites level, and for the environmental performance of that package/worksites. Engages with and receives the necessary support from the Environment and Sustainability Lead. Developing environmental management methods (groundwater management, spoil evacuation routes, etc.) with the specialist advisors.
<p style="text-align: center;">Technically Competent Manager</p>	<p>Provision of technical competence on site. The person will meet the requirements of the WAMITAB/CIWM Operator Competence Scheme or be a member of the EU Skills scheme.</p> <p>The Technically Competent Manager will attend the site for the required time each week as agreed with the Environment Agency.</p>

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Role	Responsibilities
Specialist Advisors	Providing expertise (ecological, hydrological, contaminated land, geological, landscape, noise, water, etc.) as required.
Ecological Clerk of Works (ECoW)	Responsible for providing expert advice and guidance in managing ecological impacts from the works activities. The ECoW is consulted regarding the implementation of ecological mitigation measures and to provide any on-site guidance.
Archaeological Clerk of Works	Responsible for providing expert advice and guidance in managing archaeological investigations and impacts from the works activities. The Archaeological Clerk of Works is consulted regarding the implementation of all archaeological and historic environment mitigation measures and to provide any on-site guidance.
Site Manager/Supervisor	<p>Ensuring that site staff (including those of subcontractors) adhere to the requirements of this document and attend environmental awareness training, as part of the behavioural change programme. Day-to-day monitoring of the site.</p> <p>Ensuring any environmental incidents are managed and investigated appropriately and reported to the BMJV Project Manager and Environment and Sustainability Lead.</p> <p>Managing the receipt of unacceptable waste, including signing off Waste Acceptance Criteria test failures.</p>
All site staff	<p>Understand their role in implementing the environmental requirements set out in this document. Pass any queries or correspondence on environmental issues to the environmental representative. Work in accordance with the environmental permit operating procedures and report anything that deviates from agreed processes.</p> <p>In the event of an environmental incident, stop work, implement control procedures and report it to the Site Supervisor.</p> <p>Attend induction and environmental training as required.</p>

5 Operations and maintenance

5.1 Procedures to control operations that may have an adverse impact on the environment

- 5.1.1 The Environment Agency required an Environmental Risk Assessment (ERA) to be prepared for the previous Environmental Permit. In accordance with the approach agreed with the Environment Agency, an updated ERA for the new permit has been produced. The Environmental Risk Assessment (HE540039-

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BMJ-EAC-TA_SNZ_ZZ-RP-GS-000006) [6] is provided as part of the application for a new permit for the deposit of waste, which is a continuation of the previous landfilling activities carried out by IVL within Tilbury Ash Disposal Site.

5.1.2 The ERA is a qualitative risk assessment which considered odour, noise, fugitive emissions, dust, releases to water, litter and potential for accidents and incidents. The assessment identified the following environmental risks that are relevant to the proposed landfill operation:

- Any discharge, for example to surface or groundwater
- Accidents including fire and flooding
- Odour
- Noise and vibration
- Uncontrolled or unintended (fugitive) emissions, including dust, litter, pests and pollutants.

5.1.3 The Environmental Risk Assessment sets out the control measures relating to these potential environmental risks in relation to the proposed landfill activities. These mirror the requirements of the EMP2 for North Portal Surface Works, to ensure consistency with activities on adjacent land being carried out for LTC.

5.1.4 The control measures relating to dust and emissions are also set out in the Tilbury Landfill Dust and Emissions Management Plan [4].

5.1.5 The Site Manager/Supervisor will identify those operations that may have an adverse impact on the environment. Environmental risks will be managed in accordance with Best Practicable Means (BPM) and the control measures detailed in the following sections.

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5.2 Fugitive emissions to air

5.2.1 This section summarises the measures in place to control dust and air emissions arising from landfill activities, including vehicle movements and site operations, to prevent nuisance and protect human health and the environment. The following controls apply:

Controls	Owner	Evidence	Target date/ frequency
<p>A Dust and Emissions Monitoring Plan (DEMP) has been prepared as part of this permit application [4].</p> <p>General site maintenance controls</p> <ul style="list-style-type: none"> • Locate machinery and dust-generating activities away from site boundaries and sensitive receptors identified in the DEMP. • Erect screens around dusty activities and fully enclose site operations where there is a high potential for dust production. • Ensure equipment is readily available on-site to clean any dry spillages as soon as reasonably practicable after the event using wet cleaning methods. • Avoid generating site runoff and mud. Where this is not possible, ensure it is suitably managed e.g. use of road sweepers, containment. • Remove materials with the potential to produce dust as soon as possible, and cover materials that are to be re-used on site. • Cover, seed or fence stockpiles to prevent wind whipping. <p>Activities and operations</p>	<ul style="list-style-type: none"> • Site Manager/Supervisor 	<ul style="list-style-type: none"> • Dust inspection and event forms • Vehicle and plant records • Site diary/log • Real-time monitoring is not required • If monitoring is required, the records of monitoring of dust/air quality 	<ul style="list-style-type: none"> • Daily visual inspections within site for dust, haul road condition • Weekly offsite dust soiling checks. Frequency of dust checks to be adjusted when activities with a high potential to generate dust are being carried out, or there is prolonged dry weather or windy conditions • Monitoring of dust/air quality to be carried out in accordance with an agreed monitoring plan, if required

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Controls	Owner	Evidence	Target date/ frequency
<ul style="list-style-type: none"> • Use of dust suppressants (e.g. bowsers and water sprays) during potentially dusty activities or in dust generating areas, using non-potable water where possible. • Minimise drop heights of materials from excavators, and loading/handling equipment. Compact any materials after deposition and use enclosed chutes where possible. Use a fine water spray on such equipment and materials where required. • Avoid dry sweeping of large areas. • No burning of waste or materials at any time. • Ensure sand and other aggregates are stored in bunded areas and are not allowed to dry out unless this is required for a particular process, in which case ensure that appropriate additional control measures are in place. • Ensure bulk cement and other fine powder materials are delivered in enclosed tankers and under pressure and stored in silos with suitable emission control systems to prevent escape of material and overfilling during delivery. For smaller supplies of fine powder materials, ensure bags are sealed after use and stored appropriately to prevent dust. <p>Track-out (dust/debris on the highway)</p> <ul style="list-style-type: none"> • Haul roads are regularly damped down. Use a water assisted dust sweeper on site and on the local road network when required. • Inspect on-site haul routes for integrity and instigate any necessary repairs to the surface as soon as reasonably practicable. • Adhere to the speed limits specified on site and on public highways. 			

