

TRANSPORT AND WORKS ACT 1992

**Transport and Works (Applications and Objections
Procedure) (England and Wales) Rules 2006**

**THE NETWORK RAIL
EAST WEST RAIL (WESTERN SECTION) PHASE 2 ORDER**

APPENDIX 1.4: DRAFT CODE OF CONSTRUCTION PRACTICE

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LIST OF ABBREVIATIONS

Abbreviation	Term
ALARP	As low as reasonably practicable
WSI	Archaeological Written Scheme of Investigation
AQMA	Air Quality Management Area
CDM	Construction (Design and Management) Regulations 2007
CEMP	Construction Environment Management Plan
CIRIA	Construction Industry Research and Information Association
CL:AIRE	Contaminated Land: Applications in Real Environments
CLR11	Contaminated Land Report 11
CoCP	Code of Construction Practice
COPA	Control of Pollution Act
COSHH	The Control of Substances Hazardous to Health (COSHH) Regulations 1999
EA	Environment Agency
EcMP	Ecological Management Plan
EMS	Environmental Management System
EPA90	Environmental Protection Act 1990
EPSL	European Protected Species Licence
ES	Environmental Statement
FOC	Freight Operating Company
HWG	Highways Working Group
HGV	Heavy Goods Vehicle
MoU	Memorandum of Understanding
PPE	Personal Protective Equipment
PPG	Pollution Prevention Guidelines
PPICP	Pollution Prevention and Incident Control Plan
SBI	Site of Biological Interest
SWMP	Site Waste Management Plan
TOC	Train Operating Company
TWA Order	Order (planning permission) obtained under Part 1 of the Transport and Works Act 1992
WPP	Work Package Plans

1. INTRODUCTION

1.1.1 This Draft Code of Construction Practice (CoCP) has been prepared to form an appendix to the Draft Environmental Statement (ES) accompanying the Network Rail (NR) East West Rail (Western Section) Phase 2 Transport and Works Act Order (TWA Order) Application for East West Rail Phase 2 (the Project). It will be agreed in its final form with the relevant local planning authorities. This CoCP is a working draft and will be reviewed to reflect changes in the Project design, construction industry practice, legislation, standards and procedures.

1.1.2 The EWR Alliance, the organisation appointed to design and build the Project, has contributed to the content of this document and will comply with the requirements within.

1.2 Purpose of the Document

1.2.1 The CoCP acts as an environmental management system (EMS) framework, under which the construction of the Project will be undertaken in relation to the environment. It is also the mechanism by which the construction-related mitigation identified in the final ES is secured.

1.2.2 The CoCP sets out:

- The context and underlying principles of environment management for the EWR Alliance;
- The principal obligations on the EWR Alliance when undertaking the construction of the Project;
- The guidelines to be used during construction and how they will be mandated and applied by the contractual arrangements between Network Rail and the EWR Alliance; and
- The details of, or references to, the construction phase mitigation measures for each relevant environmental topic.

2. CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN

2.1.1 The environmental management requirements for construction set out in this CoCP will be implemented through a Construction Environmental Management Plan (CEMP).

2.1.2 The objective of the CEMP is to provide a documented procedure to ensure the relevant environmental issues are effectively managed and the requirements of the TWAO and commitments of the various management plans are adequately implemented on site.

2.1.3 The CEMP will be developed by the EWR Alliance in anticipation of the granting of the TWA Order and in advance of the commencement of construction works. The CEMP will meet the requirements of Network Rail's Standard NR/L2/ENV/015 (Contract Requirements Environment). This standard sets the contractual obligation for the EWR Alliance to produce and implement a CEMP as well as the mandatory contents to be included; this CoCP complements and does not conflict with this standard.

2.1.4 The CEMP will provide the detail of the delivery of management controls on site, will reflect the construction methodology and will include the following:

- Sustainability Policy;
- Legal Requirements;
- EWR Alliance roles and responsibilities in implementing the CEMP;
- Overarching processes and control measures;
- Assurance and continual improvement process (including audit, inspection, monitoring and reporting);
- Training awareness and competence (including lists of tool box talks);
- Any other relevant environmental consents, commitments, undertakings or planning conditions; and
- Topic Specific Environmental Management and Delivery Plans.

2.1.5 The key topic specific plans of the CEMP are:

- External Communications Plan (including complaints procedure);

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- Landscape and Ecology Management Plan (including tree protection/vegetation retention);
 - Pollution Prevention and Emergency/Incident Control Plan;
 - Flood Emergency Response Plan;
 - Traffic Management Plan;
 - Green Travel Plan;
 - Site Waste Management plan;
 - Soil Management Plan;
 - Materials Management Plan;
 - Archaeological Management Plan (Written Scheme of Investigation);
 - Carbon and Energy Management Plan;
 - Noise and Vibration Plan; and
 - Nuisance Management Plan concerning dust, air pollution and lighting (excluding noise and vibration).
- 2.1.6 Network Rail will review and accept the CEMP prior to the start of construction works.
- 2.1.7 The CEMP will cover all construction activities including site preparation (including remediation and/or ground treatment where appropriate), demolition, material delivery, material management, and waste removal.
- 2.1.8 The CEMP will be subject to regular review, and will be updated to take account of current best practice and lessons learnt on site.

3. ROLES AND RESPONSIBILITIES

3.1.1 The EWR Alliance Director is accountable for compliance with the CoCP and implementation of the CEMP. Further responsibilities are detailed in the Table 3.1.

Table 3.1: Roles and responsibilities.

Role	Abbreviation	Responsibilities
EWR Alliance Director	AD	Compliance, resourcing and implementation of the CoCP and CEMP.
Head of Environment and Sustainability	HES	Authorising the CoCP. EWR Alliance and Network Rail lead on Environment and sustainability for the Project.
Environment Manager	EM	Specialist input to drafting, Review of CoCP and implementation through the production of the CEMP.
Head of Operations	HO	Review of CoCP and embedding the CoCP into the construction strategy.

3.1.2 In developing, implementing and maintaining this CoCP the responsible, accountable, consulted and informed (RACI) procedure below shall be applied.

Table 3.2 RACI Procedure

East West Rail 2 Alliance Document RACI	Roles				
R = Responsible A = Accountable C = Consulted I = Informed	AD	HES	EM	EIA	HO
Document Production	A	A	C	R	C
Document Acceptance	A	R	C	I	C
Document Implementation	A	A	R	C	A
Document Review/Update	A	A	C	R	I

3.1.3 Accountabilities shall not be delegated. Responsibilities may be delegated but all such delegations shall be formally recorded.

4. EWR ALLIANCE SUSTAINABILITY APPROACH

4.1 Policy

4.1.1 One of the EWR Alliance’s Principles mandates “stakeholder expectations and sustainability underpin every decision”. The EWR Alliance has produced a Sustainability Policy Statement as part of their Integrated Management System. The policy makes a commitment to compliance with all relevant legal and project requirements, which includes this CoCP. The policy includes four primary sustainability objectives.

4.2 Sustainability Strategy

4.2.1 A set of 21 action focused objectives sit below the four primary objectives as shown in the following four tables. Each objective has an assigned EWR Alliance ‘owner’ accountable for the delivery of the associated sustainability action plan. The objectives are aligned with the requirements of this CoCP.

