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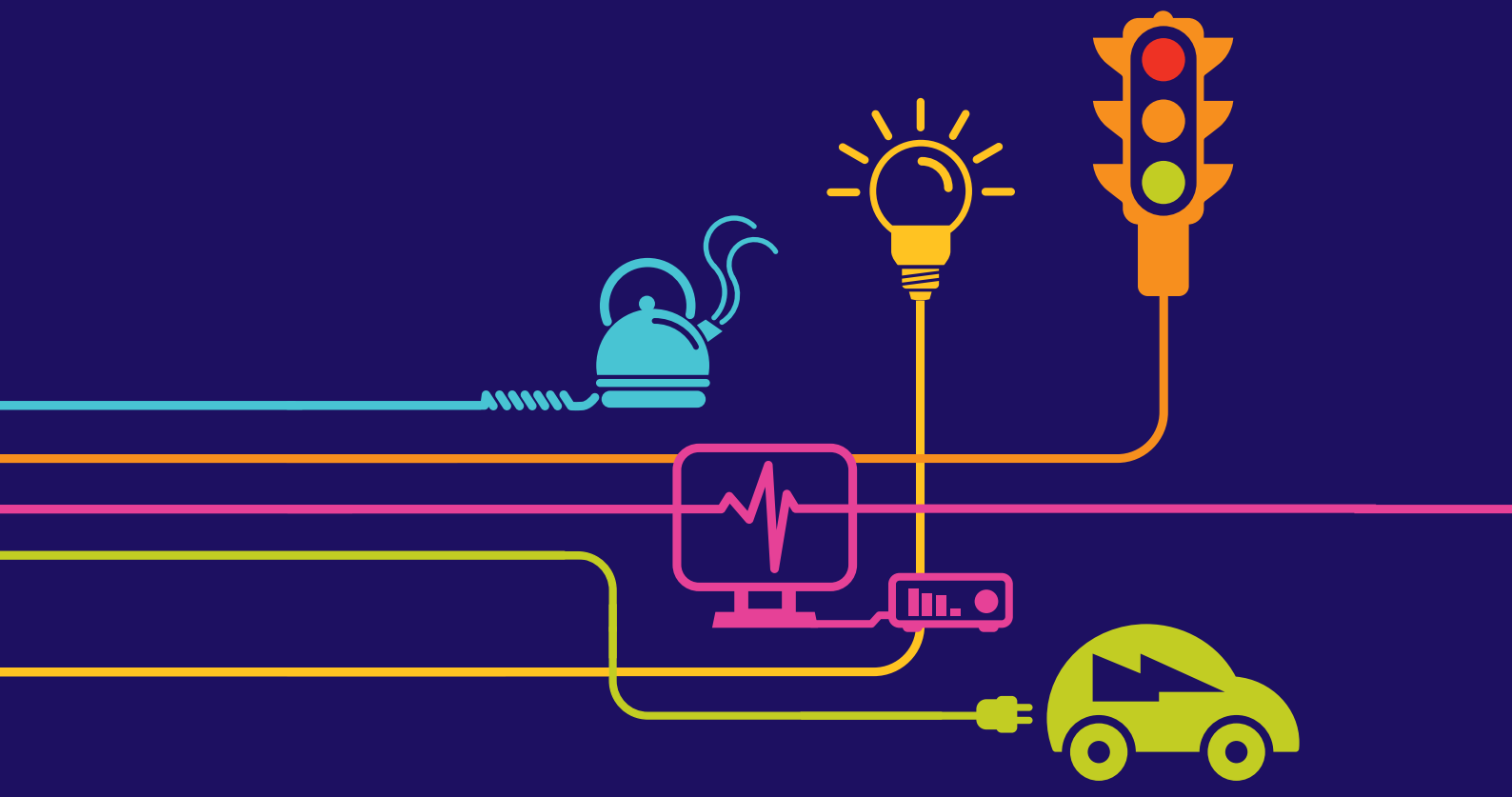
Environmental Statement Overarching Mitigation Annex

Hinkley Point C Connection Project

Regulation 5(2)(q) of the Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009



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OVERARCHING MITIGATION ANNEX

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1.0 INTRODUCTION

1.1 The Proposed Development

1.1.1 The Proposed Development includes the following principal elements which are described in detail in the Environmental Statement (ES) (**Volume 5.3.1**):

- construction of a 57km 400,000 volt (400kV) electricity transmission connection between Bridgwater in Somerset and Seabank, near Avonmouth, comprising:
  - installation of a 400kV overhead line; and
  - installation of 400kV underground cables.
- modifications to existing overhead lines at Hinkley Point, Somerset;
- construction of three 400kV cable sealing ends (CSE) compounds along the route of the connection;
- construction of a 400/132kV substation at Sandford, North Somerset;
- extension of the existing 400kV substation at Seabank;
- the removal of existing 132,000 (132kV) overhead lines and the construction of replacement 132kV overhead lines and 132kV underground cables;
- extensions/modification to existing 132kV substations at Churchill, Portishead, Avonmouth and Seabank; and
- associated work, for example, temporary access roads, highway works, temporary construction compounds, scaffolding, work sites and ancillary works.

1.2 Mitigation Measures and Mitigation Plans

1.2.1 The Proposed Development has been designed to avoid or minimise adverse environmental effects and promote beneficial effects. Mitigation measures which have been incorporated into the Proposed Development design to reduce adverse effects are known as 'embedded mitigation'. Embedded mitigation measures are described in the Design and Access Statement (**Volume 7.2**) and considered in the assessment of each environmental aspect (**Volumes 5.6.1 to 5.17.1 and Volume 5.29.1**). Where significant adverse effects are identified (after considering embedded mitigation), further mitigation measures have been proposed, where appropriate, to reduce the significance of the effect.

<u>Construction Phase Mitigation</u>

1.2.2 Mitigation measures to reduce the adverse effects during the construction phase of the Proposed Development on the environment are provided in:

- the ES (**Volumes 5.6.1 to 5.17.1**) and the ES Sensitivity Test (**Volume 5.29**);
- Supporting Documents (**Volume 5.20 to 5.25)**; and
- the Construction Environmental Management Plan (CEMP) **(Volume 5.26.1C)** and its appendices **(Volumes 5.26.2C to 5.26.6C and Volume 5.26.7B**), as shown in **Table 1.1**.

Table 1.1 CEMP and Appendices

Plan/Strategy	Description	Appendix/Volume
Construction Environment Management Plan (CEMP)	Describes the mitigation measures that will be implemented by National Grid and its appointed contractors during each stage of the construction of the Proposed Development.	**Volume 5.26.1C**
Waste Management Plan (WMP)	A strategy and action plan for the management of waste which is likely to arise during the construction phase of the Proposed Development.	**Volume 5.26.2C**
Biodiversity Mitigation Strategy (BMS)	Describes measures to avoid, reduce, mitigate and compensate for the likely adverse effects on ecological receptors. It will be updated as required prior to and during each stage of the construction of the Proposed Development to ensure the proposed mitigation measures are appropriate.	**Volume 5.26.3C**
Archaeological Written Scheme of Investigation (WSI)	Sets out the steps that need to be taken to mitigate the predicted effects on archaeology, geo-archaeology and historic landscape heritage assets. It will be updated as required prior to and during each stage of the construction of the Proposed Development to ensure the proposed mitigation measures are appropriate.	**Volume 5.26.4C**
Construction Traffic Management Plan (CTMP)	Details the strategy and mitigation measures to be used to limit the impact on existing users of the public highways network.	**Volume 5.26.5C**
Public Rights of Way (PRoW) Management Plan	Describes where the PRoW will be affected and how the PRoW will be managed, to ensure they are safe to use and the disruption to the users of the PRoW is minimised.	**Volume 5.26.6C**
Noise and Vibration Management Plan (NVMP)	Sets out the principles and procedures for the management of noise and vibration during the construction of the Proposed Development.	**Volume 5.26.7B**

Operation Phase Mitigation

1.2.3 Additional mitigation during the operation phase and enhancement measures are identified in the ES (**Volumes 5.6.1** to **Volume 5.17.1 and Volume 5.29.1**) to reduce the significance of the effect on the environment during the operation of the Proposed Development, once the embedded measures have been implemented.

Decommissioning Phase Mitigation

1.2.4 Measures to reduce the adverse effects during the decommissioning of the Proposed Development are the same as those described for construction in the CEMP.

1.3 Overarching Mitigation Annex

1.3.1 In response to a request from the Examining Authority at Section 4 of the Rule 6 Letter (28 November 2014), National Grid provides this Annex, which:

"brings together all mitigation needs (from the Environmental Statement and all application and supporting documentation) and where and how these are to be secured in requirements or through other binding and enforcement mechanisms. This should be fully cross-referenced and should be in a form that is capable of tracking and updating".

1.3.2 This Annex is provided as follows:

- Table 2.1: Construction and Decommissioning Mitigation;
- Table 3.1: Operational Mitigation; and
- Table 4.1: Enhancement Measures.

2.0 CONSTRUCTION AND DECOMMISSIONING MITIGATION

Table 2.1: Construction and Decommissioning Mitigation

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
1.0 General Site Policies and Operations (Volume 5.26.1C, Section 1 and 2)					
Supporting Plans	1.1	In accordance with Schedule 3, Requirement 6, no stage of the authorised development will commence until, for that stage, the following plans and scheme to minimise the impacts of construction works, have been submitted to, and approved by, the relevant planning authority or other relevant statutory body: a) Project Environmental Management Plan (PEMP); b) Pollution Incident Management Plan (PICP); c) Lighting Scheme; d) Site Waste Management Plans (SWMPs); e) Soil Management Plan (SMP); f) Archaeological Method Statement; g) Drainage Management Plan (DMP); h) Emergency Response Plan for Flood Events; and i) Tree and Hedgerow Protection Strategy.	Volume 5.26.1C, Paragraph 1.5.3	Schedule 3, Requirement 6	Relevant Planning Authority
Conformance with Corporate and Project Environmental Management Systems	1.2.1	In accordance with this proactive approach to sustainable design and construction National Grid, WPD and the appointed contractors will to seek to maximise resource efficiency through reducing the amount of waste generated, minimising water consumption and making the most efficient use of energy. The carbon footprint of the Proposed Development will be minimised during construction by avoiding CO_2 emissions where possible through, for example, keeping construction vehicle movements to the minimum necessary.	Volume 5.26.1C, Paragraphs 1.6.2 to 1.6.3	Schedule 3, Requirement 5	Relevant Planning Authority
	1.2.2	The contractors will prepare their own project-based Environmental Management System (EMS) in accordance with National Grid's and WPD's EMS prior to construction commencing. An EMS will be prepared by the contractors for each element of the Proposed Development, including overhead line works, underground cables works and substation works. The contractors' EMS will detail their framework for managing the environment. National Grid and WPD will approve the contractors' EMS prior to construction. The contractors' EMS will address: a) the environmental aspects identified in the ES (Volumes 5.6.1 to 5.16.1) and CEMP; b) compliance with environmental consents and permits; c) overall compliance with environmental legislation, approved codes of practice and industry best practice as set out in each topic detailed in the CEMP; d) an action plan to deliver the CEMP, including roles and responsibilities; e) monitoring and review arrangements; f) emergency procedures that are defined and adopted; and g) appropriate training and information for personnel.	Volume 5.26.1C, Paragraphs 1.6.6 to 1.6.7	Schedule 3, Requirement 5	Relevant Planning Authority
Community Engagement and Public Information	1.3.1	A community relations agency will be appointed to provide dedicated community relations and external communication support. The community relations agency will work with the internal established communications teams at National Grid and WPD.	Volume 5.26.1C, Paragraph 1.10.1	Schedule 3, Requirement 5	Relevant Planning Authority
	1.3.2	A 24 hour free telephone project helpline and project website will be established and be managed by the community relations team. The project helpline and website information will be visible on boards placed around the parameter of the construction site in appropriate locations where they would be visible to the public. The telephone number and project website details will be provided to the local authorities.	Volume 5.26.1C, Paragraph 1.10.2	Schedule 3, Requirement 5	Relevant Planning Authority

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
	1.3.3	The community relations team will ensure the details of any complaints are recorded and all complaints are appropriately managed. Complaints will be investigated and appropriate action will be taken. The investigation procedure is detailed at section 1.13. In addition to the project telephone helpline and the project website, complaints from an external party may also be received via a number of other sources, for example, via written correspondence or incidental contact with construction workers. Where a person from a community local to the works makes a complaint, it will be passed initially to the community relations team. The community relations team will liaise with the other members of the project team to investigate the complaint. Appropriate action will be taken by the project construction team.	Volume 5.26.1C, Paragraphs 1.10.3 to 1.10.5	Schedule 3, Requirement 5 Schedule 3, Requirement 31	Relevant Planning Authority

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
Responsibilities	1.4.1	The responsibilities of the personnel who will be responsible for implementing, monitoring, responding to, and updating the CEMP are outlined below: <u>Senior Project Manager</u> a) overall responsibility for ensuring conformance with the CEMP; and b) incident investigation. <u>Safety, Health, Environment, Security and Quality (SHESQ) Manager</u> a) reviewing risk assessments and method statements (RAMS); b) manager of the Safety, Health and Environment (SHE) Plan; c) reviewing, updating and issuing the CEMP; d) incident investigation; e) liaison with the emergency services; f) site inspection; g) reviewing applications for environmental consents and permits; and h) sensible monitoring. <u>Environmental Project Manager</u> a) site inspection; b) preparing and submitting applications for environmental consents and permits; c) liaison with third parties and licensing authorities; d) organising environmental surveys; e) sensible monitoring; f) overseeing and monitoring the PRoW Management Plan (see also Volume 5.26.6C and section 3.11 of the CEMP); and g) discharging consent conditions. <u>Ecological Clerk of Works</u> a) overseeing and monitoring the implementation of measures set out in the BMS, as outlined in Section 3.0 of this document (see also Volume 5.26.3C and section 3.3 of the CEMP). <u>Landscape Clerk of Works</u> a) overseeing and monitoring all landscape works, as outlined in Section 2.0 of this document (see also section 3.2 of the CEMP). <u>Archaeological Clerk of Works</u> a) overseeing and monitoring the implementation of the WSI and archaeological method statements, as outlined in Section 7.0 of this document (see also Volume 5.26.4C and section 3.6 of the CEMP). <u>Traffic Management Group</u> a) overseeing and monitoring the implementation of the CTMP, as outlined in Section 8.0 of this document (see also Volume 5.26.5C and section 3.7 of the CEMP).	Volume 5.26.1C, Paragraph 1.11.2, Table 1.4	Schedule 3, Requirement 5	Relevant Planning Authority
Contractors	1.5.1	Appropriate contractors will be appointed for the project by National Grid and WPD (as appropriate). The contractors will be responsible for implementing the CEMP through contractual agreements with National Grid and WPD.	Volume 5.261.B, Paragraph 1.11.3	Schedule 3, Requirement 5	Relevant Planning Authority

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
	1.5.2	Prior to each stage of construction commencing, the contractors will prepare the management plans described at reference 1.2.2 above (see also Table 1.2 of the CEMP). The contractors will prepare and update the site Safety Health and Environment (SHE) Plan, which details relevant safety, health and environmental information relating to all land within the construction site. The contractors will prepare a PEMP, which will detail all of the environmental mitigation measures for each stage of the works that will be implemented. The PEMP will be in accordance with the CEMP. The plans will be made available to any person working on the Proposed Development.	Volume 5.26.1C, Paragraphs 1.11.4 to 1.11.7	Schedule 3, Requirement 5	Relevant Planning Authority
	1.5.3	Environmental issues that arise during the construction of the Proposed Development will be reviewed at the inaugural and subsequent regular meetings held by the contractors. Daily toolbox talks will be held by the contractors to inform the construction staff of any environmental issues and any changes to the CEMP, PEMP and/or the SHE Plan.	Volume 5.26.1C, Paragraph 1.11.8	Schedule 3, Requirement 5	Relevant Planning Authority
	1.5.4	National Grid, WPD and the contractors will ensure that all staff, including subcontractors are trained and competent in the management of environmental impacts to a level that is appropriate to their role.	Volume 5.26.1C, Paragraph 1.11.9	Schedule 3, Requirement 5	Relevant Planning Authority
Inspections	1.6.1	The contractors will undertake daily inspections, which will include monitoring conformance with the CEMP. Daily assessment forms will be completed during the daily checks. Checks on equipment will be undertaken to reduce the risk of incidents occurring (for example oil leaks). As a minimum the following equipment will be inspected: a) fencing; b) waste storage facilities; c) oil separators; d) chemical storage facilities; e) bund integrity; f) foul water storage facilities; g) silt traps; h) drainage ditches and watercourses; i) storage vessels (including pumps, gauges, pipework and hoses); j) secondary containment (for example, secondary skins for oil tanks); k) spill response materials; and l) equipment with potential to leak oils and other liquids, for example, compressors and transformers.	Volume 5.26.1C, Paragraph 1.12.1	Schedule 3, Requirement 5	Relevant Planning Authority
	1.6.2	Weekly inspections will be undertaken by National Grid, WPD and the contractors to ensure the daily checks are being undertaken correctly.	Volume 5.26.1C, Paragraph 1.12.2	Schedule 3, Requirement 5	Relevant Planning Authority
	1.6.3	The daily and weekly inspections will also include, in addition to the list at paragraph 1.13.1 of the CEMP: a) reviewing the daily risk assessment forms; b) ensuring that faults and defects are identified and rectified; and c) providing data for performance monitoring. Environmental performance data will be collected and collated into the SHE Plan.	Volume 5.26.1C, Paragraphs 1.12.3 to 1.12.4	Schedule 3, Requirement 5	Relevant Planning Authority

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
	1.6.4	Immediate action including, if necessary 'stopping a job', will be taken should any incidents or non-conformance with the CEMP be found during inspection.	Volume 5.26.1C, Paragraph 1.12.5	Schedule 3, Requirement 5	Relevant Planning Authority
	1.6.5	National Grid's, WPD's and the contractors' monitoring reports will be made available to statutory and non-statutory bodies on request.	Volume 5.26.1C, Paragraph 1.12.6	Schedule 3, Requirement 5	Relevant Planning Authority
Incident Procedure	1.7.1	<u>Pollution Incident Control Plan</u> Contractors will develop and implement a PICP which will detail their response in the event of any incident on site. The following measures and information will be included and detailed further in the PICP to manage any incidents and limit adverse effects on the receiving environment: a) describe the procedure to be followed in the event of an incident (in accordance with the 'Incident Response' procedure below); b) describe the procedure for the notification of appropriate emergency services, authorities and personnel on the construction site; c) describe the procedure for the notification of relevant statutory bodies, environmental regulatory bodies, local authorities and local water and sewer providers; d) provide maps showing the locations of local emergency services facilities such as police stations, fire authorities, medical facilities, other relevant authorities, such as the EA and also the address and contact details for each service and authority; e) provide contact details for the persons responsible on the construction site for pollution incident response; f) provide contact details of a competent spill response company which can be contacted at short notice for an immediate response; g) ensure that site drainage plans and flood risk management plans are available on site and are kept up-to date; and h) ensure staff competence and awareness in implementing plans and using pollution response kit.	Volume 5.26.1C, Paragraphs 1.13.1 to 1.13.2	Schedule 3, Requirement 5	Relevant Planning Authority

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
	1.7.2	<u>Incident Response</u> All incidents associated with the construction of the Proposed Development, including environmental incidents and non-conformance with the CEMP, will be reported and investigated using the PICP (unless stated differently in other Management Plans, for example the BMS, CTMP, WSI and WMP). The following procedure will be followed in the event of an incident and will be detailed further in the PICP: a) works will stop; b) the Environmental Manager and SHESQ Manager will be contacted; c) the size of the incident will be assessed; i. if the incident is controllable by staff on Site, remedial action will be taken immediately in accordance with the Pollution Incident Control Plan; ii. if the incident cannot be controlled by the staff on Site, emergency assistance will be sought; d) the appropriate enforcing authority will be contacted and informed, including: i. the EA for incidents affecting rivers, groundwater and major emissions to atmosphere; ii. the local sewerage undertaker for incidents affecting sewers; iii. the Local Authority Environmental Health Department for incidents that could affect the public; iv. the Food Standards Agency for incidents that have the potential to affect food through deposition on crops or land used for grazing livestock; e) the Senior Project Manager and SHESQ Manager will instigate an investigation into the occurrence of the incident; f) the findings will be sent to the appropriate enforcing authority where necessary; and g) an action plan will be prepared to determine why the incident occurred and whether any modifications to working practices are required to prevent a recurrence. If necessary, the CEMP and SHE Plan will be updated (and any other plans as appropriate) and all workers will be notified.	Volume 5.26.1C, Paragraphs 1.13.3 to 1.13.4	Schedule 3, Requirement 5	Relevant Planning Authority
Health and Safety	1.8.1	In accordance with The Management of Health and Safety at Work Act, 1999, the contractors will prepare a Construction Phase Safety, Health and Environment (SHE) Plan prior to construction works commencing. A Construction Phase Health and Safety Plan will be prepared by the contractors for each element of the Proposed Development, including overhead line works, for each element of the Proposed Development, including overhead line works, underground cables works and substation works. The Plan will ensure that adequate arrangements and welfare facilities are in place to cover: a) the safety of construction staff; b) the safety of all other people working at or visiting the construction site; c) the protection of the public in the vicinity of the construction site; d) compliance with the Construction (Design and Management) Regulations 2015 and associated HSE guidance documents; e) emergency procedures being defined and adopted; and f) appropriate training and information being provided to personnel.	Volume 5.26.1C, Paragraph 2.2.2	Schedule 3, Requirement 5	Relevant Planning Authority, following consultation with the Relevant Highway Authority
	1.8.2	The contractors' Construction Phase SHE Plan will be reviewed and approved by National Grid and Western Power Distribution (WPD) prior to construction commencing. The SHE Plan will be managed and implemented by the Safety, Health, Environment Systems and Quality (SHESQ) Manager.	Volume 5.26.1C, Paragraph 2.2.3	Schedule 3, Requirement 5	Relevant Planning Authority, following consultation with the Relevant Highway Authority

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
	1.8.3	All staff, site visitors and delivery drivers will receive a relevant project induction by the contractors to ensure they are aware of site hazards and health, safety and environmental management requirements. Site staff will be briefed daily by the contractors prior to work commencing. Site-specific risk assessments will be carried out prior to ensure the risk strategy of the frequently changing workplace remains relevant. The contractors will be required to carry out audits and inspections throughout the Proposed Development in accordance with section 1.12 of the CEMP.	Volume 5.26.1C, Paragraph 2.2.4	Schedule 3, Requirement 5	Relevant Planning Authority, following consultation with the Relevant Highway Authority
	1.8.4	Emergency contact for the public will be through the enquiries and complaints procedure as described in section 1.10 of the CEMP.	Volume 5.26.1C, Paragraph 2.2.5	Schedule 3, Requirement 5	Relevant Planning Authority
				Schedule 3, Requirement 31	Relevant Planning Authority, following consultation with Relevant Highways Authority
	1.8.5	Where works have the potential to affect identified traveller communities, National Grid or WPD, as appropriate, will nominate a single point of contact for any liaison required (in discussion with the relevant local traveller liaison officer).	Volume 5.26.1C, Paragraph 2.2.6	Schedule 3, Requirement 5	Relevant Planning Authority
Construction Hours	1.9.1	Construction work will take place in accordance with the 'Construction Hours' set out in Schedule 3, Requirement 7 of the DCO.	Volume 5.26.1C, Paragraph 2.3.1	Schedule 3, Requirement 5	Relevant Planning Authority, following consultation with the Relevant Highway Authority
				Schedule 3, Requirement 7	Relevant Planning Authority
Construction Site Layout and Appearance	1.10.1	The layout, appearance and operation of the construction site, site offices and compounds will be detailed prior to construction commencing and will comply with the commitments in the CEMP. In particular, the layout, appearance and operation of the construction site, site office and compounds will be managed as follows: a) all working areas will be kept in a clean and tidy condition; b) smoking areas at site offices, compounds and constructions sites will be equipped with containers for smoking waste and will not be located at the boundary of working areas or adjacent to neighbouring properties; c) all necessary measures will be taken to minimise the risk of fire; d) workers will maintain a reasonable and appropriate standard of dress at all times and will not use foul language or display lewd or derogatory behaviour; e) appropriate measures, such as use of enclosed containers, will be employed to store waste susceptible to spreading by wind or liable to cause litter (section 2.7 of the CEMP and the WMP – Volume 5.26.2C); f) fencing and other means of enclosure will be inspected daily, repaired and repainted as necessary (section 2.5 of the CEMP); g) adequate welfare facilities will be provided for all construction staff. All toilets will be serviced and kept clean (section 2.9 of the CEMP); h) good personal hygiene will be promoted by the contractors for the workforce particularly when using site canteens or mess facilities; i) site access, accesses to site compounds and roads in the vicinity of the site access points will be maintained and kept clean as required (section 3.7of the CEMP); j) commitments relating to noise and vibration (section 3.9 of the CEMP) will be met; k) commitments relating to dust, odours and air pollution (section 3.8 of the CEMP) will be met; l) commitments relating to the handling, storage and disposal of materials (section 2.7 and 3.4 of the CEMP) will be met; m) appropriate management and disposal of foul water and sewage (sections 3.4 and 3.5 of the CEMP).	Volume 5.26.1C, Paragraph 2.4.1	Schedule 3, Requirement 5	Relevant Planning Authority, following consultation with the Relevant Highway Authority