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Controls	Owner	Evidence	Target date/ frequency
<ul style="list-style-type: none"> • All materials leaving or entering the site are covered (where practicable), and vehicles will not be overloaded. • Vehicle wheels should be clean when leaving the site, using the provided cleaning facilities (wheel wash or jet washers). <p>Significant dust events or complaints</p> <ul style="list-style-type: none"> • All significant dust events will be investigated, addressed and, if necessary, reported to the Environment Agency in accordance with the procedure in the DEMP. • In the event that significant levels of dust are experienced off-site, additional mitigation measures will be employed. These will include: <ul style="list-style-type: none"> ▪ immediate identification of the source of the dust; ▪ the liberal use of water suppression; ▪ covering or sheeting sources of unacceptable dust emissions and removal of excessively dusty material from the site. ▪ In the event that unacceptable dust emissions continue, despite the additional mitigation measures, site operations will be modified in liaison with the Environment Agency and site operations may be temporarily suspended until the issue can be resolved. 			
<p>Vehicle exhaust emissions causing nuisance/poor air quality on local roads around the site</p>	<ul style="list-style-type: none"> • Site Manager/Supervisor 	<ul style="list-style-type: none"> • Vehicle, plant, and equipment maintenance records 	<ul style="list-style-type: none"> • NRMM auditing to be conducted monthly

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Controls	Owner	Evidence	Target date/ frequency
<p>A DEMP has been prepared as part of this permit application.</p> <p>The waste deposit involves the movement of waste from Goshems Farm Deposit for Recovery area into Tilbury Landfill. All materials movement will be completed using internal haul roads.</p> <p>All on-road heavy goods vehicles will comply with the standards set within the London Low Emission Zone (LEZ) for the relevant class of vehicle.</p> <p>All Non-Road Mobile Machinery (NRMM) net power 37kW to 560kW will comply with the engine emissions standards set by London's Low Emission Zone for NRMM. NRMM will be required to meet emission standard Stage IV as a minimum.</p> <p>All vehicles and plant on site should not be left running or idling unnecessarily.</p> <p>Low emission vehicles and plant will be fitted with catalysts, diesel particulate filters or similar devices where reasonably practicable.</p> <p>Ultra-low sulphur fuels will be used in plant and vehicles where reasonably practicable.</p> <p>Vehicles and plant will be kept well maintained, routine servicing will be completed in accordance with the manufacturer's guidance and records maintained for the work undertaken.</p>		<p>are kept on site and reviewed regularly.</p> <ul style="list-style-type: none"> • Vehicle logs of vehicle movements will be maintained. • NRMM registers will be maintained by both subcontractors and BMJV. 	

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5.3 Materials, land quality and waste

5.3.1 This section summarises the procedures used to control waste and material acceptance at Tilbury Landfill, ensuring regulatory compliance, protection of land quality and effective management of unacceptable or non-compliant materials. The following controls apply:

Controls	Owner	Evidence	Target date/ frequency
<p>Receipt of unacceptable waste</p> <p>If wastes that are suspected to not conform to the Waste Acceptance Procedures, the load should be sent to the dedicated quarantine area for further checking.</p> <p>The excavation area in Goshems Farm will be notified immediately by mobile phone to stop further imports of potentially non-compliant waste and the Site Supervisor notified so that the cause of the non-compliance can be investigated.</p>	<ul style="list-style-type: none"> Site Manager/Supervisor 	<ul style="list-style-type: none"> Site diary/log Chemical testing data from quarantined loads, approved by Site Manager Waste Transfer Notes for unacceptable materials taken for disposal offsite 	<ul style="list-style-type: none"> Visual checks of all loads received in accordance with the Waste Acceptance Procedures document Annual reporting of Waste Transfer
<p>Non-waste materials</p> <p>Any virgin materials brought onto site will require proof of origin prior to acceptance.</p> <p>Recycled aggregates (6F5) must be accompanied by suitable contamination testing. Any batches that fail will be rejected and removed from site.</p>	<ul style="list-style-type: none"> Site Manager/Supervisor 	<ul style="list-style-type: none"> Proof of origin for virgin materials Test data for recycled materials On-site compliance testing Visual checking of all materials delivered to site Purchasing information (supplier data) 	<ul style="list-style-type: none"> Prior to receipt Confirmatory testing on site Per load delivered

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5.4 Odour, noise, and vibration

5.4.1 This section summarises the measures in place to control odour, noise and vibration arising from landfill operations, with the aim of preventing nuisance to nearby receptors and ensuring compliance with the Environmental Permit. The following control measures apply:

Controls	Owner	Evidence	Target date/ frequency
<p>Odour</p> <p>Only inert wastes which are not odorous will be accepted on Site. Strict Waste Acceptance Procedures will ensure only uncontaminated materials are delivered to Site.</p> <p>In the event that odorous materials are delivered to Site, they will be assessed in accordance with the Waste Acceptance Procedures.</p> <p>Existing PFA waste that remains within the Site that is to be excavated for recovery is not odorous.</p>	<ul style="list-style-type: none"> Site Manager/Supervisor 	<ul style="list-style-type: none"> Checks for waste acceptance on every load delivered to site 	<ul style="list-style-type: none"> Per load delivered
<p>Noise</p> <p>Site operations will be restricted to the hours of 08:00 to 18:00 weekdays (excluding bank holidays) and 08:00 to 13:00 on Saturdays.</p> <p>Site haul roads will be kept in good condition, with condition assessments carried out to inspect for defects such as potholes.</p> <p>Hoarding will be installed and maintained around areas where noise is likely to be generated that causes nuisance to offsite receptors.</p> <p>Plant and machinery will be turned off when not in use.</p> <p>All vehicles and mobile plant will be maintained such that loose body fittings or exhausts do not rattle or vibrate.</p> <p>Silenced equipment will be used where available.</p>	<ul style="list-style-type: none"> Site Manager/Supervisor Noise champions (to be appointed by BMJV for each subcontractor) 	<ul style="list-style-type: none"> Baseline noise levels to be determined prior to start of works Records of day and night-time noise and vibration monitoring BPM check sheets as per the Section 61 consent Maintenance records for plant and equipment used on site Records of site inductions and briefing 	<ul style="list-style-type: none"> Action required within 24 hours if trigger levels for noise and/or vibration are exceeded