Table 3.3 Environmental Protection

Primary Objective	EWR2 will minimise adverse impacts on the environment and deliver environmental benefits throughout the project lifecycle, through:
Action Objectives	<ul style="list-style-type: none"> • Delivering a low carbon and water footprint, throughout the whole project lifecycle (ENV01) • Resource efficiency, delivering the right level of quality (right first time) (ENV02) • Delivering measureable net biodiversity gain and positively contributing to the conservation of nature in the region (ENV03) • Managing environmental risk (avoid, reduce and mitigate) throughout the project lifecycle (ENV04)

Table 3.4 Stakeholder Satisfaction

Primary Objective	EWR2 will understand , manage and value the needs and expectations of our stakeholders and leave a lasting positive legacy in the local community, through:
Action Objectives	<ul style="list-style-type: none"> • Working with national and local stakeholders to identify and implement initiatives with community, social and industry benefits (SS01) • Maintaining consistent, open and transparent communication (SS02) • Designing and Building infrastructure that’s accessible for all (SS03) • Minimising nuisance (avoid, reduce and mitigate) to the

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Primary Objective	EWR2 will understand , manage and value the needs and expectations of our stakeholders and leave a lasting positive legacy in the local community, through:
	<p>local community throughout the project lifecycle (SS04)</p> <ul style="list-style-type: none"> Using ethical and responsibly sourced materials and services (SS05)

Table 3.5 Sustainable Economic Growth

Primary Objective	EWR2 will contribute to the regions aspirations for economic growth during construction and operation, and represent value for money, through:
Action Objectives	<ul style="list-style-type: none"> Engaging with local supply chain to access local services and products (ECON01) Supporting local businesses and organisations to improve their long-term resilience (ECON02) Providing training and employment opportunities to help grow the skills and improve the long term employability of the local workforce and underrepresented groups within the work force (ECON03) The development of a workforce to address current industry skills gaps and support future long term industry skills need (ECON04) Delivering infrastructure resilient to climate change (ECON05) Promoting and enabling the use of sustainable transport throughout the project lifecycle (ECON06)

Table 3.6 The Team (Staff and Supply Chain)

Primary Objective	EWR2 will develop a collaborative, diverse and inclusive team that attracts and retains the best talent, considers safety a priority, and has a positive impact on people’s health and wellbeing, through:
Action Objectives	<ul style="list-style-type: none"> Promoting , reinforcing and embedding the Network Rail Lifesaving Rules (T01) Fair and transparent recruitment and resourcing that promotes team equality and diversity (T02) Proactively managing competency and career progression through personal development plans for everyone in the team (T03) Measuring and improving job satisfaction (T04) Driving a culture of creativity, innovation and continual improvement (T05) Creating a happy and healthy working environment and team (T06)

4.3 Integrated Management System (IMS)

- 4.3.1 All participant companies of the EWR Alliance have in place an ISO:14001 certified Environmental Management Systems (EMS). The EWR Alliance is developing an Integrated Management System (IMS) which includes an EMS consistent with the principles of ISO14001.
- 4.3.2 The Sustainability Policy and Strategy link to and inform the development of a number of other key EWR Alliance plans and strategies within the IMS.
- 4.3.3 The EWR Alliance is developing a construction strategy that embeds the requirements of this CoCP, as well as the sustainability objectives.
- 4.3.4 A procurement strategy which sets out the arrangement for bringing on board sub-contractors will be implemented post consent. There will be a contractual requirement for construction phase sub-contractors to work in line with the COCP, CEMP and IMS. The EWR Alliance Audit Strategy will include audit of the CEMP and compliance to this CoCP during the construction period.
- 4.3.5 The Alliance Training and Competency plan will detail the environmental and sustainability awareness and training requirements for the EWR Alliance Project team.

4.4 Site Management

General

- 4.4.1 The EWR Alliance will ensure that all direct staff and the staff of any sub-contractor are suitably qualified to manage and execute the works for which they are responsible.
- 4.4.2 The EWR Alliance will register the Project in the Considerate Contractor Scheme (CCS) and target an excellent score.
- 4.4.3 There will be an expected code of conduct (site rules) that all personnel and sub-contractors will be required to adhere to.

Induction and Tool Box Talks

- 4.4.4 The EWR Alliance will require that all staff have a formal induction. The induction process will be aimed at ensuring that staff can demonstrate an appropriate awareness of the sensitive environmental issues and impacts on the local community and expected code of conduct on site. The induction will ensure that all staff have a clear understanding of their individual roles and responsibilities and the requirement to comply with the CEMP.
- 4.4.5 In planning each package of construction works, site and task risks will be assessed and controls included in the works team briefing materials including the 'Work Package Plan' and the 'Task Briefing Sheet'. These risks will include both health and safety and environmental/nuisance risk, as well as any specific requirements of consents or permits. This process is a Network Rail standard requirement. Signed records of all Works Package Plans and Task Briefing Sheets will be kept on a data management system. This process is a Network Rail standard requirement.
- 4.4.6 During construction, the EWR Alliance will implement an on-going series of "toolbox talks" aimed at all issues surrounding the successful implementation of the CoCP, expected site behaviours and health and safety. Toolbox talks will be delivered to all site staff, be site-specific and delivered in accordance with the on-going risks as identified by the EWR Alliance during the construction period. Records of all signed tool box talks will be kept on a data management system.

4.5 Community Consultation and Engagement

- 4.5.1 The EWR Alliance will appoint a dedicated Communications Manager to serve as a liaison between the EWR Alliance and the community during the construction phase. The Alliance will implement a construction communications plan as part of the External Communications Plan in compliance with this CoCP.

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- 4.5.2 Up to date information will also be made available online on the Network Rail or the Project website including work completed to date, current programme and upcoming work and the contact details for enquiries and complaints. The External Communication Plan will give detail on the arrangements for further site specific letter drop notification of construction works to local addresses.
- 4.5.3 The EWR Alliance will utilise a 24 hour helpline to maintain a facility that records enquiries and complaints received. The External Communications Plan, or equivalent, will detail the procedures that ensure the helpline department is appropriately briefed on an on-going basis and is provided with the capability to respond in real time to complaints by contacting appropriate site staff with the aim of immediately resolving any issues on site. The helpline number will be advertised on all correspondence and widely advertised on site hoardings and the Network Rail or the Project website.
- 4.5.4 Any call to the helpline generates a record on the complaints register that can only be closed once the query or complaint has been resolved.

5. GENERAL SITE OPERATIONS

5.1 Working Hours

5.1.1 The construction programme for the Project will develop as the Project progresses.

5.1.2 Working hours will differ depending upon the nature of the construction activity being undertaken, the location and constraints imposed by existing railway operations. All working hours will be subject to consultation with the Local Authorities (LAs).

5.1.3 Where work takes place under 'greenfield' conditions (i.e. there are no existing restrictions in place in connection with the existing operational railway), working hours will generally be 0700 to 1800 Monday to Friday and 0700 – 1600 Saturday (and Sunday by exception).

5.1.4 Where deliveries by rail are required, the timings will be dependent on the availability of train paths to site and may fall outside the general working hours.

