MetroWest

Portishead Branch Line (MetroWest Phase 1)

TR040011

Applicant: North Somerset District Council
8.15, Code of Construction Practice
The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009, regulation 5(2)(q)
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NetworkRail · West of England Local Enterprise Partnership · West of England Combined Authority · HM Government · Bath & North East Somerset Council · Bristol City Council · North Somerset Council · South Gloucestershire Council · travelwest

~~*The original submission version of this document can be found in Appendix 4.1 of the Environmental Statement. The document contained within the Environmental Statement will not be updated. However, this standalone version of this document may be updated and the latest version will be the final document for the purposes of the Order."*~~

This document was submitted in duplicate as part of the Developer's Application: one document formed Appendix 4.1 of the Environmental Statement; the other is this stand-alone document. It was intended that the document contained within the Environmental Statement would not be updated. However, as both the Environmental Statement and this Code of Construction Practice will be certified documents they have both been updated and are identical, though bearing different document reference numbers.

Notice

Document history

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~~Rev:~~ 01	14/11/19	Application Issue
02	16/03/21	Update to reflect matters arising during the examination

Contents

Acronyms and Abbreviations

BCC	Bristol City Council
BPM	Best practical means
BSI	British Standards Institute
CEMP	Construction Environmental Management Plan
CL:AIRE	Contaminated Land: Applications in Real Environments
CO_2	Carbon dioxide
CoCP	Code of Construction Practice
CTMP	Construction Traffic Management Plan
DCO	Development Consent Order
Defra	Department of Environment, Food and Rural Affairs
EA	Environment Agency
EcCoW	Ecological clerk of works
EIA	Environmental Impact Assessment
ES	Environmental Statement
FRA	Flood Risk Assessment
HSE	Health and Safety Executive
HRA	Habitats Regulations Assessment
IAQM	Institute of Air Quality Management
IDB	Internal Drainage Board
MMP	Materials and Management Plan
NE	Natural England
NMU	Non-motorised user (such as pedestrians, cyclists and equestrians)
NNR	National Nature Reserve
NO_2	Nitrogen dioxide
NOx	Oxides of nitrogen, namely nitric oxide and nitrogen dioxide
NR	Network Rail
NSDC	North Somerset District Council
PPG	Pollution Prevention Guidance
s61	Section 61 of the Control of Pollution Act 1974
SAC	Special Area of Conservation
SPA	Special Protection Area
SSSI	Site of Special Scientific Interest
SWMP	Site Waste Management Plan
VOCs	Volatile Organic Compounds
WCA	Wildlife and Countryside Act 1981

WSI	Written Scheme of Investigation

Units

m	metre
km	kilometre

CHAPTER 1

Introduction

1.1.1 This Code of Construction Practice (“CoCP”) provides over-arching principles for environmental management of the adverse effects that may arise during the construction of the Portishead Branch Line (MetroWest Phase 1) Development Consent Order Scheme (“the DCO Scheme”). These principles are set out in three sections covering: general guidance on environmental requirements and controls; general site management practices; and guidance on the management of specific environmental issues.

1.1.2 The CoCP comprises a minimum set of principles with which each contractor will comply and will form the basis of the Construction Environmental Management Plan (“CEMP”) to be prepared by the individual contractors. A Master CEMP has also been prepared to provide a detailed framework for environmental management of the construction of the DCO Scheme (DCO Document Reference 8.14).

1.1.3 The CoCP and the Master CEMP are based on the highway feasibility and railway designs undertaken to date. These designs will be further refined during detailed design.

1.1.4 The application for the development consent order ("DCO") has been submitted by North Somerset District Council (“NSDC”) (the "Applicant") to the Planning Inspectorate (“PINS”) and includes the Environmental Statement "ES", this CoCP and the Master CEMP (DCO Document Reference 8.14)

1.1.5 The final version of the CoCP and the Master CEMP will be issued as part of the documentation for the invitations to tender for the construction of the DCO Scheme. The final version of the CoCP and Master CEMP will reflect any additional commitments made during the Examination by the Planning Inspectorate of the DCO application and refinements resulting from the detailed design.

1.1.6 The contractor’s CEMP for each Stage (or Stages) as defined in Schedule 2 of the draft DCO (DCO Document Reference 3.1) will set out any additional detailed measures and standards of work that will be applied by the contractor throughout the construction period to:

- provide effective planning, management and control during construction of the DCO Scheme with the aim of controlling potential impacts upon people, businesses and the natural and historic environment; and
- provide the mechanisms to engage with the local community and their representatives throughout the construction period.

1.1.7 Each CEMP will be submitted to the relevant local planning authority for approval prior to mobilisation for a Stage (or Stages). The contractor will be responsible to the Applicant for implementing their CEMP throughout the duration of their contract. The provisions of the relevant CEMP will be approved by the relevant planning authorities, who will monitor and enforce compliance, where appropriate in consultation with the local highway authority.

CHAPTER 2

Environmental Requirements and Controls

2.1 Governance Procedures

2.1.1 A CEMP, which conforms with the Master CEMP (DCO Document Reference 8.14), will be prepared by each contractor. Following approval by the relevant planning authority – NSDC or Bristol City Council ("BCC") – the DCO Scheme will be constructed in accordance with the CEMP. A CEMP may be applicable to and cover the work of more than one work stage of the DCO Scheme.

2.1.2 The environmental management and control processes and additional environmental requirements to be incorporated into the CEMP include, but are not limited to:

- Environmental legislation;
- Commitments made by the Applicant to the local planning authorities, regulatory bodies such as the Environment Agency ("EA"), Natural England ("NE"), and Historic England, and local communities during consultations;
- The commitments made in the ES and other documents submitted to the Planning Inspectorate as part of the DCO Application;
- The requirements in the DCO;
- Network Rail's ("NR") requirements for environmental safeguards; and
- Other licences, permits and consents required to construct the DCO Scheme.

2.1.3 All works to be undertaken by each contractor on the DCO Scheme will be subject to the controls detailed within the Master CEMP (DCO Document Reference 8.14) and the DCO (DCO Document Reference 3.1).

2.2 Requirements and Consents

2.2.1 In addition to the DCO (Document Reference 3.1), other licences and consents will be required to construct the DCO Scheme. A list of these is provided in the Consents and Licences required under other Legislation (DCO Document Reference 5.3).

2.2.2 All the necessary permissions and/or consents will be kept as part of a Consents Register which will be developed as the DCO Scheme progresses. Chapters 4 to 13 of the Master CEMP (DCO Document Reference 8.14) identify the specific licences and consents currently identified as required.