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Controls	Owner	Evidence	Target date/ frequency
<p>No music or radios will be played for entertainment purposes outdoors on site.</p> <p>Site layout will be planned to ensure that reversing is kept to a practicable minimum.</p> <p>Reversing manoeuvres will be supervised by a trained banksman/vehicle marshal to ensure they are conducted safely and concluded quickly.</p> <p>BMJV will proactively engage with the local community to let them know of any upcoming noisy/vibratory works and provide contact details.</p> <p>Noise and vibration monitoring will be carried out in accordance with the Noise and Vibration Management Plan.</p> <p>No tonal vehicle movement signals are permitted on site.</p>			

5.5 Water

5.5.1 This section summarises the measures in place to protect surface water and groundwater, and to prevent pollution arising from landfill operations, in accordance with Environmental Permit requirements. The following control measures apply:

Action	Owner	Evidence	Target date/ frequency
<p>Surface water protection</p> <p>Surface water will be monitored and reported in line with the requirements of the Environmental Permit for discharge to surface waters.</p> <p>Surface water runoff will be collected in a series of attenuation basins, which allow any suspended solids to settle out before discharging into surface watercourses.</p> <p>Where unacceptable levels of silt are identified, silt busters will be used.</p>	<ul style="list-style-type: none"> • Site Manager • Environment Manager 	<ul style="list-style-type: none"> • Monitoring data • Records of offsite disposal of contaminated water • Permit to pump (PTP) records • All subcontractors to submit refuelling RAMS to BMJV for review 	<ul style="list-style-type: none"> • Reporting for compliance with surface water permit to be in accordance with permit requirements • Weekly in-field checks on water quality to be carried out • Periodic checks for visual and olfactory signs of contamination in

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Action	Owner	Evidence	Target date/ frequency
<p>It is anticipated that surface water discharge limits will be set in the Environmental Permit for discharge.</p> <p>Localised silt fencing or temporary bunding will be provided where required to prevent sediment runoff into surface water receptors and drainage systems.</p> <p>Oil interceptors will be provided in areas of hardstanding and roadways/haul routes.</p> <p>Any water encountered within excavations that has become contaminated will be captured and tankered away for appropriate disposal.</p> <p>Any water discharge on site must have the relevant controls in place as per the Permit to Pump (PTP) raised for it. This can include silt socks, silt curtains etc. Regular visual monitoring must be undertaken on any discharge as per the PTP issued for the work.</p> <p>Unnecessary creation of stockpiles to be avoided. The materials to be deposited in the landfill will be transported from Goshems Farm Deposit for Recovery area and placed in their final location and will not be stockpiled in between unless material does not meet the Waste Acceptance Procedures and requires quarantine as detailed in the Waste Acceptance Procedures document.</p> <p>Where stockpiles are required (for example, to stockpile recovered PFA), they will be created in a controlled area and managed appropriately to prevent runoff into nearby surface waters.</p>		<ul style="list-style-type: none"> Site inspection monitoring diary (e.g. Dalux) Stockpile audit records 	excavations that have filled with water
<p>Surface water monitoring</p> <p>Surface water will be monitored at a single point (SWB) in line with the requirements of the Environmental Permit for the landfill.</p>	<ul style="list-style-type: none"> Site Manager/Supervisor Environment Manager 	<ul style="list-style-type: none"> Monitoring data 	<ul style="list-style-type: none"> Reporting for compliance with landfill and surface water discharge permit to be in

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Action	Owner	Evidence	Target date/ frequency
It is expected that surface water quality will also require to be monitored at various points in line with the requirements of the Environmental Permit for surface water discharge.			accordance with permit requirements
<p>Prevention of accidental leaks and spills</p> <p>Fuel (HVO) is to be stored and dispensed in a designated area within the site. Fuel will be stored in a double-skinned tank which will be appropriately bunded and other materials such as cement or lime will be stored in silos in a designated area.</p> <p>All site vehicles will be maintained to prevent leaks from occurring.</p> <p>Oil interceptors will be provided in areas of hardstanding and roadways/haul routes.</p>	<ul style="list-style-type: none"> Site Manager/Supervisor 	<ul style="list-style-type: none"> Maintenance records for vehicles Records of inspection of tanks and pollution prevention equipment Site inspection monitoring diary (e.g. Dalux) 	<ul style="list-style-type: none"> Weekly site inspections
<p>Groundwater monitoring will be carried out in accordance with the requirements of the landfill permit at the locations determined in the permit documents (Hydrogeological Risk Assessment).</p> <p>In addition to monitoring required under the permit, BMJV will implement the LTC Long Term Monitoring Strategy (Doc No. HE540039-BMJ-EGT-TA_STZ_ZZ-RP-GS-000007)[8] for surface water and groundwater monitoring.</p> <p>All retained monitoring boreholes will be protected from damage. If a borehole becomes compromised or lost, a replacement will be drilled as close as possible to the original location.</p> <p>Waste to be placed in the landfill will be compacted to minimise the infiltration of water and the creation of leachate from the waste.</p>	<ul style="list-style-type: none"> Environment Manager Environmental specialists (hydrogeology, contaminated land) 	<ul style="list-style-type: none"> Monitoring and reporting Records of new wells drilled/replacement wells drilled 	<ul style="list-style-type: none"> Annual Groundwater Quality Report (LTC) Reporting for compliance with landfill permit to be in accordance with permit requirements

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5.6 Fugitive emissions to the environment

5.6.1 This section summarises the measures in place to prevent and control fugitive emissions from landfill activities, including pests, mud and litter, accidental releases, fire, flood risk, and site security. The following controls apply:

Action	Owner	Evidence	Target date/ frequency
<p>Pests and Vermin</p> <p>The proposed waste types accepted on site will be inert construction arisings or non-hazardous PFA and strict waste acceptance procedures will ensure only permitted materials are delivered to site.</p> <p>The nature of materials to be deposited within the site mean that the site is unlikely to attract vermin such as birds, rats and insects.</p> <p>Regular inspections will be undertaken to check for signs of infestation and control measures implemented if necessary.</p>	<ul style="list-style-type: none"> • Site Manager/Supervisor • Environment Manager 	<ul style="list-style-type: none"> • Site inspection monitoring diary (e.g. Dalux) 	<ul style="list-style-type: none"> • Weekly site inspections
<p>Mud and Litter</p> <p>No waste will be delivered to site via external roads, as the material to be delisted is located within Goshems Farm Deposit for Recovery site, which is accessed via internal haul roads.</p> <p>Mud may be dropped from vehicles leaving the site. Internal haul roads will be subject to maintenance and repair to reduce mud.</p> <p>Vehicles leaving the site do so via a wheel wash located at the western access to the site, via Port of Tilbury land.</p> <p>Local roads will be cleaned using a road sweeper to be kept on site.</p> <p>The type of waste to be deposited comprises soil and stones, rather than household or construction waste.</p>	<ul style="list-style-type: none"> • Site Manager/Supervisor • Environment Manager 	<ul style="list-style-type: none"> • Site inspection monitoring diary e.g. Dalux) • Dust incident forms (in DEMP) 	<ul style="list-style-type: none"> • Weekly site inspections

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Action	Owner	Evidence	Target date/ frequency
<p>The waste has been through waste acceptance procedures prior to deposit within Goshems Farm Deposit for Recovery or Tilbury Ash Disposal site and is not expected to contain significant quantities of litter-generating material.</p> <p>Waste Acceptance Procedures will continue to ensure only waste with a low litter generation potential is delivered to site.</p> <p>Any litter generating waste will be collected and placed in containers in a designated area of the site.</p>			
<p>Accidental releases</p> <p>Fuel (HVO) is to be stored in appropriately banded containers and dispensed within a designated area of the site. Other materials such as cement or lime will be stored in silos in a designated area. No storage within 10m of surface water drainage or watercourses.</p> <p>All site vehicles will be maintained to prevent leaks from occurring.</p> <p>Oil interceptors will be provided in areas of hardstanding and roads/haul routes and drainage will be directed to attenuation ponds to prevent the direct discharge of contaminated water, in the event of an accident which releases fuel or other contaminants in the site drainage system.</p> <p>There will be no planned vehicle or plant maintenance on site e.g. routine oil changes unless in response to an incident.</p> <p>All contained liquids with potential to cause pollution will be stored in a secure area and will have secondary containment unless other appropriate measures are in place to prevent, or where that is not practicable, to minimise, leaks and spills from the primary container.</p>	<ul style="list-style-type: none"> • Site Manager/Supervisor • Environment Manager 	<ul style="list-style-type: none"> • Records of checks on equipment such as hoses, connections and other pollution prevention measures • Reporting of environmental incidents • Site inspection monitoring (e.g. Dalux) 	<ul style="list-style-type: none"> • Weekly site inspections

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Action	Owner	Evidence	Target date/ frequency
<p>All containers on site shall be labelled to clearly identify its contents.</p> <p>Secondary containment measures (drip trays, plant nappies etc) are to be used with stationary plant.</p> <p>External bunds are to be checked regularly for rainwater and emptied. Prior to removal, the container will be assessed for potential leaks and the rainwater in the bund assessed for contamination visually. Where there is no apparent contamination, bund water may be discharged to the site drainage system, after the agreement of the Environmental Manager. If the water is contaminated, it will be disposed of offsite to a suitable facility.</p> <p>Regular checks to be carried out on conditions of hoses, connections and other pollution prevention equipment prior to use.</p> <p>Spill kits will be present in all plant. Only staff trained in the use of spill kits will be allowed to work on site.</p>			
<p>Fire</p> <p>The proposed activities are not considered to pose a risk of fire on site.</p> <p>All plant and machinery will be operated and maintained in accordance with the manufacturers instructions.</p> <p>Refuelling is not to take place if thunderstorms are forecast.</p>	<ul style="list-style-type: none"> • Site Manager/Supervisor 	<ul style="list-style-type: none"> • Records of plant and machinery maintenance • Toolbox talks for awareness of risk • Documentation in Health and Safety File 	<ul style="list-style-type: none"> • Periodic checks
<p>Flooding</p> <p>Flood risk assessments have been completed for the proposed construction of LTC. These did not identify any increased risk of flooding as part of the proposed ground levels to be created under the new landfill permit.</p>	<ul style="list-style-type: none"> • Site Manager/Supervisor • Environment Manager 	<ul style="list-style-type: none"> • Records of surface water testing in compliance with permit requirements • Reporting of environmental incidents including flood events 	<ul style="list-style-type: none"> • Compliance monitoring according to frequency set in Environmental Permit

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Action	Owner	Evidence	Target date/ frequency
<p>The proposed activities under the permit comprise a land raise above the original Thames Marshes ground level.</p> <p>Surface water drainage from the site will be controlled under a separate Environmental Permit for surface water discharge. A series of attenuation ponds is to be constructed within the site which will be sized appropriately to contain rainfall events.</p> <p>The site team is to be registered for flood alerts and all plant is to be moved to safe locations if flood alerts have been put in place for work areas.</p> <p>Security fencing, hoarding and barriers within the floodplain will comply with Environment Agency requirements to prevent an increase in flood risk.</p>			
<p>Security and Vandalism</p> <p>Security measures will be implemented within the site and more widely as part of the Lower Thames Crossing construction works. These will include the provision of appropriate site fencing or hoarding and 24 hour security guard. These measures will be implemented, inspected daily and maintained to prevent unauthorised site access.</p>	<ul style="list-style-type: none"> Site Manager/Supervisor 	<ul style="list-style-type: none"> Security inspection records completed by security guard/team 	<ul style="list-style-type: none"> Permanent security will be provided at the site during operations

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6 Complaints and incident management