5.1.5 Non-standard working hours will also be utilised in connection with any construction works that would interface with the existing operational railway. The Construction Strategy for works on operational railway is currently in development and will require consultation with train and freight operators. The following are typical options for carrying out this work:

- Where work takes place under blockade (operational railway is completely closed for prolonged engineering works), hours are generally 24 hours for the duration of the blockade, subject to work scope and programme; and
- Where work takes place under possessions of the track (works carried out when trains are not timetabled), there are further arrangements into which working hours are typically, but not exclusively, as follows:
 - Mid week night possessions, typically from 0001 – 0400;
 - Weekend night possessions, typically from 2200 on Saturdays to 0800 on Sundays; and
 - Disruptive possessions taking place over a full weekend duration, which can include Bank Holidays.

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- 5.1.6 The EWR Alliance may exercise an extended working hours regime during longer hours of daylight in the summer months if required and in consultation with the relevant LAs. During the winter months when there is less daylight, the EWR Alliance may shorten working days in consideration of the safety precautions for construction workers and the public.
- 5.1.7 In the case of work required in response to an emergency or which, if not completed, would be unsafe or harmful to the permanent works or the general public or the environment, the LAs will be informed, as soon as reasonably practicable, of the reasons for and likely duration of the works. The LAs will provide a telephone number and nominate an officer to receive such notifications, which will be reviewed regularly. Examples of the type of work envisaged would include where pouring concrete takes longer than planned due to equipment failure, or weather, or where unexpected poor ground conditions, encountered whilst excavating, require immediate stabilisation.
- 5.1.8 Where works have been rescheduled due to unforeseen circumstances and may extend beyond normal working hours or otherwise change the assessment previously conducted for the Section 61 agreement, the EWR Alliance will apply for a variation to that Section 61 consent. The timescales for consideration of such changes will be agreed with the LAs as part of the Section 61 principle conditions.
- 5.1.9 In addition to the occupier notification requirements already outlined in this CoCP, notification will also be issued for works that fall under the category of emergency or rescheduled due to unforeseen circumstances and requiring a re-assessment of the Section 61 agreement.
- 5.1.10 Deliveries by road in general will be in standard working hours. There may be occasions where the EWR Alliance will request road closures to deliver an abnormal load and such requirements will be discussed as appropriate with the LAs.

5.2 Site Layout

5.2.1 The CoCP identifies the significant environmental sensitivities identified during the EIA process that general site operations will have to take into consideration. These will include:

- All compounds will be fenced/ fully secured;
- Temporary offices, fixed plant and machinery and storage of materials will be located in consideration of the local environmental effects which will include proximity to residential properties, local businesses, watercourses and ecological receptors;
- Fixed site plant and temporary offices will be powered by mains electrical sources wherever suitable utility connections can be made; and
- The EWR Alliance will display the contact number and a contact name and address at appropriate locations on the boundaries of the site(s);
- In complying with the Considerate Constructor's Scheme and the Duty of Care in consideration of waste management, the EWR Alliance will ensure a good housekeeping policy is observed and the Project Area and compounds are kept tidy, safe and ordered; and
- Entry and exit from work sites and compounds shall be strictly organised so that the potential for unauthorised access is minimised.

5.3 Site Lighting

5.3.1 Site lighting will be required for sites and compounds in consideration of winter working hours and non-standard working arrangements when compounds will be used. Site lighting in compounds and for works will be positioned and directed so as to reduce the impact on occupied residential properties as far as reasonably practicable or otherwise cause a hazard to road users. Where possible it will be switched off when not in use.

5.3.2 In consideration of the general public and other amenity users affected by the construction of the Project, site lighting may be required to illuminate footpaths. This will be implemented only where required, and if needed, the arrangements will be specific to each case.

5.4 Emergency Planning, Response and Access

- 5.4.1 The EWR Alliance will ensure that emergency procedures are in place in consideration of the work sites, compounds and access and egress requirements. The procedures will be in consideration of the site-specific hazards and include notification procedures.
- 5.4.2 The site-specific planning will include a consideration of the potential for flooding and inundation during rain events at each compound and storage area, this will be documented in a Flood Emergency Response Plan where the risk requires one.
- 5.4.3 Further detail of the Pollution Prevention and Incident Control Plan is set out in Chapter 13 (Water Quality and Flood Risk) of the Draft ES.

5.5 Fire Prevention and Control

- 5.5.1 All construction sites and associated accommodation and welfare facilities will have in place appropriate plans and management controls to prevent fires.
- 5.5.2 The site fire plans will be prepared, regularly reviewed, and updated as necessary, and will have due regard to the following documents:
- CFPA-E21:2009 Fire Prevention on Construction Site; and
 - Fire Safety in Construction Work (HSG 168).

5.6 Cranes

- 5.6.1 Crane arcs will be confined within the Project Boundary unless agreed otherwise with the relevant LA and property owners/occupiers whose air space is affected. The EWR Alliance will obtain the relevant permissions from the LAs, as appropriate, for example, for cranes located adjacent to roads. Cranes will be operated in accordance with the requirements of BS 7121, Code of Practice for Safe Use of Cranes.

5.7 Underground Services and Public Utilities

5.7.1 The EWR Alliance will be responsible for undertaking their own surveys to establish the full extent of underground services and public utilities prior to commencing works at the site.

5.8 Protection of Existing Structures

5.8.1 The EWR Alliance will ensure that, where appropriate, existing foundations, buildings, structures, walls, roads, sewers, cables and other services are protected during the works.

5.8.2 The EWR Alliance will safeguard all structures from unauthorised harm, disturbance or deterioration for the duration of the works. Specific attention will be paid to listed structures in this regard as detailed in Section 5 (Cultural Heritage) of this CoCP. The EWR Alliance will safeguard all structures from unauthorised harm.

5.8.3 Stockpiles of materials, as well as plant and machinery will not be located immediately adjacent to existing structures in such a way as might potentially cause structural damage. Stockpiles will also be kept away from residential properties in so far as is reasonably practicable.

LAND USE AND AGRICULTURE

6.1 Land use

6.1.1 Consultation will continue with affected receptors to ensure disruption caused by the construction works is minimised as far as possible.

6.1.2 Construction working areas will be managed so that access to residential properties, community facilities and commercial enterprises are maintained. Where the construction land take results in the temporary loss of car parking spaces, alternative parking spaces will be identified and secured for the duration of the works.

6.1.3 Following the construction works, the Project will restore temporary land take of property boundaries or gardens to their previous condition.

6.1.4 Care will be taken to minimise construction disturbance where works take place adjacent to residential properties and community facilities such as places of worship and cemeteries.

6.2 Agriculture

6.2.1 Liaison with affected landowners, tenants and agents will be maintained during the various stages of the Project to minimise impacts.

6.2.2 Construction areas will be fenced off to prevent access to adjacent areas of agricultural land, and to keep within Order limits. This will prevent accidentally extending the temporary land take, damage of adjacent land or disturbance to livestock.

6.2.3 Arrangements will be put in place to ensure that, wherever possible, farm access is maintained during the construction works, as well as the services required to maintain the operation of the farm such as water supplies and drainage.

6.2.4 Best practice construction measures will be adopted to control the spread of dust, contamination, invasive species, weeds and soil-borne, crop and animal diseases.

6.2.5 Agricultural land used during the construction phase will be restored to its previous condition. This will require the correct specification as to soil stripping, handling, storage and reinstatement, which will be carried out in accordance with guidance provided in Construction Code of Practice for the Sustainable Use of Soils on Construction Sites. A soil resource survey will be carried out prior to construction to assist in the categorisation of the soils and development of a Soil Management Plan which will form part of the CEMP.

6.2.6 Farm boundaries such as hedgerows, fences and walls affected during construction will be reinstated as agreed with the affected land owner.