2.3 Objectives and Targets

2.3.1 The environmental objectives and targets[1] for the construction phase of the DCO Scheme will be agreed between the Applicant and the contractor(s) following the award of the DCO. The CEMP will set out the environmental and sustainability objectives and a programme of actions to achieve them. Progress towards achieving the environmental and sustainability objectives and targets will be monitored, measured where appropriate, and reported by the contractor to the Applicant as part of the monthly progress reporting.

2.4 Roles and Responsibilities

NSDC

2.4.1 As the Applicant, NSDC has overall responsibility to take the DCO Scheme through the DCO consenting procedures.

2.4.2 NSDC is also responsible for ensuring that the DCO Scheme highway works are built in compliance with the detailed design and that the contractors comply with their relevant CEMP.

Network Rail

2.4.3 Network Rail retains overall approval for ensuring that the DCO Scheme railway works are built in compliance with the detailed design and that the railway contractors comply with their relevant CEMP.

Contractors

2.4.4 The contractors are responsible for drafting their CEMP for each Stage / Stages to comply with the Master CEMP and implementing the CEMP throughout the construction phase.

2.4.5 The relevant contractor will be subject to a duty to bring all issues of an environmental nature to the attention of their personnel and subcontractors, as applicable to their works, and to ensure that control measures are complied with. The contractor will be required to ensure that all subcontracts placed must detail this specification.

2.4.6 The CEMP for each Stage / Stages must include an organisation chart showing named staff with responsibilities for environmental management together with a description of the roles for each individual with environmental responsibilities.

2.5 Competence, Training and Awareness

2.5.1 The contractor(s) will employ staff with the skills, qualifications and experience appropriate for the work to be carried out.

2.5.2 The contractor(s) will be required to identify environmental training needs for their workforce and will ensure that appropriate training requirements are fulfilled. The CEMP will include the environmental training plan, copies of training material, and records of attendance. All training will be delivered by

[1] Objectives represent the main goals, while targets represent interim measures to achieve the objectives.

suitably competent individuals in a position of responsibility and will be provided to all staff, including sub-contractors.

2.5.3 All staff and visitors to the construction site will be required to undertake a site induction which will cover safety, health and environmental matters.

2.5.4 All staff will be made aware of the following, to a level of detail appropriate to their role:

- The requirements of the DCO Scheme,
- The requirements of the DCO,
- The significant environmental aspects of the construction works, the potential impact on people and the environment, and agreed mitigation,
- The contractor's CEMP,
- Their roles and responsibilities in complying with environmental management requirements, and
- Pollution prevention and emergency procedures.

2.5.5 Training may take various forms and will be carried out to maintain competency to ensure that the construction workforce has an appropriate level of awareness on health, safety, community relations and environmental topics, and can effectively follow environmental control procedures.

2.5.6 The contractor will provide training on environmental topics relevant to upcoming works in sensitive locations, types of works that might result in environmental impacts, or where preventative action is needed following an incident, complaint or non-conformance.

2.5.7 Subcontractors will only be selected to work on the DCO Scheme if they are assessed as competent and capable through the contractor's supply chain assessment process. All environmental requirements for the DCO Scheme applicable to the contractor will also be applied to subcontracts. The contractor shall also have suitable and sufficient management staff on site to manage subcontracted activities and ensure compliance with the contractor's CEMP.

2.6 External Communications

Enquiries and complaints procedure

2.6.1 The Applicant will establish procedures to manage enquiries and complaints on construction activities of the DCO Scheme from the general public and local businesses. These procedures will be accessible via a project website.

2.6.2 The contractor(s) will be required to establish a process for handling all enquires including complaints made directly to them.

Emergency preparedness and response

2.6.3 The contractor(s) will develop an Emergency Preparedness and Response Plan for inclusion within their CEMP to cover accidents on site,

environmental hazards (flooding, heavy rain, high winds), pollution incidents, and other risks that may occur during construction.

2.6.4 In preparing the Emergency Preparedness and Response Plan, the contractor(s) will be required to take into consideration the requirements of the Applicant, NSDC, NR, the emergency services, the Health and Safety Executive ("HSE"), the Environment Agency, the Internal Drainage Boards, the utility companies, NE, and the relevant local planning authorities.

2.6.5 The Emergency Preparedness and Response Plan will provide a full list of management activities and communications channels with relevant parties.

2.6.6 The Emergency Preparedness and Response Plan will include as a minimum a risk assessment of the likely hazards, probability of occurrence, potential consequences, and mitigation measures required to avoid or minimise adverse effects.

2.6.7 The contractor(s) will be required to provide training to ensure that staff understand the procedures to be followed in the event of an emergency and are competent in the correct use of spill response equipment. Training will also be used to help identify potential areas of weakness in incident response provisions, which together with learning points from any incidents, will be used to improve procedures in emergency preparedness and response.

Emergency access

2.6.8 The contractor(s) will be required to liaise with the emergency services on the provision of site access points. The proposed accesses are shown on the Compounds, Haul Roads and Access to Works Plan (DCO Document Reference 2.29). Emergency access will include egress to the Marina health Centre in Portishead.

Fire prevention

2.6.9 The contractor(s) will be required to ensure that appropriate plans and management controls are in place for all construction sites, associated accommodation, and health and safety welfare facilities, to prevent fires.

Flood plan

2.6.10 The contractor(s) will be required to produce a construction stage Flood Plan which takes into consideration the findings of the Flood Risk Assessment ("FRA"), the FRA Addendum and the Outline Flood Plan (Construction Phase) for Clanage Road construction compound (ES Appendix 17.1 Appendix T, DCO Document Reference 5.6). It will take into account the flood risk along the DCO Scheme and the commitments made to the regulatory authorities, including the EA, the Local Flood Risk Authorities and the Internal Drainage Boards ("IDB"), to avoid increasing the flood risk, contributing to pollution during floods, and endangering the lives of the workforce and third parties during construction.

Pollution incident prevention and control plan and reporting

2.6.11 The contractor(s) will be required to prepare a pollution incident prevention and control plan, to be included in the CEMP, which identifies the potential pollution risks on site, sets out measures to prevent pollution, and in the

event of a pollution incident, sets out procedures to minimise, clean up and report the incident to the relevant authorities.

2.6.12 In the event of a pollution incident the contractor(s) will be required to notify the Applicant, affected parties, and the competent regulatory authority. The contractor(s) will undertake an investigation and report on the actions taken to clean up the incident, to prevent re-occurrence, and review and revise the CEMP as necessary.

2.6.13 The contractor(s) shall maintain an environmental incidents register.

2.7 Monitoring and Measurement

2.7.1 The contractor(s) will be required to undertake a programme of daily and weekly site inspections to observe environmental management practices, ensure that the obligations in the CEMP are being undertaken, and take corrective action as needed.

2.7.2 Environmental monitoring requirements are specified under the individual environmental topics detailed in Chapters 4 to 13 of the Master CEMP. The contractor will be required to prepare a schedule of monitoring requirements for inclusion within their CEMP, which will take into account all relevant monitoring requirements set out in the ES, the DCO, and any relevant environmental consents and licences.