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
Fencing and Other Means of Enclosure	1.11.1	Working areas will be appropriately fenced from members of the public and to prevent animals from straying onto a working area. Fencing and other means of enclosure at the construction compounds will comply with section 3.1 (Landscape and Views) of the CEMP and Schedule 3, Requirement 16 of the DCO.	Volume 5.26.1C, Paragraph 2.5.1	Schedule 3, Requirement 5	Relevant Planning Authority
				Schedule 3, Requirement 16	Relevant Planning Authority
	1.11.2	Enhanced measures to mitigate visual effects of the construction works will be considered at other sites as considered appropriate and will comply with section 3.1 (Landscape and Views) of this CEMP. Details would be submitted for approval in accordance with relevant requirements set out in Schedule 3 of the DCO (e.g. fencing and other means of enclosure (Schedule 3, Requirement 16), accumulations and deposits (Schedule 3, Requirement 21).	Volume 5.26.1C, Paragraph 2.5.2	Schedule 3, Requirement 5	Relevant Planning Authority
				Schedule 3, Requirement 16	
				Schedule 3, Requirement 21	
	1.11.3	Fencing and other means of enclosure in areas at risk of flooding will be permeable to floodwater, unless otherwise agreed with the EA, to ensure that the fluvial floodplain and areas liable to other sources of flooding continue to function effectively for storage and conveyance of floodwater.	Volume 5.26.1C, Paragraph 2.5.3	Schedule 3, Requirement 5	Relevant Planning Authority
				Schedule 3, Requirement 16	Relevant Planning Authority
	1.11.4	Fencing and other means of enclosure will be inspected daily, repaired and repainted as necessary. Any temporary fencing will be removed as soon as reasonably practicable after completion of the works.	Volume 5.26.1C, Paragraph 2.5.4	Schedule 3, Requirement 16	Relevant Planning Authority
	1.11.5	No stage of the Proposed Development may commence until written details of all proposed permanent and temporary fences, walls or other means of enclosure for that stage have been approved by the relevant planning authority.	Volume 5.26.1C, Paragraph 2.5.5	Schedule 3, Requirement 16	Relevant Planning Authority
Lighting	1.12.1	The control of artificial lighting will be in accordance with Schedule 3, Requirement 8 of the DCO. No stage of the authorised development shall commence until written details of any temporary or permanent external lighting to be installed during that stage, including measures to prevent light spillage, have been submitted to and approved by the relevant planning authority. The written details must incorporate the mitigation measures in relation to lighting set out in the BMS to reduce potential effects on habitats and species. Winter working may require task-specific lighting due to the short day lengths when lighting will be required at the beginning and end of the day. Lighting will be used only when required during core working hours, unless otherwise stated and will comprise lighting of work areas and access and egress with low level directional lighting.	Volume 5.26.1C, Paragraph 2.6.1 to 2.6.3	Schedule 3, Requirements 5 and 8	Relevant Planning Authority
	1.12.2	Other works required to be undertaken outside of the normal working hours may also require lighting.	Volume 5.26.1C, Paragraph 2.6.6	Schedule 3, Requirement 8	Relevant Planning Authority
	1.12.3	Construction compounds will not be lit at night outside core working hours except for welfare and site security cabins that will include low level lighting. Motion sensor lighting will be used in areas of high security risk.	Volume 5.26.1C, Paragraph 2.6.4	Schedule 3, Requirement 5	Relevant Planning Authority
				Schedule 3, Requirement 8	Relevant Planning Authority
	1.12.4	Cable jointing will require 24/7 lighting inside the covered structures that will surround the cable jointing bays. Motion sensor lighting will be required outside the covered structures for security and access and egress.	Volume 5.26.1C,	Schedule 3, Requirement 5	Relevant Planning Authority

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
			Paragraph 2.6.5	Schedule 3, Requirement 8	Relevant Planning Authority
	1.12.5	The following measures will be implemented: a) lights installed will be of the minimum brightness and/or power rating capable of performing the desired function; b) light fittings will be used that reduce the amount of light emitted above the horizontal; c) light fittings will be positioned correctly and directed downwards; d) the direction of lights will seek to avoid spillage onto neighbouring properties; e) Passive Infra-Red (PIR) controlled lights will be considered for use where appropriate as these may be more acceptable to neighbours than those which are controlled by a time switch or are on all the time; and f) unnecessary lights will be switched off.	Volume 5.26.1C, Paragraph 2.6.7	Schedule 3, Requirement 5	Relevant Planning Authority
				Schedule 3, Requirement 8	Relevant Planning Authority
Waste Management	1.13.1	The contractors will prepare and submit to National Grid and WPD Site Waste Management Plans (SWMPs), for each of the principal project components (overhead lines, underground cables and substations/CSE compounds), to include their associated works, as set out in the WMP at Volume 5.26.2C and detailed further in Section 12 of this Annex. National Grid and WPD have prepared an WMP. The contractors will prepare and submit to National Grid and WPD SWMPs, for each of the principle project components (overhead lines, underground cables and substations/CSE compounds), to include their associated works, which will be in accordance with the following measures, as provided in the WMP: a) the consumption of raw materials and waste shall be minimised, through sound design and good practice in sustainable procurement; b) where waste is generated, opportunities for reusing or recycling the waste will be considered prior to disposal via landfill; c) waste materials will be stored securely on site in order to prevent their escape and protect them against vandalism, vermin or outside interference; d) hazardous waste (e.g. paints, solvents, sealants) will be segregated on-site to avoid contaminating other material and waste streams; e) storage of waste on site will either be: i) within the scope of, and comply with, the requirements of one or more of the activities specified as exempt from Waste Management Licensing; or ii) carried out under an environmental permit issue by the EA; f) waste management activities on sites operating under an environmental permit will be managed by a nominated technically competent manager; g) all waste disposal contractors carrying waste will be authorised to do so and all sites that receive the waste will be authorised to do so;	Volume 5.26.1C, Paragraph 2.7.2 and 2.7.3	Schedule 3, Requirement 5	Relevant Planning Authority

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
		h) disposal of all waste will be accompanied by the relevant statutory transfer documentation that adequately describes the waste; i) quantities of waste generated will be recorded and monitored. Records will be kept for a minimum of three years; j) all employees and contractors will have a Duty of Care when controlling the carriage and disposal of waste to ensure it is handled in a responsible manner; and k) all staff and contractors working on the Proposed Development will be informed of which waste should be deposited where. No stage of the authorised development will commence until, for that stage, the SWMPs, have been submitted to, and approved by, the relevant planning authority or other relevant statutory body.		Schedule 3, Requirement 6	
Security	1.14.1	Construction sites will be controlled in accordance with the statutory duty (The Management of Health and Safety at Work Act 1999) to prevent unauthorised access to the site. Site-specific assessments of the security and trespass risk will be undertaken at each site and appropriate control measures implemented. The control measures are likely to include: a) use of high perimeter fencing or hoarding for site security and public safety, and placed so that PRoW are maintained or appropriately diverted; b) use of site lighting at perimeter, in accordance with section 2.6 of the CEMP and the BMS (Volume 5.26.3C); c) use of appropriately trained and qualified security guards; d) consultation with Avon and Somerset Police on security proposals for each site with regular liaison to review security effectiveness and response to incidents; and e) immobilisation of plant out of hours, removing or securing hazardous materials from site, securing fuel storage containers and preventing unauthorised use of scaffolding.	Volume 5.26.1C, Paragraph 2.8.1	Schedule 3, Requirement 5	Relevant Planning Authority, following consultation with the Relevant Highway Authority
				Schedule 3, Requirement 6	Relevant Planning Authority
				Schedule 3, Requirement 16	Relevant Planning Authority
Welfare	1.15.1	No living accommodation will be permitted on the construction site. Onsite welfare facilities will be provided for all site workers and visitors. Welfare facilities will be kept clean and tidy, in accordance with section 2.4 of the CEMP (Volume 5.26.1C).	Volume 5.26.1C, Paragraph 2.9.1	Schedule 3, Requirement 5	Relevant Planning Authority, following consultation with the Relevant Highway Authority
	1.15.2	Construction compound cabins would be single storey only.	Volume 5.26.1C, Paragraph 2.9.2	Schedule 3, Requirement 5	Relevant Planning Authority, following consultation with the Relevant Highway Authority
Pest Control	1.16.1	The risk of infestation by pests or vermin will be reduced by implementing appropriate storage and regular collection of putrescible waste. If infestation is found, removal and prevention measures will be implemented promptly. Any pest infestation of the construction site will be notified to the local authority as soon as is practicable.	Volume 5.26.1C, Paragraph 2.10.1	Schedule 3, Requirement 5	Relevant Planning Authority, following consultation with the Relevant Highway Authority

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
Unexploded Ordnance	1.17.1	Risk assessments will be undertaken prior to each stage of construction commencing for the possibility of unexploded ordnance being found within construction areas. An Emergency Response Plan for unexploded ordnance will be prepared by the contractors and will be followed to respond to the discovery of unexploded ordnance. This will include notifications to the relevant local authorities, emergency services, residents and businesses.	Volume 5.26.1C, Paragraph 2.11.1	Schedule 3, Requirement 5	Relevant Planning Authority
				Schedule 3, Requirement 18	Relevant Planning Authority following consultation with the Environment Agency
Utility Works	1.18.1	Appropriate schedules will be provided by National Grid and WPD to the contractors identifying all known utility infrastructure and any proposed diversions. Where changes to utility infrastructure cannot reasonably be avoided, the contractors will agree arrangements with National Grid and WPD and the owner of the utility equipment for it to be relocated.	Volume 5.26.1C, Paragraph 2.12.1	Schedule 3, Requirement 5	Relevant Planning Authority, following consultation with the Relevant Highway Authority
Reinstatement of Land on Completion	1.19.1	<u>Conditions Surveys</u> To facilitate the reinstatement of land, soil and watercourses, pre-condition surveys will be carried out of all land affected by the works. This will include a photographic record, written description and topographical survey, which will be used to ensure a complete and accurate reinstatement of land.	Volume 5.26.1C, Paragraph 2.13.1	Schedule 3, Requirement 5	Relevant Planning Authority, following consultation with the Relevant Highway Authority
	1.19.2	<u>Reinstatement of Land and Soil</u> Reinstatement will include making good damage or disturbance to any soil structure, native or ornamental planting, grass, fencing, hard landscaping or structures, where in-situ reinstatement is possible. Any land temporarily used for the construction of the Proposed Development will be reinstated in accordance with Schedule 3, Requirement 15 and Part 5, Article 30 and 31 of the DCO.	Volume 5.26.1C, Paragraph 2.13.2 and 2.13.3	Schedule 3, Requirement 5	Relevant Planning Authority
				Schedule 3, Requirement 15	
	1.19.3	<u>Reinstatement of Trees and Hedgerows</u> Where trees, tree groups or hedges are removed from working areas, construction compounds or temporary access routes, they will be replaced by new planting in-situ during reinstatement following completion of construction.	Volume 5.26.1C, Paragraph 2.13.4	Schedule 3, Requirement 10	Relevant Planning Authority
	1.19.4	<u>Reinstatement of Watercourses</u> Any temporary bridge or culvert required in connection with any stage of the Proposed Development will be removed within 12 months of completion of construction of that stage, in accordance with Schedule 3, Requirement 20. All watercourses would be reinstated on completion of works and specific measures for this are set out in the BMS in the CEMP at Volume 5.26.3C.	Volume 5.26.1C, Paragraph 2.13.5 and 2.13.6	Schedule 3, Requirement 20	Relevant Planning Authority, following consultation with the Environment Agency or Relevant Drainage Authority - as appropriate
Consents and Licenses	1.20.1	A Consents Register will be maintained by the Environmental Manager which will document all existing consent conditions, record all new applications made and the status of the applications.	Volume 5.26.1C, Paragraph 2.14.1	Schedule 3, Requirement 5	Relevant Planning Authority
2.0 Landscape (Volume 5.6.1, Section 6.7 and Volume 5.26.1C, Section 3.1) and Visual Effects (Volume 5.7.1.2, Section 7.7 and Volume 5.26.1C, Section 3.1) and ES Sensitivity Test (Volume 5.29)					
Topsoil Bunding	2.1.1	Topsoil will be stockpiled around the edges of the construction compounds, as detailed in the Soil Management Plan (SMP), to help screen the construction compounds from nearby receptors. In accordance with the mitigation measures proposed in the Hinkley Point C Connection Route Flood Risk Assessment (Volume 5.23.5.1A) and detailed in section 3.5 of the CEMP, the stockpiled topsoil will have regular gaps to allow water to pass across the site and ensure there is no loss of floodplain. Stockpiled soils will be covered with appropriate measures, for example, membranes, spraying or seeding.	Volume 5.26.1C, Paragraph 3.1.4	Schedule 3, Requirements 5	Relevant Planning Authority
				Schedule 3, Requirement 6	Relevant Planning Authority

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
Temporary Steel Mesh Fencing with Tarpaulin	2.2.1	As set out in section 2.5 of the CEMP (Volume 5.26.1C), all fencing described below will be implemented in accordance with Schedule 3, Requirement 16 of the DCO.	Volume 5.26.1C, Paragraph 3.1.5	Schedule 3, Requirement 5	Relevant Planning Authority
				Schedule 3, Requirement 16	Relevant Planning Authority
	2.2.2	<u>A38 Bristol Road (overhead line) Compound</u> At the A38 Bristol Road (overhead line) compound, temporary steel mesh fencing with olive green tarpaulin (final colour to be discussed with the relevant planning authority prior to erection of fencing) will be erected to a minimum height of 2m along the southern, western and northern boundaries of the western most compound. The fencing will be positioned on the outer edge of the construction compound, in front of the stockpiled topsoil. The tarpaulin will be raised to a minimum height of 0.6m above the ground to allow water to pass across the site and ensure there is no loss of floodplain.	Volume 5.26.1C, Paragraph 3.1.6	Schedule 3, Requirement 5	Relevant Planning Authority
				Schedule 3, Requirement 16	Relevant Planning Authority
	2.2.3	<u>River Axe</u> At the site of the underground cable works and cable bridge option to cross the River Axe near Waterfront Farm, Biddisham Lane, temporary steel mesh fencing with olive green tarpaulin (final colour to be discussed with the relevant planning authority prior to erection of fencing) will be erected to a minimum height of 2m north of the River Axe to provide partial screening of 400kV underground cables work in views from Waterfront Farm (including cottages and angling business). The fencing will be positioned on the outer edge of the working area. The tarpaulin will be raised to a minimum height of 0.6m above the ground to allow water to pass across the site and ensure there is no loss of floodplain.	Volume 5.26.1C, Paragraph 3.1.7	Schedule 3, Requirement 5	Relevant Planning Authority
				Schedule 3, Requirement 16	Relevant Planning Authority
	2.2.4	<u>Towerhead Road Compound</u> At the Towerhead Road compound temporary steel mesh fencing with olive green tarpaulin (final colour to be discussed with the relevant planning authority prior to erection of fencing) will be erected to a minimum height of 2m along the western and southern boundaries of the compound. The fencing will be positioned on the outer edge of the construction compound, in front of the stockpiled topsoil.	Volume 5.26.1C, Paragraph 3.1.8	Schedule 3, Requirement 5	Relevant Planning Authority
				Schedule 3, Requirement 16	Relevant Planning Authority
	2.2.5	<u>Engine Lane</u> At the works along Engine Lane, temporary steel mesh fencing with olive green tarpaulin (final colour to be discussed with the relevant planning authority prior to erection of fencing) will be erected to a minimum height of 2m along the west side of Engine Lane to screen views of the 132kV underground cables work. The fencing will be positioned in front of roadside hedgerow.	Volume 5.26.1C, Paragraph 3.1.9	Schedule 3, Requirement 5	Relevant Planning Authority
				Schedule 3, Requirement 16	Relevant Planning Authority
	2.2.6	<u>Nailsea Compound</u> At the Nailsea compound, temporary steel mesh fencing with olive green tarpaulin (final colour to be discussed with the relevant planning authority prior to erection of fencing) will be erected to a minimum height of 2m along the three sides of the compound nearest to Nailsea. This excludes the northwest boundary adjacent to the 132kV underground cable works. The fencing will be positioned on the outer edge of the construction compound, in front of the stockpiled topsoil.	Volume 5.26.1C, Paragraph 3.1.10	Schedule 3, Requirement 5	Relevant Planning Authority
				Schedule 3, Requirement 16	Relevant Planning Authority

<table>
<tr><th>Aspect</th><th>Ref.</th><th>Mitigation</th><th>Reference in the ES and/or Mitigation Plan</th><th>Delivery Mechanism</th><th>Discharging Authority (ies)</th></tr>
<tr><td>Other Sites</td><td>2.3.1</td><td>Other sites have been identified (see Table 2.3.1.1 below) along the route of the Proposed Development where the close proximity of construction working areas to residential properties means that fencing is appropriate to further reduce visual effects. No stage of the Proposed Development may commence until written details of all fencing provisions for other sites for that stage have been approved by the relevant planning authority in accordance with Schedule 3, Requirement 16 of the DCO.
Table 2.3.1 (Table 3.1 of the CEMP) Locations Suitable for Enhanced Mitigation in the Form of Fencing
<table>
<tr><th>Visual Receptor Reference</th><th>Receptor</th></tr>
<tr><td>B1.H47</td><td>Brick and pink render property at the junction between Butt Lake Road and Yardwall Road</td></tr>
<tr><td>B1.H48</td><td>'Wainbridge' at the junction between Mark Causeway and Yardwall Road</td></tr>
<tr><td>B1.H50</td><td>'Wainbridge Farm, north of Mark Causeway</td></tr>
<tr><td>B1.H51</td><td>Court Farm, north of Mark Causeway</td></tr>
<tr><td>B1.H52</td><td>Property to the south of Mark Causeway and to the south of receptor B1.H53</td></tr>
<tr><td>B1.H53</td><td>Properties north of Mark Causeway to the east of Court Farm</td></tr>
<tr><td>B1.H76</td><td>Property on the south side of Northwick Road</td></tr>
<tr><td>B1.H77</td><td>Sunnydene: Property on Northwick Road</td></tr>
<tr><td>B1.H108</td><td>Properties on the north side of the A38 Bristol Road at Tarnock</td></tr>
<tr><td>D1.H58</td><td>Moorland Park, single storey static caravans.</td></tr>
<tr><td>D1.H88</td><td>Hope Farm, Kenn Road (2-storey detached)</td></tr>
<tr><td>D1.H99</td><td>Rose Bungalow on Kennmoor Road between Manor Farm and Barberry Farm</td></tr>
<tr><td>D1.H128</td><td>Bungalows along Causeway View in Nailsea on the northwest settlement edge</td></tr>
<tr><td>E1.H7</td><td>Merriedown House on Old Lane, off Clevedon Road, Stone-edge Batch</td></tr>
<tr><td>E1.H27</td><td>Two storey property on the junction of Cuckoo Lane and Cadbury Camp Lane.</td></tr>
<tr><td>E1.H36</td><td>Caswell Cross Cottages, Caswell Hill (2-storey detached)</td></tr>
<tr><td>F1.H43</td><td>'Cole Acre' on Station Road</td></tr>
<tr><td>No receptor ref. See Volume 5.31, paragraphs 2.2.3 to 2.2.4 and 2.3.7 to 2.3.9</td><td>St Anthony’s Park Transit Site with 20 pitches (and 20 emergency stopping place pitches)</td></tr>
</table></td><td>Volume 5.26.1C, Paragraph 3.1.11</td><td>Schedule 3, Requirement 16</td><td>Relevant Planning Authority</td></tr>
<tr><td>Advance Planting</td><td>2.4.1</td><td>With respect to provisions for advance planting, and the retention of trees and hedgerows to aid compartmentalisation, National Grid is committed to the following measures at construction compounds (Annex A of the CEMP Volume 5.26.1C) also provides a schedule of the construction compounds, the Proposed Development components to which they relate, their estimated duration of use, the facilities they would accommodate and the approximate percentage of land to be used):
trees and hedgerows on the perimeters of construction compound areas will be retained except for access and egress;
trees and hedgerows within construction compounds will be retained except for access and egress; and
at the large construction compounds (Tarnock – A38 Bristol Road; South of the Mendip Hills – Hams Lane; Barton Road; Castle Hill; and Sandford Substation (including the AT Route), and temporary planting will be carried out under advice from the Landscape Clerk of Works to aid screening and reduce the apparent scale and impact of the compounds.</td><td>Volume 5.26.1C, Paragraph 3.1.12</td><td>Schedule 3, Requirement 5</td><td>Relevant Planning Authority</td></tr>
</table>

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
Inspections	2.5.1	A Landscape Clerk of Works (LCoW) will be appointed by National Grid to oversee and monitor all landscape works. Inspections and any action required, relating to non-conformance with the CEMP, will be undertaken in accordance with sections 1.12 and 1.13 of the CEMP.	Volume 5.26.1C, Paragraph 3.1.20 and 3.1.21	Schedule 3, Requirement 5	Relevant Planning Authority, following consultation with the Relevant Highway Authority
3.0 Biodiversity and Nature Conservation (Volume 5.8.1, Section 8.7, Volume 5.20.1A, Volume 5.26.1C, Section 3.2, Volume 5.26.3C, Volume 5.28 and Volume 5.33.1), ES Sensitivity Test (Volume 5.29) and s106 (Volume 8.4B)					
Habitat Protection – General Principles	3.1.1	The Biodiversity Mitigation Strategy (BMS) (Volume 5.26.3C) principles and measures, applicable to all construction areas, are summarised in the ES Biodiversity and Nature Conservation Chapter (Volume 5.8.1) as follows: a) pre-construction surveys will be carried out to ensure baseline data remains up to date; b) an appropriately qualified Ecological Clerk of Works (ECOW) will be appointed. The role of the ECOW is set out in the BMS and the appointed person(s) will be a member of the Chartered Institute of Ecology and Environmental Management or hold equivalent accreditation; c) advance notification will be given to land owners and land managers of any wildlife protection measures, and notification will be given to NE for works in or near SSSIs and notification of the Local Authority Ecologist for works in or near Local Wildlife Sites; d) there will be a demarcation of the working areas (including storage areas and accesses), using appropriate fencing, to protect retained habitats and features; e) traps or wildlife exclusion fencing will be installed (and maintained), as required by protected species licences; f) fencing along the haul road that is permeable to badger and brown hare will be installed, to allow movement across the local landscape; g) clearance of trees, hedges, watercourse banks and other habitats will take place under supervision and at the appropriate time of year, as appropriate to the site/species in question; h) measures to avoid spread of non-native plant species listed in the Wildlife and Countryside Act 1981 Schedule 9 will be implemented; i) any nest or roost boxes, required to meet protected species licence obligations or other commitments in the BMS, will be installed; j) controlled lighting measures (to be delivered as a Lighting Scheme as specified in the CEMP) will be implemented; and k) there will be prompt reinstatement of habitats to their former condition, including any measures to enhance species diversity.	Volume 5.8.1, Paragraph 8.7.7 Volume 5.26.3C	Schedule 3, Requirement 5	Relevant Planning Authority
	3.1.2	In each working area, the ECoW will identify the relevant ecological receptors by reference to the Environmental Constraints Plans (Volume 5.3.3, Figure 3.7). Where habitats are affected in a designated wildlife site, the procedures for prior notification and liaison with regulatory bodies and landowners will apply, as detailed in section 2 of the BMS (Volume 5.26.3C).	Volume 5.26.3C, Paragraphs 3.2.2 and 3.2.3	Schedule 3, Requirement 5	Relevant Planning Authority
	3.1.3	In advance of any construction works commencing, the ECoW will be consulted and will provide a toolbox talk. All contractors will sign to confirm attendance at the toolbox talk and acceptance and understanding of the BMS.	Volume 5.26.3C, Paragraph 3.2.4	Schedule 3, Requirement 5	Relevant Planning Authority
	3.1.4	Working areas will be kept to the strict minimum required with the ECoW demarcating sensitive habitats to ensure contractors operate within the agreed working limits. Working arrangements within the Order Limits will be agreed with the ECoW. The ECoW will verify each location and access position within the working area and advise on potential for micro-siting of construction access tracks, equipment placement and other activities and also on mitigation requirements as necessary. Access into and out of the working area will be along agreed routes only. Machinery and vehicles will not be permitted to move outside the agreed access routes and working area.	Volume 5.26.3C, Paragraphs 3.2.5 to 3.2.7	Schedule 3, Requirement 5	Relevant Planning Authority