7. CULTURAL HERITAGE

7.1 General Requirements

7.1.1 Measures to mitigate impacts upon cultural heritage will follow general mitigation principles for buried archaeological remains, archaeological earthworks and built heritage. Specific mitigation measures are proposed for each heritage asset, where required. All controls will be documented in an Archaeological Management Plan which will form part of the CEMP.

7.2 Buried Archaeological Remains and Archaeological Earthworks

7.2.1 A scheme of investigative archaeological field evaluation, devised in consultation with the relevant LA Archaeological Officer, will be undertaken prior to construction. The fieldwork will aim to determine the extent, depth, function, chronology and relative significance of any archaeological remains, and if necessary will serve to inform mitigation. Mitigation measures may be subject to change further to the results of investigative fieldwork. A Written Scheme of Investigation (WSI) will be prepared. This is a method statement or project design to cover a suite of archaeological works for a site.

7.2.2 Where impacts on archaeological earthworks are unavoidable, they will be fully recorded prior to their removal. This will firstly require a walkover survey followed by a full record created using topographic survey to Historic England standards as outlined in Metric Survey Specifications for Cultural Heritage (2015). The removal of the earthworks will be undertaken under archaeological watching brief conditions and be subject to environmental sampling in consultation with the relevant Planning Archaeologist.

7.2.3 The removal of any hedgerow that is covered by the Hedgerow Regulations will be photographically recorded, with a full description and archaeological watching brief maintained during the removal of such a hedgerow and adjacent construction works.

7.3 Built Heritage

7.3.1 A systematic programme of recording to Historic England standards will be applied to all the assets that are to be removed or structurally altered, regardless of their individual designation, in order to maintain an archive record of the assets.

8. AIR QUALITY

8.1 General Requirements

8.1.1 The general construction mitigation measures to manage dust deposition are provided in Appendix 8.5 (Best practice dust management measures for application at all sites) of the Draft ES and will be incorporated into the CoCP.

Construction / Visible Dust

8.1.2 The Nuisance Management Plan will include the measures relating to management of construction dust, as set out in Appendix 8.5 of the Draft ES, and repeated below:

- **COMMUNICATIONS**
 - Develop and implement a stakeholder communications plan that includes community engagement before work commences on site.
 - Display the name and contact details of person(s) accountable for air quality and dust issues on the site boundary. This may be the environment manager/engineer or the site manager.
 - Display the head or regional office contact information
 - Develop and implement a Dust Management Plan (DMP), which may include measures to control other emissions.
- **SITE MANAGEMENT**
 - Record all dust and air quality complaints, identify cause(s), take appropriate measures to reduce emissions in a timely manner, and record the measures taken.
 - Make the complaints log available to the local authority when asked.
 - Record any exceptional incidents that cause dust and/or air emissions, either on- or offsite, and the action taken to resolve the situation in the log book.

- **MONITORING**
 - Undertake daily on-site and off-site inspection, where receptors (including roads) are nearby, to monitor dust, record inspection results,
 - Carry out regular site inspections to monitor compliance with the DMP and record inspection results.
 - Increase the frequency of site inspections by when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions.
- **PREPARING AND MAINTAINING THE SITE**
 - Plan site layout so that machinery and dust causing activities are located away from receptors, as far as is possible.
 - Provide screening between properties and the construction site where appropriate and practicable (based on a site specific risk assessment approach)
 - Avoid site runoff of water or mud.
 - Keep site fencing, barriers and scaffolding clean using wet methods.
 - Remove materials that have a potential to produce dust from site as soon as possible, unless being re-used on site. If they are being re-used on-site cover as described below.
 - Seed long term soil stockpiles to prevent wind-whipping.
- **OPERATING VEHICLES/MACHINERY AND SUSTAINABLE TRAVEL**
 - Ensure all on-road vehicles comply with the requirements of the London Low Emission Zone and the London NRMM standards, where applicable.
 - Ensure all vehicles switch off engines when stationary - no idling vehicles.
 - Avoid the use of diesel or petrol powered generators and use mains electricity or battery powered equipment where practicable.
 - Impose and signpost a maximum-speed-limit of 15 mph on surfaced and 10 mph on unsurfaced haul roads and work areas.
- **OPERATIONS**
 - Only use cutting, grinding or sawing equipment fitted or in conjunction with suitable dust suppression techniques such as water sprays or local extraction, e.g. suitable local exhaust ventilation systems.
 - Ensure an adequate water supply on the site for effective dust/particulate matter suppression/mitigation, using non-potable water where possible and appropriate.

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- Use enclosed chutes and conveyors and covered skips.
- Minimise drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment and use fine water sprays on such equipment wherever appropriate.
- Ensure equipment is readily available on site to clean up spillages as soon as reasonably practicable after the event.
- **WASTE MANAGEMENT**
 - There will be no bonfires or burning of waste materials on site
 - Soft strip inside buildings before demolition (retaining walls and windows in the rest of the building where possible, to provide a screen against dust).
 - Ensure effective water suppression is used during demolition operations. Hand held sprays are more effective than hoses attached to equipment as the water can be directed to where it is needed. In addition high volume water suppression systems, manually controlled, can produce fine water droplets that effectively bring the dust particles to the ground.
 - There will be no explosive blasting on site.
 - Bag and remove any biological debris or damp down such material before demolition.
- **MEASURES SPECIFIC TO EARTHWORKS**
 - Re-vegetate earthworks and exposed areas/soil stockpiles to stabilise surfaces as soon as practicable.
- **MEASURES SPECIFIC TO CONSTRUCTION**
 - Avoid scabbling (roughening of concrete surfaces) if possible.
 - 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.
- **MEASURES SPECIFIC TO TRACKOUT**
 - Use water-assisted dust sweeper(s) on the access and local roads, to remove, as necessary, any material tracked out of the site. This may require the sweeper being continuously in use.
 - Avoid dry sweeping of large areas.
 - Ensure vehicles entering and leaving sites are covered to prevent escape of materials during transport.
 - Record all inspections of haul routes and any subsequent action in a site log book.

- Install hard surfaced haul routes in areas where residential receptors are in close proximity to the Project. Damping down with fixed or mobile sprinkler systems, or mobile water bowsers will be used as required.
- Implement a wheel washing system (with rumble grids to dislodge accumulated dust and mud prior to leaving the site where reasonably practicable) and / or employ the use of road sweeps where appropriate.
- Ensure there is an adequate area of hard surfaced road on the approach to a site exit / entrance to allow accumulated debris to be cleared from wheels and that the access road is surfaced between the wheel wash facility and the site exit, wherever site size and layout permits.
- Access gates to be located at least 10 m from receptors where possible.