2.8 Evaluation of Compliance

2.8.1 The contractor(s) shall be able to demonstrate that they are complying with all relevant environmental legislation, the environmental obligations in their contract, and the requirements of their relevant CEMP.

2.8.2 The contractor(s) shall undertake regular internal audits to ensure that their environmental performance is in line with the required standards – see for instance NR's Environmental Standard Network Rail/L2/ENV/050.

2.9 Non-conformity, Corrective and Preventive Action

2.9.1 The contractor(s) must have established systems and procedures to identify non-conformities with the CEMP and take corrective and preventive actions to avoid future recurrences. Non-conformities may be identified through various activities, such as: daily and weekly site inspections; training and drills; accidents and pollution incidents; internal audits and complaints from the public.

2.9.2 The contractor(s) must maintain a Non-Conformance and Corrective Action Register, which forms part of the contractor's Quality Procedures and is not exclusively for environmental issues. The register will include information on the nature of the non-conformance, the action taken, the person responsible for the action, the deadline for completing the actions and final sign off.

2.9.3 The contractor(s) must report progress on the non-conformities, corrective and preventive actions as part of the routine management progress meetings.

2.10 Records and Documents

2.10.1 Copies of all environmental documentation relevant to the construction works will be filed at the main construction offices on site and made available for inspection.

2.11 Internal Audits and Management Review

2.11.1 The contractor(s) must prepare an internal schedule of monthly audits to evaluate the implementation of the CEMP. The audits will be undertaken by the contractor's Environmental Manager. The findings of the audit will be discussed with the Applicant during monthly project progress meetings.

2.11.2 The contractor's senior management must review the implementation of the CEMP at least once a year, or more frequently, for example at the end of the contract where this is for less than one year's duration or following a serious incident. The results of the review will be reported to the Applicant and the CEMP updated and re-issued as appropriate.

CHAPTER 3

General Site Management Practices

3.1 Introduction

3.1.1 This chapter addresses general site management practices that are to be employed throughout the works to ensure the safe and compliant operation of construction sites. It includes consideration of nearby sensitive receptors, such as residential property, areas of ecological sensitivity and other features of conservation interest, to manage construction activities that may cause a nuisance or adverse impacts to neighbouring land uses.

3.1.2 Further information on site management and construction activities is provided in the Construction Strategy (DCO Document Reference 5.4). The land required for the DCO Scheme is shown as the Order limits on the Works Plans (DCO Document Reference 2.3).

3.2 Construction Sites

3.2.1 The construction sites comprise the land required temporarily and permanently to construct the DCO Scheme, consisting of:

- the existing railway corridor currently in the ownership of NSDC and NR;
- land required for permanent highway works;
- land required temporarily for construction compounds, haul routes, accesses; and
- land required for environmental mitigation.

3.2.2 Prior to mobilisation on site the contractor(s) will be required to prepare compound site plans which set out their proposals for management of the construction compounds. The plans will be developed to avoid or minimise impacts on the environment. The plans will be submitted to the relevant planning authorities for approval prior to mobilisation on site. In developing their site plans, the contractor(s) shall take into consideration people and communities living and working close to the construction sites and access routes in order to reduce disturbance and nuisances to neighbours arising from construction noise, vibration, dust, night-time lighting, construction traffic, etc.

3.2.3 Welfare facilities will be provided at construction compounds, as appropriate for site personnel, such as mess rooms, canteen, locker rooms, toilets and washing facilities. These should be appropriate to the size of compound, the type of work and people using the facilities and meet the requirements of NR standards or other standards as appropriate.

3.2.4 Most of the construction compounds are located outside Flood Zones 2 and 3 as defined by the EA. The exception is Clanage Road, which is located in Flood Zone 3, and guidance on the use of the Clanage Road compound is provided in Section 4.10 and the Outline Flood Plan (Construction Phase) annexed to the FRA (DCO Document Reference 5.6).

3.3 Proposed Working Hours

3.3.1 For the construction works along the operational railway line between Portbury Junction and Ashton Junction, it will be necessary to arrange "possessions" to block freight train movements between Royal Portbury Dock and the Bristol to Exeter main line. The programme for the possessions has not been finalised at this stage, but may include weekday night working from 24 hr to 100 hr possessions during the week or over weekends, and longer possessions for four to six weeks to complete specific works. As a result, there is likely to be night-time working and 24-hour working in shifts during week days and at weekends. These working hours are likely to affect, but are not limited to, residents in Ashton, Bower Ashton, Ham Green and Pill.

3.3.2 Possessions will not be needed along the disused section of the railway, so construction works will mostly be undertaken during the daytime. There may be a need for occasional night-time or Sunday working. These works would potentially disturb residents in the eastern part of Portishead, a number of farmhouses and cottages in Sheepway and Portbury, and the outskirts of Pill.

3.3.3 With the exception of works on the currently operational railway, the existing highway or any activities associated with such works within the compounds the proposed working hours during the construction phase will adhere to normal daytime working hours (typically 6.30~~0~~am to 6.00pm Monday to Saturday), with no working on Sundays, Bank or public holidays except as reasonably necessary and notified to the relevant planning authority and affected residents by an agreed notification procedure.

1.1.1 Some construction compounds may be operational for 24 hrs, some or all of the time, for the duration of the construction programme, while others are only used during specific construction operations.

3.3.4 Transportation of abnormal loads that are delivered by road is addressed within the CTMP - Construction Traffic Management Plan ("CTMP").

3.4 Site Lighting

3.4.1 Site lighting will be provided by the contractor(s) as appropriate to enable safe working conditions and security of the construction sites and compounds. The lighting proposals will be included in the CEMP and agreed with NR and the relevant planning authority.

3.4.2 Lighting will be designed, positioned and directed so as not to intrude unnecessarily on adjacent buildings, sensitive ecological receptors, structures used by protected species and other land uses to prevent unnecessary disturbance to local residents, light-sensitive species such as bats, railway operations, and passing motorists (such as in Portishead and at Pill). This provision applies to temporary mobile lighting at construction sites where night working will be required and temporary fixed lighting at construction compounds.

3.5 Hoardings, Fencing and Screening

3.5.1 The contractor will be responsible for installing, maintaining, and removing all temporary hoardings and fencing during the construction phase. All

worksites will be completely fenced off from public ingress. Temporary fencing and landscaping will need to be provided in accordance with the CEMP.

3.6 Protection of Existing Services and Infrastructure

3.6.1 The contractor(s) will be responsible for undertaking their own surveys to establish the full extent of underground services prior to commencing works at the site to augment any surveys already undertaken as part of the DCO and early design work.