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
	3.1.5	To protect nesting birds, no hedge, woodland removal or large-scale ground vegetation clearance will take place within the breeding bird season (March to August inclusive), unless nesting bird checks by the ECoW indicate that no breeding birds will be affected. If nesting birds are identified an exclusion buffer will be erected around the nest. The size of the exclusion buffer will be determined on a 'case-by-case' basis by the ECoW. A minimum standoff of 5m will be implemented, but this distance is likely to be substantially increased in many cases such as for ground nesting birds. The buffer is likely to be greater than 20m if nesting Schedule 1 species are detected. There will be no works in the exclusion area and the nest will be left undisturbed until the young have left the nest.	Volume 5.26.3C, Paragraph 3.2.8	Schedule 3, Requirement 5	Relevant Planning Authority
	3.1.6	Existing trees to be retained will be protected during the development. Protection measures will comply with BS5837 (2012) standards for tree protection (Trees in relation to design, demolition and construction). All tree and hedgerow works will comply with BS3998:2010 Tree Work – Recommendations.	Volume 5.26.3C, Paragraphs 3.2.9 and 3.2.10	Schedule 3, Requirement 5 Schedule 3, Requirement 12	Relevant Planning Authority Relevant Planning Authority
	3.1.7	In order to restrict spread of tree pathogens, all equipment and machinery and vehicles used for tree, hedge and shrub removal will be cleaned and disinfected and used in accordance with Forestry Commission's contemporary biosecurity guidance. The ECoW will advise on whether each working area is to be regarded as "low risk" or "high risk" in relation to the required level of biosecurity precautions as set out in *Biosecurity – good working practice for those involved in forestry, Forestry Commission November 2012*.	Volume 5.26.3C, Paragraph 3.2.11	Schedule 3, Requirement 5 Schedule 3, Requirement 12	Relevant Planning Authority Relevant Planning Authority
	3.1.8	Cut vegetation will not be stockpiled in the working area as this may create suitable habitats for protected species. Locations for storing arisings for biodiversity purposes will be specified by the ECoW. Cut vegetation will be removed from the working area daily or chipped and spread thinly in areas agreed with the ECoW and subject to landowner agreement. Alternatively it may be stored in areas unlikely to be disturbed until it can be removed or chipped.	Volume 5.8.1, Paragraph 8.7.59 Volume 5.26.3C, Paragraph 3.2.12	Schedule 3, Requirement 5	Relevant Planning Authority
	3.1.9	Any vegetation clearance in areas with invasive species will be dealt with in accordance with the method statement for invasive species and the Waste Management Plan (Volume 5.26.2C).	Volume 5.26.3C, Paragraph 3.2.13	Schedule 3, Requirement 5 Schedule 3, Requirement 6	Relevant Planning Authority Relevant Planning Authority
	3.1.10	Topsoil will be conserved where possible. Soils and habitats will be reinstated on conclusion of works. The approach to managing segregation and reinstatement of top and sub soils is addressed in Volume 5.9.1 and Volume 5.9.2 of the ES (Ground Environment).	Volume 5.26.3C, Paragraph 3.2.14	Schedule 3, Requirement 5 Schedule 3, Requirement 21	Relevant Planning Authority, following consultation with the Environment Agency or Relevant Drainage Authority - as appropriate
	3.1.11	Fires will be completely prohibited on site. A no smoking policy will be implemented except in designated areas of the site.	Volume 5.26.3C, Paragraph 3.2.15	Schedule 3, Requirement 5	Relevant Planning Authority
	3.1.12	Machinery will be switched off when not in use. Where practicable to do so, machinery will be stored in pylon sites which are subject to 24 hour security. All tools will be secured overnight in a locked container or compound.	Volume 5.26.3C, Paragraph 3.2.16	Schedule 3, Requirement 5	Relevant Planning Authority
	3.1.13	Temporary storage of materials and equipment will only be undertaken in areas pre-agreed with the ECoW.	Volume 5.26.3C, Paragraph 3.2.17	Schedule 3, Requirement 5	Relevant Planning Authority

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
	3.1.14	To minimise the risk of pollution of watercourses (including ditches), contractors will adhere to the Watercourse Crossings Method Statement as detailed in section 3.4 of the BMS, during all works near any water feature. The Watercourse Crossings Method Statement is informed by the Environment Agency (EA) Pollution Prevention Guidelines.	Volume 5.26.3C, Paragraph 3.2.18	Schedule 3, Requirement 5	Relevant Planning Authority
	3.1.15	Fuel, oil and chemical storage will be sited on an impervious base within a bund and secured. The base and bund will be impermeable to the material stored and of adequate capacity. Leaking or empty drums will be removed from the site immediately and disposed of via a registered waste disposal contractor. A variety of standard construction measures will be employed to prevent run-off and siltation of watercourses, including construction drainage solutions, bunds, sediment traps and grass seeding of spoil piles. Further guidance with regard to pollution prevention, the storage of materials and waste disposal is detailed within the CEMP (Volume 5.26.1C) and Waste Management Plan (Volume 5.26.2C) and reference should be made to these documents.	Volume 5.26.3C, Paragraphs 3.2.19 to 3.2.21	Schedule 3, Requirement 5	Relevant Planning Authority
	3.1.16	Contractors will be instructed on maintaining vigilance for environmental issues. If at any time a protected species is found or suspected to be present or there are any issues with sensitive habitats all works in the affected area will cease immediately and advice will be sought from the ECoW.	Volume 5.26.3C, Paragraph 3.2.22	Schedule 3, Requirement 5	Relevant Planning Authority
Hedgerows	3.2.1	<u>Marking Out Affected Areas and Micro-siting to Reduce Impacts</u> Prior to construction works commencing in each working area, all sections of hedge due for removal or requiring pruning will be marked out by the Contractor, and the ECoW will confirm this to ensure contractors operate within the agreed working limits. Micro siting of works to minimise effects on hedges will include using existing gaps or gated access points along hedgerows and small scale adjustments to working areas to enable retention of better quality features within Order Limits. This will be achieved through the ECoW verifying hedgerow sections for removals or pruning and advising on adjustments and mitigation requirements as required. Where hedgerow removal is required in a designated wildlife site or where significant loss of important hedgerows is required that differs from that granted in the DCO, the procedures for prior notification and liaison with regulatory bodies and landowners will apply as detailed in section 2 of the BMS.	Volume 5.26.3C, Paragraphs 3.3.5 to 3.3.7	Schedule 3, Requirement 12	Relevant Planning Authority
	3.2.2	<u>Inspections for Protected and Invasive Species Prior to Hedgerow Works</u> Once the hedgerows have been marked out in each working area, the affected hedgerows will be subject to inspections for protected and invasive species. Where possible, these inspections shall be completed at least 4 months before the intended removal of the hedge. Where this lead-in time is not possible, it is accepted that delays to the programme may result if protected or priority species issues occur. During bird breeding season, checks will be required no more than 48 hours in advance of clearance works. Any affected hedgerows known to contain native bluebell would also be inspected and bulbs translocated to suitable receptor locations (typically an adjacent section of hedge) identified in agreement with the ECOW.	Volume 5.26.3C, Paragraph 3.3.8 Volume 5.8.1, Paragraph 8.7.61	Schedule 3, Requirement 5	Relevant Planning Authority
	3.2.3	Trees in affected sections of hedgerow will be subject to prior ecological survey for bat roosts. These surveys will be guided by the findings of the 2012-2014 ground based assessments and climbing inspections. If bat roosts are found, additional precautions for these species will apply as set out in section 4.2 of the BMS. Licensable works with regard to bats will adhere to timescales detailed within the Natural England (NE) bat licence method statement. Further precautions are described in section 4.2 of the BMS.	Volume 5.26.3C, Paragraph 3.3.9	Schedule 3, Requirement 5	Relevant Planning Authority
	3.2.4	Hedges to be removed in areas within 1km of known dormouse records will be subject to a pre-construction check for the species, and appropriate precautions taken in accordance with methods described in section 4.3 of the BMS. All hedges to be removed will be subject to inspection for badger setts. If these are found, additional precautions for these species will apply. Licensable works with regard to badger will adhere to timescales detailed within the NE licence method statement. Further precautions are described in section 4.6 of the BMS. Where recorded during Phase 1 habitat surveys, bluebells along hedgerows will be translocated to adjacent sections of retained hedgerows (within the Order Limits) prior to hedgerow removal.	Volume 5.26.3C, Paragraphs 3.3.10 to 3.3.12	Schedule 3, Requirement 5	Relevant Planning Authority

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
	3.2.5	<u>Retention of Bat Commuting Corridors</u> Hedgerow removal may affect bat commuting along the proposed underground cable route (including 132kV undergrounding sections) and the Sandford Substation works. Where hedgerow removal will result in gaps of more than 15m, temporary mobile linear features (such as brushwood fences) will be used to ensure that bat flight corridors are maintained at night during the active season (March to October inclusive) (see section 4.2 of the BMS).	Volume 5.26.3C, Paragraph 3.3.13	Schedule 3, Requirement 14	N/A
Watercourse Crossings	3.3.1	With the exception of a permanent cable bridge across the River Axe (option only) and cable bridge or culvert across Towerhead Brook and temporary construction access across the River Axe, Towerhead Brook, Lox Yeo River, the Land Yeo and Congresbury Yeo, there will be no direct impacts on the main rivers listed in Table 3.1 (Volume 5.26.3C). The underground cable will cross the River Axe either via HDD beneath the river bed or within a clear span permanent cable bridge over the river thereby avoiding direct impacts to the river. The other main rivers will be over sailed by the 400kV overhead line.	Volume 5.26.3C, Paragraph 3.4.2	Schedule 3, Requirement 30	Relevant Planning Authority
	3.3.2	Where possible working areas will be greater than 9m away from rivers and ditches. Where this is not possible National Grid will follow Environment Agency PPG guidance on working in and near watercourses including applying for any necessary consents. Where SSSIs are designated for ditch habitats, the approach which will be taken is detailed in section 2.3 of the BMS (Volume 5.26.3C).	Volume 5.26.3C, Paragraph 3.4.3	Schedule 3, Requirement 5	Relevant Planning Authority
	3.3.3	Many watercourses within the Order Limits support water vole. Otters are also known to be prevalent in the area. Watercourses in the area also support significant populations of fish and aquatic invertebrates. Given the sensitivity and mobility of these species, National Grid will manage each crossing point with caution and with reference to relevant species method statements provided in section 4 of the BMS (Volume 5.26.3C). A summary of each crossing point and relevant ecological survey findings is provided at Appendix E of the BMS.	Volume 5.26.3C, Paragraph 3.4.6	Schedule 3, Requirement 5	Relevant Planning Authority
	3.3.4	<u>Marking Out Affected Areas and Micro Siting to Reduce Impacts</u> Prior to construction works commencing in each working area, all watercourse crossings will be marked out by the appointed contractor, and the ECoW will confirm this to ensure contractors operate within the agreed working limits. The lead-in period will allow sufficient time for inspections for water vole, otter, and lesser silver water beetle to take place within the appropriate season, and for subsequent vegetation management to be implemented to humanely displace water vole. Please refer to sections 4.4, 4.5, and 4.12 of the BMS (Volume 5.26.3C) for specific details. Where the watercourse is in a designated wildlife site, the procedures for notification and liaison with regulatory bodies and landowners will apply, as detailed in section 2 of the BMS.	Volume 5.26.3C, Paragraphs 3.4.9 and 3.4.10	Schedule 3, Requirement 5	Relevant Planning Authority
	3.3.5	<u>Inspections for Protected and Invasive Species Prior to Works</u> Once the watercourse crossings have been marked out in each working area, they will be subject to inspections for protected and invasive species. These inspections will be carried out between March-September to ensure that they are within the optimal time of year and that presence of certain species is not overlooked. Where this lead-in time is not possible, it is accepted that delays to programme may result if protected or priority species issues occur. All watercourse crossings that will be temporarily or permanently affected by infrastructure (i.e. excluding watercourses that are only oversailed), will be subject to prior ecological survey for water voles and otters. If the species are found, the additional precautions for these species will apply. These precautions are described in sections 4.4 and 4.5 of the BMS (Volume 5.26.3C).	Volume 5.26.3C, Paragraphs 3.4.11 and 3.4.12	Schedule 3, Requirement 5	Relevant Planning Authority
	3.3.6	<u>Avoidance of Pollution and Sediment Loading</u> Dewatering techniques will be used to prevent water from entering excavations. Water containing silt will not be pumped or allowed to flow into watercourses. Silty water will be pumped or fed into the silt traps and settlement tanks to ensure only clean surface water is discharged to watercourses and ditches. The amount of exposed ground will be minimised in the working area to reduce the risk of silty surface water runoff. Soil will only be stockpiled in locations agreed with the ECoW, where practicable to be sited at least 10m away from any watercourses. Silt fences will be used around stockpiled soil where considered appropriate by the ECoW and the contractors. These measures also will require prior agreement with the EA as part of any Flood Defence Consent application. Any spoil piles associated with undergrounding works or installation of construction haul roads will be seeded to minimise soil being washed into watercourses. Access roads and approaches to river crossings will be regularly brushed and scraped by contractors. Only approved access roads will be used by the contractors in compliance with the Construction Traffic Management Plan (Volume 5.26.5C).	Volume 5.26.3C, Paragraphs 3.4.14 to 3.4.22	Schedule 3, Requirement 5	Relevant Planning Authority
				Schedule 3, Requirement 6	Relevant Planning Authority
				Schedule 3, Requirement 17	Relevant Planning Authority, following consultation with the Environment Agency or Relevant Drainage Authority - as appropriate

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
		Fuel, oil and chemical storage will be sited on an impervious base within a bund and secured. The base and bund will be impermeable to the material stored and of adequate capacity. Leaking or empty drums will be removed from the site immediately and disposed of via a registered waste disposal contractor. Suitable spill kits or absorbent materials will be held in the vicinity of the watercourses during works. In the event of any spillage, the spilt material should be contained and the ECoW notified immediately.		Schedule 3, Requirement 21	Relevant Planning Authority, following consultation with the Environment Agency or Relevant Drainage Authority - as appropriate
	3.3.7	<u>Biosecurity and Invasive Species</u> Where invasive aquatic species are encountered, the appointed contractor will implement measures to avoid the spread of these species, bearing in mind their local distribution. The contractor will not be required to eradicate the species. Options for avoiding the spread of invasive aquatic species including raking the species out and placing it in a dry stockpile away from working areas until it dies or removing it to tip. Vehicles and machinery used at watercourse crossings infested with invasive species will be not be moved to other watercourse crossing points until they have been cleaned and disinfected.	Volume 5.26.3C, Paragraphs 3.4.23 and 3.4.24	Schedule 3, Requirement 5	Relevant Planning Authority
	3.3.8	<u>Protection of Retained Watercourses</u> All retained ditches will be protected from construction activity, vehicle movements and storage of materials through the installation of steel mesh fencing to prevent encroachment. Where feasible, haul roads, working areas, laydown areas and general construction actives will maintain the 9m buffer along each from each ditch and watercourse. Where maintenance of a 9m buffer cannot be achieved due to the nature of the works, further measures will be implemented as described below for installation of culverts. Where SSSIs are designated for ditch habitats, (Puxton Moor, Nailsea, Tickenham and Kenn Moors and Biddle Street Yatton) the SSSI designation extends to a distance of 6m from bank top. The approach to avoiding ditches is detailed in section 2.3 of the BMS (Volume 5.26.3C). The above precautions also will apply to decommissioning of the works, including removal of temporary access culverts.	Volume 5.26.3C, Paragraphs 3.4.25 to 3.4.29	Schedule 3, Requirement 5	Relevant Planning Authority
	3.3.9	<u>Installation of Culverts</u> No less than 48 hours before the installation of culverts or other infrastructure in the watercourse channel or banks, all vegetation will be strimmed to 75mm above ground level, and all aquatic vegetation will be raked out and placed on watercourse bank tops outside the working area. Any additional precautions required by the presence of protected species, notably water voles, will be implemented, as detailed in section 4.4 of the BMS (Volume 5.26.3C). Immediately prior to culvert installation, an appropriately licensed ecologist will net the watercourse and remove any fauna to a nearby section of watercourse. Alternatively, a mini digger with a small bucket may be effective in transferring material, particularly that containing bottom-dwelling species of invertebrates. The approach at any crossing will take account of health and safety considerations. Further information is provided in section 4.12 of the BMS (Volume 5.26.3C). On completion of culvert installation, including headwalls, all disturbed areas shall be allowed to regenerate naturally. If works are in winter months (October to February inclusive), exposed soil on banks will be reinstated using turf or coir mats or other measures to reduce soil washing into the watercourse. Where the culvert installation is temporary, the choice of grass seeding mix for the temporary spoil piles is at the contractor's discretion with the exception of reseeding within SSSIs or LWS. In SSSIs the seed mixes would be approved by Natural England. In LWSs seed mixes would be discussed with the LPA and the landowner. All seed mixes will be of native origin and will aim to result in a rapid and sustainable colonisation of exposed spoil. The choice of seed mix used will replicate existing habitats with equivalent species mixes.	Volume 5.26.3C, Paragraphs 3.4.30 to 3.4.34	Schedule 3, Requirement 5 Schedule 3, Requirement 21	Relevant Planning Authority Relevant Planning Authority, following consultation with the Environment Agency or Relevant Drainage Authority - as appropriate

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
	3.3.10	<u>Reinstating Watercourses within 400kV or 132kV Underground Cables Swathe</u> Where underground cables are being installed beneath smaller watercourses and field ditches, cable trenches would be backfilled and the natural channel form reinstated, immediately following the installation of cable ducts. Where a pipe or box culvert has been temporarily used in order to install cable duct formations beneath, then these would be removed.	Volume 5.26.3C, Paragraphs 3.4.35 and 3.4.36	Schedule 3, Requirement 5 Schedule 3, Requirement 15	Relevant Planning Authority
				Schedule 3, Requirement 20	Relevant Planning Authority, following consultation with the Environment Agency or Relevant Drainage Authority - as appropriate
	3.3.11	<u>Removal of Temporary Culverts or Bridges and Reinstatement of Watercourses</u> Prior to removal of culverts, the contractor will supply a protected and invasive species assessment of the watercourse, including a survey of banks and channel within order limits up to 25m from the culvert. This assessment will be based on a survey at an appropriate season no more than 12 months prior to culvert removal and will set out measures for dealing with protected and invasive species, as detailed in the BMS (Volume 5.26.3C). No less than 48 hours before the removal of culverts or other infrastructure in the watercourse channel or banks, all vegetation within 5m of the culvert mouths will be re-checked by the ECoW or assistant ecologist before strimmed to 75mm above ground level, and all aquatic vegetation will be raked out and placed on watercourse bank tops outside the working area. Any additional precautions required by the presence of protected species (identified either during the survey or the re-check), notably water voles and great crested newts will be implemented as detailed in section 4.4 and 4.9 of the BMS (Volume 5.26.3C). Immediately prior to culvert removal, an appropriately licensed ecologist will inspect the site and will net the accessible channel and remove fauna to a nearby section of the watercourse.	Volume 5.26.3C, Paragraphs 3.4.37 to 3.4.40	Schedule 3, Requirement 5	Relevant Planning Authority
				Schedule 3, Requirement 20	Relevant Planning Authority, following consultation with the Environment Agency or Relevant Drainage Authority - as appropriate
	3.3.11 (cont'd)	The RAMS for the Installation of Pipe and Box Culverts at Water Crossing Along the Cable Route (at Volume 5.3.2, Appendix 3G) states that to remove temporary culverts, prior to main works the flow of the watercourse need to be diverted around the section of temporary culvert. The watercourse will be bunded at either end of the culvert length to be installed using bags filled with agreed material. Water backing up at the upstream bund shall be pumped directly from this point to the far side of the downstream bund where the water will continue on its course downstream. The enclosed bunded area will be pumped out downstream until clear of water and the bund walls altered until minimal water ingress has been achieved. An area of sufficient length will be clear in which the works be carried out. Soil, granular fill and single-sided filter materials and geotextile membranes will be carefully removed to expose the culvert, with soil being stored in stockpiles for re-use. Any concrete header walls will also be removed off-site. The culvert will be lifted out with an excavator and the concrete bed and any granular fill below removed down to and including the geotextile membrane originally laid. The culvert, concrete and granular fill and geotextile membrane will be taken off-site and suitably disposed of. Within 7 days following removal of the culvert, the banks and channel will be reprofiled to match the adjoining stretches of watercourse, providing that any reinstatement in publicly accessible areas is at a gradient of no steeper than 1:3. Temporary bridges will be removed from site in sections using a crane. The concrete footings, granular fill and geotextile membrane to either side of the watercourse will be carefully excavated and removed off0site, and sub-soil and top-soil replaced. Fill materials used to create lead-up ramps (where bridges are set higher than the surrounding ground-level) will also be removed. Once reinstatement has been completed, the bund walls will be removed and the pumps stopped.	Volume 5.26.3C, Paragraphs 3.4.41 to 3.4.44	Schedule 3, Requirement 5	Relevant Planning Authority
				Schedule 3, Requirement 20	Relevant Planning Authority, following consultation with the Environment Agency or Relevant Drainage Authority - as appropriate
	3.3.12	<u>Re-establishing Vegetation and Enhancing Ecological Habitat on Reinstated Watercourses</u> Where short stretches of smaller watercourses and field ditches are affected and sufficient native vegetation remains in the adjacent channel, vegetation will be allowed to re-colonise naturally. Alternatively, re-seeding and re-planting of the banks and channel shall be carried out using floral mixes in line with Flora of the Bristol Region, with the agreement of the landowner. The use of silt fencing and bank protection will be considered during the regeneration phase. Depending on local conditions, consideration will be given to planting sections of watercourses with specimens translocated from the immediate up and downstream reaches of the watercourse in order to minimise the risk of introducing invasive species.	Volume 5.26.3C, Paragraphs 3.4.45 and 3.4.46	Schedule 3, Requirement 5	Relevant Planning Authority

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
	3.3.13	<u>Detailed Design for Watercourse Reinstatement</u> The detailed design and reinstatement of small watercourses and drainage ditches will be informed by pre-condition surveys, including topographical and photographic surveys, which will provide an accurate record of the existing condition of the watercourse. The detailed designs for watercourse reinstatement and realignment will be prepared in consultation with a hydro-geomorphological specialist as part of the Drainage Management Plan, which will be submitted to and approved by the relevant planning authority or other relevant statutory body prior to the commencement of authorised development for that stage (Schedule 3, Requirement 6 of the DCO). The ECoW will also provide input into the detailed designs.	Volume 5.26.3C, Paragraphs 3.4.47 and 3.4.48	Schedule 3, Requirement 5 Schedule 3, Requirement 6	Relevant Planning Authority Relevant Planning Authority
Invasive Species	3.4.1	<u>Invasive Terrestrial Plants Method Statement</u> Generic methods of working will be adopted as detailed in section 2 of the BMS (Volume 5.26.3C). Further guidance as detailed within the CEMP (Volume 5.26.1C) and Waste Management Plan (Volume 5.26.2C) also will be adhered to with regard to removal and disposal of non-native invasive species. Pre-construction surveys will be undertaken in advance of each phase of the works where vegetation removal is required, coupled with monitoring if required. This will establish an accurate ecological baseline for Japanese knotweed, Himalayan balsam and any other invasive species within the working area. Prior to construction works commencing, a 7m exclusion zone will be erected around all stands of Japanese knotweed. There are currently no known areas of Japanese knotweed within 7m of the Order Limits. An exclusion zone also will be erected around stands of Himalayan balsam. This species is currently known within the Order Limits at the River Brue (East Huntspill) and West Brook (Hinkley Point C). The exact width of these exclusion zones will be determined by the ECoW. The exclusion zone will be demarcated by fencing or tape and 'Invasive Species' warning signage to denote species and restrictions imposed. Construction works resulting in ground or soil disturbance will be avoided where feasible within the exclusion zones, as will tracked and/or heavy machinery. If vegetation clearance works are required within the exclusion zones; cut vegetation and associated soils within the areas containing invasive species will be treated as contaminated waste and appropriately disposed of accordingly. This may require disposal at a licensed landfill site. Equipment used for vegetation cutting will be washed in designated areas after use to ensure there is no spread of invasive species. The CEMP (Volume 5.26.1C) will be adhered to with regard to on site arrangements for washing equipment.	Volume 5.26.3C, Paragraphs 3.5.4 to 3.5.10	Schedule 3, Requirement 5 Schedule 3, Requirement 18	Relevant Planning Authority Relevant Planning Authority, following consultation with the Environment Agency