9. ECOLOGY AND NATURE CONSERVATION

9.1 General Requirements

- 9.1.1 In line with the mitigation hierarchy, construction works will continue to seek out ways to avoid and reduce the loss of habitat/vegetation within the Project Area. The EWR Alliance will continue to assess the biodiversity units lost within the Project Area to monitor the successful delivery of the objective to achieve biodiversity net gain.
- 9.1.2 To reduce the lag between habitat losses within the construction areas and the creation of new habitat in mitigation areas, the EWR Alliance will look to establish mitigation sites as early as possible and in advance of construction works wherever reasonably practicable.
- 9.1.3 Prior to construction of the Project, a Landscape and Ecological Management Plan (LEMP) will be prepared and consulted with the LAs, as part of the CEMP.
- 9.1.4 An Ecological Clerk of Works shall be appointed by the EWR Alliance. They will be responsible for providing technical advice and site assurance of adherence to the LEMP.
- 9.1.5 All construction works will be subject to a site specific assessment by the Ecological Clerk of Works that will identify sensitive ecological receptors. A

risk assessment will be produced for all locations. For low risk sites, a Precautionary Method of Working (PMW) will be produced which will detail the controls required. The PMW will be issued in the form of briefings to the site supervisors to enable any controls to be implemented. Training will be provided. Species guides will be provided for the low risk locations, covering the required species (e.g. GCNs, badgers, nesting birds etc.). All sites classed as high risk will require ecology supervision onsite.

9.1.6 All habitats lost as part of the temporary construction works footprint shall be restored with like for like or like for better.

9.1.7 Ecological mitigation will also ensure compliance with the mitigation measures set out in Chapter 8 Air Quality, Chapter 10 (Noise and Vibration) and Chapter 13 (Water Quality and Flood Risk).

9.2 Specific requirements

Habitats

9.2.1 Mitigation requirements are provided for specific habitat types (where required). Measures include, but are not limited to:

- Strip and store topsoil from any areas to be affected prior to any construction or operational functions and re-use in the same areas to ensure local soil and seed bank provenance is maintained; and
- Habitat surveys in areas unable to be surveyed during the assessment, prior to construction and the LEMP will be reviewed following the survey findings.

Arboriculture

9.2.2 An arboriculturist will be appointed to produce an Arboricultural Method Statement (AMS) and a Tree Protection Plan (TPP) as part of the LEMP.

9.2.3 These documents will describe the tree protection measures to be applied during the construction phase of works. The precise location, extent, standard and duration of all tree protection measures will be identified and specified in the AMS and TPP.

9.2.4 These protection measures may reasonably include, but not be limited to:

- Protective fencing;
- Temporary ground protection;
- The use of 'no-dig' hard surfacing;
- The use of minimal dig foundations (e.g. pads and piles); and
- Suitable arboricultural monitoring and supervision.

Aquatic features

9.2.5 Best practice measures will ensure that pollution, sedimentation and changes to the hydrology or morphology of watercourses across the Project Area will be avoided.

9.2.6 Works in close proximity to the watercourses will be undertaken under strict controls to ensure sedimentation and pollution are managed. Regular water quality monitoring and ecological supervision of high risk construction activities will be implemented to monitor the success of measures to protect watercourses. These controls will be consulted upon with the Environment Agency (EA) (main rivers), Internal Drainage boards and Lead Local Flood Authorities (for ordinary watercourse) as part of any requirement for permits or consent.

Bat

9.2.7 Bat mitigation will be implemented under a European Protected Species Licence (EPSL) from Natural England as required. Disturbance of roosts adjacent to the Project Area will be controlled by the implementation of a PMW and site supervision where high risk to avoid noise, vibration or lighting impacts.

Badger

9.2.8 Site specific mitigation measures to address the potential killing, injury and disturbance of badgers will be provided in accordance with legal and license requirements as agreed with Natural England where necessary.

Birds

- 9.2.9 Measures to reduce disturbance to barn owl arising from noise and vibration and the presence of construction personnel and vehicles will be implemented in the Project Area in a radius of up to a 0.18 km from confirmed breeding or active roost sites depending on the nature of the construction activity proposed and/or if within the breeding season. The likelihood of disturbance of barn owl and appropriate mitigation to address disturbance will be determined once detailed construction methods in each location have been confirmed.
- 9.2.10 In situations where disturbance cannot be avoided and/or where direct roost loss will occur, the requirement for artificial barn owl roost provision will be considered.
- 9.2.11 Any requirement for new roost sites will be secured through an agreement with local land owners. Prior to nest/roost loss or disturbance, barn owl will be temporarily excluded from the confirmed breeding sites, active roost sites and potential nest sites identified during the barn owl survey to ensure compliance with legislation.
- 9.2.12 Where practicable, vegetation clearance or other work activities that risks disturbance of nesting birds will be conducted outside the established nesting season, generally considered to be between March and August inclusive. The Network Rail guidance “Nesting birds and vegetation works” will be complied with by the EWR Alliance to avoid any contravention of the Wildlife & Countryside Act 1981 in connection to disturbing nesting birds.
- 9.2.13 As detailed by the Network Rail guidance note, should de-vegetation or any other activity be conducted during the exclusion period identified, the Ecological Clerk of Works will establish the presence of nesting birds.
- 9.2.14 If nesting birds are considered likely to be disturbed then works shall not be allowed to proceed until the Ecological Clerk of Works has confirmed that the young have fledged and authorise the works to continue.

Great Crested Newt (GCN)

9.2.15 To address potential killing/injury impacts, a combination of exclusion and/or translocation/displacement of GCN from the Project Area will be undertaken under a European Protected Species Licence (EPSL) from Natural England. In selected locations, mitigation to avoid killing and injury of GCN may include precautionary methods of work (PMW), where the risk of encountering a GCN is low.

9.2.16 Further survey work will be undertaken prior to construction to validate where GCN mitigation is required.

Otter

9.2.17 Construction mitigation will maintain the conservation status of otter through protection of confirmed otter shelters or holts from disturbance and by ensuring the maintenance of otter passage along watercourses during the construction phase.

9.2.18 Excavations will be covered or include a means of escape for mammals should an otter enter the excavation during construction. Where holt/shelter disturbance cannot be avoided, the creation of replacement sheltering/holt habitat of equal quality and functionality to that which will be lost will be undertaken. New sheltering/holt habitat will be created through an agreement with local landowners and an EPSL from Natural England will be obtained to facilitate this work and will be mandatory where closure of disturbed holts/shelters is required.

Reptiles

9.2.19 The conservation status of reptile populations will be maintained through a combination of the exclusion and/or the translocation/displacement of reptiles from parts of the Project Area where construction will occur.

Terrestrial Invertebrates

- 9.2.20 Where known/assumed black hairstreak colonies will be directly impacted, translocation will be considered, with the intention of also transferring larvae or pupae to new mitigation areas.
- 9.2.21 Pre-construction surveys will be carried out to identify any suitable vegetation to translocate.

Water Vole

- 9.2.22 The conservation status of water vole will be maintained through avoidance of disturbance during the construction phase and/or creation of replacement habitat into which water vole may be displaced or translocated.
- 9.2.23 The requirement for Natural England licensing and involvement of class licensed water vole ecologists will be addressed on a case by case basis.
- 9.2.24 Further survey work will be undertaken to validate if and where water vole mitigation is required.

9.3 Invasive and Injurious Plant Species

- 9.3.1 The LEMP will include a section that identifies the presence of any invasive or injurious species.
- 9.3.2 The EWR Alliance will comply with the relevant Network Rail guidance notes in removing any invasive or injurious species, as well as Environment Agency guidance, such as in relation to Japanese Knotweed¹. The environmental guidance notes are in place to particularly deal with Japanese Knotweed (“Japanese Knotweed” Issue No: JK02), Himalayan Balsam (Activity Guidance Sheet 11: Control of Invasive Species: AGS11) and Giant Hogweed (“Giant Hogweed” Issue No: GH02) in compliance with the Wildlife and Countryside Act 1981.