3.6.2 The contractor(s) shall prepare method statements to demonstrate how services will be protected during construction, which will be agreed with the relevant utility companies and consistent with the provisions of the DCO and any agreement with the relevant utility that the contractor has been notified of. These will need to comply with all agreements and protective provisions that have been agreed between NR, NSDC (and their predecessors), and relevant protective provisions in the DCO (DCO Document Reference 3.1).

3.6.3 The contractor(s) shall be required to make their own investigations on the location and condition of existing foundations, buildings, structures, walls, pipes, roadways, sewers, cables, railways and other services, apparatus and installations.

3.6.4 The contractor(s) shall properly safeguard all such assets from harm, disturbance or deterioration during the construction period, including necessary measures to support and protect assets during and immediately after the construction period.

3.6.5 Minor cosmetic damage may, on occasion, occur as a consequence of construction. Where this is the case, the contractor(s) will make provision for repairing any material damage.

3.7 Reinstatement

3.7.1 The contractor(s) shall be required to reinstate all temporary working areas both within and outside the construction site, construction compounds, and accesses as the construction work proceeds and on completion of the construction works in accordance with the relevant requirement in the DCO. All plant, materials, temporary buildings and fencing and vehicles will be removed and the surface of the ground, including the soil depth and structure, restored as near as practicable to its original condition.

CHAPTER 4

Specific Environmental Impact Topics

4.1 Air Quality

4.1.1 Construction activities may affect air quality through raising dust in the atmosphere, for example, from demolition, earthworks, construction activities, and haulage and track out and due to emissions from plant and vehicles.

4.1.2 Dust from construction activities may be deposited on flat surfaces (cars, window sills, etc), laundry and vegetation, causing soiling and discolouration, which may result in nuisance, amenity loss or perceived damage. Dust includes fine particulate matter, which can have adverse effects on human health. Emissions from construction plant and vehicles are a potential source of nitrogen dioxide ("NO_2"), carbon dioxide ("CO_2"), and particulate matter. Nitrogen oxides ("NO_x") and particulate matter may adversely impact human health and CO_2 is a greenhouse gas.

4.1.3 The contractor(s) shall prepare an air quality and dust management plan as part of their CEMP to include: reference to the general site management and good housekeeping procedures (relevant to limiting dust and air pollution); measures to control or mitigate construction dust and other sources of emissions; and measures to control the risks associated with asbestos dust where appropriate.

4.1.4 Guidance on suitable mitigation measures is provided in The Institute of Air Quality Management guidance (IAQM, 2014), *The Control of Dust and Emissions from Construction and Demolition* (Greater London Authority, 2006) and *Control of Dust from Construction and Demolition Activities* (Building Research Establishment, 2003).

4.1.5 The main approaches to mitigating construction impacts on air quality cover: site management; the management of plant, vehicles, and equipment; transportation, storage and handling of materials; demolition management of excavations and earthworks; and conveying, processing, crushing, cutting and grinding activities.

4.1.6 The contractor(s) will be required to implement proportionate inspection and monitoring procedures to assess the effectiveness of measures to prevent dust and air pollutant emissions from the construction of the DCO Scheme.

4.1.7 In the event of complaints about dust and air quality, the contractor will follow the process for handling complaints made directly to them as set out in Section 2.7 above.

4.2 Archaeology and Cultural Heritage

4.2.1 Construction activities may affect archaeology and cultural heritage through the damage or loss of buried archaeological remains and adversely affecting the setting of buildings and structures, listed buildings, conservation areas, historic landscapes and parks and gardens.

4.2.2 The railway passes under the Clifton Suspension Bridge (Grade I) and passes through part of the Leigh Court Registered Park and Garden (Grade II). Various non-designated features have been identified along the railway, including features associated with the original railway. Removal of vegetation, in particular to install fencing, will open up views towards the railway from heritage assets, including Conservation Areas and numerous Listed Buildings in Bristol and surrounds. Construction works in previously undeveloped sites could affect previously unknown buried remains.

4.2.3 The contractor shall manage construction works in accordance with the approach agreed within the Written Scheme of Investigation ("WSI") prepared by the Applicant.

4.2.4 The contractor(s) shall appoint a suitably qualified archaeologist to carry out all necessary survey, watching brief, sampling and recording, consultation and reporting, as required by the WSI and the CEMP.

4.2.5 The construction works shall not commence until the archaeologist has reviewed the WSI and the CEMP and is suitably briefed about their duties. The archaeologist shall be present on site during top soil stripping of previously undeveloped areas. In the event that archaeological remains are found during top soil stripping, the construction works will be halted temporarily in the vicinity of the find until the contractor's Archaeologist confirms with the LPA Archaeologist on the need for any additional on-site sampling and recording of finds.

4.3 Ecology and Biodiversity

4.3.1 The construction works may potentially affect nature conservation sites designated at international, national and local levels; cause loss or damage to habitats and protected species of flora; and cause harm or disturbance to protected species of fauna.

4.3.2 The DCO Scheme is located within an ecologically sensitive area which supports sites and species designated at the international and national level. Construction works may result in the loss or damage of protected sites, habitats that support protected species of flora and fauna, and harm to protected species.

4.3.3 The DCO Scheme passes through the internationally-important ~~designated~~ Avon Gorge Woodlands Special Area of Conservation ("SAC"), which is also designated at the national level as a Site of Special Scientific Interest ("SSSI") and the Leigh Woods National Nature Reserve ("NNR"). The Avon Gorge Woodlands SAC is designated for its *Tilio-Acerion* woodland and *Festuco-Brometalia* calcareous grassland habitats. Some habitat loss of these qualifying features is predicted as a result of the DCO Scheme. The woodland and grassland support rare species of flora, including rare and endangered species of whitebeam *Sorbus* spp. and Bristol rock-cress *Arabis stricta,* which is listed on Schedule 8 of the Wildlife and Countryside Act 1981 (as amended) ("WCA"). Protected fauna occur within the designated site, including bats, badger, dormouse, otter, nesting birds and peregrine falcon.

4.3.4 The DCO Scheme passes close to the internationally-important ~~designated~~ Severn Estuary SAC, Special Protection Area ("SPA"), and Ramsar site. The construction site comes within 30 m of the Severn Estuary SPA in the

vicinity of Pill and about 1 km on the outskirts of Portishead. The main potential impact of the DCO Scheme in these areas is disturbance of overwintering waders and waterfowl for which the Severn Estuary SPA and Ramsar site are designated.

4.3.5 The potential for linkages with SACs designated for bats within 30 km of the DCO Scheme has been explored as part of the Environmental Impact Assessment ("EIA") and Habitats Regulations Assessment (“HRA”). Two bats trapped along the disused section of the railway were tracked back to roosts in the North Somerset and Mendips Bat SAC, approximately 9 km to the south-west. The navigational route provides a corridor of movement between the Avon Gorge Woodlands SAC and the disused line, including bats from the North Somerset and Mendips Bats SAC and is considered to be of regional importance for navigating horseshoe bats.