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
Invasive Aquatic Plants	3.5.1	<u>Invasive Aquatic Plants</u> Removal and management of aquatic invasive species will be in accordance with current Environment Agency (EA) Guidance. Generic methods of working will be adopted as detailed in section 2 of the BMS (Volume 5.26.3C). The Watercourse Crossings Method Statement as detailed in the BMS also will be referenced with regard to management of aquatic invasive species. Further guidance as detailed within the CEMP (Volume 5.26.1C) and Waste Management Plan (Volume 5.26.2C) also will be adhered to. Removal of aquatic invasive species also will consider the implications for associated species water vole, otter, fish and invertebrates. The relevant method statements for these species are detailed in sections 4.4, 4.5, 4.11 and 4.12 of the BMS (Volume 5.26.3C). Pre-construction surveys will be undertaken in advance of each phase of the works where vegetation removal is required, coupled with monitoring if required. This will establish an accurate ecological baseline for species such as curly waterweed and parrots feather or other invasive species within the working area. Removal of these aquatic invasive species will be dealt with according to species, location e.g. within a SSSI and in adherence to EA guidance for the species concerned. Methods used may include raking the species out and placing it in a dry stockpile along the bank away from working areas until it dies or removing it to tip or spraying. Vehicles and machinery used at watercourse crossings infested with invasive species shall be not be moved to other watercourse crossing points until they have been cleaned and disinfected in accordance with the relevant EA guidelines. Use of herbicides along watercourse is subject to EA permit and will require consultation with the EA prior to use. If necessary a precautionary zone will be established in working areas adjacent to invasive aquatic species. This will be demarcated by fencing or tape and 'Invasive Species' warning signage to denote species and restrictions imposed. The extent of any zone will be determined on a case by case basis but may include areas where invasive species are temporarily stockpiled or where works vehicles may be contaminated. Equipment used for vegetation raking, netting or cutting will be washed in designated areas after use to ensure there is no spread of invasive species. The CEMP (Volume 5.26.1C) will be adhered to with regard to locations and on site arrangements for washing equipment.	Volume 5.26.3C, Paragraphs 3.6.3 to 3.6.12	Schedule 3, Requirement 5	Relevant Planning Authority
Internationally designated sites	3.6.1	Severn Estuary Special Area of Conservation (SAC), Special Protection Area (SPA) and Ramsar Site General habitat protection will be implemented as set out in the BMS (Volume 5.26.3C) section 2.2. Habitat reinstatement and enhancement will be undertaken at pylon feet, in line with measures outlined in the BMS and reference 3.1.1 of this Annex. Winter working will be avoided to prevent disturbance to wintering birds. National Grid will meet with EDF a minimum of two months in advance of works commencing in this area to agree detailed site specific issues.	Volume 5.8.1, Table 8.30 Volume 5.26.3C, Paragraph 2.2.5	Schedule 3, Requirement 5	Relevant Planning Authority
	3.6.2	<u>Severn Estuary Special Area of Conservation (SAC), Special Protection Area (SPA) and Ramsar Site</u> *Bridgwater Tee to Mark* National Grid will fit bird diverters to the earth wire of the new 400kV overhead line on the following spans: • Pylon ZGA1 through to Pylon ZGA3 (2 spans). • Pylon LD2 through to pylon LD5 (3 spans). • Pylon LD8 through to pylon LD11 (3 spans). National Grid will ensure that on the section between Bridgwater Tee and Mark, the conductors and earth wires of the new 400kV are installed only after the removal of the F Route 132kV conductors and earth wires.	Volume 5.26.3C, Paragraphs 2.2.13 and 2.2.14 Volume 5.33.1	Schedule 3, Requirement 5	Relevant Planning Authority
	3.6.3	<u>Mendip Limestone Grasslands SAC and North Somerset and Mendip Bats SAC</u>	Volume 5.8.1, Table 8.30	Schedule 3, Requirement 5	Relevant Planning Authority

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
		Provision of temporary flyways as soon as construction commences which will be achieved using brushwood and ivy screens after hedgerow removal, following lines of former hedges. Grassland management will be undertaken during construction phase within Order Limits to provide additional invertebrate prey. Seeding of soil mounds with nectar-rich mixes will be undertaken to provide additional invertebrate prey. Hedgerow Replacement Plan will be implemented, including bespoke mix design. All hedgerows and grassland removed for temporary works will be reinstated on completion of construction. Subsoil, topsoil and hedgerows will be reinstated in phases, each at the most appropriate time of year for reinstatement and planting to be carried out within 12 months of the completion of each construction phase. The sections of hedgerow falling within the cable installation working area will be removed in a phased manner (allowing for nesting bird considerations). These hedgerows (typically lengths of 36m) will be replanted in the first planting season following completion of a phase (a phase lasting approximately nine months). Reinstatement will also be implemented in accordance with the Soil Management Plan, which is secured by Schedule 3, Requirement 6 of the DCO. A landscape clerk of works would be responsible for the maintenance regime of reinstated habitats. Where this is not possible (due to permanent land take), bespoke landscaping schemes have been developed. Relevant imbedded, site-specific landscape schemes (presented in Volume 5.7.3.14A) are as follows: • South of the Mendip Hills CSE Compound (Volume 5.7.3.14A, Figure 7.33); • River Axe Cable Bridge Option (Volume 5.7.3.14A, Figure 7.34); • Sandford Substation (Volume 5.7.3.14A, Figure 7.35); and • Towerhead Brook Bridge (Volume 5.7.3.14A, Figure 7.36). To further reduce the effect of losses of foraging habitat as a result of removal of pasture and hedgerows during construction, areas of fields adjacent to the construction footprint have been included within the DCO Order Limits to ensure management of the habitats for bats during the construction period. The proposed locations of these areas are shown at Inset 2.5 in the BMS. These bat foraging habitats will be delivered with landowner agreement where possible, however these areas fall within the Order Limits of the DCO and will be implemented by National Grid even if agreement cannot be reached with landowners. The default position regarding management of bat foraging habitats during the construction phase (i.e. the regime National Grid will implement if no satisfactory arrangement are made with landowner agreement); is detailed in Appendix D of the BMS. This appendix identifies baseline habitat conditions and proposed construction phase habitat conditions to maintain bat foraging habitats. It uses Somerset County Council's Habitat Evaluation Procedure (HEP) (previously known as the Somerset Biodiversity Offsetting Method) to calculate the value of habitats for greater and lesser horseshoe bats. The default position ensures circa 120% of baseline habitat value is provided during the construction phase. The proposals are secured by Schedule 3, Requirement 14 of the DCO and any requests to amend the default position will be subject to an updated assessment using the HEP and will require Natural England approval. During the hedgerow establishment period bat flyways will be maintained. The planted hedgerows will be fenced on either side with stock-proof fencing and a windbreak mesh will be fitted to one side of this fencing. Windbreak mesh is a high strength extruded plastic fencing mesh designed to offer essential protection for crops, from destructive winds, driving rain and drifting snow. The Windbreak mesh should be erected by battening to wooden fence posts. Battening ensures that the forces exerted onto the wind break mesh filaments are spread evenly ensuring that the mesh will not tear. The fence will provide a physical structure for the bats to follow and the wind break provides shelter from wind and to some degree rain. A landscape clerk of works (LCoW) will visit reinstated bat flyways (hedgerows) associated with the 400kV underground cables for eight years following planting. During years 1 to 5 management prescriptions and actions will be as for all reinstated hedgerows but with the additional task of maintaining the fencing. During years 6 to 8 there will be quarterly visits to check for fence and hedge defects, any defects will be corrected.	Volume 5.26.3C, Paragraph 2.2.23 Volume 5.26.3C, Paragraphs 2.2.26 and 2.2.28 Volume 5.26.3C, Paragraph 2.2.35 Volume 5.26.3C, Appendix D		
	3.6.4	Hallen Marsh (SPA Offsetting Site) Habitat reinstatement would occur in line with the aspirations to create habitats suitable for wintering birds.	Volume 5.8.1, Table 8.30	Schedule 3, Requirement 5	Relevant Planning Authority
	3.6.5	Exmoor and Quantock Oakwoods SAC	Volume 5.8.1, Table 8.30	Schedule 3, Requirement 5	Relevant Planning Authority

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
		Hedgerow replacement plan will be implemented, including bespoke mix design.	Volume 5.26.3C, Section 2.2		
Nationally Designated Sites	3.7.1	<u>Huntspill River National Nature Reserve (NNR)</u> General habitat protection will be implemented as set out in the BMS section 2.3. Habitat reinstatement will be undertaken in line with measures outlined in the BMS (Volume 5.26.3C) and reference 3.1.1 of this Annex. National Grid will ensure that the working areas for the 400kV pylon are outside the boundaries of the designation. Scaffolding and 132kV removal works cannot avoid the NNR. For all locations within and adjacent to the NNR, fencing and signs will be used to prevent encroachment outside set working areas. Within the working areas soil piles will be covered by sheeting to prevent run-off. Sheeting will be fixed to perimeter works fencing and bunds will be placed along the base fencing where they are adjacent to the designation. This is an additional precaution to standard practices described in the CEMP to ensure any run-off or windblown debris will not enter the designation. The river banks will be re-surveyed for otter field signs prior to commencement and if baseline conditions have changed the working method will be amended and agreed with Natural England.	Volume 5.26.3C, Paragraphs 2.3.8 and 2.3.9 Volume 5.8.1, Table 8.30	Schedule 3, Requirement 5	Relevant Planning Authority
	3.7.2	<u>Puxton Moor Site of Special Scientific Interest (SSSI)</u> General habitat protection will be implemented as set out in the BMS (Volume 5.26.3C) section 2.3. Habitat reinstatement will be undertaken in line with measures outlined in the BMS (Volume 5.26.3C) and reference 3.1.1 of this Annex. Adjustment of working areas will be undertaken to avoid encroachment into the designation.	Volume 5.8.1, Table 8.30 Volume 5.26.3C, Paragraphs 2.3.21 to 2.3.24	Schedule 3, Requirement 5	Relevant Planning Authority
	3.7.3	<u>Biddle Street, Yatton SSSI</u> General habitat protection will be implemented as set out in the BMS (Volume 5.26.3C) section 2.3. Habitat reinstatement will be undertaken in line with measures outlined in the BMS (Volume 5.26.3C) and reference 3.1.1 od this Annex. Adjustment of working areas will be undertaken to avoid encroachment into the designation.	Volume 5.8.1, Table 8.30 Volume 5.26.3C, Paragraphs 2.3.25 to 2.3.29	Schedule 3,Requirement 5	Relevant Planning Authority
	3.7.4	<u>Tickenham, Nailsea and Kenn Moors SSSI</u> General habitat protection will be implemented as set out in the BMS (Volume 5.26.3C) section 2.3. Habitat reinstatement will be undertaken in line with measures outlined in the BMS (Volume 5.26.3C) and reference 3.1.1 of this Annex. Works will be conducted in line with the Invertebrate Method Statement, as outlined in mitigation reference 3.18. Horizontal Directional Drilling will be used for 132kV undergrounding beneath rhynes. Adjustment of working areas will be undertaken to avoid encroachment into the designation. Provision of a tilting weir will be undertaken to assist with wetland management (addressed as part of the SSSI mitigation – secured via s106 agreement)	Volume 5.8.1, Table 8.30 Volume 5.26.3C, Paragraphs 2.3.30 to 2.3.35	Schedule 3, Requirement 5 s106 Agreement	Relevant Planning Authority
	3.7.5	<u>Severn Estuary SAC, SPA, Ramsar, SSSI – including Severn Estuary Site of Nature Conservation Interest (SNCI) (Section G –Avon Crossing)</u> General habitat protection will be implemented as set out in the BMS (Volume 5.26.3C) section 2.3. Habitat reinstatement will be undertaken at pylon feet, in line with measures outlined in the BMS (Volume 5.26.3C) and reference 3.1.1 of this Annex. Adjustment of working areas will be undertaken to minimise encroachment into the designation.	Volume 5.8.1, Table 8.30 Volume 5.26.3C, Paragraphs 2.2.10 and 2.2.11	Schedule 3, Requirement 5	Relevant Planning Authority
	3.7.6	<u>Severn Estuary SAC, SPA, Ramsar, SSSI (Section F – Portishead Substation)</u>	Volume 5.8.1, Table 8.30	Schedule 3, Requirement 5	Relevant Planning Authority

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
		Works will be programmed to take place during the period April to September. Adjustment of working areas will be undertaken to minimise disturbance. To avoid disturbing wintering SPA and Ramsar bird species, works will be undertaken only during the period April to September inclusive. The exception to this will be vegetation removal. To avoid the bird nesting season vegetation clearance and hedge netting will be permitted during the period October to March but will target September to avoid nesting and wintering birds. If it is not possible to complete clearance works in one month then any clearance between October and March will avoid periods of prolonged freezing conditions when birds are more energetically stressed. Vegetation clearance works will not be undertaken following seven consecutive days of frozen conditions in line with JNCC guidance.	Volume 5.26.3C, Paragraph 2.2.18		
	3.7.7	Bridgwater Bay SSSI General habitat protection will be implemented as set out in the BMS (Volume 5.26.3C) section 2.3. Habitat reinstatement will be undertaken in line with measures outlined in the BMS (Volume 5.26.3C) and reference 3.1.1 of this Annex. Adjustment of working areas will be undertaken to minimise encroachment into the designation.	Volume 5.8.1, Table 8.30 Volume 5.26.3C, Paragraphs 2.3.10 to 2.3.18	Schedule 3, Requirement 5	Relevant Planning Authority
Local Wildlife Sites	3.8.1	Hinkley Local Wildlife Site (LWS) General habitat protection will be implemented as set out in the BMS section 2.4. Habitat reinstatement will be undertaken in line with measures outlined in the BMS (Volume 5.26.3C) and reference 3.1.1 of this Annex.	Volume 5.8.1, Table 8.30 Volume 5.26.3C, Paragraphs 2.4.119 to 2.4.121	Schedule 3, Requirement 5	Relevant Planning Authority
	3.8.2	Hinkley Point Nature Reserve General habitat protection will be implemented as set out in the BMS (Volume 5.26.3C) section 2.4. Habitat reinstatement will be undertaken in line with measures outlined in the BMS (Volume 5.26.3C) and reference 3.1.1 of this Annex.	Volume 5.8.1, Table 8.30 Volume 5.26.3C, Paragraphs 2.4.118 to 2.4.121	Schedule 3, Requirement 5	Relevant Planning Authority
	3.8.3	Stoning Pound Field South and Stoning Pound Rhyne LWS General habitat protection will be implemented as set out in the BMS (Volume 5.26.3C) section 2.4. Habitat reinstatement will be undertaken in line with measures outlined in the BMS (Volume 5.26.3C) and reference 3.1.1 of this Annex.	Volume 5.8.1, Table 8.30 Volume 5.26.3C, Paragraphs 2.4.9 to 2.4.11	Schedule 3, Requirement 5	Relevant Planning Authority
	3.8.4	Puriton Rhynes and Ponds LWS General habitat protection will be implemented as set out in the BMS (Volume 5.26.3C) section 2.4. Habitat reinstatement will be undertaken in line with measures outlined in the BMS (Volume 5.26.3C) and reference 3.1.1 of this Annex.	Volume 5.8.1, Table 8.30 Volume 5.26.3C, Paragraphs 2.4.12 and 2.4.13	Schedule 3, Requirement 5	Relevant Planning Authority
	3.8.5	Borrow Pit, Puriton LWS	Volume 5.8.1, Table 8.30	Schedule 3, Requirement 5	Relevant Planning Authority

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
		General habitat protection will be implemented as set out in the BMS (Volume 5.26.3C) section 2.4. Habitat reinstatement will be undertaken in line with measures outlined in the BMS (Volume 5.26.3C) and reference 3.1.1 of this Annex.	Volume 5.26.3C, Paragraphs 2.4.7 and 2.4.8		
	3.8.6	Bridgwater Bay (NNR) LWS General habitat protection will be implemented as set out in the BMS (Volume 5.26.3C) section 2.4. Habitat reinstatement will be undertaken in line with measures outlined in the BMS (Volume 5.26.3C) and reference 3.1.1 of this Annex.	Volume 5.8.1, Table 8.30 Volume 5.26.3C, Paragraph 2.4.14	Schedule 3, Requirement 5	Relevant Planning Authority
	3.8.7	River Brue LWS General habitat protection will be implemented as set out in the BMS (Volume 5.26.3C) section 2.4. Habitat reinstatement will be undertaken in line with measures outlined in the BMS (Volume 5.26.3C) and reference 3.1.1 of this Annex.	Volume 5.8.1, Table 8.30 Volume 5.26.3C, Paragraph 2.4.15	Schedule 3, Requirement 5	Relevant Planning Authority
	3.8.8	River Axe LWS Temporary construction access bridge and either HDD or clear-span bridge options will be used for the 400kV underground cable crossing of the River Axe, would leave in-channel habitats intact. General habitat protection will be implemented as set out in the BMS (Volume 5.26.3C) section 2.4. Habitat reinstatement will be undertaken in line with measures outlined in the BMS (Volume 5.26.3C) and reference 3.1.1 of this Annex.	Volume 5.8.1, Table 8.30 Volume 5.26.3C, Paragraphs 2.4.16 to 2.4.20	Schedule 3, Requirement 5	Relevant Planning Authority
	3.8.9	Lox Yeo River SNCI General habitat protection will be implemented as set out in the BMS (Volume 5.26.3C) section 2.4. Habitat reinstatement will be undertaken in line with measures outlined in the BMS (Volume 5.26.3C) and reference 3.1.1 of this Annex.	Volume 5.8.1, Table 8.30 Volume 5.26.3C, Paragraphs 2.4.21 to 2.4.24	Schedule 3, Requirement 5	Relevant Planning Authority
	3.8.10	Cheddar Valley Railway Walk LNR General habitat protection will be implemented as set out in the BMS (Volume 5.26.3C) section 2.4. Habitat reinstatement will be undertaken in line with measures outlined in the BMS (Volume 5.26.3C) and reference 3.1.1 of this Annex.	Volume 5.8.1, Table 8.30 Volume 5.26.3C, Paragraph 2.4.26	Schedule 3, Requirement 5	Relevant Planning Authority
	3.8.11	Towerhead Brook (part of) and Adjacent Land SNCI Use of cable bridge crossing will leave in-channel habitats intact General habitat protection will be implemented as set out in the BMS (Volume 5.26.3C) section 2.4. Habitat reinstatement will be undertaken in line with measures outlined in the BMS (Volume 5.26.3C) and reference 3.1.1 of this Annex.	Volume 5.8.1, Table 8.30 Volume 5.26.3C, Paragraphs 2.4.27 to 2.4.31	Schedule 3, Requirement 5	Relevant Planning Authority
	3.8.12	Puxton Moor SSSI and surrounding rhynes SNCI	Volume 5.8.1, Table 8.30	Schedule 3, Requirement 5	Relevant Planning Authority

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
		General habitat protection will be implemented as set out in the BMS (Volume 5.26.3C) section 2.4. Habitat reinstatement will be undertaken in line with measures outlined in the BMS (Volume 5.26.3C) and reference 3.1.1 of this Annex.	Volume 5.26.3C, Paragraphs 2.4.32 to 2.4.35		
	3.8.13	<u>Rhynes South of Dolemoor Lane SNCI</u> General habitat protection will be implemented as set out in the BMS (Volume 5.26.3C) section 2.4. Habitat reinstatement will be undertaken in line with measures outlined in the BMS (Volume 5.26.3C) and reference 3.1.1 of this Annex. Hedgerow Replacement Plan will be implemented, including bespoke mix design.	Volume 5.8.1, Table 8.30 Volume 5.26.3C, Paragraphs 2.4.36 to 2.4.39	Schedule 3, Requirement 5	Relevant Planning Authority
	3.8.14	<u>Congresbury Yeo Adjacent Land and Rhynes SNCI</u> General habitat protection will be implemented as set out in the BMS (Volume 5.26.3C) section 2.4. Habitat reinstatement will be undertaken in line with measures outlined in the BMS (Volume 5.26.3C) and reference 3.1.1 of this Annex. Adjustment of working areas will be undertaken to reduce encroachment on hedgerows.	Volume 5.8.1, Table 8.30 Volume 5.26.3C, Paragraphs 2.4.40 to 2.4.43	Schedule 3, Requirement 5	Relevant Planning Authority
	3.8.15	<u>Nailsea and Tickenham Moors SNCI</u> Provision of a tilting weir will be undertaken to assist with wetland management (addressed as part of the SSSI mitigation – secured via s106 agreement). HDD will be used to install 132kV underground route beneath grazing marsh. General habitat protection will be implemented as set out in the BMS (Volume 5.26.3C) section 2.4. Habitat reinstatement will be undertaken in line with measures outlined in the BMS (Volume 5.26.3C) and reference 3.1.1 of this Annex.	Volume 5.8.1, Table 8.30 Volume 5.26.3C, Paragraphs 2.4.44 to 2.4.47	Schedule 3, Requirement 5 s106 Agreement	Relevant Planning Authority
	3.8.16	<u>Nursebatch Farm Fields SNCI</u> General habitat protection will be implemented as set out in the BMS (Volume 5.26.3C) section 2.4. Habitat reinstatement will be undertaken in line with measures outlined in the BMS (Volume 5.26.3C) and reference 3.1.1 of this Annex.	Volume 5.8.1, Table 8.30 Volume 5.26.3C, Paragraph 2.4.48	Schedule 3, Requirement 5	Relevant Planning Authority
	3.8.17	<u>Tickenham Hill, Cadbury Camp and Chummock Wood Complex SNCI</u> General habitat protection will be implemented as set out in the BMS (Volume 5.26.3C) section 2.4. Habitat reinstatement will be undertaken in line with measures outlined in the BMS (Volume 5.26.3C) and reference 3.1.1 of this Annex.	Volume 5.8.1, Table 8.30 Volume 5.26.3C, Paragraphs 2.4.50 to 2.4.54	Schedule 3, Requirement 5	Relevant Planning Authority
	3.8.18	<u>Fields West of Lower Caswell House SNCI</u> General habitat protection will be implemented as set out in the BMS (Volume 5.26.3C) section 2.4. Habitat reinstatement will be undertaken in line with measures outlined in the BMS (Volume 5.26.3C) and reference 3.1.1 of this Annex.	Volume 5.8.1, Table 8.30 Volume 5.26.3C, Paragraph 2.4.58	Schedule 3, Requirement 5	Relevant Planning Authority
	3.8.19	<u>Birch Wood and Prior's Wood SNCI</u>	Volume 5.8.1, Table 8.30	Schedule 3, Requirement 5	Relevant Planning Authority

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
		General habitat protection will be implemented as set out in the BMS (Volume 5.26.3C) section 2.4. Habitat reinstatement will be undertaken in line with measures outlined in the BMS (Volume 5.26.3C) and reference 3.1.1 of this Annex.	Volume 5.26.3C, Paragraphs 2.4.55 to 2.4.57		
	3.8.20	Fields on Caswell Moor SNCI (only within Preferred Option A) General habitat protection will be implemented as set out in the BMS (Volume 5.26.3C) section 2.4. Habitat reinstatement will be undertaken in line with measures outlined in the BMS (Volume 5.26.3C) and reference 3.1.1 of this Annex.	Volume 5.8.1, Table 8.30 Volume 5.26.3C, Paragraphs 2.4.59 to 2.4.64	Schedule 3, Requirement 5	Relevant Planning Authority
	3.8.21	Drove Rhyne and Adjacent Fields SNCI General habitat protection will be implemented as set out in the BMS (Volume 5.26.3C) section 2.4. Habitat reinstatement will be undertaken in line with measures outlined in the BMS (Volume 5.26.3C) and reference 3.1.1 of this Annex.	Volume 5.8.1, Table 8.30 Volume 5.26.3C, Paragraphs 2.4.76 to 2.4.82	Schedule 3, Requirement 5	Relevant Planning Authority
	3.8.22	Portbury Wharf Nature Reserve LWS and Portbury Wharf SNCI General habitat protection will be implemented as set out in the BMS (Volume 5.26.3C) section 2.4. Habitat reinstatement will be undertaken in line with measures outlined in the BMS (Volume 5.26.3C) and reference 3.1.1 of this Annex. Construction components of the Proposed Development that fall within these designations comprise 132kV overhead line removal, 132kV undergrounding, 400kV overhead line (alternative route (Option B) only) and associated scaffolding, access routes and roads. **Inset 2.25** shows construction components associated with Option A and **Inset 2.26** shows those associated with Option B. With the exception of access and undergrounding crossing points, National Grid will adjust the working areas to avoid open water and ditch habitats. Within the working area soil piles will be covered in sheeting to prevent run-off into adjacent ditches. Fencing and signs will be used to prevent encroachment outside working areas. As detailed previously for the Severn Estuary designations, working will avoid the wintering bird season to avoid disturbance to SPA and Ramsar bird species using the site and adjacent land. Wetland habitats are important to the designations; National Grid will agree seed mixes with Avon Wildlife Trust (or the current landowners of Portbury Wharf Nature Reserve and their ecologists) and with Bristol Port Company (BPC) and/or their consultants (in relation to each of their land holdings or management responsibilities) to replicate current conditions. National Grid will fund an ECoW during the active construction periods at Portbury Wharf Nature Reserve who will work alongside relevant licence holders and report to the overall ECoW for the Proposed Development. The ECoW is expected to be supplied by Avon Wildlife Trust but this may alter if land ownership changes prior to or during the construction phase. The project ECoW will offer the opportunity to meet with Avon Wildlife Trust (or the current landowners of Portbury Wharf Nature Reserve and their ecologists) and BPC no less than six months before the anticipated start of works within Portbury Wharf Nature Reserve LWS and Portbury Wharf SNCI. The outcome of these discussions will be collated into a mitigation statement for the Nature Reserve. Most of the issues covered by the mitigation statement relate to existing Requirements that need Local Authority approval; the mitigation statement will therefore be subject to approval prior to works commencing in the Nature Reserve. National Grid will install interpretation boards alongside public rights of way in the reserve. These information points will explain to the public the nature of the works, the biodiversity mitigation being undertaken and to provide project contact details should members of the public have any questions or concerns. It is envisaged this will aid in public understanding of the proposals and minimise queries to Avon Wildlife Trust. During the construction phase, National Grid will liaise with Avon Wildlife Trust (or the current landowners of Portbury Wharf Nature Reserve and their ecologists) to minimise effects for users of the Portbury Wharf Nature Reserve permissive footpaths.	Volume 5.8.1, Table 8.30 Volume 5.26.3C, Paragraphs 2.4.69 to 2.4.74 Volume 5.26.3C, Paragraphs 2.4.69 to 2.4.74	Schedule 3, Requirement 5	Relevant Planning Authority
	3.8.23	Portbury Dock Wood SNCI (Alternative Route (Option B) Only)	Volume 5.8.1, Table 8.30	Schedule 3, Requirement 5	Relevant Planning Authority