¹ <https://www.gov.uk/guidance/prevent-the-spread-of-harmful-invasive-and-non-native-plants>

- 9.3.3 In accordance with the waste hierarchy detailed in Section 14 (Resource Use and Waste Management) of this CoCP, if specific construction activities are likely to cause Japanese Knotweed to spread, the EWR Alliance will produce a management plan in compliance with the Wildlife and Countryside Act 1981.

NOISE AND VIBRATION

10.1 General Requirements

- 10.1.1 The EWR Alliance will control and limit noise and vibration levels, so far as is reasonably practicable, so that residential properties and all other sensitive receptors are protected from excessive noise and vibration levels arising from the construction activities. The EWR Alliance will demonstrate and implement Best Practicable Means (BPM), as defined under Section 72, Part III of the Control of Pollution Act (CoPA) 1974 and will conduct all work in accordance with the recommendations of BS5228, “Noise Control on Construction or Open Sites”. The following measures will also be incorporated:

- Specific risk assessments will be required for activities likely to create nuisance levels of noise and/or vibration, any controls identified as part of this assessment will be included in the work package plan;
- Vehicles and mechanical plant used for construction will be fitted with effective exhaust silencers, where possible, and will be regularly maintained;
- Inherently quiet plant will be used where appropriate. All major compressors will be noise-reduced models fitted with properly lined and sealed acoustic covers which would be kept closed whenever the machines are in use and all ancillary pneumatic percussive tools would be fitted with mufflers or silencers of the type recommended by the manufacturers. However, where the use of audible warning systems, such as reversing or MEWP operating systems, is unavoidable, equipment will be in good working order and operators suitably trained to ensure that unnecessary triggering of alarms will occur cannot be disconnected. These systems in conjunction with flashing beacons cannot be disabled;
- Ancillary plant such as generators, compressors and pumps will be positioned so as to cause minimum noise disturbance;

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- Use of mains electricity rather than generators where practicable;
- Correct maintenance and frequency of maintenance to prevent rattling and screeching associated with the operation of plant, machinery and vehicles;
- Siting of semi-static equipment as far as is practicable away from noise sensitive receptors;
- Modern Plant chosen for its acoustic performance;
- In the event that the “Very High” trigger levels are exceeded, as identified in BS5228, measures to address said event will be put in place as set out in the CoCP and any relevant Section 61 agreement.

10.1.2 Additional site-specific measures may include:

- Use of acoustic enclosures or portable screens where practicable and effective/necessary;
- Mandatory closure of engine compartments when equipment is in use;
- Where practicable, pile caps will be cut and then broken with hydraulic rams to minimise the use of heavy air-powered breakers; and
- Use of burning equipment in preference to cold cutting.

10.2 Section 61 Control of Pollution Act

10.2.1 The EWR Alliance will manage construction works under Section 61 agreements (of the Control of Pollution Act 1974).

10.2.2 The EWR Alliance will engage the services of a professionally qualified acoustician to manage the production of a draft Section 61 consents to take to discussion with the LAs ahead of any formal submission for consideration. The consents will contain:

- Location and nature of short-term activities which will involve construction noise likely to exceed the thresholds and the measures which will be taken to reduce the related noise and its duration;
- Any potential noise generating activities which may be required outside of the stated normal working hours for construction and the measures and procedures to be adopted to limit potential nuisance; and
- Monitoring as appropriate where construction works with higher noise-generating potential proceed in proximity to identified sensitive locations.

10.2.3 The EWR Alliance will produce a series of Section 61 consents based on appropriate staging of the works. This will also allow for a pragmatic application of the controls based on a more detailed construction methodology assessment of works.

10.2.4 The Section 61 consent will set out the monitoring regime to be adopted during the works as the mechanism to validate the predictions made in assessing the noise and vibration generated by the construction activity. The monitoring regime will ensure that compliance with BPM and any consented noise levels are adhered to and the EWR Alliance will audit these in collaboration with the LAs.

10.3 Construction Vibration

10.3.1 The EWR Alliance will carry out vibration monitoring at any sensitive receptors to ensure vibration levels, are below those that might cause cosmetic damage or re-radiated noise.

10.3.2 The EWR Alliance will also conduct a condition survey of residential properties and any other sensitive structures if the construction methodology indicates that cosmetic damage might be caused to such buildings. If cosmetic damage is noted, appropriate repairs to return the building to its original condition will be arranged.

Notification Periods

10.3.3 The EWR Alliance will notify residents and landowners in the vicinity of the works in advance of the start of construction activity in the area a minimum of 14 days in advance.

10.3.4 Prior notice will be given to residents and landowners in the vicinity of the works relative to the timing and duration of any short-term activities which are likely to exceed the agreed Section 61 thresholds a minimum of 14 days in advance.

10.3.5 The EWR Alliance will align the complaints procedure outlined in the Section 61 consent with the process outlined as part of the External Communications Plan outlined in Chapter 3 of this CoCP.

10.4 Construction Traffic Noise

10.4.1 Construction traffic control measures are given in Chapter 14 (traffic and transportation) of this CoCP.

11. GEOLOGY, SOILS AND CONTAMINATION

11.1 General Requirements

11.1.1 In relation to geology, soils and land contamination, the following construction phase controls are as follows (contamination of adjacent agricultural land, air or water are covered in the agriculture and land-use, air quality and water resources sections and not repeated here):

- Any areas of contamination identified will be remediated by specialist contractors prior to general construction access;
- Construction workers will be provided with appropriate Personal Protective Equipment (PPE) and informed by risk assessment to limit their exposure to contamination;
- Hand washing facilities will be made available to site operatives, site rules will be created insisting on hand washing prior to breaks and at the end of the working day, and eating and drinking will be limited to site welfare facilities during agreed break periods;
- A procedure will be included within the Pollution Prevention and Emergency/Incident Control Plan (part of the CEMP) to manage previously-unidentified contaminated material that is encountered during the works;
- Storage areas will be identified for materials and soil arisings that demonstrate visual or olfactory evidence of contamination. The storage areas will comprise of covered skips, or segregated stockpile (sheeted where practically possible, or sealed and banded where too large to sheet or there is risk to the operational rail) placed on hardstanding or sheeting pending its removal or treatment;
- The intrusive investigation to characterise ground conditions will incorporate an assessment of the ground aggressivity which will inform the design of the Project. Further specific intrusive investigation will likely be required prior to the commencement of construction.

- Appropriate best practice techniques and guidance such as CLR 11 and the EA guidance on Piling into Contaminated Land will be adhered to in order to minimise and prevent pollution being introduced or mobilised as a result of the Project;
- Where material is removed due to its chemical unsuitability for retention at the site, full records will be maintained and a verification report prepared following EA guidance;
- Piling risk assessments will be prepared where piling is proposed within a groundwater source protection zone, within 8 m of an Environment Agency main river or close to potential sources of contamination such as landfills or chemical works; and
- A Site Waste Management Plan (SWMP) and Materials Management Plan (MMP) will be developed and used for the Project to forecast and confirm the ultimate destination of arisings generated during the construction phase of the Project. This is further discussed in Section 14 of this CoCP.

12. LANDSCAPE AND VISUAL IMPACTS

12.1 General Requirements

12.1.1 The following measures will be incorporated into the CEMP:

- Where appropriate, position temporary soil storage mounds to provide screening benefits to sensitive receptors. Mounds to be seeded; and
- Wherever possible and not conflicting with construction activities, landscape planting will be carried out as early as practicable so that screening can establish.