4.3.6 There are numerous locally designated sites within 500 m of the railway. In particular the Portbury Wharf Nature Reserve adjoins the DCO Scheme to the east of Portishead, and lies between the railway and the Severn Estuary SPA and Ramsar site. The nature reserve is important for its birdlife, including nesting birds, qualifying species of the Severn Estuary SPA and Ramsar site, and barn owls.

4.3.7 The disused railway between Portishead and Pill supports a range of habitats. The main habitat types are: woodland, trees and scrub; grassland; tall ruderals; reedbed and wetlands; watercourses and ponds; and structures (mostly bridges and culverts). Protected species found along this section are: bats, badger, amphibians including great crested newts, reptiles, otter, water vole, and birds. Invasive plants have been recorded and treated in the vicinity of the proposed Portishead station.

4.3.8 The operational railway passes through the following habitats: ancient semi-natural woodland, secondary woodland, scrub, tall ruderals, ephemerals/short perennial plants, watercourses, ponds and structures. The Avon Gorge Woodlands SAC/SSSI supports a wide range of protected and notable species of flora and fauna including badger, bats, birds (nesting birds, peregrine falcon), dormice, reptiles, invertebrates, otter, and many notable plant species. Some 18 non-native and potentially invasive plant species were recorded within the Avon Gorge Woodlands SAC.

4.3.9 A description of the nature conservation features along the DCO Scheme, an assessment of potential impacts, and the agreed mitigation strategies are presented in the Environmental Statement Chapter 9 Ecology and Biodiversity (DCO Document Reference 6.12) and the accompanying appendices (DCO Document Reference 6.25). The location of internationally, nationally and locally designated sites are provided in the Environmental Statement, Volume 3, Book of Figures, Figures 9.1 to 9.3 (DCO Document Reference 6.24). The Environmental Masterplan showing the location of ecological mitigation features is presented in DCO Document Reference 2.53 and the proposals for planting along the disused section of the railway are presented in Railway Landscape Plans (Disused Line) DCO Document Reference 2.10.

4.3.10 The Avon Gorge Vegetation Management Plan (DCO Document Reference 8.12) sets out mitigation, compensation and management measures during the construction of the DCO Scheme through the Avon Gorge Woodlands

SAC. The procurement route to implement the Avon Gorge Vegetation Management Plan has not been determined at this stage, but it is likely to be implemented by a combination of the main contractor for the construction works and a specialist contractor for undertaking vegetation clearance for positive management and planting/maintenance of rare Whitebeam trees.

4.3.11 As part of the obligation to prepare a detailed CEMP for a Stage / Stages, the contractor(s) will detail in their CEMP (DCO Document Reference 8.14) how they propose to undertake work on site while protecting these sensitive ecological features. The contractor(s) will have regard to the requirements of this Master CEMP relating to dust and air quality, noise and vibration, protection of the water environment and of ecologically important habitats and species within and adjacent to the construction site.

4.3.12 The contractor(s) shall appoint an Ecological Clerk of Works ("EcCoW") to ensure compliance with the ecological deliverables for the DCO Scheme. The EcCoW will support the construction, reinstatement and post construction monitoring of the works.

4.3.13 The contractor(s) shall be required to implement works in accordance with a number of ecological consents and species licences. Where possible consents will be sought in advance of the project commencing. Due to the need for detailed construction information and site control the Applicant or contractor(s) shall be required to obtain a number of species derogation licences before commencing works.

4.4 Geology, Hydrogeology, Ground Conditions and Contaminated Land

4.4.1 The construction of the DCO Scheme is likely to include works in or close to contaminated land and specific geo-technical stabilisation works in the Avon Gorge.

4.4.2 There is potential for contaminated land along the railway corridor, largely due to historical land use. Contaminated land in Portishead from legacy land uses, such as the power station, have generally been remediated as parts of the town have been redeveloped. An historical landfill, Priory Farm, is located to the south of the disused railway line, bounded to the west by Sheepway Road and to the south by the A369, with the railway forming the northern boundary of the landfill. There are also several historical landfills which took mixed wastes in the Ashton Gate area.

4.4.3 The route of the DCO Scheme was an established railway corridor for a considerable period and as such there is potential for the ballast and underlying ground to be affected by contaminants associated with railway use such as hydrocarbons and asbestos. Presence of contaminants has been confirmed by trackbed investigations. The existing ballast along the disused section between Portishead and Pill is no longer suitable, largely due to the particle size and amount of organic matter mixed in with the ballast, and will have to be lifted and replaced. The waste ballast will be temporarily stockpiled along the disused railway or at a construction compound prior to removal for treatment and reuse at an off-site facility.

4.4.4 Further site investigation will be undertaken by NR during detailed design of the proposed construction compounds to establish current levels of contamination.

4.4.5 Any additional ground investigation works undertaken by the contractor(s) will be in accordance with UK best practice.

4.4.6 Where significant contamination is encountered, the contractor(s) shall apply a risk-based approach for handling the material in line with Contaminated Land Report 11, *Model Procedures for the Management of Land Contamination* (CLR11) (Department of Environment, Food and Rural Affairs ("Defra") and Environment Agency, 2004).

4.4.7 Measures will be implemented by the contractor(s) to assess and control risks to humans (e.g. construction workers, site visitors and nearby residents) resulting from the disturbance of contaminated land. This will include the effects from encountering contaminated dust, soils and groundwater and the presence of ground gas and/or vapours, which may lead to confined space risks during excavations. If ground gas issues are identified, for example at Priory Farm landfill site, appropriate monitoring will be undertaken and/or appropriate ground gas protection measures provided by the contractor(s). If required, gas monitoring will be undertaken in accordance with BS8576:2013 *Guidance on investigations for ground gas. Permanent gases and Volatile Organic Compounds* (“VOCs”) (BSI, 2013).

4.4.8 The contractor(s) shall undertake an assessment of excavated ballast, spoil and soils, if not already undertaken as part of the DCO Scheme design, to identify any potential risks posed to human health and the hydrogeological environment. Mitigation of the effects on soils both within and outside the DCO Scheme boundaries, which relate mainly to the spread of contamination, will be achieved through careful site control of excavation, separation, handling and storage activities to ensure that those soils identified as contaminated are not mixed with uncontaminated soil. Soils re-use will comply with the CL:AIRE *Definition of Waste: Development Industry Code of Practice*.

4.4.9 The contractor will implement control measures for construction activities on or adjacent to the land identified as being affected by contamination in the ES or identified during design work.