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
		General habitat protection will be implemented as set out in the BMS (Volume 5.26.3C) section 2.4. Habitat reinstatement will be undertaken in line with measures outlined in the BMS (Volume 5.26.3C) and reference 3.1.1 of this Annex.	Volume 5.26.3C, Paragraphs 2.4.83 and 2.4.84		
	3.8.24	Fields Between Railway Line and A369 Portbury SNCI (Preferred Route (Option A) only) General habitat protection will be implemented as set out in the BMS (Volume 5.26.3C) section 2.4. Habitat reinstatement will be undertaken in line with measures outlined in the BMS (Volume 5.26.3C) and reference 3.1.1 of this Annex.	Volume 5.8.1, Table 8.30 Volume 5.26.3C, Paragraphs 2.4.66 to 2.4.68	Schedule 3, Requirement 5	Relevant Planning Authority
	3.8.25	Gloucester Road Railway Sidings SNCI General habitat protection will be implemented as set out in the BMS (Volume 5.26.3C) section 2.4. Habitat reinstatement will be undertaken in line with measures outlined in the BMS (Volume 5.26.3C) and reference 3.1.1 of this Annex.	Volume 5.8.1, Table 8.30 Volume 5.26.3C, Paragraphs 2.4.87 to 2.4.90	Schedule 3, Requirement 5	Relevant Planning Authority
	3.8.26	Railway adjacent to Gloucester Road Sidings Wildlife Network Site (WNS) General habitat protection will be implemented as set out in the BMS (Volume 5.26.3C) section 2.4. Habitat reinstatement will be undertaken in line with measures outlined in the BMS (Volume 5.26.3C) and reference 3.1.1 of this Annex.	Volume 5.8.1, Table 8.30 Volume 5.26.3C, Section 2.4	Schedule 3, Requirement 5	Relevant Planning Authority
	3.8.27	Docks Railway Line WNS General habitat protection will be implemented as set out in the BMS (Volume 5.26.3C) section 2.4. Habitat reinstatement will be undertaken in line with measures outlined in the BMS (Volume 5.26.3C) and reference 3.1.1 of this Annex.	Volume 5.8.1, Table 8.30 Volume 5.26.3C, Section 2.4	Schedule 3, Requirement 5	Relevant Planning Authority
	3.8.28	Land South of King Road Avenue WNS General habitat protection will be implemented as set out in the BMS (Volume 5.26.3C) section 2.4. Habitat reinstatement will be undertaken in line with measures outlined in the BMS (Volume 5.26.3C) and reference 3.1.1 of this Annex.	Volume 5.8.1, Table 8.30 Volume 5.26.3C, Section 2.4	Schedule 3, Requirement 5	Relevant Planning Authority
	3.8.29	Land South West of Kings Weston Lane Rhine WNS General habitat protection will be implemented as set out in the BMS (Volume 5.26.3C) section 2.4. Habitat reinstatement will be undertaken in line with measures outlined in the BMS (Volume 5.26.3C) and reference 3.1.1 of this Annex.	Volume 5.8.1, Table 8.30 Volume 5.26.3C, Section 2.4	Schedule 3, Requirement 5	Relevant Planning Authority
	3.8.30	Kings Weston Lane Rhine SNCI (3 Options for G Route 132kV Undergrounding) HDD will be used avoids direct impact on in-channel habitats however 1 culvert is required for construction access road. General habitat protection will be implemented as set out in the BMS (Volume 5.26.3C) section 2.4. Habitat reinstatement will be undertaken in line with measures outlined in the BMS (Volume 5.26.3C) and reference 3.1.1 of this Annex.	Volume 5.8.1, Table 8.30 Volume 5.26.3C, Paragraphs 2.4.91 to 2.4.95	Schedule 3, Requirement 5	Relevant Planning Authority

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
	3.8.31	Land South of Sewage Treatment Works WNS (3 Options for G Route 132kV Undergrounding) General habitat protection will be implemented as set out in the BMS (Volume 5.26.3C) section 2.4. Habitat reinstatement will be undertaken in line with measures outlined in the BMS (Volume 5.26.3C) and reference 3.1.1 of this Annex.	Volume 5.8.1, Table 8.30 Volume 5.26.3C, Section 2.4	Schedule 3, Requirement 5	Relevant Planning Authority
	3.8.32	Lawrence Weston Road Rhines SNCI (3 Options for G Route 132kV Undergrounding) General habitat protection will be implemented as set out in the BMS (Volume 5.26.3C) section 2.4. Habitat reinstatement will be undertaken in line with measures outlined in the BMS (Volume 5.26.3C) and reference 3.1.1 of this Annex. Water Vole Method Statement will be undertaken.	Volume 5.8.1, Table 8.30 Volume 5.26.3C, Paragraphs 2.4.96 to 2.4.98	Schedule 3, Requirement 5	Relevant Planning Authority
	3.8.33	Land between M49 and M5 WNS (3 Options for G Route 132kV Undergrounding) General habitat protection will be implemented as set out in the BMS (Volume 5.26.3C) section 2.4. Habitat reinstatement will be undertaken in line with measures outlined in the BMS (Volume 5.26.3C) and reference 3.1.1 of this Annex.	Volume 5.8.1, Table 8.30 Volume 5.26.3C, Section 2.4	Schedule 3, Requirement 5	Relevant Planning Authority
	3.8.34	Fields along M5, Hallen SNCI General habitat protection will be implemented as set out in the BMS (Volume 5.26.3C) section 2.4. Habitat reinstatement will be undertaken in line with measures outlined in the BMS (Volume 5.26.3C) and reference 3.1.1 of this Annex.	Volume 5.8.1, Table 8.30 Volume 5.26.3C, Paragraphs 2.4.100 to 2.4.103	Schedule 3, Requirement 5	Relevant Planning Authority
	3.8.35	Land between Lawrence Weston Rhine and Salt Rhine, east of M49 WNS General habitat protection will be implemented as set out in the BMS (Volume 5.26.3C) section 2.4. Habitat reinstatement will be undertaken in line with measures outlined in the BMS (Volume 5.26.3C) and reference 3.1.1 of this Annex.	Volume 5.8.1, Table 8.30 Volume 5.26.3C, Section 2.4	Schedule 3, Requirement 5	Relevant Planning Authority
	3.8.36	Salt Rhine and Moorhouse Rhine SNCI General habitat protection will be implemented as set out in the BMS (Volume 5.26.3C) section 2.4. Habitat reinstatement will be undertaken in line with measures outlined in the BMS (Volume 5.26.3C) and reference 3.1.1 of this Annex. Water Vole Method Statement will be undertaken.	Volume 5.8.1, Table 8.30 Volume 5.26.3C, Paragraphs 2.4.104 to 2.4.108	Schedule 3, Requirement 5	Relevant Planning Authority
	3.8.37	Land Around Moorhouse Caravan Park SNCI General habitat protection will be implemented as set out in the BMS (Volume 5.26.3C) section 2.4. Habitat reinstatement will be undertaken in line with measures outlined in the BMS (Volume 5.26.3C) and reference 3.1.1 of this Annex.	Volume 5.8.1, Table 8.30 Volume 5.26.3C, Section 2.4	Schedule 3, Requirement 5	Relevant Planning Authority
	3.9.38	Railway Line South of Hallen WNS	Volume 5.8.1, Table 8.30	Schedule 3, Requirement 5	Relevant Planning Authority

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
		General habitat protection will be implemented as set out in the BMS (Volume 5.26.3C) section 2.4. Habitat reinstatement will be undertaken in line with measures outlined in the BMS (Volume 5.26.3C) and reference 3.1.1 of this Annex.	Volume 5.26.3C, Section 2.4		
	3.8.39	Land West of M49 and South of Moorhouse Rhine WNS General habitat protection will be implemented as set out in the BMS (Volume 5.26.3C) section 2.4. Habitat reinstatement will be undertaken in line with measures outlined in the BMS (Volume 5.26.3C) and reference 3.1.1 of this Annex.	Volume 5.8.1, Table 8.30 Volume 5.26.3C, Section 2.4	Schedule 3, Requirement 5	Relevant Planning Authority
	3.8.40	Agricultural Land South of Railway WNS General habitat protection will be implemented as set out in the BMS (Volume 5.26.3C) section 2.4. Habitat reinstatement will be undertaken in line with measures outlined in the BMS (Volume 5.26.3C) and reference 3.1.1 of this Annex.	Volume 5.8.1, Table 8.30 Volume 5.26.3C, Section 2.4	Schedule 3, Requirement 5	Relevant Planning Authority
	3.8.41	Land West of M49 and north of Moorhouse Rhine WNS General habitat protection will be implemented as set out in the BMS (Volume 5.26.3C) section 2.4. Habitat reinstatement will be undertaken in line with measures outlined in the BMS (Volume 5.26.3C) and reference 3.1.1 of this Annex.	Volume 5.8.1, Table 8.30 Volume 5.26.3C, Section 2.4	Schedule 3, Requirement 5	Relevant Planning Authority
	3.8.42	Moorhouse Farm and Stuppill Rhine SNCI General habitat protection will be implemented as set out in the BMS (Volume 5.26.3C) section 2.4. Habitat reinstatement will be undertaken in line with measures outlined in the BMS (Volume 5.26.3C) and reference 3.1.1 of this Annex.	Volume 5.8.1, Table 8.30 Volume 5.26.3C, Paragraphs 2.4.109 to 2.4.113	Schedule 3, Requirement 5	Relevant Planning Authority
	3.8.43	Rhine Bordering Former Sevelco Site North WNS General habitat protection will be implemented as set out in the BMS (Volume 5.26.3C) section 2.4. Habitat reinstatement will be undertaken in line with measures outlined in the BMS (Volume 5.26.3C) and reference 3.1.1 of this Annex.	Volume 5.8.1, Table 8.30 Volume 5.26.3C, Section 2.4	Schedule 3, Requirement 5	Relevant Planning Authority
	3.8.44	Crook's Marsh WNS General habitat protection will be implemented as set out in the BMS (Volume 5.26.3C) section 2.4. Habitat reinstatement will be undertaken in line with measures outlined in the BMS (Volume 5.26.3C) and reference 3.1.1 of this Annex.	Volume 5.8.1, Table 8.30 Volume 5.26.3C, Section 2.4	Schedule 3, Requirement 5	Relevant Planning Authority
	3.8.45	South West of Seabank Power Station WNS General habitat protection will be implemented as set out in the BMS (Volume 5.26.3C) section 2.4. Habitat reinstatement will be undertaken in line with measures outlined in the BMS (Volume 5.26.3C) and reference 3.1.1 of this Annex.	Volume 5.8.1, Table 8.30 Volume 5.26.3C, Section 2.4	Schedule 3, Requirement 5	Relevant Planning Authority

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
	3.8.46	<u>Little Wall Lane LWS</u> General habitat protection will be implemented as set out in the BMS (Volume 5.26.3C) section 2.4.	Volume 5.26.3C, Paragraph 2.4.5	Schedule 3, Requirement 5	Relevant Planning Authority
	3.8.47	<u>New Ground Covert LWS</u> General habitat protection will be implemented as set out in the BMS (Volume 5.26.3C) section 2.4.	Volume 5.26.3C, Paragraph 2.4.6	Schedule 3, Requirement 5	Relevant Planning Authority
	3.8.48	<u>Dismantled Railway and Adjacent Field Winscombe SNCI</u> General habitat protection will be implemented as set out in the BMS (Volume 5.26.3C) section 2.4.	Volume 5.26.3C, Paragraph 2.4.25	Schedule 3, Requirement 5	Relevant Planning Authority
	3.8.49	<u>Abbot's Horn SNCI</u> General habitat protection will be implemented as set out in the BMS (Volume 5.26.3C) section 2.4.	Volume 5.26.3C, Paragraph 2.4.49	Schedule 3, Requirement 5	Relevant Planning Authority
Birds	3.9.1	<u>Disturbance or Destruction of Active Bird Nests in Hedges, Shrubs, Trees or Dense Vegetation.</u> All hedges, shrubs, trees or dense vegetation will be retained as far as is practicable. Where these measures are not possible and works are needed to be carried out during the bird breeding season, all areas to be affected will be checked for evidence of nesting birds a no more than 48 hours prior to the vegetation removal or tree felling works taking place. If any active bird nests are discovered these will be given a minimum standoff of 5m (this may increase depending on species, proposed works and location) where no potentially disturbing works will take place until the young have fledged and the next vacated. A second nesting bird check will then be undertaken to ensure the tree or vegetation does not contain any further active nests prior to felling or removal works taking place.	Volume 5.26.3C, Table 4.1	Schedule 3, Requirement 5	Relevant Planning Authority
	3.9.2	<u>Disturbance, Destruction of Active Nests of Ground Nesting Birds</u> Where the development passes through open fields within Nailsea Moor, Kenn Moor, Puxton Moor and Tickenham Ridge during March to August, a nesting bird check will be carried out by an ecologist to establish whether ground nesting birds such as lapwing and skylark are nesting within that location. If active bird nests are located, the nest will be marked and all potentially disturbing works within at least 20m of the nest location will be stopped until the active nest had been vacated. Prior to works in the area commencing a further nesting bird survey will be required to establish that no active bird nests were present within the area.	Volume 5.26.3C, Table 4.1	Schedule 3, Requirement 5	Relevant Planning Authority
	3.9.3	<u>Disturbance, Destruction or Displacement of Active Barn Owl Nests</u> Barn owls are protected under Schedule 1 of the Wildlife and Countryside Act and so are protected from disturbance during the breeding season. Barn owls may breed at any time of year. Where works are proposed to be undertaken within 50m of a known barn owl box, the box will be inspected for signs of current nesting activity by a licensed barn owl surveyor a maximum of 24 hours prior to works commencing. Should barn owls be found to be nesting, works will take place within a minimum disturbance buffer distance of 50 m surrounding the nest location while the nest is active. Retained trees with the potential to support breeding barn owl may fall within disturbance distances of works. These will be identified by a licensed ecologist and covered by the measures outlined in this method statement. Any nest boxes lost through the development would be re-instated on a 2:1 basis. The replacement nest boxes will be sited in appropriate habitat as near as possible to the locations of the nest boxes to be removed. There is one barn owl nest box at Portbury Wharf Nature Reserve which it is known will be lost if Option B is taken forward. This will be re-instated as detailed above. Within Portbury Wharf Nature Reserve, if it is not possible to achieve a minimum 100m buffer from barn owl boxes where breeding has been confirmed, an additional barn owl box will be installed in a nearby location but away from works prior to works commencing.	Volume 5.26.3C, Table 4.1	Schedule 3, Requirement 5	Relevant Planning Authority

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
	3.9.4	<u>Disturbance or destruction of active Cetti's Warbler nests</u> Cetti's Warbler is protected under Schedule 1 of the Wildlife and Countryside Act and so is protected from disturbance during the breeding season. Any removal of dense vegetation within the period March to August will require a nesting bird check no more than 48 hours prior to works taking place. If Cetti's warbler is suspected to be nesting, a licensed ecologist may be required to check the nest directly. If Cetti's warbler is breeding, a minimum standoff of 20m will be applied to the nest. This disturbance buffer may be increased at the discretion of the licensed ecologist depending on the proposed works and the habitats present.	Volume 5.26.3C, Table 4.1	Schedule 3, Requirement 5	Relevant Planning Authority
	3.9.5	<u>Disturbance and Destruction of Active Kingfisher Nests</u> Kingfisher is protected under Schedule 1 of the Wildlife and Countryside Act 1981 and so is protected from disturbance during the breeding season. A standoff of at least 5m will be applied to all watercourses. This will increase to 9m in any SSSI. A kingfisher survey will be undertaken by an ecologist prior to works within 8m of a watercourse. If kingfisher is suspected of nesting, a further survey will be undertaken by a licensed ecologist a maximum of 24 hours prior to works taking place to establish whether the kingfisher nest is active. If kingfisher is established to be breeding, a minimum standoff of 20m will be applied to the nest. This disturbance buffer may be increased at the discretion of the licensed ecologist depending on the proposed works and the habitats present.	Volume 5.26.3C, Table 4.1	Schedule 3, Requirement 5	Relevant Planning Authority
	3.9.6	<u>Disturbance or Destruction of Active Common Crossbill Nests</u> Common crossbill is protected under Schedule 1 of the Wildlife and Countryside Act and so is protected from disturbance during the breeding season. If any tree removal is required between Chummock Wood and Mogg's Wood, near Cadbury Camp Lane, a nesting bird check for common crossbill will be undertaken of the trees no more than 48 hours prior to works taking place. If common crossbill is suspected to be nesting, a licensed ecologist will check the nest directly. If common crossbill is established to be breeding, a minimum standoff of 20m will be applied to the nest location. This disturbance buffer may be increased at the discretion of the licenced ecologist depending on the proposed works and the habitats present.	Volume 5.26.3C, Table 4.1	Schedule 3, Requirement 5	Relevant Planning Authority
	3.9.7	<u>Habitat Loss (Breeding and Non-breeding Birds)</u> All hedges, shrub, trees or dense vegetation will be re-instated following works through replacement planting. Any nest boxes lost through the development will be re-instated of a 2:1 basis. Replacement nest boxes will be sited in appropriate habitat as near as possible to the locations of removed nest boxes. All watercourses will be avoided where possible and alterations to hydrology minimised. Any loss of wet grassland habitat will be re-instated following development works.	Volume 5.26.3C, Table 4.1	Schedule 3, Requirement 5 Schedule 3, Requirement 10	Relevant Planning Authority Relevant Planning Authority
	3.9.8	<u>Disturbance/Displacement to Wintering Birds</u> Any works within 250m of the pools at Portbury Wharf will avoid the period of September to April. This period is when wintering birds are especially sensitive to losing feeding time due to disturbance. Any vegetation clearance work will target September to avoid nesting and wintering birds but if it is not possible to complete clearance works in one month then any clearance between October and March will avoid periods of prolonged freezing conditions when birds are more energetically stressed. Vegetation clearance works will not be undertaken following seven consecutive days of frozen conditions in line with JNCC guidance.	Volume 5.26.3C, Table 4.1	Schedule 3, Requirement 5	Relevant Planning Authority

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
	3.9.9	<u>Potential Future Displacement</u> The new 400kV overhead line will pass through the eastern and northern edge of Hallen Marsh. This area is proposed as offsetting habitat for any future proposals at Avonmouth and Severnside that affect the Severn Estuary SPA and Ramsar bird populations. Overhead lines may have a displacement effect on some SPA bird species and the presence of the overhead line could reduce the area of habitat available. Due to the location of the proposed line adjacent to existing linear features such as roads, tracks and hedgerows, this effect is likely to be minimal. However, to compensate for any potential effect, National Grid will commit funds to the Severnside mitigation area fund for habitat creation works by Bristol City Council as and when tenancy issues on the land allow.	Volume 5.26.3C, Table 4.1	Schedule 3, Requirement 5	Relevant Planning Authority
	3.9.10	<u>Impacts on Birds Nesting Opportunistically in Working Areas</u> If any sections of bare ground of more than 0.5ha are left undisturbed (more than 50m from an active working area) for more than 1 week during the breeding season, the area will be checked by an ecologist for any opportunistic nesting bird species. If nesting birds are found, measures appropriate to the species, location and proposed works will be implemented as advised by the ecologist to ensure nests are not destroyed or disturbed while active.	Volume 5.26.3C, Table 4.1	Schedule 3, Requirement 5	Relevant Planning Authority
	3.9.11	<u>Collision Risk to Wintering Birds</u> Bird diverters are proposed at three locations in the south of the new 400kV connection: Pylon ZGA1 through to Pylon ZGA3 (2 spans), Pylon LD2 through to Pylon LD5 (3 spans), Pylon LD8 through to Pylon LD11 (3 spans). National Grid will undertake bird collision monitoring along the connection south of Mark (pylon LD17). The detailed monitoring strategy and bird mortality thresholds are set out in Volume 5.33.1 and will be secured by Schedule 3, Requirement 13 of the DCO. Bird diverters are not proposed at Hallen Marsh due to low levels of bird use in this area. Following proposed future habitat enhancement works at Hallen Marsh the use of this area by wintering birds may increase. Therefore National Grid has committed to fitting bird diverters at Hallen Marsh when a trigger associated with habitat enhancement works has been met. The details are set out in Schedule 3, Requirement 13 of the DCO. Bird diverters are not proposed at Portbury Wharf. Under either route option existing overhead lines at Portbury Wharf will be removed. Under Option B the new 400kV overhead line will be southeast of habitat used by SPA birds. Vantage Point surveys indicate little inland movement of collision risk species from Portbury Wharf Nature Reserve across the proposed 400kV route. Should bird use of the area change in the future, National Grid will implement the National Grid Bird Flight Diverter Protocol which is presented at Volume 5.8.2, Appendix 8G. Vantage point surveys confirm that few bird movements cross the proposed location of the overhead line at the River Avon. This is likely to be due to the presence of the M5 bridge which alters bird flight behaviour reducing potential collision risk. There are currently two existing overhead lines that cross the River Avon at this point and the new line will replace one of these. Should bird use of the area change in the future, National Grid will implement the National Grid Bird Flight Diverters Protocol to fit bird diverters as laid out in Volume 5.8.2, Appendix 8G.	Volume 5.26.3C, Table 4.1	Schedule 3, Requirement 5 Schedule 3, Requirement 13	Relevant Planning Authority Relevant Planning Authority, following consultation with Natural England
Bats	3.10.1	Pre-construction re-inspection surveys comprising aerial assessments and if necessary, bat emergence surveys will be undertaken as required in advance of each phase of the works throughout the duration of construction of the Proposed Development. If bat emergency surveys are required, they will be undertaken at an appropriate time of year for bats (May to September inclusive). The purpose of the surveys will be to establish whether roosting bats are present in any of the trees due to be felled. The surveys will comply with contemporary Bat Conservation Trust (BCT) Guidance. Avon Wildlife Trust (AWT) is known to have installed a number of bat boxes in the Portbury Wharf Nature Reserve. National Grid will consult AWT to obtain the most up to date locations of these prior to pre-construction surveys being undertaken. Should the results of these surveys identify any previously unrecorded bat roosts; the Natural England licence will be amended to cover tree removal to facilitate the construction works.	Volume 5.26.3C, Paragraphs 4.2.12 to 4.2.14	Schedule 3, Requirement 5	Relevant Planning Authority
	3.10.2	If any additional roosts are identified, the proposed works would be reviewed to see if any adjustments can be made. This may be more practical for roosts affected by access tracks than for roosts in trees under or near the 400kV line. Nevertheless the licencing process requires consideration as to whether there are any satisfactory alternatives. Following the surveys a review of the proposed works will be undertaken. Where possible, works including access tracks will be micro sited to ensure works are not undertaken within 30m of a bat roost	Volume 5.8.1, Paragraph 8.7.92 Volume 5.26.3C, Paragraph 4.2.15	Schedule 3, Requirement 5	Relevant Planning Authority