12.1.2 The EWR Alliance will use the services of a suitably qualified landscaping specialist to consult on the detail of the landscaping scheme in the LEMP with the LAs.

13. WATER QUALITY AND FLOOD RISK

13.1 General Requirements

13.1.1 The CEMP will include mitigation measures to protect the water environment and will set out how construction activities will be undertaken in accordance with best practice guidance such as CIRIA C532 'Control of Water Pollution from Construction Sites'.

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- 13.1.2 Appendix 13.1 (Draft Flood Risk Assessment) of the Draft ES identifies the mandatory mitigation that will be included in the CEMP, which are given below.
- 13.1.3 Measures that will be included in the CEMP include, but are not limited to:
- Management of water that collects on site or within excavations;
 - Management of polluting substances used during works proposed to the existing bridges over watercourses;
 - Management of polluting substances during works in close proximity (within 10 m) to watercourses;
 - Procedures in case of accidental leakages or spillages of hydrocarbons and oils, or accidental release of hazardous substances during construction works; and
 - Management of polluting substances that are being brought on site and used as part of the construction process.
- 13.1.4 For construction compounds and areas of the proposed works located within areas deemed to be at risk of fluvial and surface water flooding, the EWR Alliance shall prepare and implement a Flood Emergency Response Plan during the construction phase. The Plan will include, where relevant:
- Arrangements to evacuate the area at flood risk;
 - Arrangements to make safe any static plant; and
 - Arrangement to move any mobile plant.
- 13.1.5 The EWR Alliance will monitor flood warning posted by the EA or register for early warning notices where applicable.
- 13.1.6 Emergency response will also detail the protective measures in place that minimises the potential for a pollution incident to occur during times of inundation and flood.
- 13.1.7 Construction workers will be made aware of risks associated with excess surface water caused by overland flows and standing water - for example, risks to deep excavations and damage to plant.

Site drainage

- 13.1.8 The CEMP shall include a consideration of site drainage including surface runoff and any effluent created during de-watering activities.
- 13.1.9 The EWR Alliance will seek where necessary any appropriate approvals for disposal of effluent to the public sewer or surface waters in accordance with the draft Order powers and protective provisions.
- 13.1.10 In consideration and compliance with the EA Pollution Prevention Guidance, every effort will be made as far as is reasonably practicable, to avoid any runoff containing silt from entering watercourses or highway drainage infrastructure in consideration of potential washout from temporary construction and laydown and storage areas.
- 13.1.11 The EWR Alliance will be clear in identifying any discharge that is intended for local soakaway or drain. Water that is of contaminated quality will only be permitted to be discharged to foul sewer if consented or removed by tanker. Otherwise, water that is identified to be of suitable quality or uncontaminated will be permitted to be discharged into a soakaway subject to Lead Local Flood Authorities/Internal Drainage Board's approval.

Control of Pollution of Surface Water

- 13.1.12 The CEMP will detail all potential ways in which runoff may become contaminated and also what preventative measures will be in place to reduce the risk of pollution entering surface watercourses, or highway drainage as far as is reasonably practicable. These measures will include:
- Site-specific emergency controls for all works adjacent to or over water resources;
 - Refuelling will be attended by a site representative;
 - Refuelling will be via a double-bunded bowser equipped with a full spill kit. No refuelling or maintenance oiling will take place within 10 m of a water course or drain;
 - Silt mitigation measures will be implemented to limit runoff of exposed soil into watercourses. Bunds, cut-off ditches, settlement ponds and

drainage covers will be utilised to limit runoff from entering watercourses;

- Spill kits and plant nappies will be provided for all static plant and equipment. They will be available at all times to all areas of work activity; and
- Vehicles will be washed down only in designated areas.

Storage of Pollutant Materials

13.1.13 All liquids that might potentially cause pollution shall be stored in accordance with “The Control of Substances Hazardous to Health (COSHH) Regulations 1999” or “The Control of Pollution (Oil Storage) (England) Regulations 2001”, whichever is applicable.

13.1.14 Any surface water accumulating in any bund in place to comply with the provisions of this section will be removed and discharged only to public sewer as agreed with the relevant water company.

13.1.15 Spill kits that are appropriate in type and quantity and that are fit for purpose will be located in proximity to all stored potentially polluting materials. Emergency response and spill kit training will be provided for relevant site personnel.

Plant and Machinery Maintenance

13.1.16 Oil and diesel storage is identified as a key potential source of pollution so the following minimum measures apply:

- The EWR Alliance will define in detail the maintenance and check regime in place for all oil and diesel storage facilities. This shall include completing all paperwork that is proof of these activities;
- The EWR Alliance will use storage units that are in good condition, fit for purpose and in all cases compliant with the Oil Storage Regulations;
- The EWR Alliance will ensure that appropriate set-up checks of the storage facility (including the operation of the facility) are carried out; and
- All hydraulic plant and machinery shall be the subject of the mandatory maintenance regime that shall be an auditable process.

Protection from Vandalism

- 13.1.17 Despite appropriate pollution and prevention measures, areas of work in general may be subject to theft or vandalism, which may target fuel storage and lead to a spill. In this respect, all construction compounds will be secured and all points of entrance/egress will be securely locked when not in use. Compounds and works will be well lit during working hours of low light. All plant and machinery will be stored in the construction compounds when not in use.
- 13.1.18 Periodically checks will be made of the security of the compounds, and the toolbox talks shall include topic coverage of site security and require vigilance and reporting of security issues.

Concrete Washout facilities

- 13.1.19 After delivery of any wet concrete, delivery vehicles may need to washout any concrete on the delivery vehicles. The following minimum measures apply:
- A designated concrete washout facility shall be created as far from water resources as practically possible and this decision shall be detailed in the CEMP;
 - The washout facility shall be clearly fenced off and identified as the facility;
 - The washout facility shall be lined with an permeable membrane, which will allow water to soak-away but contain cementitious material;
 - The use of the washout shall be monitored on a daily basis with provisions in place to ensure there can be no leakage of wet concrete; and
 - Dried washout concrete will be broken up and re-used on site (e.g. inert fill).

Emergency Response

- 13.1.20 Network Rail refers to the Memorandum of Understanding (MoU) with the EA with the appropriate extract detailed in Network Rail's Contract Requirements – Environment (CR-E) Issue 6: Appendix C, 2011. The MoU

outlines the agreement between Network Rail and the EA as to what constitutes a major incident that would require reporting to the EA and the attendance of an emergency spill control contractor. The detail of the MoU will be included in the CEMP.

13.1.21 The EWR Alliance shall acquire the call-off services of an emergency spill response specialist. Given the proximity of water resources in certain locations, the EWR Alliance will acquire the services of a local specialist who can provide immediate response to a major incident. The spill response specialist will be utilised in the event of a major incident.

13.1.22 In accordance with the MoU, the EWR Alliance will report all major pollution incidents to the EA hotline as follows:

- Petrol spillages greater than 100 litres;
- Hydrocarbon spillages greater than 20 litres (including hydraulic oils and cutting oils);
- Any spillage in or near water resources; and
- Significant releases of silt/sands/cement slurry into a water course.

14. TRAFFIC AND TRANSPORT

14.1 General Requirements

14.1.1 The EWR Alliance will ensure that the works are undertaken in such a way as to maintain minimise access and traffic disruption during construction, wherever practicable.