4.4.10 Earthworks will be required within the existing railway land at several locations in Pill to accommodate the widened permanent way. These sites adjoin the back gardens of private property in Pill, so measures are required to mitigate nuisance and for health and safety.

4.4.11 Some slope stabilisation works are required in the Avon Gorge. The areas of works will be confirmed following selective vegetation clearance and cliff face inspections as per the engineering design, as described in Appendix 4.4 of the ES Summary of Works in the Avon Gorge Woodlands SAC (DCO Document Reference 6.25).

~~4.4.11~~4.4.12 Parts of the DCO Scheme fall within the Development High Risk Area defined by the Coal Authority due to historical mining. The contractor shall review and update information on historic mining and take this into consideration in the detailed design and construction of the DCO Scheme. If

any coal mining features are identified unexpectedly during construction, the contractor shall inform the Coal Authority

4.5 Landscape and Visual Impacts

4.5.1 The construction of the DCO Scheme will require the removal of some existing vegetation and structures at various locations along the DCO Scheme, including within the permanent and temporary works, on farmland and within private gardens. Vegetation removal will open up views of the construction sites and the railway line. The main impact is likely to arise from removal of vegetation to install the new fencing along the railway through the Avon Gorge, but is also likely to occur elsewhere.

4.5.2 The DCO Scheme will require two principal construction compounds, one off The Portbury Hundred and one at Lodway Farm, where 24 hour working, temporary offices, storage, and the movement of plant and heavy goods vehicles could all potentially cause disturbance for nearby neighbours. Several smaller construction compounds are required in Portishead (the two proposed car park sites and off Tansy Lane, Sheepway, the M5 compound, Avon Road in Pill, the proposed car park site in Pill off Monmouth Road, Pill station forecourt, Pill Viaduct (Underbanks), Ham Green, off Clanage Road, Winterstoke Road and Liberty Lane Sidings), where construction activities could disturb nearby residents and recreational users. Micro-compounds will be provided at several locations through the Avon Gorge to provide welfare facilities for the workforce and are likely to be fairly inobtrusive. Rail mounted plant, other plant adjoining the railway and the haulage traffic would also contribute to changes in landscape and views. The location of construction compounds is shown on the Compounds, Haul Roads and Access to Works Plan (DCO Document Reference 2.29).

4.5.3 The contractor's CEMP shall include controls to protect landscape character and views in rural and urban areas from construction activities; measures to protect top soils during top soil stripping, storage and reinstatement of agricultural land and gardens, and records to show compliance with the control measures.

4.5.4 The contractor(s) shall be responsible for avoiding unnecessary tree and vegetation removal and protection of existing trees; all matters relating to the procurement, handling and maintenance of plants; integrating ecological and landscaping works; all tree works; and the re-use of excavated soils and sub-soils.

4.5.5 Where appropriate, a suitable landscape subcontractor will be appointed, with specific responsibility for monitoring and supervising the landscape works.

4.6 Materials and Waste

4.6.1 The principal objectives of resource efficiency are to use material resources more efficiently, reduce waste at source and reduce the quantity of waste that requires final disposal to landfill. These are applied within the DCO Scheme with the aim to:

- reduce materials consumption through optimising the use of materials, reducing over ordering and encouraging resource efficient construction practices;

- reduce energy use and embodied carbon by adopting low carbon solutions across the asset life-cycle, use the Rail Carbon Tool to identify opportunities to reduce capital carbon, and take measures to reduce operational energy use and carbon emissions (excluding traction);
- reduce wastage and avoiding disposal at landfill by following the waste hierarchy (i.e. prevention, preparing for re-use, recycling, other recovery and disposal);
- increase rates of reuse and recycling through using renewable materials, reusable materials and those with high recycled content to encourage a circular economy; and
- encourage the use of BES 6001[2] (Framework Standard for the Responsible Sourcing of Construction Products) or other mechanism to source products and materials responsibly and use resources with no scarcity and source security issues.

4.6.2 The procedures outlined here apply to the sourcing, storage, transportation, treatment, use and disposal of materials and waste throughout the construction programme. All staff are responsible for complying with the requirements of these procedures.

4.6.3 The contractor(s) shall develop and implement a Materials and Management Plan ("MMP") to source products and materials responsibly during construction.

4.6.4 The contractor(s) shall minimise the use of hazardous materials in the DCO Scheme that have the potential to harm human health or the environment and may in turn make it difficult to maintain, deconstruct or recycle DCO Scheme structures or elements at the end of their life.

4.6.5 The contractor(s) shall be responsible for the storage and management of the earthworks material excavated from the DCO Scheme. This material will be reused on site wherever practicable to mitigate the environmental effects of the DCO Scheme. The reuse of site-won materials will be facilitated through the application of the CL:AIRE *The Definition of Waste: Development Industry Code of Practice*.

4.6.6 The contractor(s) shall be responsible for the reduction of waste arisings from the DCO Scheme where reasonably practicable. This will include measures such as careful storage of materials on site and 'just in time' deliveries which will be secured through the development and implementation of the MMP.

4.6.7 The contractor shall implement the waste hierarchy, as required by the Waste (England and Wales) Regulations 2011, to ensure that material resources are used to maximum efficiency. The contractor will ensure that waste is segregated on site so that waste materials can be diverted from landfill through reuse, recycling and recovery.

4.6.8 A design stage Site Waste Management Plan ("SWMP") shall be prepared ahead of construction to record basic details of the DCO Scheme. The

[2] BES 6001 *Responsible Sourcing of Construction Products*.

design stage SWMP will be passed to the contractor who will be responsible for developing the SWMP for the construction phase and discharging the construction-related requirements, including:

- Forecasting (quantifying and classifying) residual waste arisings before going to site;
- Identifying and recording waste management and recovery actions to reduce the quantity of residual waste estimated;
- Recording any actions that impact on the DCO Scheme waste recovery;
- Specifying waste carriers which will be employed to transport waste off site for reuse, recycling, treatment or disposal;
- Identifying the sites to which the waste will be taken and whether the operators of those sites hold the relevant permit under the Environmental Permitting (England and Wales) Regulations 2010 (as amended) or are registered under those regulations as a waste operation exempt from the need for such a permit;
- Updating the plan as waste is reused, recycled, recovered or disposed of;
- Completing the declaration with the Applicant to confirm that the SWMP has been monitored on a regular basis to ensure that work was undertaken according to the plan and that the plan was reviewed and updated on a regular basis;
- Providing an explanation of any deviation from the SWMP; and
- Where relevant, drawing on any lessons learnt, identifying any action to address these for the next scheme.

4.6.9 The SWMP will target the diversion of at least 70% of non-hazardous construction, demolition and excavation waste generated by the DCO Scheme from landfill in order to reflect the UK Government's policy and industry good practice.