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
	3.10.3	Prior to construction works commencing a buffer area will be marked out around all bat roosts within 30m of works using high-visibility tape or fencing as appropriate. The locations and potential impacts on the 27 roosts to be affected by the Proposed Development are set out in Table 4.3 of the BMS (Volume 5.26.3C).	Volume 5.26.3C, Paragraph 4.2.16	Schedule 3, Requirement 5	Relevant Planning Authority
	3.10.4	Where trees containing roosts require felling, a programme of exclusion to ensure that no bats remain within the roost prior to felling will be implemented. This will be undertaken in accordance with the methods detailed within the NE licencing requirements. Roost trees will be removed using section felling and will be undertaken in the presence of a licensed ecologist and the ECoW (unless the ECoW is a licensed bat worker and can supervise the works independently). The roost will be destroyed using controlled methods either by hand or with appropriate machinery.	Volume 5.26.3C, Paragraphs 4.2.17 and 4.2.18	Schedule 3, Requirement 5	Relevant Planning Authority
	3.10.5	Where removal of a bat tree roost or significant pruning is necessary, 3 replacement boxes will be installed on a mature tree close to the original roost. Boxes will be fixed to ensure no loss of roost structure or type. Where orientation of original roosting feature is specific at least one box will be in this direction. Hibernation boxes will be included where the cavity in the lost tree roost is greater than 40cm deep. Specifications regarding design and type of artificial roost are detailed with the licence method statement.	Volume 5.26.3C, Paragraphs 4.2.19 and 4.2.20	Schedule 3, Requirement 5	Relevant Planning Authority
	3.10.6	Roosts will only be destroyed at a time of year when bats are not present (assessed by a conclusive check), or avoiding the most sensitive seasons for that type of roost. Breeding roosts will not be subject to any destruction during the breeding season (April-August inclusive). Hibernation roosts will not be subject to any destruction within the hibernating season (November to March inclusive).	Volume 5.26.3C, Paragraph 4.2.21	Schedule 3, Requirement 5	Relevant Planning Authority
	3.10.7	Individual and low numbers of bat droppings were found at Ashtrees Farm but emergence surveys in 2014 did not record any bats using the buildings. The farm buildings will be oversailed by the 400kV overhead line and will be demolished as part of the Proposed Development. Bat roosts surveys generally have to be updated after a year; therefore repeat surveys will be undertaken in the active season prior to demolition. If updated surveys identify roosting bats, National Grid will maintain the favourable conservation status of the bats by retaining and enhancing one of the farm buildings as a bat roost.	Volume 5.26.3C, Paragraph 4.2.22	Schedule 3, Requirement 5	Relevant Planning Authority
	3.10.8	Any bat roost subject to works under licence will be monitored during and after the works as per the NE bat licence method statement.	Volume 5.26.3C, Paragraph 4.2.23	Schedule 3, Requirement 5	Relevant Planning Authority
	3.10.9	Significant impacts on bats are anticipated from the 400kV underground cables installation in the Mendip Hills and construction of Sandford Substation. The approach to maintaining bat flight paths, foraging habitat and minimising lighting impacts during construction are set out in section 2.2 of the BMS (Volume 5.26.3C) under the approach to the North Somerset and Mendips Bat SAC and Mendips Limestone Grassland SAC. Linear stretches of vegetation will be maintained as 2m high lines of scrub and hedge where such features are crossed by the overhead line. This will maintain bat commuting corridors during the construction works. Other than the areas of permanent losses, hedgerows will be replanted in their original positions and agricultural grasslands re-seeded on phased completion of the works. The hedgerow planting mixes and specifications are described in the Arboricultural Impact Assessment (Volume 5.21.1B, 5.21.2A and 5.21.3B). Site-specific planting schemes have been previously referenced (see Volume 5.26.3C, paragraph 2.2.23). Other than the areas of permanent losses, hedgerows will be replanted in their original positions and agricultural grasslands re-seeded on phased completion of the works. In the case of horseshoe bats associated with the European sites, National Grid would minimise hedgerow losses by pinching working areas at hedgerow crossings and would provide temporary flyways along removed sections of hedges to maintain potential bat commuting routes that would be temporarily lost due to installation works of underground cables. Other temporary measures to maintain bat foraging opportunities would be employed (and are detailed in section 5 of Volume 5.20.1A). On completion of the cable installation, native species hedges would be replanted. Light pollution from construction activities and temporary compounds onto bat commuting routes and foraging habitats can also have a barrier effect on horseshoe bats and therefore lighting schemes would be designed to avoid impacting bats.	Volume 5.26.3C, Paragraphs 4.2.24 to 4.2.27 Volume 5.20.1A, Paragraph 2.5.6	Schedule 3, Requirement 5	Relevant Planning Authority
Dormouse	3.11.1	Generic methods of working with regard to hedgerow or tree removals will be adopted in areas which provide potential habitat for dormouse. Section 3.4 of the BMS (Volume 5.26.3C) details the methodology for works affecting hedgerows. The Arboricultural Impact Assessment	Volume 5.26.3C, Paragraphs	Schedule 3, Requirement 5	Relevant Planning Authority

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
		(Volume 5.21.1B) provides methods for tree removal. Prior to removal of hedgerows or woodland habitat within the Mendip Hills AONB or between Stone Edge Batch and the M5 Motorway, the ECoW will instigate hand searches for evidence of dormice, dormouse nests and, where relevant, feeding remains. If evidence of dormouse activity is found works will cease in that area, Natural England will be consulted and a licence application will be submitted to NE for the proposed works.	4.3.9 and 4.3.10	Schedule 3, Requirement 12	Relevant Planning Authority
	3.11.2	A licence application is likely to include the following approaches: a) where sections of hedgerow require removal and support dormouse, these will be subject to pre-construction checks by the ECoW immediately prior to works. If dormice are found to be present, an exclusion zone of 5m will be established along the hedge until it can be confirmed that no dormice are present; b) where practicable, hedges will be translocated in order to minimise the time taken for new habitat to become established. However, dormouse records and surveys have suggested dormouse are absent from the route and as such the use of this method is not anticipated; c) the use of 'dead hedging' will be utilised in the interim periods between hedge removal and prior to hedge replanting or translocation, in order to maintain connectivity between dormouse habitats. These will be searched by a licensed ecologist each time they are moved to ensure no dormouse nests have been constructed overnight; d) clearance will seek to minimise removal of species valuable to dormouse where possible, for example bramble, hazel and oak; e) where ground clearance is required, this will be done by hand to minimise disturbance and injury to any animals; f) species planting in suitable areas will reflect the habitat preference of dormice. This would include species important for dormice as listed above and a range of mixed shrub hedges that provide alternative food sources. Additional guidance on suitable hedge planting is detailed within the Off-Site Planting Enhancement Strategy; and g) further opportunities for additional habitat enhancement would be sought to ensure habitat links and maintenance of local population such as provision of nest boxes, gapping up hedgerows etc.	Volume 5.26.3C, Paragraph 4.3.11	Schedule 3, Requirement 5	Relevant Planning Authority
Water Voles	3.12.1	The Water Vole Method Statement for the Proposed Development was drafted and submitted to Natural England for review. Natural England has confirmed their acceptance of this document. The full Water Vole Method Statement is detailed in Appendix F. The guidance on water vole mitigation and licensing requirements are currently under review and changes to advice may occur during the examination period for the HPCCP. It is understood that the likely changes will include a requirement for two survey visits rather than one, a reduction in the threshold (length) of affected water vole habitat that would necessitate trapping (rather than passive displacement) and potentially although currently not certain, the need to licence displacement activities (rather than just trapping). It is not currently possible to produce a draft licence application as the works being proposed do not at this time require a licence. However, National Grid commits to adhering to any consenting requirements that might apply prior to or during the construction of the Proposed Development. The method statement provided in full at Appendix F has been designed to take account of the potential changes to water vole mitigation guidance as follows: • The pre-commencement surveys allow for a two visit strategy. • The proposed displacement works are all below the proposed 50m threshold. It is therefore considered that should licensing for displacement be introduced, then the approach to mitigation would be appropriate for any licence application be it under an individual consultant Class licence or a site specific licence. The overriding approach of the water vole method statement is that of displacement rather than trapping. However, National Grid acknowledges that there is a small risk that water voles will remain within the affected burrows, notwithstanding the displacement proposals. Should this occur, a trapping licence will be obtained from Natural England and trapping will be undertaken utilizing best practice, in accordance with the Water Vole Conservation Handbook.	Volume 5.26.3C, Paragraph 4.4.8 to 4.4.11 Volume 5.26.3C, Appendix F	Schedule 3, Requirement 5	Relevant Planning Authority

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
Otter	3.13.1	Pre-construction surveys will be undertaken a maximum of four months prior to the start of the construction works. Pre-construction surveys will inspect for breeding sites, holts, couches and resting places. In the event that otter holts or other rest areas are found during pre-construction checks, NE will be consulted and a licence sought to allow works to commence. A licence application is likely to include the following approaches: a) if any resting places are identified within 50m of the working area it may be necessary to create new features in advance of works commencing. These activities potentially will be completed under NE licences; b) all works near water will be undertaken in accordance with the Watercourse Crossing Method Statement as described in Section 3.7 above, to ensure protection against pollution; c) disturbance during the works would be minimised by imposing a buffer of least 30m around any otter holt, couch or resting place before any work starts on site. This buffer would be fenced to restrict construction disturbance, whilst not affecting otter movements. It would be clearly demarcated using coloured tape, chestnut pale fencing, steel mesh fencing or similar; d) if a holt is identified and supports or is suspected of supporting otter cubs works within150m of the natal den will cease for approximately 8-10 weeks until the cubs are mobile, or presence of cubs is ruled out; e) access to the riparian corridor utilised by otter would be retained at all times; Impacts to established otter paths and traditional routes between such areas (such as field drains) during the construction phase would be minimised; f) excavations and trenches will be boarded or fenced if works are not completed daily. In exceptional circumstances, if trenches are required to be left open overnight then measures will be put in place to ensure otters, badgers and other mammals cannot become trapped in them. This will include the provision of ramps or mammals ladders to ensure animals can exit excavations, This must be agreed in advance with the ECoW who will also be responsible for overseeing the installation of a means of egress from the excavations; and g) culvert pipes stored on site will be capped or if caps are not available, stored vertically to prevent otter entrapment.	Volume 5.26.3C, Paragraph 4.5.11	Schedule 3, Requirement 5	Relevant Planning Authority
	3.13.2	Night time disturbance to otters during the construction phase is unlikely. 24hour working will be limited to underground cable joint bays which will take place under cover thereby minimising potential disturbance from noise, light and general activity. During winter periods, works may extend into dusk and dawn periods, but safety considerations will limit these incidents. Works in the vicinity of watercourses showing signs of regular use by otters will not take place at night or within two hours of sunset or sunrise.	Volume 5.26.3C, Paragraph 4.5.12	Schedule 3, Requirement 5	Relevant Planning Authority
	3.13.3	Micro-siting of pylon installation and works access will be agreed with the ECoW. The ECoW will verify each pylon location and access position within the working area and will advise on adjustments and/or additional mitigation requirements.	Volume 5.26.3C, Paragraph 4.5.13	Schedule 3, Requirement 5	Relevant Planning Authority
	3.13.4	The EA has requested that any incidents of otter kills (traffic casualties) noted during the works are recorded. These will be logged and the records will be provided to Cardiff University (if the current otter research project is still ongoing). If required by Cardiff University, any otter carcases found will be retained and (if possible frozen). The speed limit on the construction site will be enforced to help reduce collision risk for wildlife such as otter.	Volume 5.26.3C, Paragraph 4.5.14	Schedule 3, Requirement 5	Relevant Planning Authority
Badger	3.14.1	All works within 30m of known badger setts will be carried out under Natural England licence. Pre-construction surveys will be undertaken in advance of each phase of construction works commencing. The surveys will be undertaken a maximum of 12 months prior to the start of construction. Pre-construction surveys will include a minimum of 30m beyond pylon locations and access tracks, increasing to 100m in areas of potential high noise and vibration. The pre-construction surveys will assess whether setts are active, inactive or defunct. All active setts will be marked using tape prior to any works commencing. The distance of the exclusion zone from the sett will be determined by the ECoW on a case-by-case basis. No works will be undertaken within the badger sett exclusion zone.	Volume 5.26.3C, Paragraphs 4.6.5 to 4.6.8	Schedule 3, Requirement 5	Relevant Planning Authority
	3.14.2	In advance of any construction works commencing, the ECoW will be consulted and will provide a toolbox talk. All contractors will sign to confirm attendance at the toolbox talk and acceptance and understanding of the BMS.	Volume 5.26.3C, Paragraph 4.6.9	Schedule 3, Requirement 5	Relevant Planning Authority

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
	3.14.3	Any new potential badger setts identified during vegetation clearance works by the ECoW or contractors will be verified and undergo a status check by the ECoW. If it is determined that an active badger sett has been found that will be directly affected by the proposed construction works, works will cease immediately. The impact of the proposed work will then be assessed by the ECoW and appropriate mitigation recommended.	Volume 5.26.3C, Paragraph 4.6.10	Schedule 3, Requirement 5	Relevant Planning Authority
	3.14.4	Micro-siting of pylon installation and works access will be agreed with the ECoW and where possible will be modified to ensure all ground works are a minimum of 30m from any sett. The ECoW will verify each pylon location and access route within the working area and will advise on adjustments and mitigation requirements.	Volume 5.26.3C, Paragraph 4.6.11	Schedule 3, Requirement 5	Relevant Planning Authority
	3.14.5	The acceptable working distance from a badger sett can be assessed only on a case-by-case basis and is dependent on the extent and type of the proposed works. Destruction of a badger sett will only be undertaken as a last resort. In most cases the badger sett will be protected from disturbance and potential damage by the exclusion zone marked in advance of construction works commencing. Where appropriate any setts subject to disturbance under licence may be temporarily excluded until the works are completed.	Volume 5.26.3C, Paragraph 4.6.12	Schedule 3, Requirement 5	Relevant Planning Authority
	3.14.6	There are currently no proposals for closure of a main sett and no requirements in the draft badger licence to create a replacement sett. However, in the unlikely event that a replacement sett is required, the construction of an artificial sett will be completed six months prior to the start of works to close the existing sett. There are requirements in the draft licence to exclude and close outlier or subsidiary setts. Disturbance to a badger sett will be permitted only under licence from July to November inclusive under strict ECoW supervision. This is to avoid the period between December to June when badgers are likely to be breeding and are more susceptible to disturbance.	Volume 5.26.3C, Paragraphs 4.6.13 and 4.6.14	Schedule 3, Requirement 5	Relevant Planning Authority
	3.14.7	To exclude badgers from a sett, badger gates will be installed and initially will be left open to allow badgers to enter and exit the sett. Following a period of monitoring for approximately 7 days, the gates will then be set to allow badgers to exit but prevent them from re-entering. Sand traps will be installed at the entrance to any holes and these will be monitored daily to record any evidence of badger activity. Once it is confirmed that no badgers are present in the holes, the gates will be closed permanently and the sett destroyed under licence by hand or using appropriate machinery under supervision of the ECoW.	Volume 5.26.3C, Paragraphs 4.6.15 and 4.6.16	Schedule 3, Requirement 5	Relevant Planning Authority
	3.14.8	No trees or shrubs will be felled in such a way that they fall within 20m of a badger sett. If necessary, section felling will be used to ensure there is no ground disturbance or damage to an existing sett. No cut vegetation will block existing badger paths identified by the ECoW.	Volume 5.26.3C, Paragraphs 4.6.17 and 4.6.18	Schedule 3, Requirement 5	Relevant Planning Authority
	3.14.9	Trenches or excavations near badger setts will not be left open overnight and will be boarded or fenced at the end of each day or egress ramps will be provided.	Volume 5.26.3C, Paragraph 4.6.19	Schedule 3, Requirement 5	Relevant Planning Authority
	3.14.10	Badger foraging areas will be maintained as far as possible during the construction works and will not be obstructed.	Volume 5.26.3C, Paragraph 4.6.20	Schedule 3, Requirement 5	Relevant Planning Authority
	3.14.11	Soils and habitats will be reinstated on conclusion of works. Excavated soil will be stored in an area agreed with the ECoW and will not obstruct existing badger paths or interfere with any active setts by preventing access and egress. Areas of excavated spoil also will be subject to periodic checks by the ECoW in order to ensure that these have not become colonised by badger.	Volume 5.26.3C, Paragraphs 4.6.21 and 4.6.22	Schedule 3, Requirement 5	Relevant Planning Authority
				Schedule 3, Requirement 15	Relevant Planning Authority
				Schedule 3, Requirement 21	Relevant Planning Authority, following consultation with the Environment Agency or Relevant Drainage Authority - as appropriate

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
	3.14.12	Where amphibian fencing intersects a badger path, ramps will be provided to allow badger movement throughout the site. Where construction fencing is installed along haul roads or underground construction swathes, it will be made permeable to badger to allow movement across the local landscape.	Volume 5.26.3C, Paragraphs 4.6.23 and 4.6.24	Schedule 3, Requirement 5	Relevant Planning Authority
				Schedule 3, Requirement 16	Relevant Planning Authority
	3.14.13	No buckets or barrels of liquid will be left uncovered or heavy objects left propped against trees or other structures overnight because badgers are highly inquisitive and strong mammals and will push over objects.	Volume 5.26.3C, Paragraph 4.6.25	Schedule 3, Requirement 5	Relevant Planning Authority
	3.14.14	Any temporarily exposed pipe system will be capped when contractors are off site to prevent badger from gaining access.	Volume 5.26.3C, Paragraph 4.6.26	Schedule 3, Requirement 5	Relevant Planning Authority
Brown Hare	3.15.1	The existing arable fields, grassland, hedgerows and woodland within the Order Limits are likely to provide sufficient foraging areas for brown hare. Removal of vegetation in arable fields, grassland hedgerows and woodland to facilitate construction access to working areas will be carried out in the presence of the ECoW.	Volume 5.26.3C, Paragraph 4.7.7	Schedule 3, Requirement 5	Relevant Planning Authority
	3.15.2	During March to September pre-construction checks for leverets will be made by the ECoW immediately ahead of site clearance in arable and pasture fields.	Volume 5.26.3C, Paragraph 4.7.8	Schedule 3, Requirement 5	Relevant Planning Authority
	3.15.3	Generic best practice measures as detailed in sections 2 and 3 of the BMS (Volume 5.26.3C) will be adhered to in order to prevent disturbance to brown hare.	Volume 5.26.3C, Paragraph 4.7.9	Schedule 3, Requirement 5	Relevant Planning Authority
	3.15.4	Excavations will be boarded or fenced at the end of each day to prevent hares becoming trapped. Where closing excavations is not possible, ramps will be provided to allow any trapped animals to escape.	Volume 5.26.3C, Paragraph 4.7.10	Schedule 3, Requirement 5	Relevant Planning Authority
				Schedule 3, Requirement 16	Relevant Planning Authority
Hedgehog	3.16.1	The removal of hedgerow and areas of rough field margins will be minimised to avoid disturbance or loss of habitat used by hedgehog for shelter and foraging.	Volume 5.26.3C, Paragraph 4.8.5	Schedule 3, Requirement 5	Relevant Planning Authority
				Schedule 3, Requirement 12	Relevant Planning Authority
	3.16.2	Connectivity along field margins and hedgerows will be retained where feasible via the methods detailed within the hedgerow method statement in section 3 of the BMS (Volume 5.26.3C). Where vegetation removal is required, this will be undertaken in the presence of the ECoW.	Volume 5.26.3C, Paragraphs 4.8.6 and 4.8.7	Schedule 3, Requirement 5	Relevant Planning Authority
				Schedule 3, Requirement 12	Relevant Planning Authority
	3.16.3	Generic best practice measures as detailed in section 2 of the BMS (Volume 5.26.3C) will be adhered to in order to prevent disturbance to hedgehog.	Volume 5.26.3C, Paragraph 4.8.8	Schedule 3, Requirement 5	Relevant Planning Authority

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
	3.16.4	Excavations will be boarded or fenced using steel mesh fencing at the end of each day to prevent hedgehog becoming trapped. Where closing excavations is not possible, ramps will be provided to allow any trapped animals to escape.	Volume 5.26.3C, Paragraph 4.8.9	Schedule 3, Requirement 5	Relevant Planning Authority
				Schedule 3, Requirement 16	Relevant Planning Authority
Amphibian – Great Crested Newts	3.17.1	<u>Pre-commencement Survey</u> All works to GCN habitat will be carried out under Natural England licence (generally up to 500m from a confirmed GCN breeding pond/ditch). A draft GCN licence has been reviewed by NE EPS licensing team. This draft licence has been updated with the results of the 2014 surveys and any amendments to the GCN licence method statement as a result of NE's comments will be reflected in updates to the BMS. If the DCO is granted, an application will be made for a full licence in accordance with NE's approach to NSIP EPS licensing. The licence documentation details the full scope of legal requirements for works affecting great crested newts and will dictate said works. The following summary is only provided as a high level overview. The surveys of 2013 and 2014 provide a reliable estimate of population size and distribution until at least 2016. For any working areas where construction will start after October 31st 2016, a repeat aquatic survey will be carried out of ponds or ditches within 250m of works. The survey techniques will be agreed with NE and the results will be used, if needed, to obtain a modification to the licence.	Volume 5.26.3C, Paragraph 4.9.8 and 4.9.9	Schedule 3, Requirement 5	Relevant Planning Authority
	3.17.2	<u>Capture and Exclusion Techniques</u> All construction areas within 250m of GCN breeding water bodies will be excluded and trapped, using Temporary Amphibian Fencing (TAF) and pitfall traps. Pitfall traps will be installed every 10m along the internal edge of the exclusion fence. Drift fencing will be installed to increase trapping efficiency. Drift fences will be sited at locations where amphibian capture is most likely such as alongside ditches and hedges. Where necessary, stock proof fencing will be installed 1m on the outside of the amphibian exclusion fencing to protect it from livestock and farming practices, or from public access, for example alongside footpaths. Trapping will continue for 30 or 60 eligible nights depending on the population size in nearby water bodies. On completion of the trapping period, refuge habitats in the excluded areas will be subject to destructive searching and hand-capture. Destructive searching of any hedgerows, scrub or other places of refuge within the trapped site areas will be undertaken within the 25-30 day or 55-60 day period depending on the GCN population size. Trapped areas will be mown or strimmed within the last 5 days of the trapping period to encourage the remaining amphibians to move. Captured amphibians will be taken to a release site close to the breeding water body as detailed in the GCN NE licence method statement. The TAF will be maintained for the duration of construction works. During the period of capture, fence inspections and repairs will be carried out daily by the licensed ecologist to ensure the integrity of the apparatus. On completion of capture and installation of ditch crossings, the perimeter TAF will be formally handed over from the licenced ecologist to the main contractor along with a duty of care procedure and a toolbox talk. During any periods of engineering activity within an excluded area, the contractor will inspect (and repair) the TAF and associated stock proof fence daily and maintain a log of inspections and repairs. During periods when there is no engineering activity, the contractor will carry out a fence inspection and repair and log once a month. This is adequate for most of the farmed areas, but the frequency of inspections will be greater in areas near public footpaths and areas of greater public presence. The licensed ecologist will make separate inspections and minor repairs on a monthly basis (two monthly in winter). In most instances where contractors require access through the perimeter TAF to access works areas, a newt-proof gate will be installed by fixing a flap of heavy-duty membrane to a field gate. In some instances where traffic is at regular high levels or a gate is not permitted, the access point may remain open, and to deflect newts accessing the carriageway, the perimeter TAF on each side of the construction track will be turned outwards by 90 degrees at the point where it meets the access point and the TAF will be continued for at least 5m. At Sandford Substation, TAF also will be used beyond the 250m zone to ensure the perimeter of the works areas remains inaccessible to ranging newts. Here one-way TAF will be used in combination with Reasonable Avoidance Measures (RAMs) such as hand-searching techniques, since the substation site is over 400m from known GCN breeding sites. The majority of works are of a temporary nature, and following installation of pylons, underground cables, temporary access roads and compounds, the existing habitats and land uses will be restored. The TAF will then be removed, enabling GCN to recolonize terrestrial habitats	Volume 5.26.3C, Paragraphs 4.9.10 to 4.9.21	Schedule 3, Requirement 5	Relevant Planning Authority
				Schedule 3, Requirement 16	Relevant Planning Authority