6.1 Incident response

- 6.1.1 This section describes the incident response procedure that will be followed in the event of a pollution or contamination incident:
- 6.1.2 **STOP:** Immediately STOP work and carry out the following: raise alarm, identify source of spill/contamination and if spill/contamination has potential of dangerous fumes evacuate area immediately.
- 6.1.3 **CONTAIN:** Containment to be carried out for the spillage using either a spill kit or suitable inert material e.g., sand. Do NOT allow the spill to enter the local drainage system. Cover all drains and refer to drainage plans if available. Spill kits should be stored in clearly marked bins or yellow bags located next to the fuel bowser/generators and plant.
- 6.1.4 **NOTIFICATION:** Immediately NOTIFY your supervisor who is responsible for informing the Environment Manager. Trained staff should step up with the right PPE and equipment to deal with the leak/spill/contamination.
- 6.1.5 Meanwhile, if the spill/contamination is located adjacent to the site on one of the roads/pathways used by members of the public, **PREVENT** pedestrians and traffic passing through the spill/contamination. Contact Police headquarters if the spill/contamination represents a risk to traffic. Inform the Environment Team to allow for the incident to be instigated.
- 6.1.6 **CLEAN UP AND DISPOSAL:** For spills that can be cleaned by site teams, then determine the composition and approximate quantity of substance and use absorbents to soak the spill. Larger spills may require a pump from a specialist contractor. Place all used spill materials into plastic bags.
- 6.1.7 All contaminated materials from a spillage incident need to be disposed of as hazardous waste in a designated lined bin separate from other bins and ready for disposal by special waste contractor. Refill the spill kit for future use.
- 6.1.8 **REPORT** the incident to the Environment Manager as this is a requirement.
- 6.1.9 **REVIEW:** The team should review the event to determine any actions required to prevent the incident from recurring- Lesson learnt if necessary. Review the effectiveness of the response plan and make any changes necessary.
- 6.1.10 The flow chart in Appendix B provides a summary of the steps above. This summary is displayed on fuel bowsers and on each spill kit on site.
- 6.1.11 In the event of a spill occurring in an excavation being drained using pumps the response should be:
- Stop pumping if there is a risk of spreading the contaminated material to the environment;
 - Immediately contain the source (if possible);
 - Deal with spill by using spill kits;
 - Contact specialist emergency spill contractor for treatment and disposal of spill material.

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- 6.1.12 In the event of an incident, BMJV’s incident management process [11] will be followed, which in summary includes:
- An incremental approach in responding to incidents. This consists of a three-level incident response structure using “Gold” (strategic), “Silver” (tactical) and “Bronze” (operational) functions.
 - A single process for the management of all events that constitute an environmental incident, with defined levels to help frame the response – Levels 1 to 4 (Level 1 being the most serious incidents).
 - All incidents must be reported to National Highways. Where required, the incident will be reported to the EA on their Incident Hotline (0800 807060). All environmental incidents must be discussed with BMJV’s Environment Manager before being reported to relevant authority.
- 6.1.13 Further details of the incident management process are provided in Appendix B. Environmental incidents will be reported to National Highways and the Environment Agency in line with the permit requirements.

6.2 Complaints

- 6.2.1 The Complaints procedure [12] sets out how BMJV will develop a joint procedure to address enquiries and complaints during the delivery of the LTC project.
- 6.2.2 National Highways Customer Contact Centre (CCC) receives all public complaints and enquiries for National Highways nationwide through a phone line and email account 24 hours a day, seven days a week. Figure 6-1 provides an overview of which party will take the lead for the various steps of the customer contacts handling process.

Figure 6-1 Overview of customer contact handling process

Handling customer contacts	CCC	DP	ICT
24/7 handling of all incoming customer contacts via email and phone line	✓	✗	✗
Logging queries, compliments and complaints on CRM and triaging	✓	✗	✗
Responding to and resolving LTC construction enquiries and complaints	✗	✓	✗
Responding to and resolving LTC service enquiries and complaints	✗	✗	✓
Closing out all resolved customer enquiries and complaints on CRM	✓	✗	✗
Proactive milestone campaign briefings for CCC team	✗	✓	✓
Monthly reporting on queries, compliments and complaints	✓	✓	✓
Regular (TBC) review and process improvement meetings	✓	✓	✓

Integrated Client Team (ICT), Delivery partner (DP) which is BMJV and National Highways Customer Contact Centre (CCC)

- 6.2.3 All correspondence between the National Highways CCC and the Integrated Client Team and Delivery Partners will be sent via the CRM system. This ensures that there is a proper paper trail and accountability.

7 Communication

7.1 Risk assessment, method statements and start of shift briefings

- 7.1.1 Risk assessments and method statements (RAMS) will be prepared to address specific tasks and site operations. The Site Manager/Supervisor will collaborate with the Environment Manager to review RAMS and incorporate the necessary environmental considerations. This plan will guide the development of RAMS to ensure that all relevant environmental risks are accurately identified, assessed, and that approvals are obtained in line with the control measures outlined in this document.
- 7.1.2 Site Supervisors and Managers will deliver daily start-of-shift briefings to maintain effective coordination of on-site activities. Any environmental risks and associated control measures detailed within the RAMS will be communicated as required.

7.2 Training and awareness

- 7.2.1 BMJV ensures that employees or subcontractors (over which BMJV has control) have the necessary awareness of policy, significant aspects, their contribution to implementing the plan.
- 7.2.2 Training is provided to site personnel throughout the design and construction stages and includes:
 - induction training, including environmental aspects relevant to the project phase/scope.
 - site environmental awareness training to all project managers and supervisors.
 - more detailed training for staff with specific environmental responsibilities, for example, waste management, recycling, refueling, spill preparedness and response etc. and
 - toolbox talks (TBTs), depending on the type of work being undertaken and the environmental impacts that may result from construction activities; for example, training on surface water pollution prevention before commencing works near watercourses.

Site inductions

- 7.2.3 All project personnel are required to attend a project-level induction before being allowed onto site, which includes information on project-wide safety, health, environment and security aspects. In addition, location-specific inductions are also undertaken, which include presentations on the site environmental aspects of concern at each location. This ensures that site personnel are fully aware of key environmental issues and the management and control procedures that are implemented to mitigate potential impacts.