4.6.10 Waste ballast will be removed from site and transported to one of Network Rail's National Track Materials Recycling Centres for treatment, recycling or final disposal.

4.6.11 The contractor will comply with all legal duty of care requirements ensuring that all materials are stored, transported, treated, used and disposed of safely without endangering human health or harming the environment.

4.7 Noise and Vibration

4.7.1 Construction noise will occur throughout the construction programme, although the levels, timing and duration of construction noise may vary from one location to another. The construction programme is expected to commence in spring 2022 and continue until winter 2023/24. Along the operational railway line, there will be a series of line possessions of varying durations in order to undertake works when there are no freight trains running, which will result in 24 hour working during the week and at weekends. Along the disused railway, the working hours will largely occur during the daytime, with some overnight working. Further information on the working hours is provided in Section 3.3.

4.7.2 The contractor(s) shall apply best practical means ("BPM") as defined in Section 72 of the Control of Pollution Act 1974 and Section 79 of the Environmental Protection Act 1990 to control noise and vibration resulting from the construction works.

4.7.3 The contractor(s) shall introduce management and monitoring processes to ensure that the effects of construction noise and vibration are controlled and that BPM are planned and employed during the construction period. The contractor will prepare a Noise and Vibration Control Plan as part of the CEMP which will set out these processes. The plan will include management and monitoring processes to control:

- Integration of noise control measures into the preparation of all method statements for the works;
- Preparing details and locations of all site hoardings, screens or bunds that will provide acoustic screening during construction;
- The preparation and submission of all Section 61 ("s61") consent applications, if required;
- Processes to ensure ongoing compliance with all controls and consent for the works and any improvement and rapid corrective actions that are required to avoid any potential non-compliance.

4.7.4 Under Section 61 of the Control of Pollution Act 1974 the contractor may apply to the local planning authority for prior consent to carry out construction or demolition with regard to permissible levels of noise. The consent application shall include:

- Details of construction activities and their phasing;
- Details of the plant and equipment used in phases of construction;
- Prediction methods;
- Location of sensitive receivers; and
- Calculated noise and vibration levels, including effects of mitigation.

4.7.5 Dispensations will be sought by means of an application to vary the agreed matters, setting out the revised construction programme or method and the relevant noise calculations.

4.7.6 The Noise and Vibration Control Plan will also include details of inspection and maintenance schedules to be undertaken by the contractor's DCO Environmental Manager and piling strategy for any piling works close to sensitive receptors.

4.8 Soils, Agriculture, Land Use and Assets

4.8.1 The construction works will affect a number of farm operations, agricultural use and soils at several locations due to temporary land take for construction compounds and haul routes, works adjoining agricultural land, and permanent land-take for new maintenance depots. In Pill, demolition works, site access through private property off Lodway Close and Hardwick Road, and works along the railway will disturb lineside neighbours and cause environmental impacts due to noise, dust, debris, etc. There are also a large number of utilities that lie alongside and cross the DCO Scheme, which need to be protected or in a few instances, diverted.

4.8.2 The contractor(s) shall maintain details of the owners, occupiers and agents for land adjacent to the construction site; and details of the husbandry associated with the areas of land adjacent to the construction site.

4.8.3 The contractor(s) shall implement controls to protect soils, agricultural land, and livestock including the following, as appropriate:

- Protecting agricultural land adjacent to the construction areas, including provision and maintenance of appropriate stock-proof fencing and avoidance of traffic over the land leading to soil compaction;
- Reinstating any agricultural land, including grassland as appropriate, which is used temporarily during construction, where this is the agreed end use;
- Details of farm accesses which may be affected by construction, including the manner in which farm access will be maintained; and
- Preparing and implementing a method statement for stripping, handling, storage and replacement of agricultural soils to reduce risks associated with soil degradation on areas of land to be returned to agriculture, following construction. This will include any remediation measures necessary following completion of works.

4.8.4 The contractor(s) shall liaise with affected landowners, occupiers and agents, as appropriate. Consultation may cover:

- the intended commencement of construction works in areas of the site adjacent to agricultural and forestry holdings, and when any agricultural land used temporarily, is intended to be returned to agricultural use;
- the provision of accommodation works; and
- the programme of works and access routes to be used.

4.8.5 The contractor(s) shall take reasonable precautions in developing the construction programme to reduce disturbance to lineside neighbours.

4.8.6 Appropriate measures will be implemented, in accordance with the *Code of practice for the sustainable use of soils on construction sites* (Defra 2009), in relation to undertaking works on or adjacent to agricultural and forestry land.

4.8.7 Where land used temporarily for construction is to be reinstated to agricultural and forestry use, reinstatement works will be implemented in accordance with the contract specification and Defra guidance where appropriate.

4.8.8 Reasonable precautions will be taken in relation to the handling and storage of agricultural and forestry soils, including the following, as appropriate:

- the separate handling and storage of different soils, particularly topsoils and subsoils;
- the prevention of soil contamination with chemicals or other materials, including contaminated ballast stored temporarily at construction compounds; and
- the control of weeds on soil stores either through treatment or removal.

4.8.9 Reasonable precautions will be taken during the design and construction of the DCO Scheme to identify, protect and maintain existing land drainage,

irrigation and livestock water supply systems and to avoid the transmission of soil-borne, crop and animal diseases.

4.8.10 The contractor(s) shall take measures to reduce disturbance, noise, dust, debris, health and safety risks and other adverse effects associated with the demolition of buildings and structures required for the DCO Scheme.

4.8.11 Where the construction works adjoin private residential houses and gardens and require entry to private property, the contractor(s) shall take special measures to reduce disturbance and adverse effects on householders, property, planting and land attachments such as boundaries, garden buildings and structures. The contractor(s) shall liaise with householders, to explain the nature and programme of the works, keep householders informed of progress, and agree on the reinstatement of property on completion of the works.

4.8.12 There are utilities close to and crossing the DCO Scheme. The services and the locations of these services have been mapped to identify all assets crossing and close to construction sites and compounds. The contractor(s) shall take measures to satisfy themselves that they know where all the utility services are within the vicinity of construction sites and compounds and employ good construction practices to avoid damaging the assets and protect their workforce.

4.9 Transport, Access and Non-Motorised Users

4.9.1 During construction the contractor(s) shall be required to minimise the impacts on the local community from construction traffic and maintain public access where reasonably practicable.

4.9.2 For Non-Motorised Users (“NMU”), defined as pedestrians, cyclists and equestrians, alternative provision will be made where possible to provide safe temporary diversions of public rights of way.

4.9.3 The contractor(s) shall implement a range of traffic management measures on all public highways, as agreed with the highways authorities (Highways England for the strategic road network and NSDC and BCC for the local highway network) and as described in the CTMP (DCO Document Reference 8.13) which is presented in the ES Appendix 16.1 Transport Assessment (DCO Document Reference 6.25).