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
	3.17.3	<u>Reasonable Avoidance Measures (RAM)</u> Construction areas between 250m and 500m from known GCN breeding ponds will be subject to Reasonable Avoidance Measures (RAMs). RAMs include habitat manipulation, hand searches of potential amphibian shelter habitats, use of Artificial Cover Objects (ACOs) that do not entrap amphibians and targeted works supervision. Captured amphibians will be moved to the release site. Excavations in these areas will not be left open overnight, or will be provided with egress ramps and subject to inspection.	Volume 5.26.3C, Paragraph 4.9.22	Schedule 3, Requirement 5	Relevant Planning Authority
	3.17.4	<u>Temporary Loss of GCN Water Body</u> There will be three temporary crossings along ditches where GCN were found to be present during the 2013 surveys. These ditches are at Rooks Bridge and Portbury Wharf and are illustrated in the GCN NE licence method statement. The crossings at Rooks Bridge will require culverts to be installed to enable construction access roads to be built. A section of the ditch at Portbury Wharf will be open cut to allow the 132kV underground cables (BW Route) to be installed into Portishead Substation. As the ditches support flowing water, it would not be possible to enclose them with TAF for a long period. TAF will be placed along the ditch banks and trapped for 30 or 60 days dependent on the GCN population size. On completion of trapping and outside the GCN breeding season, the banks will be strimmed and searched and the ditch netted prior to infilling and culvert placement. On completion of the works, the culverts will be removed. Under the supervision of a licenced ecologist hand-searching for GCN, the culverts will be removed and the ditch banks re-profiled to match existing retained sections. Topsoil will be applied to 250mm depth and the banks will be re-seeded with a standard grass mix suitable for water body banks. Once reinstatement is complete, amphibian fencing will be removed.	Volume 5.26.3C, Paragraphs 4.9.23 and 4.9.24	Schedule 3, Requirement 5	Relevant Planning Authority
	3.17.5	<u>Habitat Restoration and Creation</u> The terrestrial habitats subject to temporary exclusion and construction works will be reinstated to their former condition. Opportunities will be taken to enhance amphibian conditions, notably through the creation of species-rich hedges with amphibian refuge opportunities incorporated into the hedge bases. At Sandford Substation, where the scheme involves a permanent loss of GCN habitat, improvements will be made to nearby areas to improve amphibian holding-capacity. Terrestrial habitats will be replaced broadly on a 1:1 basis, but with enhanced quality of refuge habitat. The design of the habitat improvements will ensure that existing amphibian dispersal corridors are maintained or replaced. Temporary engineering features such as culverts will be removed on project completion. These removal and reinstatement operations will occur within the areas excluded by perimeter TAF. Culvert crossings and final removal of perimeter TAF will be subject to supervision by an ecologist and will take place during seasons when amphibians are active, in accordance with guidelines. Removal of engineering features and habitat reinstatement in the 250m to 500m zone will be subject to prior hand-searching and use of RAMs (as listed above) to prevent injury to amphibians.	Volume 5.26.3C, Paragraphs 4.9.25 to 4.9.28	Schedule 3, Requirement 5	Relevant Planning Authority
	3.17.6	<u>Maintaining Connectivity during Works</u> The intention is to install temporary road crossings as soon as possible in order to release the ditch for its previous use by wildlife, so that the ditches remain as wildlife connections during the period of construction and amphibian exclusion. The footprint of each ditch crossing will be within a larger area subject to general exclusion using perimeter fencing as outlined above. Trapping and removing of newts from within the excluded areas will include drift fences installed along the bank tops and used for capture of amphibians. Bankside vegetation will be strimmed in the crossing footprint under supervision. The strimming will be carried out in two stages: initially to 150mm height and subsequently to ground level. At several locations within the Order Limits, liner sections of amphibian fencing will be required to exclude GCN from working areas. NE had requested that regular GCN crossing points are provided across these areas to prevent GCN populations from becoming fragmented and isolated from breeding or foraging grounds. The location of these crossing points is provided in the GCN NE licence method statement. Outside of winter, site staff will be responsible for opening and closing these crossing points to ensure GCN are able to move across the working areas at night. The ECoW will be responsible for ensuring (and keeping records to demonstrate) that these crossing points are operated as set out in the licence; non-conformance reports will be issued where this is not the case.	Volume 5.26.3C, Paragraphs 4.9.29 to 4.9.32	Schedule 3, Requirement 5	Relevant Planning Authority
Amphibian – Common Toad	3.18.1	In areas covered by the GCN method statement, common toad and other amphibians will be humanely captured and released along with the newts. Outside of these areas, common toad is likely to be associated with watercourses and hedges.	Volume 5.26.3C, Paragraph 4.9.33	Schedule 3, Requirement 5	Relevant Planning Authority

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
	3.18.2	Hedgerow and Watercourse Crossing Method Statements should be referred to in relation to vegetation management in areas likely to support common toad. The reptile method statement will also be referred to.	Volume 5.26.3C, Paragraph 4.9.34	Schedule 3, Requirement 5	Relevant Planning Authority
	3.18.3	The ECoW will undertake a hand search ahead of vegetation clearance along ditch and watercourse habitats. Any toads captured will be translocated to areas of similar habitat.	Volume 5.26.3C, Paragraph 4.9.35	Schedule 3, Requirement 5	Relevant Planning Authority
Reptiles	3.19.1	Due to the temporary nature of the majority of the works, reasonable avoidance measures (RAMs) to prevent injury or impacts to reptiles will be implemented across the Proposed Development. Specific mitigation is detailed where there would be permanent impacts and large working areas. These measures will also benefit common toad.	Volume 5.26.3C, Paragraph 4.10.23	Schedule 3, Requirement 5	Relevant Planning Authority
	3.19.2	<u>Temporary Short Term Works, Small Working Areas and Works Affecting Sub-optimal Habitats</u> *Pre-commencement Survey* During the 12 months prior to the start of works, all habitats will be assessed for their potential to support reptiles. The presence of potential hibernation features within the working area also will be recorded. The purpose of the assessment will be to determine where reptiles may be present and therefore where impacts may take place. Where no suitable reptile habitat is present and no impact is predicted no further action will be required. Where suitable reptile habitat is present and potential impacts are predicted, displacement of reptiles from the working area will be required.	Volume 5.26.3C, Paragraphs 4.10.25 to 4.10.26	Schedule 3, Requirement 5	Relevant Planning Authority
	3.19.3	<u>Displacement</u> Following the identification of suitable reptile habitats, a process of habitat degradation will be undertaken. Working areas in areas of habitat suitable for reptiles will be subjected to a staged strimming regime to encourage reptiles to leave the working area and also dissuade reptiles from entering the site. Reptile displacement will take place between March and June, during suitable weather conditions and taking account of seasonal conditions. During the spring months reptiles will be active and females will not yet be carrying eggs. Displacement during spring also allows reptiles to become established in the adjacent habitats prior to colder conditions in winter. Working areas firstly will be cut to a height of 150mm (arisings removed) across all reptile habitats to be affected by works. Each area will be progressively cut from the centre of the working area toward the edges, taking care not to affect the lower sward, to encourage movement of reptiles into adjacent habitats under their own volition. Following the initial cut, potential sheltering and hibernation features will be removed by hand where size allows. This will include features such as log piles, branches, piles of stone and rubble, and large grass tussocks. These features will be placed/carefully created in the adjacent habitat to maintain availability for use by reptiles. Following a minimum of 5 days following the initial cut, a second cut to a height of 10-50mm will take place (arisings again removed). Any reptile encountered during the clearance works will be relocated by hand using the method and welfare precautions set out under 'Works Overlapping with Great Crested Newt Licenced Trapping Activities' below. Larger features suitable for sheltering reptiles, such as fallen trees and rocks, will be moved using machines under the supervision of an ecologist following completion of vegetation clearance. Slow-worms do not tend to bask out in the open, as is observed in the common lizard, instead preferring to hide under objects that will be warmed by the sun or will create their own warmth such as compost heaps or dead wood. The species is also less mobile. Where features that may support slow worms below ground are present, excavation using machinery may be required under the supervision of an ecologist. Again, any slow worms found will be moved to suitable adjacent habitat and released by hand Following clearance, the vegetation in working areas will be kept short to maintain these as unfavourable and discourage reptiles from re-entering the area. Once topsoil stripping has been undertaken the site will no longer be suitable for use by reptiles. If during displacement activities large numbers of reptiles are being encountered the ECoW will consult the LPA ecologist to determine if a trapping scheme is required and agree the details of any such scheme.	Volume 5.26.3C, Paragraphs 4.10.27 to 4.10.34	Schedule 3, Requirement 5	Relevant Planning Authority

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
	3.19.4	<u>Construction of Permanent Structures</u> Where potential impacts will cover a large (non-linear) area such as the site of Sandford Substation, passive displacement is unlikely to be successful because of the larger distances that reptiles are required to move. In these instances, a scheme of exclusion, trapping and relocation will be required. Additionally, where hibernation features are present within the site a similar trapping scheme will be required.	Volume 5.26.3C, Paragraphs 4.10.35 and 4.10.36	Schedule 3, Requirement 5	Relevant Planning Authority
	3.19.5	<u>Pre-commencement Survey</u> During the 12 months prior to the start of works, all habitats will be assessed for their potential to support reptiles. The presence of potential hibernation features within the working area will also be recorded. The purpose of the survey will be to determine where reptiles may be present and where impacts may take place. Where no suitable reptile habitat is present and no impact is predicted no further action will be required. Where suitable reptile habitat is present and potential impacts are predicted, displacement of reptiles from the working area will be required as detailed above for the temporary structures. Exclusion and trapping may also be required.	Volume 5.26.3C, Paragraphs 4.10.37 and 4.10.38	Schedule 3, Requirement 5	Relevant Planning Authority
	3.19.6	<u>Exclusion and Trapping</u> Following the identification of suitable reptile habitats, a process of exclusion, trapping and translocation will take place. Exclusion and trapping schemes will be undertaken between March and June, during suitable weather conditions. During the spring months reptiles will be active and females will not yet be carrying eggs. Trapping and translocation during spring also allows reptiles to become established in the adjacent habitats prior to colder conditions in winter. Where necessary trapping can extend beyond June but should not extend beyond mid-September. However, hot dry weather conditions may reduce reptile capture rates and account will be taken of this when assessing trapping success. Habitats identified as providing suitable reptile habitat that will be affected by works will be fenced using reptile proof fencing. The fence will enclose all reptile habitats to be affected. Artificial Cover Objects (ACOs), consisting of a mix of 0.5m^2 corrugated metal sheets and roofing felt tiles will be placed within the fenced areas within suitable positions. A minimum of 50 ACOs per hectare will be used for trapping schemes. During the trapping period, vegetation will be cut under the supervision of an ecologist to encourage reptiles to move closer to the ACOs. Cutting will be carried out in two stages as described for 'Temporary Short Term Works' above. Due to the low population sizes of reptiles identified, a minimum 60 days of trapping will be undertaken at each exclusion area. A minimum 5 days without capture or observation at the end of the 60 day trapping period will be used to deem that the area is free of reptiles. Reptiles will be caught by hand and transferred to the release site using a cloth sack. Where adders may be present snake poles and gauntlets will be used. Following completion of the trapping period, a destructive search of habitats will be undertaken. This will include destruction of features suitable to support sheltering reptiles, using machines under the supervision of an ecologist. This is likely to include the destruction of potential hibernation features where destruction cannot be avoided. Features which may also support slow worms below ground may require careful excavation under the supervision of a suitably qualified ecologist (as described for 'Temporary Short Term Works' above) to ensure that animals are not present. Where small numbers of reptiles are captured during the destructive search they will be moved to the receptor area. Where large numbers of reptiles are identified during the destructive search, the option of recommencing trapping will be considered. Due to the low population sizes identified across the development site, captured reptiles can be moved directly to adjacent suitable habitats. Where hibernation features are to be lost, replacement features will be constructed outside of the excluded area prior to the start of the trapping scheme. Following successful clearance of reptiles, the exclusion fencing will remain in place and works will begin in the site. Following completion of works, including any landscaping works, habitats will be reinstated and exclusion fencing removed.	Volume 5.26.3C, Paragraphs 4.10.39 to 4.10.49	Schedule 3, Requirement 5	Relevant Planning Authority

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
	3.19.7	<u>Works Overlapping with Great Crested Newt Licenced Trapping Activities</u> Where great crested newt breeding ponds are present within 250m of areas affected by the proposed development, translocation schemes will be implemented under licence from NE. The translocation scheme will involve installing amphibian proof fencing around all affected areas and the implementation of a trapping scheme. Where amphibian-proof fencing is installed, it will not be possible to displace reptiles by manipulating habitats as their movements will be prevented by the amphibian exclusion fence. Where NE GCN licensed clearance overlaps with potential reptile habitats, the area will be cleared of reptiles as well as GCN using reptile trapping methods. A mix of tin and felt ACOs will be placed within the fenced areas in suitable places. Ecologists checking pitfall traps for amphibians also will inspect ACOs for reptiles. During checking ecologists will carry both a bucket for collecting amphibians and a cloth sack for collecting reptiles. It is likely that where pitfall traps are used to capture amphibians, reptiles also will be captured. Amphibians may also be found using ACOs for shelter. Amphibians and reptiles will be released in different locations to prevent predation. To minimise fragmentation effects on reptiles within Portbury Wharf Nature Reserve, National Grid will include reptile crossing points across linear sections of amphibian fencing where the fencing will be in place longer than one year. Clearance will be in accordance with the NE GCN licence method statement.	Volume 5.26.3C, Paragraphs 4.10.50 to 4.10.55	Schedule 3, Requirement 5	Relevant Planning Authority
Fish	3.20.1	Sensitive working methods will be employed at all watercourse crossings and at all works within 9m of a watercourse. Dams either side of any de-watered working area (sandbags, piling or other material) will be carefully installed under supervision of the ECoW to avoid killing or injury of fish or eels.	Volume 5.26.3C, Paragraph 4.11.4	Schedule 3, Requirement 5	Relevant Planning Authority
	3.20.2	Watercourses with significant flow will be over-pumped or have temporary culverts installed (where cable ducting is installed beneath the watercourse) during the de-watered stage; or alternatively, the works will be undertaken in two stages, dividing the watercourse down the centre of the channel using sandbags and de-watering one section at a time. The latter method is appropriate for installing bridge crossings rather than culvert crossings or cable ducting, allowing works to be undertaken on one bank at a time.	Volume 5.26.3C, Paragraph 4.11.5	Schedule 3, Requirement 5	Relevant Planning Authority
	3.20.3	Fish rescues will be carried out in the latter stages of de-watering operations. Fish will be released into the adjacent channel (up or downstream release, to be determined on a case-by-case basis depending on the connectivity of the watercourse and the time of year. The ECoW will identify the fish release site in a brief method statement to be produced prior to each fish rescue operation. Watercourses will be netted during the de-watering process, with fish placed in temporary bankside water-tanks. Fish species and numbers will be recorded prior to their release at the agreed location. The works will be undertaken by sub-contractors who are accredited under the 'Performing Section 30 Fish Health Checks Accreditation Scheme'. This Accreditation scheme has been developed in response to discussions between the EA and the Institute of Fishes Management (IFM). The Accreditation Scheme evaluates the experience and technical ability of individuals to perform fish examinations, to meet the requirements of the EA under Section 30 of the Salmon & Freshwater Fisheries Act 1975 (SFFA) and similar requirements under future legislations. Some fish species retreat into burrows in the riverbed during de-watering and may not be recovered by netting. Further discussion with EA will take place to determine if electrofishing is required at any locations. Discussions with EA will also inform the need for permits and licencing for fish rescue and translocation methods. Once the culvert, duct or crossing is in place, flow will gradually be allowed to return through the culvert.	Volume 5.26.3C, Paragraphs 4.11.6 to 4.11.9	Schedule 3, Requirement 5	Relevant Planning Authority, following consultation with the Environment Agency
	3.20.4	All watercourses will be reinstated on completion of works. Where hedgerow removal has been required in bankside habitats to facilitate works, replacement hedgerows will be planted. Where trees have been lost it will not be possible to plant replacement trees within the easement of the underground cable or overhead line. Bankside and in-channel vegetation will be allowed to regenerate naturally.	Volume 5.26.3C, Paragraphs 4.11.10 and 4.11.11	Schedule 3, Requirement 5 Schedule 3, Requirement 15	Relevant Planning Authority Relevant Planning Authority

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
				Schedule 3, Requirement 20	Relevant Planning Authority, following consultation with the Environment Agency or Relevant Drainage Authority - as appropriate
	3.20.5	Speed limits and defined access/haul routes will be adhered to during construction in order to minimise risk to eels on land. There is a low risk that eels traversing land may be obstructed by soil bunds or become caught in open excavations. Temporary soil bunds will have regular gaps to reduce flood risks and breaks will also be present at hedgerow crossings, these gaps will also serve to reduce any barrier effects to eels traversing land. Sloped edges to open trenches will be used to allow egress for any caught wildlife including eels.	Volume 5.26.3C, Paragraph 4.11.12	Schedule 3, Requirement 5	Relevant Planning Authority
Invertebrate	3.21.1	All retained ditches will be protected from construction activity, vehicle movements and storage of materials through the installation of steel mesh fencing to a minimum of 9m from the top of each ditch and water course bank to prevent encroachment into potential invertebrate habitats.	Volume 5.26.3C, Paragraph 4.12.8	Schedule 3, Requirement 5	Relevant Planning Authority
	3.21.2	All haul roads, working areas, laydown areas and general construction actives will maintain the 9m buffer along each from each ditch and watercourse where possible. Where maintenance of the 9m buffer cannot be achieved due to the nature of the works, such as underground sections and creation of access road crossings, further measures will be implemented as described below. Within the SSSIs 9m buffers will be prioritised due to the greater sensitivity of ditch habitats within these areas.	Volume 5.26.3C, Paragraphs 4.12.9 and 4.12.10	Schedule 3, Requirement 5	Relevant Planning Authority
	3.21.3	Silt traps will be installed in ditches and watercourses which are affected by works to prevent materials being transported into adjacent habitats. Spill trays will be used to ensure that any spillages are unable to enter ditches or watercourses. Bunds will be created where working areas are adjacent to retained ditches and watercourses to prevent sediments and pollution being washed into the ditches through surface run off.	Volume 5.26.3C, Paragraphs 4.12.12 to 4.12.14	Schedule 3, Requirement 5	Relevant Planning Authority
	3.21.4	If any ditches require pumping prior to works (e.g. prior to loss of ditch or during works within ditch) settlement tanks and controlled outflows will be used.	Volume 5.26.3C, Paragraph 4.12.15	Schedule 3, Requirement 5	Relevant Planning Authority
	3.21.5	Wherever possible National Grid will use existing crossing points of ditches and watercourse for use with temporary haul routes. However, it is not possible to avoid invertebrate habitats in every instance and mitigation is therefore required.	Volume 5.26.3C, Paragraph 4.12.16	Schedule 3, Requirement 5	Relevant Planning Authority
	3.21.6	Sensitive working methods will be employed at all watercourse crossings and at all works within 9m of a watercourse. Dams either side of any de-watered working area (sandbags, piling or other material) will be carefully installed under supervision of the ECoW to minimise effects on habitat features used by ditch invertebrates. Watercourses with significant flow will be over-pumped during the de-watered stage; or alternatively, the works will be undertaken in two stages, dividing the watercourse down the centre of the channel using sandbags and de-watering one section at a time. The latter method is appropriate for installing bridge crossings rather than culvert crossings or cable ducting, allowing works to be undertaken on one bank at a time.	Volume 5.26.3C, Paragraphs 4.12.17 and 4.12.18	Schedule 3, Requirement 5	Relevant Planning Authority

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
	3.21.7	On all SSSI ditches and where survey information or habitat assessment indicates a ditch is likely to be a high value for invertebrates, pumps will be fitted with fine mesh filters to prevent invertebrates from being pulled into the pump. These ditches also will be netted for invertebrates in the latter stages of de-watering operations. Invertebrates will be released into the adjacent channel (up or downstream release). Once the working area has been drained down, it is likely that the bed and banks of the ditch will be modified prior to installation of the culvert. During this process, any vegetation or silt will be placed on the top of the ditch bank (outside of the de-watered section) and left for at least 24 hours to allow invertebrates to make their way back into the water. Once the culvert, duct or crossing is in place, flow will gradually be allowed to return through the culvert.	Volume 5.26.3C, Paragraphs 4.12.19 to 4.12.21	Schedule 3, Requirement 5	Relevant Planning Authority
	3.21.8	All watercourses will be reinstated on completion of works. Where trees have been lost it will not be possible to plant replacement trees within the easement of the underground cable or overhead line. Where hedgerow removal has been required in bankside habitats to facilitate works, replacement hedgerows will be planted. NE has requested that no replanting of trees or hedgerows is undertaken within the SSSIs notified for ditch invertebrate assemblages. Bankside and in-channel vegetation will be allowed to regenerate naturally. The same approach will be used for removal of temporary culverts on completion of the works.	Volume 5.26.3C, Paragraphs 4.12.22 to 4.12.25	Schedule 3, Requirement 5	Relevant Planning Authority
				Schedule 3, Requirement 15	Relevant Planning Authority
				Schedule 3, Requirement 20	Relevant Planning Authority, following consultation with the Environment Agency or Relevant Drainage Authority - as appropriate
Lesser Silver Water Beetle	3.22.1	A ditch crossing (C-LD1-CRO3) in Woolavington (south of Huntspill) off Causeway is proposed over a ditch where the less silver water beetle *H. caraboides* was recorded. Prior to commencements of works (between April and August) for crossing points along this ditch, a licensed surveyor will net all floating vegetation within 10 metres of the crossing point. Any *H. caraboides* egg cocoons, larvae, pupae or adults found would be relocated upstream (if a flow exists) away from the areas of work. Egg cocoons and larvae are sedentary, whereas adults are mobile and can be found away from breeding sites but in the same eco-systems. Cocoons would be placed in areas free of Lemna spp. Once netting has been completed, work will commence on the de-watering and construction of the crossing points. Discharged water is to flow gently into the watercourse to avoid disturbance to the substrate and prevent localised turbulence in the ditch. Upon completion of the construction of the crossing point, the water will be allowed to flow back under the water crossing. The process will be repeated upon decommissioning of the crossing.	Volume 5.26.3C, Paragraphs 4.12.27 to 4.12.32	Schedule 3, Requirement 5	Relevant Planning Authority
Specific Construction Methods to Limit Duration of Habitat Loss	3.23.1	<u>Mendips 400kV underground cable route</u> The hedgerow and grassland removal and reinstatement will be phased to minimise the amount of habitat lost to construction activities at any one time. Whilst the cables would be laid in sections, the haul road for this project component is assessed to remain in place for the duration of works.	Volume 5.26.1C, Paragraph 3.2.7	Schedule 3, Requirement 5	Relevant Planning Authority
	3.23.2	<u>Sandford Substation</u> To minimise the period of habitat loss at Sandford substation, some reinstatement works will be undertaken in 2017, facilitating early reinstatement of habitats. Figure 7.35.6 (Volume 5.28.1.3) presents the Sandford Substation Landscape Mitigation Phasing to be implemented in accordance with Schedule 3, Requirement 9 of the DCO.	Volume 5.26.1C, Paragraph 3.2.8	Schedule 3, Requirement 9	Relevant Planning Authority
Inspections	3.24.1	Inspections and any action required relating to non-conformance with the CEMP will be undertaken in accordance with sections 1.12 and 1.13 of the CEMP (Volume 5.26.1C) and measures outlined in the BMS (Volume 5.26.3C). In addition, the ECoW will undertake monitoring as described in the BMS.	Volume 5.26.1C, Paragraph 3.2.9	Schedule 3, Requirement 5	Relevant Planning Authority

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
Monitoring	3.25.1	Post-construction monitoring will be undertaken at designated wildlife sites and sites with protected species licences, as necessary, to be informed by the pre-construction surveys, and agreed with Natural England under licence conditions. Results of monitoring will be compared against baseline levels and be used to inform any long-term condition monitoring. Appropriate remedial action will be implemented where adverse effects are detected.	Volume 5.8.1, Paragraphs 8.7.165 and 8.7.166	Schedule 3, Requirement 5	Relevant Planning Authority
4.0 Arboricultural Impact Assessment (Volume 5.21.1B, Section 8 and Volume 5.26.1C, Section 3.1) and s106 (Volume 8.4B)					
Tree Works	4.1.1	National Grid is committed to planting four trees for each tree lost to the Proposed Development. This commitment acknowledges the value of trees in their own right and also that there is substantial risk of failure if a single tree is planted as a replacement for one to be lost. Arboricultural mitigation for the construction phase will be delivered in accordance with measures set out in Sections 8 and 9 of the Arboricultural Impact Assessment (AIA) at Volume 5.21.1B, secured by Schedule 3, Requirements 6, 10, 11 and 12 of the DCO and Schedule 7 of the s106 Agreement between National Grid and the Joint Councils (Volume 8.4B). Of particular relevance during the construction phase, **Schedule 3, Requirement 12(1)** of the DCO states that: *"No stage of the authorised development may commence until, for that stage, a Tree and Hedgerow Protection Strategy (THPS) prepared in accordance with BS 5837:2012 (Trees in relation to design, demolition and construction) identifying the trees, groups of trees and hedgerows to be retained during that stage has been submitted to and approved by the relevant planning authority."* The THPS will include tree protection plans, as detailed in Section 8 of the AIA; a schedule of all proposed tree and hedge removal and pruning, with annotated plans; specification for temporary physical protection for trees and hedgerows; and details of an auditable system of compliance. In accordance with Schedule 3, Requirement 12(3) of the DCO, trees that are to be felled will be clearly identified. The Tree Impact Plans provided at Volume 5.21.3B, Figure 21.2 and Figure 21.3 will be refined where necessary, dependent on actual tree growth in relation to that predicted and any amendments to details of the Project in the Order Limits and Limits of Deviation.	Volume 5.26.1C, Paragraphs 3.1.13 to 3.1.17	Schedule 3, Requirements 6, 10 and 11 and 12 s106 Agreement	Relevant Planning Authority
	4.1.2	A schedule of all proposed tree removal will be produced with annotated plans in accordance with Schedule 3, Requirement 12 (2) (b) of the DCO. Trees that are to be felled will be clearly identified. Access routes and other operational parameters will be set as appropriate. The Tree Impact Plans provided at Volume 5.21.3, Figure 21.2 and Figure 21.3 will be refined where necessary, dependent on actual tree growth in relation to that predicted and any amendments to details of the Project in the Order Limits and LoD.	Volume 5.21.1B, Paragraph 8.2.1	Schedule 3, Requirements 10, 11 and 12	Relevant Planning Authority
	4.1.3	Removal of individual trees will be specified by stem location with reference to species and other identification markers as appropriate. Removal of sections of hedge will be specified in metres with reference to fixed base points (e.g. intersections with other hedges, gateposts, roads etc.).	Volume 5.21.1B, Paragraph 8.2.2	Schedule 3, Requirement 12	Relevant Planning Authority
	4.1.4	Removal of parts of Tree Groups and Woodlands will be specified by area. All trees within a measured and defined area will be removed (it may be necessary to mark out the 'cut line' on site prior to commencement). The removal of additional individual trees that are close to the newly-created edge may be recommended for the prevention of windthrow (failure due to increased exposure). Removing trees from groups and from woodlands can cause loss of other trees which suddenly become exposed to wind. The risk can be minimised by removal of selected trees to allow greater filtration of air currents. Guidance will be provided from an arboriculturist following the removal of surrounding or adjacent trees. It is anticipated that such tree removals would not be more than 10m from the edge of the remaining group or woodland; would not constitute more than ten percent by number of trees within that 10m edge strip; and would have a neutral or positive impact on the value and resilience of remaining tree groups.	Volume 5.21.1B, Paragraphs 8.2.3 and 8.2.4	Schedule 3, Requirement 12	Relevant Planning Authority
	4.1.5	A schedule of all proposed tree pruning will be produced with annotated plans. Tree pruning will be specified in absolute terms (i.e. in metres, with reference to cardinal points and fixed objects). Access routes and other operational parameters will be set as appropriate. A specification for all pruning operations will be produced. This will include operational standards for all types of pruning and tree felling method according to best practice. This will ensure that tree work is undertaken to a consistently acceptable standard across all sites.	Volume 5.21.1B, Paragraphs 8.2.5 and 8.2.6	Schedule 3, Requirement 12	Relevant Planning Authority
	4.1.6	Minimum requirements will be established for arboricultural contractors (tree surgeons) referring to qualifications, accreditations, licences and insurance cover.	Volume 5.21.1B, Paragraph 8.2.7	Schedule 3, Requirement 12	Relevant Planning Authority