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Method statement briefings and toolbox talks

7.2.4 All staff are briefed on specific method statement requirements and provisions before work commences.

7.2.5 The Site Manager/Supervisor also gives a series of toolbox talks to all staff during the course of the project, including prior to works commencing at a new location. A schedule of toolbox talks is produced at the commencement of each work package, which are adjusted to suit site-specific issues that may arise. These toolbox talks cover all relevant environmental constraints and requirements, but typical topics are listed below:

- safe handling of plant and machinery.
- precautions to prevent sediment-laden run-off from entering watercourses.
- selection and use of appropriate substances.
- waste management.
- precautions for protected flora and fauna.
- water pollution prevention.
- spill prevention and control.
- air quality and dust.
- noise and vibration.
- soil handling.
- identification of suspected contamination.

Emergency and environmental incident preparedness training

7.2.6 Site staff are to be trained in environmental incident response, including general awareness of emergency response techniques, immediate actions to be taken, spill kit use, communication protocols and plan and the procedure for escalating an incident to emergency services and emergency spill clean-up crews if necessary. The incident response process is outlined in Section 6.1 and further details are provided in Appendix B.

7.2.7 Both BMJV and its subcontractors will ensure that emergency preparedness procedures are developed prior to works commencing. This will include a flood warning and evacuation plan, which details safe evacuation routes for the site.

7.2.8 The emergency preparedness procedures will be reviewed quarterly or when changes in procedures occur (whichever is sooner).

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8 Assurance and performance

8.1 Introduction

8.1.1 Inspections and audits will be undertaken throughout the operational life of the permit.

8.2 Environmental monitoring

8.2.1 Environmental monitoring will be required to meet the requirements of the environmental permit. This will comprise:

- Groundwater quality monitoring in a series of boreholes with response zones in the alluvial deposits and the chalk aquifer. Sampling will take place quarterly in line with permit requirements;
- Surface water quality monitoring at a single point, to be carried out quarterly in line with permit requirements;
- Landfill gas monitoring will be required on completion of filling of the landfill.

8.2.2 The results of water quality monitoring will be reported to the Environment Agency in accordance with the requirements of the permit. It is anticipated that annual reporting against the permit compliance limits will be required.

8.2.3 In addition to the above, monitoring is to take place for dust, as detailed in the Dust and Emissions Monitoring Plan [4] submitted with this permit application. No requirement for routine noise and vibration monitoring has been identified.

8.3 Inspections and audits

8.3.1 National Highways will audit and carry out site inspections on the project, along with various regulatory bodies, to verify compliance. The environmental audit and inspection programme will be based on risk and opportunities, including undertaking assurance activities. Inspections and audits include but are not limited to:

- Weekly environmental inspections completed by the site environmental representative and recorded in the site inspection diary (e.g., Dalux). Inspection frequency will increase during high-risk dust-generating activities or prolonged dry/windy conditions.
- Monthly noise inspections carried out by BMJV and subcontractor supervisors/managers to confirm no requirement for routine noise monitoring.
- Monthly on-site NRMM audits.
- Regular waste management audits undertaken by the BMJV Environment Manager.

8.3.2 In addition, regular internal audits will be conducted to track progress and identify areas for improvement.

8.3.3 On request, the Environment Agency and other regulatory bodies will be given access to the results of the site inspections and audits, along with the opportunity to attend and observe National Highways site inspections and

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audits. All non-conformances will be recorded and monitored through an action plan within an agreed risk based timescale for resolution.

8.4 Sustainability reporting

8.4.1 National Highways has established a series of environmental and sustainability targets and objectives for the Lower Thames Crossing scheme, of which Tilbury Landfill forms part. These targets are designed to guide the project in the achievement of National Highways and BMJV corporate environmental aims. The Targets and Objectives are contained within the EMS [1] and cover:

- Environmental incident prevention/management.
- Carbon management/reduction.
- Waste reduction/minimisation.
- Resource management (Water, Energy etc).
- Ecology.

8.4.2 BMJV will measure and report environmental data in line with the Environmental Management System. The information will be used to monitor performance of the works against BMJV's objectives and targets.

9 Continual improvement

9.1 Non-conformance and corrective actions

9.1.1 All non-conformances will be recorded and monitored through an action plan developed by BMJV within an agreed risk based timescale for resolution.

9.1.2 Non-conformances records will be reviewed during progress review meetings and lessons learnt will be shared appropriately.

9.2 Opportunities for improvement

9.2.1 Continual improvement is driven by monitoring and reporting against stretch targets based on benchmarked data, rigorous internal review and sharing lessons learnt.

9.2.2 BMJV will review all incidents to confirm that investigations and corrective and preventative actions are completed on time, identify emerging trends and required actions, and share lessons learned to prevent recurrence. A record of Toolbox Talks, lessons learnt and other training sessions will be maintained as an appendix to the EMS document.

9.3 Environmental management review

9.3.1 Periodic audits of the operation of the EMS will be undertaken by the Transformation and Performance Department of BMJV to verify compliance with its corporate EMS requirements. Following the audit, a report will be issued detailing any findings as non-conformities, areas of concern, or good points. An action plan is then produced to address any corrective actions raised. Evidence to close out the corrective actions are recorded within the action plan and

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monitored as required by the Transformation and Performance Department and management review. Senior management will be involved in an annual review of the EMS and Quality Systems regularly to ensure its continued effectiveness as the project progresses. The review will look at any actions identified as having been not closed out and will assess opportunities for improvement of the EMS and Environmental Policies and Objectives.