14.1.2 The construction mitigation measures will be captured in series of Traffic Management Plans (TMP) as part of the CEMP. A TMP will be developed as a separate document for each construction compound. The measures and procedures included within the TMPs will capture the requirements for traffic management.

14.1.3 The measures included in the TMPs, including those noted above, will be subject of consultation with the Local Highways Authorities (LHAs).

14.1.4 The TMP shall contain as a minimum:

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- Temporary and permanent road or PROW closures and diversions;
- Construction traffic routes including access and egress from the main trunk roads and also at site level; and
- Details of the audit and/or perform monitoring process for construction traffic to ensure that stated traffic routes are being used;
- Imposed time restrictions on use and any routes strictly prohibited from use;
- Controls to minimise any interference with a carriageway or footway, including control of tracking of mud and rubble by construction traffic from the site;
- Temporary traffic control measures;
- Means of monitoring construction Heavy Goods Vehicle (HGV) compliance with the stated traffic routes;
- Site-specific controls in consideration of the potential for nuisance (noise and vibration, mud and dust);
- Mirrors placed at critical turning junctions to assist drivers, in consultation with the LHA;
- Prohibition of parking of any construction site vehicles along public roads; and
- Measures to ensure that cycle and pedestrian movements along local highways and PROWs can continue safely and unencumbered.

Nuisance Management Measures

- 14.1.5 The TMP will identify the plans to maintain access to local residents and community facilities.
- 14.1.6 The TMP must clearly provide information that will show how nuisance from construction delivery to local residents and businesses will be avoided.
- 14.1.7 The EWR Alliance will, where reasonably practicable, ensure that people with restricted mobility (PRM) and those people with protected characteristics as specified in the Equality Act 2010, continue to have access to services and buildings where existing access and services are temporarily disrupted during the construction works. Where a normal means of access has to be diverted or blocked off, alternative safe routes for People with protected characteristics will be identified, taking into account existing hazards and obstructions such as pavement kerbs and street

lighting standards (poles). To ensure travel disruption mitigation is made for rail passengers during the construction phase of the Project (e.g. station closure/service reductions), “Disruption Access Planning” will be carried out through negotiation between the EWR Alliance and Train Operating Companies.

- 14.1.8 Further mitigation work may be proposed once the full construction traffic and transport assessments have been undertaken.

15. RESOURCE USE AND WASTE MANAGEMENT

15.1 General Requirements

15.1.1 The EWR Alliance will produce a Soil Management Plan, Site Waste Management Plan (SWMP) and Materials Management Plan as part of the CEMP. This document will forecast and confirm the ultimate destination of excess/unsuitable soil arisings generated during construction of the Project.

15.1.2 The EWR Alliance will ensure that material resource management minimises the production of waste. Procurement of materials will be in consideration of the MMP and the strategy to reduce the amounts of material required and the likely waste to be generated.

15.1.3 Information on the nature of the soils within the Project Area will be collected during detailed design to undertake a detailed assessment of the suitability of existing materials for re-use, how soils should be stored for restoration post-construction and the appropriate destination for any surplus soils.

15.2 Waste Hierarchy

15.2.1 The EWR Alliance will manage materials and generated waste in accordance with the waste hierarchy (EU Waste Framework Directive 2008, The Waste (England and Wales) Regulations 2011). The waste hierarchy sets out the options in order of preference. Every effort will be made to achieve the highest options that are reasonably practicable and compliant

with the law. It is usual for the most efficient management of materials and waste is found in selecting a combination of the options as follows:

- Efficient resource management to minimise the generation of waste in using selected products;
- Efficient resource management to minimise the generation of excavated wastes and on-site fabrication;
- Re-use of redundant rail infrastructure in the construction of the Project;
- Re-use and recycle excavated materials and waste in accordance with the Contaminated Land: Applications in Real Environments (CL:AIRE) protocol or some other exemption permit;
- For use as direct construction material on the Project;
- For use on other construction / exempted sites in close proximity;
- Recycle unusable waste at designated recycling facilities: and
- Dispose of surplus excavated materials and waste at licensed landfill sites.

15.2.2 The EWR Alliance will ensure that the requirements of the waste hierarchy are enforced and the duty of care placed on all parties to take responsibility for protecting the interests and safety of others from the potential effects of handling, storing, transporting and depositing of excavated materials and wastes.

15.3 Site Waste Management Plan

15.3.1 The SWMP will remain a live document that will require updated versions to reflect the overall effort to “design out” waste on the Project in accordance with observing the waste hierarchy.

15.3.2 The EWR Alliance will develop the SWMP which will identify:

- The EWR Alliance’s responsibilities for overall waste management;
- The waste category and initial quantities of materials projected to be produced by the works;
- Initial proposals and innovations for re-use and recycling of identified material and waste streams;
- Proposal for recycling and/or re-use of such materials;
- The proposed method of storage, handling and transportation of waste;

- The authorised waste carrier details and their waste carrier registration number;
 - The means and routes of disposal and the relevant consents;
 - Details of the site that the wastes are to be taken to;
 - Details of the environmental permit of exemption held by the disposal site where material is taken; and
 - Requirements for waste management licences and/or waste management licence exemptions.
- 15.3.3 The SWMP will also address the logistics of waste management on site in terms of efficient storage, designated and suitably identified waste storage areas on site and other aspects in compliance with the requirement of Duty of Care.
- 15.4 (CL:AIRE) protocol**
- 15.4.1 The MMP will document how surplus material is retained on site so far as is reasonably practicable to maximise the environmental benefits and reduce the adverse environmental effects of increased transportation and disposal. Any re-use of surplus material will be in compliance with the CL:AIRE protocol.
- 15.5 Duty of Care**
- 15.5.1 The EWR Alliance is required to comply with the “duty of care” regulations in order to protect the interests and safety of others from the potential effects of handling, storing, transporting and depositing all wastes arising from the Project.
- 15.5.2 It is unlikely that there will be a significant volume of hazardous waste generated during the construction period. However, in observing duty of care, the hazardous waste produced will be disposed of in compliance with the Hazardous Waste (England & Wales) Regulations 2005 (as amended).
- 15.5.3 There is the potential that works may expose asbestos. The EWR Alliance will adopt measures to manage the risk from the exposure of asbestos

which will be in compliance with the Control of Asbestos at Work Regulations 2002.

16. SOCIO-ECONOMIC

16.1.1 Three of the sustainability objectives (set out in Chapter 4) are specifically aimed to deliver local socio-economic benefits:

- Engaging with local supply chain to access local services and products (ECON01);
- Supporting local businesses and organisations to improve their long-term resilience (ECON02); and
- Providing training and employment opportunities to help grow the skills and improve the long term employability of the local workforce and underrepresented groups within the work force (ECON03).

16.1.2 A Legacy Manager will be appointed to produce and implement action plans towards these objectives. These plans will be consulted upon and involve local enterprise partnerships and Chambers of Commerce as a minimum.

17. DIVERSION OF UTILITIES

17.1.1 The diversion of utilities is intended to be undertaken by statutory undertakers required as an ancillary activity to the wider project remit. These works will be planned with sufficient time and notification to avoid loss of services and inconvenience.

17.1.2 If however, the EWR Alliance undertakes the diversion of any utilities, this will fall under the provision of this CoCP and all applicable construction mitigation measures set out in this document will apply to the utility diversion works.