4.9.4 The contractor(s) shall prepare the final CTMP, to be compliant with the CTMP, setting out in detail the traffic management, safety and control measures proposed during the construction of the DCO Scheme.

4.9.5 Temporary traffic management works will be required to comply with the provisions of the *Traffic Signs Manual: Chapter 8: Traffic Safety Measures and Signs for Road Works and Temporary Situations (2009).* ("Traffic Signs Manual")

4.9.6 Traffic signs will comply with the Traffic Signs Regulations and General Directions 2016 and its subsequent amendments. Temporary signs erected during the works will be consistent with permanent signs (as per the requirements of the Traffic Signs Manual), and signs will be located where they are clearly visible to road users and cause minimum disruption.

4.9.7 The contractor(s) shall keep all highways free from mud and other loose materials arising from the works, as far as reasonably practicable, in order to reduce the potential for nuisance impacts and road safety. Provision will also be made for the disposal of surface water on the site so to prevent its discharge onto the highway.

4.9.8 On completion of any works affecting a highway, all surplus materials arising from the works will be cleared from the highway, leaving it in a clean and tidy condition in accordance with the reasonable requirements of the highway authority.

4.9.9 Where the contractor proposes to provide a temporary or alternative route or access, the construction and layout will be suitable for the traffic anticipated to use the route. Temporary or substitute road access will be maintained by the contractor throughout the works to provide adequately for the traffic using the affected routes.

4.9.10 Where temporary road closures are required to facilitate construction works, the contractor(s) will consult with NR, HE, the relevant local planning and highway authorities, and the police (as relevant). The contractor will keep the closures of public rights of way to as short a time as reasonably practicable. Local residents, local schools, work locations and other users of the area affected should be informed in advance of the dates and durations of the closure and provided with details of diversion route(s) which must be signposted.

4.9.11 Construction traffic will use the principal highway network wherever possible and designated routes to and from the compounds and access points will be identified in the final CTMP. As a result, use of other routes will generally be prohibited.

4.9.12 The contractor(s) shall keep site access points clear at all times and shall design and construct site access points to a suitable standard to enable the smooth access and egress of vehicles in a forward direction to limit disruption to road users due to use of the access points.

4.10 Water Resources, Drainage and Flood Risk

4.10.1 The contractor(s) shall be required to manage their site activities and working methods to protect the quality of surface water and groundwater resources from adverse effects arising out of construction activities, including significant changes to the hydrological regime due to site drainage, changes in surface and ground water quality due to pollution, and increased flood risk due to the activities at construction sites and compounds.

4.10.2 Measures to be undertaken by the contractor(s) and detailed in the CEMP may include:

- Measures to limit, manage or prevent access to areas adjacent to watercourses and water bodies to prevent physical and water quality impacts on them;
- Reduce discharge of stormwater and sediment from construction sites and compounds into watercourses and other water features, implemented through a Surface Water Management Plan;

- Ensure compliance with the necessary consents where works are required in or adjacent to watercourses. These consents may be obtained by the Applicant prior to appointment of the contractor, or obtained by the contractor following appointment;
- Prepare an Emergency Preparedness and Response Plan to include a construction Flood Plan, registers for flood warnings, and a weather/rainfall forecast monitoring procedure;
- Prepare a Pollution Incident Prevention and Control Plan for water pollution incidents;
- Reduce soil exposure areas and see that surfacing or re-vegetation of bare areas is undertaken as quickly as possible to reduce potential sediment runoff;
- Maintain access and maintenance widths as appropriate for the EA and IDB on all watercourses; and
- Once the IDB has cleared The Cut before construction, the contractor will clear it during the construction period and provide emergency cover 24/7, when it is not possible to provide access to the IDB.

4.10.3 The contractor(s) shall adopt good working practices; for example as detailed in Construction Industry Research Information Association publications. Although the EA no longer provides advice on good practice, good working practices should reflect previously issued (though now withdrawn) pollution prevention guidance (“PPG”) documents.

4.10.4 Surface water and groundwater control measures to be included in the CEMP will include documentation that identifies and describes the water environment and the measures to be used to protect surface water and groundwater from pollution, including the adoption of good site practice.

4.10.5 The contractor(s) shall provide protection measures (including management of flood risk and pollution prevention) in or adjacent to surface water bodies, for extensions to existing culverts and new culverts, and for works to existing or new outfalls in accordance with requirements set out by the relevant regulatory body and, where appropriate, the relevant consent for the works.

4.10.6 The contractor(s) shall comply with the Control of Pollution (Oil Storage) (England) Regulations 2001 (as amended) for the storage of any oil-based materials. Stationary plant will be used with secondary containment measures such as plant nappies to retain any leakage of oil or fuel, which will be emptied at regular intervals to prevent overflow. Spillage kits will be stored at key locations on site, in particular at refuelling areas, and with mobile bowers, as set out in the Pollution Incident Prevention and Control Plan in the CEMP. All staff will be briefed in their use.

4.10.7 The contractor(s) shall consult with the relevant regulatory bodies regarding specific requirements in relation to establishing and operating concrete batching plants on site. Wash water from any batching plants will not be discharged to the water environment without the approval of the relevant authority.

4.10.8 The contractor(s) shall keep a record of all spillage incidents and inform the Applicant of any spills which cause land contamination or pollution off-site.

The EA shall also be informed of spillages in accordance with the Pollution Incident Prevention and Control Plan.

4.10.9 The contractor(s) shall be required to manage and dispose of foul water and sewage effluents from site facilities, by adopting relevant guidance, which may include containment in temporary facilities and disposal off site by licensed contractors or connection to the local foul sewer as agreed with the relevant authorities.

4.10.10 The contractor(s) shall plan and execute the construction works to avoid any significant increase of flood risk and to take appropriate action in the event of a flood. Appropriate measures will be implemented to prevent damage to equipment, the works and third party property and land during floods.

4.10.11 The contractor(s) shall consult with the relevant regulatory bodies and other relevant risk management authorities on areas at risk of flooding and make appropriate use of the EA's Floodline flood warning service for works within areas at risk of flooding. Contact details will be provided to all site personnel as part of their site induction.

4.10.12 The contractor(s) shall use the FRA and Addendum for the DCO Scheme and the Outline Flood Plan (Construction Phase) for the Clanage Road Construction Compound (DCO Document Reference 5.6) to prepare site specific flood risk management plans (to be included within the CEMP) for those areas of the site at risk of flooding. Suitable access and safe refuges are to be identified for use in the event of a flood. The contractor's site management plan for the Clanage Road Construction Compound, which is located in Flood Zone 3, must comply with the Outline Flood Plan (Construction Phase) which is provided in the ES, Appendix 17.1 FRA (DCO Document Reference 5.6) and as agreed with the EA.