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10 Reference documents

Document title	Document number /Link
[1] Lower Thames Crossing Tunnels & Approaches. Environmental Management System	HE540039-BMJ-EGN-TA_STZ_ZZ-PL-ZZ-000012
[2] Lower Thames Crossing Tunnels & Approaches. Environmental Management Plan 2 - North Portal Surface Works – Work No. 5 / CA5 (in part) and utilities	HE540039-BMJ-EGN-TA_S07_ZZ-PL-ZZ-000001
[3] Code of Construction Practice including Register of Environmental Actions And Commitments (REAC), First Iteration of Environmental Management Plan	HE540039-LTC-EGN-GEN-STM-DCO-00037
[4] Tilbury Landfill Dust and Emissions Management Plan	1MC04-SCJ_SDH-EV-PLNSS05_SL07-000013
[5] Air Quality Management Plan – North Portal Surface Works (Work No. 5)	HE540039-BMJ-ENV-TA_S07_ZZ-PL-ZZ-000001
[6] Tilbury Landfill Environmental Risk Assessment	HE540039-BMJ-EAC-TA_SNZ_ZZ-RP-GS-000006
[7] Contaminated Land Management Plan – North Portal Surface Works (Work No. 5)	HE540039-BMJ-EMW-TA_S07_ZZ-PL-ZZ-000003
[8] Lower Thames Crossing Long Term Monitoring Strategy	HE540039-BMJ-EGT-TA_STZ_ZZ-RP-GS-000007
[9] Noise and Vibration Management Plan – North Portal Surface Works (Work No. 5)	HE540039-BMJ-ENV-TA_S07_ZZ-PL-ZZ-000001
[10] Lower Thames Crossing - Long Term Monitoring Strategy	HE540039-BMJ-EGT-TA_STZ_ZZ-RP-GS-000007
[11] Pollution Prevention Controls Management Plan – North Portal Surface Works (Work No. 5)	HE540039-BMJ-EGN-TA_STZ_ZZ-PL-ZZ-000004
[12] Lower Thames Crossing Complaints procedure	HE540039-BMJ-ESU-TA_STZ_ZZ-PD-ZZ-000003

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Appendix A – EMS Certificate

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Certificat

Certificate

N° 2003/19618.8

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Annexe / Appendix n° 1

BOUYGUES TRAVAUX PUBLICS UBY

Détail des activités mises en œuvre :
 Details of the activities carried out:

CONCEPTION, DEVELOPPEMENT, EDIION, COMMERCIALISATION, INSTALLATION,
 ACQUISITION, EXPLOITATION ET MAINTENANCE DE TOUS TYPES DE PRODUITS, DE SERVICES,
 DE MATERIELS, DE LOGICIELS, ET DE BASES DE DONNEES SE RAPPORTANT A L'ENVIRONNEMENT,
 LA PRODUCTIVITE, LA SANTE, LA SECURITE, LA TELESURVEILLANCE DES MATERIELS,
 LE SUIVI STRUCTUREL ET LE SUIVI DES MATERIAUX, LA GESTION D'ACTIFS ET LA DURABILITE
 DANS LE DOMAINE DE LA CONSTRUCTION ET DE L'EXPLOITATION D'INFRASTRUCTURES.

Liste complémentaire des sites entrant dans le périmètre de la certification :
 Complementary list of locations within the certification scope:

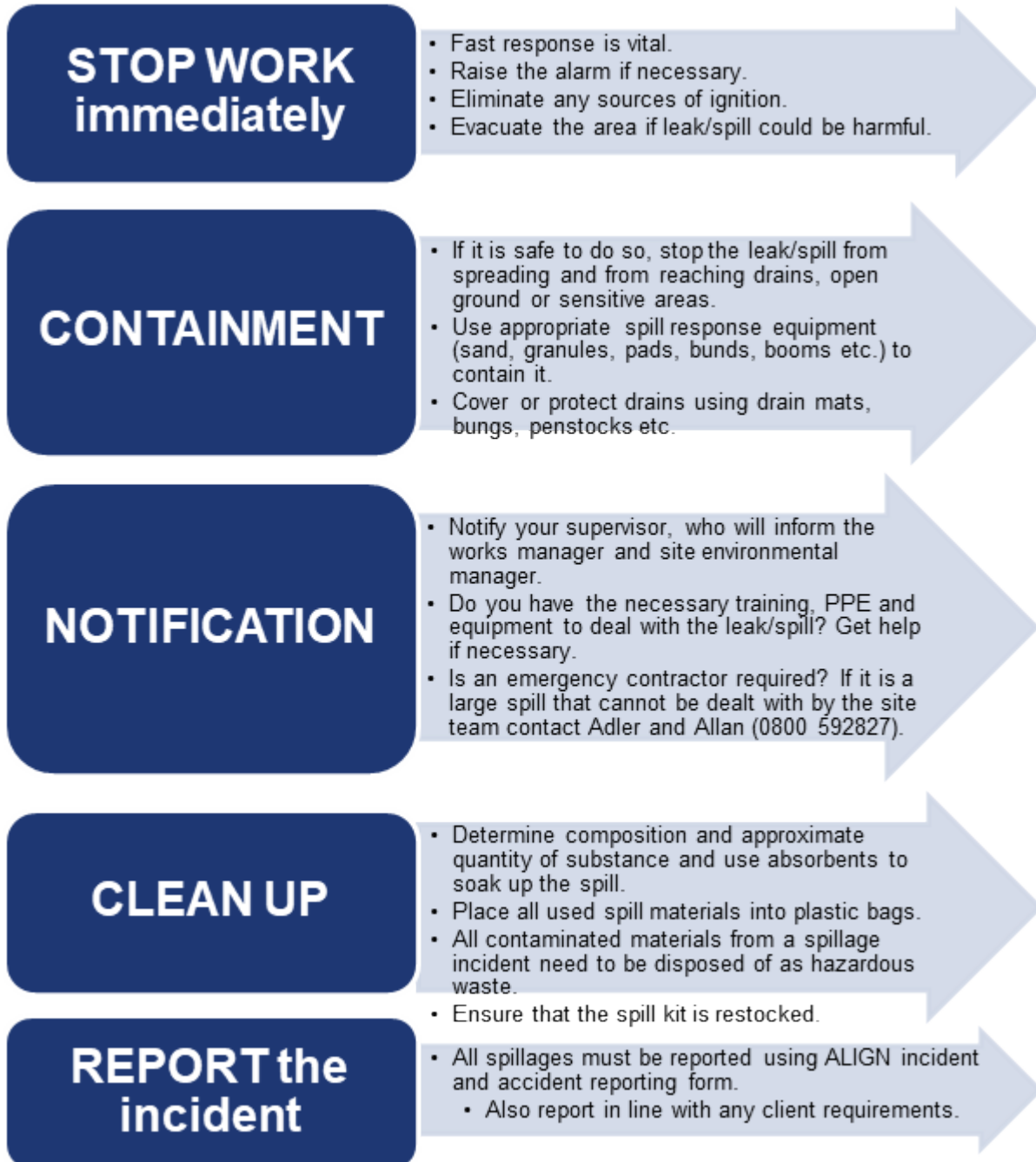
24 AVENUE HOCHÉ FR-75008 PARIS

Système de management évalué et jugé conforme aux exigences requises par :
 Management system assessed and found to meet the requirements of:

ISO 14001 : 2015

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Appendix B – Incident response flow chart and incident level approach



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	Level 1	Level 2	Level 3
<p>Bronze (operational) – directly controls resources at incident</p> <p>Bronze – Project Manager /Construction Manager level dependant on incident type for Level 1, 2 & 3 Incidents.</p>	<p>Nominated Role: <i>To manage incident on the ground and provide updates to SILVER as required.</i></p> <p>Competence Requirements: <i>Experience of dealing with incidents at an operational level. Ability to accurately assess situations, perform dynamic risk assessment, identify solutions and prioritise resources. Ability to communicate affectively and deal with 3rd parties and the emergency services.</i></p> <p>Role/Responsibility: To deal with incident with resources available. After an initial assessment has been undertaken the BRONZE on scene manager decides whether additional actions and resourcing is required and should seek advice from the SILVER for tactical advice if needed.</p>	<p>Nominated Role: To manage incident on the ground and provide updates to SILVER as required.</p> <p>Competence Requirements: Experience of dealing with incidents at an operational level. Ability to accurately assess situations, perform dynamic risk assessment, identify solutions and prioritise resources. Ability to communicate affectively and deal with 3rd parties and the emergency services.</p> <p>Role/Responsibility: To deal with incident with resources available. After an initial assessment has been undertaken the BRONZE on scene manager decide whether additional actions and resourcing is required and should seek advice from the SILVER for tactical advice if needed.</p>	<p>Nominated Role: To manage incident on the ground and provide updates to SILVER as required.</p> <p>Competence Requirements: Experience of dealing with incidents at an operational level. Ability to accurately assess situations, perform dynamic risk assessment, identify solutions and prioritise resources. Ability to communicate affectively and deal with 3rd parties and the emergency services.</p> <p>Role/Responsibility: To deal with incident with resources available. After an initial assessment has been undertaken the BRONZE on scene manager decide whether additional actions and resourcing is required and should seek advice from the SILVER for tactical advice if needed.</p>
<p>Silver (tactical) – takes strategic direction and converts to action plans for Bronze Command</p>	<p>Nominated Role: To provide tactical support to the BRONZE operational manager on the ground and provide updates to GOLD as required.</p> <p>Competence Requirements: Experience of dealing with incidents at a Tactical level. Ability</p>	<p>Nominated Role: To provide tactical support to the BRONZE operational manager on the ground and provide updates to GOLD as required.</p> <p>Competence Requirements: Experience of dealing with incidents at a</p>	<p>May be required if the level changes, otherwise informed through telephone call and aware of the situation. Informs GOLD of the issue.</p>

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	Level 1	Level 2	Level 3
<p>Silver – Senior Project Manager for Level 2 & 3 incidents</p> <p>Silver – Project Director for Level 1 incident</p>	<p>to support an on-going incident and provide Tactical guidance.</p> <p>Role/Responsibility: Identify risks to the <i>Employer</i>. Expected to attend the incident and take charge and be responsible for formulating the tactics to be adopted to achieve the strategy set by Gold. The SILVER commander should not become personally involved with the activities at the scene and is usually located within the Site/<i>Employer's</i> premises in the SILVER control room or in the identified Incident Management Room.</p> <p>SILVER may have to dictate a coordinated tactical response to multiple scenes across the site/<i>Employer's</i> location and potentially include incidents off the Site/<i>Employer's</i> locations that affect site/<i>Employer's</i> location operations.</p> <p>SILVER to liaise with Emergency services SILVER and any other appropriate tactical advisors, lead and support tactical decision making and provide situation reports to GOLD.</p>	<p>Tactical level. Ability to support an on-going incident and provide Tactical guidance.</p> <p>Role/Responsibility: Identify risks to the <i>Employer</i>. Expected to attend the incident and take charge and be responsible for formulating the tactics to be adopted to achieve the strategy set by Gold. The SILVER commander should not become personally involved with the activities at the scene and is usually located within the Site/<i>Employer's</i> premises in the SILVER control room or in the identified Incident Management Room.</p> <p>SILVER may have to dictate a coordinated tactical response to multiple scenes across the site/<i>Employer's</i> location and potentially include incidents off the Site/<i>Employer's</i> locations that affect site/<i>Employer's</i> location operations.</p> <p>SILVER to liaise with Emergency services SILVER and any other appropriate tactical advisors, lead and support tactical decision making and provide situation reports to GOLD.</p>	
<p>Gold (strategic) – oversees organisational response – removed</p>	<p>Nominated Role: To provide strategic support to the SILVER commander on the ground and provide updates to CEO/Executive as required. Is not to go to the Site or Incident.</p>	<p>Gold Group put on standby by SILVER on the ground. GOLD required to provide advice and guidance to SILVER from a strategic perspective.</p>	

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	Level 1	Level 2	Level 3
<p>from distant control room</p> <p>Gold – Project Director for Level 3 incidents if required.</p> <p>Gold - Programme Director for Level 1 & 2 Events</p>	<p>Competence Requirements: Experience of dealing with serious, large-scale incidents at a strategic level. Ability to support an on-going incident and provide strategic guidance.</p> <p>Role/Responsibility: Gold must be someone who has the delegated authority of the company to make decisions and have command of all <i>Employer's</i> resources. The role requires the holder to be responsible for formulating the strategy for dealing with the incident but delegates' tactical decisions to the SILVER Commander.</p> <p>The <i>Employer's</i> 'Gold' Director determine the strategy and record a strategy statement at the outset of an incident. The strategy should be monitored and subject to ongoing review.</p> <p>GOLD control room is mobilised, and all GOLD Support Team members attend the GOLD Group.</p>		
<p>Communications Response:</p>	<p>Communications team GOLD support deployed to GOLD Team.</p> <p>Manage the communications response, produce a communications handling plan which include informing the helpdesk, developing a media strategy, and approving internal and external messaging. Liaises with CEO/Chairman and monitors the GOLD response output timeline.</p>	<p>Communications team duty manager informed of incident and on call to provide support to ongoing incident. Develop a media strategy, approve external messaging.</p>	<p>Not required – But informed of the situation.</p>

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