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
	4.1.7	Tree works with the potential to impact any European Protected Species (e.g. bats) will be clearly identified and a protocol for the avoidance of impact will be included on the works schedule. This may include seasonal constraints, timings of works, and restrictions on the use of some equipment, particularly where there are sensitivities to lighting. Basic training on relevant European Protected Species will be given to arboricultural contractors. This will include general site observations, possible restrictions to working methods, identification skills and a reporting protocol where a Protected Species is identified.	Volume 5.21.1B, Paragraphs 8.2.8 and 8.2.9	Schedule 3, Requirement 12	Relevant Planning Authority
	4.1.8	An induction process for all appointed arboricultural contractors will be established. Contractors will receive instruction and training on any particular liabilities, restrictions or obligations relating to their commission (such as work on sensitive sites, the use of hazardous substances or atypical working methods). A training record for each contractor will be maintained. It is anticipated that all material that will be produced by tree pruning and felling operations will meet the Environment Agency criteria for virgin timber and will not be classed as waste. Further information is provided in the Waste Management Plan Volume 5.26.2C. The treatment of such arisings will be detailed on a site-by-site basis along with the specification for pruning or removal, points of access and any other restrictions or requirements that are to be observed by the contractor. The preference will be to minimise both the distance and the amount of processing that is required.	Volume 5.21.1B, Paragraphs 8.2.10 to 8.2.12	Schedule 3, Requirement 12	Relevant Planning Authority
Tree Protection	4.2.1	Temporary physical protection measures will be required for trees and hedgerows during the construction phase. This will prevent direct damage to stems and branches and avoid the indirect effects of soil compaction on the healthy functioning of underlying roots. Specifications for tree protection fencing will be produced. A standard detail and an additional range of fencing types will be described for use in different situations (e.g. where steep terrain or wet ground necessitates alternative fencing designs). Fencing of different types will provide an appropriate level of protection ranging from visual identification of protected areas to immovable barriers preventing access. Criteria will be established by which the most appropriate tree protection fencing specification will be selected.	Volume 5.21.1B, Paragraphs 8.3.1 to 8.3.3	Schedule 3, Requirement 12	Relevant Planning Authority
	4.2.2	Specifications for temporary ground protection will be produced. Ground protection will be used where access is required close to a retained tree and where tree protection fencing cannot be installed because of site constraints or operational requirements. Ground protection measures will be designed to prevent or minimise compaction of underlying soils; skidding, smearing or rutting of soils; physical impact to or abrasion of surface roots; and/or to ensure an adequate supply of air and water to tree roots.	Volume 5.21.1B, Paragraphs 8.3.4 to 8.3.5	Schedule 3, Requirement 12	Relevant Planning Authority
	4.2.3	The alignment of tree protection fencing and temporary ground protection will be based on the recommendations of BS 5837:2012; the crown spread (following completion of pruning operations) and specific construction requirements. Tree protection measures will be designed to safeguard an area surrounding each tree containing sufficient rooting volume to ensure tree survival post-construction. The protected area will not necessarily contain all of a tree's roots but may allow an acceptable degree of loss or disturbance. Protected areas for adjacent trees may overlap. The combined protected areas around all trees will constitute a Construction Exclusion Zone within which no unplanned access or operations would be permitted. The alignment of Construction Exclusion Zones will be detailed on a series of *Tree and Hedgerow Protection Plans*, which will be produced for all sites with trees. Where a requirement to enter a Construction Exclusion Zone is anticipated or arises, the scope of proposed operations will be considered in terms of the physiological tolerances of the adjacent tree(s). Where the operations can be accommodated without causing harm to the tree, an Arboricultural Method Statement will be produced wherein the terms and scope of the operations will be set, along with any particular design requirements and additional protection measures. In this context, 'harm' might include physical damage, reduction in vigour or life expectancy, loss of productivity, impairment of screening or landscape function, or loss of amenity. Only operations that can be delivered without causing such harm will be permitted.	Volume 5.21.1B, Paragraphs 8.3.6 to 8.3.9	Schedule 3, Requirement 12	Relevant Planning Authority

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
Monitoring and Compliance	4.3.1	In general terms, measures to ensure compliance with tree protection and management recommendations will comprise: • dissemination of the THPS to relevant parties for incorporation in tender, contract and design documentation, (especially relating to construction whose normal process or function tree protection may present a constraint); • establishment of an auditable system of responsibility for each component of the Arboricultural Construction Mitigation Strategy. (Tree protection will be delivered by a wide range of individuals and companies. Many of the tree protection requirements will be observed by more than one party during multiple operations); • tool box talks delivered to arboricultural contractors, operatives implementing components of Arboricultural Method Statements and any other party whose operations significantly interact with or have the potential to influence or be influenced by trees; • inspection of all physical tree protection measures prior to commencement of works by an independent arboriculturist; • Establishment of an auditable system of quality control for tree pruning work to ensure adherence to specifications, health and safety requirements, accreditations and insurances; and to sign off completed works; • establishment of an auditable system of independent monitoring of compliance (checking the integrity of tree protection measures, monitoring compliance by non-arboricultural operatives with the terms of this report, inspecting tree condition following removal of tree protection measures); and • appointment of an Arboriculturist to oversee the delivery of tree pruning and removal; monitor and facilitate compliance with all arboricultural recommendations; respond to public enquiries and complaints; assess the impact of any variations against the terms of the consent; produce additional supporting documentation as required; sign off works; and maintain records of progress. National Grid is the Managing Organisation and will undertake monitoring and review of the effectiveness of the protection and mitigation measures. The Construction and Environmental Management Plan at Volume 5.26.1C specifies the role of a Landscape Clerk of Works who will be responsible for overseeing and monitoring all landscape works during the construction phase. The Landscape Clerk of Works will have responsibility for monitoring and review of site-specific mitigation for a five year period. This role would include monitoring compliance with the THPS and the efficacy of the tree protection measures in place.	Volume 5.21.1B, Paragraphs 8.4.1 to 8.4.3	Schedule 3, Requirements 6 and 12	Relevant Planning Authority
Inspections	4.4.1	A Landscape Clerk of Works (LCoW) will be appointed by National Grid to oversee and monitor all landscape works. Inspections and any action required, relating to non-conformance with the CEMP, will be undertaken in accordance with sections 1.12 and 1.13 of the CEMP (Volume 5.26.1C).	Volume 5.26.1C, Paragraphs 3.1.20 and 3.1.21	Schedule 3, Requirement 12	Relevant Planning Authority
5.0 Ground Environment (Volume 5.9.1, Section 9.7 and Volume 5.26.1C, Section 3.3) and ES Sensitivity Test (Volume 5.29)					

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
Pollution Prevention	5.1.1	The following Environment Agency Pollution Prevention Guidance (PPGs) will be followed on site to prevent pollution. a) Guidance for storing and handling materials and products: i. PPG2: Above ground oil storage tanks; ii. PPG 6: Working at construction and demolition sites; iii. PPG 7: Refuelling facilities; iv. PPG 26: Drums and intermediate bulk containers; b) Guidance for site drainage, dealing with sewage and trade effluents: i. PPG 3: Use and design of oil separators in surface water drainage systems; ii. PPG 4: Disposal of sewage where no mains drainage is available; iii. PPG 13: Vehicle washing and cleaning; c) Guidance on general good environmental practice: i. PPG 1: General guide to the prevention of pollution; ii. PPG 5: Works in, near or liable to affect watercourses; and iii. PPG 21: Pollution incident response planning.	Volume 5.26.1C, Paragraph 3.3.3	Schedule 3, Requirement 5	Relevant Planning Authority
Ground Contamination	5.2.1	Site-specific intrusive ground investigation will be undertaken to assess whether remedial or mitigation works are required. The following actions will be undertaken on a site-specific basis in line with the Environment Agency, Model Procedures for the Management of Contaminated Land Contaminated Land Report 11 (CLR11): a) review existing preliminary risk assessment data to identify areas that require further detailed assessment; b) obtain updated unexploded ordnance survey for relevant sections of the Proposed Development (see also section 2.11 of the CEMP); c) design and undertake appropriate site-specific intrusive ground investigation (GI); d) undertake laboratory chemical and geotechnical or civil engineering soil and groundwater analysis; e) undertake human health and controlled water generic quantitative risk assessment; f) undertake detailed quantitative risk assessment where identified as necessary after site-specific GI; g) undertake remedial action, options appraisal and/or design where identified through GI; h) implement the detailed mitigation measures or remedial works; and i) verify the implemented mitigation measures or remedial works.	Volume 5.26.1C, Paragraph 3.3.5	Schedule 3, Requirement 18	Relevant Planning Authority, following consultation with the Environment Agency
	5.2.2	Site-specific intrusive ground investigation will be undertaken to inform geotechnical, ground stability and civil engineering assessments. A review of existing baseline data will be undertaken to identify areas that require further detailed assessment as required. The results of the investigations will be used to inform foundation design and design of temporary works to ensure the stability of the Proposed Development. In accordance with Schedule 3, Requirement 18 of the DCO, all proposed remediation and detailed mitigation measures will be presented in detail to the local authority and other appropriate regulators for approval prior to implementation. Following completion of measures identified in the approved remediation scheme, a verification report that demonstrates the effectiveness of the remediation carried out will be produced for approval by the Environment Agency and relevant Local Authority. Professional advice will be sought only from those with demonstrable specialist competency in risk-based management of land contamination. A watching brief will be undertaken during piling and foundation works to look out for evidence of (unexpected) contaminated soils. Unusual colour, odour or appearance can be indicative of the presence of contaminants. Work will stop if any previously unidentified contamination is encountered until the nature and concentration of the contaminants are determined and appropriate risk control measures implemented (in accordance with section 1.13 of the CEMP Volume 5.26.1C).	Volume 5.26.1C, Paragraphs 3.3.6 to 3.3.9	Schedule 3, Requirement 5 Schedule 3, Requirement 18	Relevant Planning Authority Relevant Planning Authority, following consultation with the Environment Agency

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
Utilities	5.3.1	Prior to intrusive investigations commencing appropriate service clearance surveys and utility searches will be undertaken to identify below ground services and utilities to avoid damage to third party property. This will include liaison with the relevant owner and operator to accurately identify the precise location of services/utilities (as described at section 2.12 of the CEMP Volume 5.26.1C).	Volume 5.26.1C, Paragraph 3.3.10	Schedule 3, Requirement 5	Relevant Planning Authority
Piling Risk Assessment	5.4.1	Boreholes will be drilled at each pylon location. The result of the borehole analysis will determine where piling will be required. Site-specific piling risk assessments will be undertaken where necessary to consider the hazards associated with the piling method in potentially contaminated ground and in relation to the ground and groundwater environment. Any subsequent mitigation identified by risk assessment will be agreed with the EA prior to construction commencing; this will specifically include the control, storage and disposal of contamination arisings to prevent adverse effects to the environment including surface water features, drains and rhynes. Where piling works are undertaken in areas of land affected by contamination, the contractor will adhere to appropriate guidance described in the Ground Environment ES chapter at Volume 5.9.1 including the Model Procedures for the Management of Land Contamination (CRL11) and GPLC1 – Guiding Principles of Land Contamination. Boreholes can contain geo-archaeological and palaeo-environmental evidence. A method for geo-archaeological and palaeo-environmental sampling and analysis is provided in the WSI (CEMP Appendix 4, Volume 5.26.4C) which identifies locations where borehole samples should also be obtained for archaeological analysis. The site-specific piling risk assessments will be cross referenced to the archaeological constraints plans in CEMP Appendix 4, Volume 5.26.4C to identify where archaeological mitigation measures may also be required, or to identify areas where archaeological mitigation proposals may be constrained by potentially contaminated ground.	Volume 5.26.1C, Paragraphs 3.3.11 to 3.3.14	Schedule 3, Requirement 5 Schedule 3, Requirement 18	Relevant Planning Authority Relevant Planning Authority, following consultation with the Environment Agency
Soil Management Plan	5.5.1	Measures to protect soils will be set out in a Soil Management Plan (SMP) and will include, but not be restricted to, the following measures: a) construction traffic will be restricted to operating on the designated access roads and not on the unprotected soils; b) topsoil stripping will be restricted to the width of the permanent and temporary elements of the Proposed Development, thereby minimising disturbance to the integrity of the biomass; c) appropriate geotextile membranes, wooden matting or aluminium trackways will be used over particularly sensitive areas; d) in peaty and soft saturated clay soils, where the use of geotextile membranes is not appropriate, wheeled vehicles may be fitted with low ground pressure bearing pneumatic tyres to allow a greater distribution of weight; e) soil loosening techniques such as deep-tine cultivation will be used where required to break up any compaction which has occurred f) subsoil and different superficial deposits will be stored separately to prevent mixing and will be reinstated in reverse order of excavation; g) topsoil and subsoil movements will only be undertaken in suitable conditions, for example, when it is not too wet, in accordance with DEFRA guidance (Code of Practice for the Sustainable Use of Soils on Construction Sites, 2009); h) soil stabilising methods will be undertaken in accordance with the SMP to reduce the risk of erosion, the creation of leachate and potential water quality issues; i) early re-seeding of the reinstated ground will be undertaken to help re-establish and stabilise the structure of the topsoil; and j) soils will not be stockpiled close to surface water features. Stockpiled soils will be stored on an appropriate impermeable surface material and covered to reduce the risk of windblown dust, surface water run-off and to reduce the risk of overland migration of silt and sediment to surface waters. Stockpiled soils will be protected by appropriate measures, for example, membranes, spraying or seeding. k) at the outset, the potential for variations to these measures being required as a result of varying weather conditions, such as heavy rainfall, drought or frost, will be built into the SMP. The SMP will be approved by the consenting authority prior to the commencement of any stage of construction works.	Volume 5.26.1C, Paragraph 3.3.15 and 3.3.16	Schedule 3, Requirement 6	Relevant Planning Authority
Specification, Supply and Use of Materials	5.6.1	Where there is a suitable recycled or otherwise sustainable material which can be cost-effectively used, it will be preferred. Good practice in design and procurement will be adopted to keep stocks of materials to a minimum. The provenance of bulk materials (primary or secondary aggregates) will be reviewed, documented and, if necessary, chemically tested, by the supplier, prior to delivery to site, to confirm that they are suitable for use. A certificate of provenance, including evidence of compliance with Quality Protocol Standards (under the Waste Protocols Project) where appropriate; for example, in the supply of recycled aggregates.	Volume 5.26.1C, Paragraph 3.3.17	Schedule 3, Requirement 5	Relevant Planning Authority

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
Storage and Handling Requirements	5.7.1	The proposals for the storage of waste on site are detailed in the WMP (Volume 5.26.2C). Details also will be provided in the SWMPs. Facilities will be provided for the collection, segregation, treatment and disposal of solid and liquid waste in accordance with the WMP. The following measures will be implemented on site for the storage of materials: a) all oil and diesel storage facilities will be at least 30m from any watercourse including surface water drains and rhynes; and at least 50m from any borehole or well; b) spill kits and drip trays will be provided for all equipment and at locations where any liquids are stored and dispensed; c) storage areas for solid materials, including waste soils, will be designed and managed to prevent deterioration of the materials and their escape (via surface run off or wind blow); d) storage areas will be kept secure to prevent acts of vandalism that could result in leaks or spills; and e) all containers of any size will be correctly labelled indicating their contents and any hazard warning signs.	Volume 5.26.1C, Paragraph 3.3.18 and 3.3.19	Schedule 3, Requirement 5 Schedule 3, Requirement 6	Relevant Planning Authority Relevant Planning Authority
	5.7.2	<u>Fuel Tanks, Mobile Bowsers and Bunds</u> In accordance with the Oil Storage Regulations (2001) the following measures will be implemented on site for the prevention of spills: a) fuel tanks and mobile bowsers (and any other equipment that contains oil and other fuels) will have a secondary containment, for example, double skinned tanks. All tanks and mobile bowsers will be located in a sealed impervious bund; b) fuel fill pipes will not extend beyond the bund wall and will have a lockable cap secured with a chain; c) any tap or valve permanently attached to a tank or bowser through which fuel can discharge, will be fitted with a lock; d) where fuel is delivered through a pipe permanently attached to a tank or bowser: i. the pipe will be fitted with a manually operated pump or a valve at the delivery end which closes automatically when not in use; ii. the pump or valve will be fitted with a lock; iii. the pipe will be fitted with a lockable valve at the end where it leaves the tank or bowser; iv. the pipework will pass over and not through bund walls; v. tanks and bunds will be protected from vehicle impact damage; and vi. tanks will be labelled with contents and capacity information. e) all valves, pumps and trigger guns will be turned off and locked when not in use. All caps on fill pipes will be locked when not in use. Suitable precautions will be taken to prevent spillages from equipment containing small quantities of hazardous substances (for example, chainsaws and jerry cans) including: a) each container or piece of equipment will be stored in its own drip tray made of a material suitable for the substance being handled; b) containers and equipment will be stored on a firm, level surface.	Volume 5.26.1C, Paragraphs 3.3.20 and 3.3.21	Schedule 3, Requirement 5	Relevant Planning Authority
	5.7.3	<u>Drum Storage</u> In accordance with the Oil Storage Regulations 2001, where oil drums are over 200 litres it will be ensured that: a) multiple drums and containers have suitable secondary containment with sufficient capacity to contain at least 25% of the total volume of the containers or 110% of the largest container, whichever is the greatest; b) drum storage areas will be covered to prevent rainwater getting into bunds and drum pallets; c) drums will be labelled and positioned such that leaks cannot overshoot the bund or drip tray wall; and d) all containers are stored securely when the site is unattended	Volume 5.26.1C, Paragraph 3.3.22	Schedule 3, Requirement 5	Relevant Planning Authority
	5.7.4	<u>Flammable and Hazardous Substances</u> All flammable and hazardous substances will be kept in a secure bunded cupboard, cabinet or tank constructed of materials which are chemically resistant to its contents.	Volume 5.26.1C, Paragraph 3.3.23	Schedule 3, Requirement 5	Relevant Planning Authority

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
Deliveries and Dispensing	5.8.1	For deliveries and dispensing activities it will be ensured that: a) site-specific procedures are in place for bulk deliveries; b) delivery points and vehicle routes are clearly marked; c) emergency procedures are displayed and a suitably sized spill kit is available at all delivery points, and staff are trained in these procedures and the use of spill kits; d) suitable facilities (for example, drip trays, drum trolleys, funnels) meet the sites specific dispensing needs and are maintained and used; e) tank capacities and current contents levels are checked prior to accepting a delivery to ensure that they are not overfilled; f) all deliveries are supervised throughout the delivery operation; g) spill prevention equipment is used during dispensing activities; and h) all spillages occurring during dispensing and handling activities are cleared up and reported via the SHESQ Manager and are dealt with in accordance with section 1.13 of the CEMP (Volume 5.26.1C).	Volume 5.26.1C, Paragraph 3.3.24	Schedule 3, Requirement 5	Relevant Planning Authority
Vehicles and Plant	5.9.1	The use of vehicles and plant poses similar risks to those posed by storage of liquids. Fuel and oil may leak from such equipment which may enter drains and/or watercourses, as well as contaminating the ground itself. The following measures will be implemented to reduce this risk: a) vehicles and plant provided for use on the site will be in good working order to ensure optimum fuel efficiency, and are free from leaks. Plant with integral bunding and/or drip trays will be specified; b) sufficient spill kits will be carried on all vehicles; c) any hired vehicles and plant will be checked on delivery and not accepted if they are not in good working order for example, leaking, excessive fumes, excessive noise and/or smoke; d) vehicles and plant will be regularly maintained to ensure that they are working at optimum efficiency and are promptly repaired when not in good working order; e) vehicles and plant will not park near or over drains and will be washed in accordance with the commitments in the CTMP (Volume 5.26.5C); f) employee-owned vehicles will not be driven or parked in construction areas or cable swathe unless authorised to do so; g) topping up of vehicles and plant will be carried out on hardstanding using drip trays and not over or near drains, or, where this is not reasonably practicable, drip trays and/or drain covers will be used to reduce the risk of spills; h) vehicles and plant will not be overfilled with fuel; and i) plant containing oils will be inspected daily and maintained to both prevent and identify leaks.	Volume 5.26.1C, Paragraph 3.3.25	Schedule 3, Requirement 5	Relevant Planning Authority
De-watering	5.10.1	Deep excavations may require de-watering. Water pumped or removed from excavations will be passed through a silt-separator tank or equivalent, and discharged to ground or surface water. A permit will be sought from the EA prior to undertaking such operations. Details would be provided in a Drainage Management Plan (DMP).	Volume 5.26.1C, Paragraph 3.3.26	Schedule 3, Requirement 6	Relevant Planning Authority Environment Agency or Relevant Drainage Authority as appropriate
Drainage	5.11.1	Extended excavations will be arranged so as not to create preferential drainage pathways with the potential to cause flooding of lower land. Appropriate measures will be implemented such as the introduction of baffles or creation of sumps to reduce the risk of preferential drainage paths being created. This will be detailed and implemented via a DMP. Land drains may be encountered during construction. Where these are encountered they will be either repaired or diverted to ensure that preferential pathways are not created.	Volume 5.26.1C, Paragraphs 3.3.27 and 3.3.28	Schedule 3, Requirement 6	Relevant Planning Authority Environment Agency or Relevant Drainage Authority as appropriate

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
Coal	5.12.1	National Grid has completed a coal risk assessment for works in the area of Nailsea at the former coal working site. It identifies that the construction of the Proposed Development should not disrupt the site. The assessment has been agreed with North Somerset Council and the Coal Authority. In addition site investigation and piling works will reference the "Guidance on Managing the Risk of Hazardous Gases when Drilling or Piling Near Coal: The Coal Authority, Health and Safety Executive, British Drilling Association, Federation of Piling Specialists and the Association of Geotechnical and Geoenvironmental Specialists, Published 2012". Measures appropriate to the site for the protection of people and property will be incorporated into the site specific working plans. Where intact coal seams are present or exposed in excavations, there is a potential risk of combustion. Should these be encountered, exposed sections will be covered (blinded) with a suitable material such as a weak mix concrete. During construction, the contractor will be aware of any disturbances to the area. All construction workers will be briefed via toolbox talks on the site history; the potential for the presence of below ground mining features; and to remain vigilant for any sudden or unexpected changes in ground conditions.	Volume 5.26.1C, Paragraphs 3.3.29 to 3.3.32	Schedule 3, Requirement 5	Relevant Planning Authority

<table>
<tr><th>Aspect</th><th>Ref.</th><th>Mitigation</th><th>Reference in the ES and/or Mitigation Plan</th><th>Delivery Mechanism</th><th>Discharging Authority (ies)</th></tr>
<tr><td>Gas Monitoring</td><td>5.13.1</td><td>
Gas monitoring will be undertaken during pre-construction site-specific ground investigation and during the construction or demolition phases of the Proposed Development. The purpose of the gas monitoring is to ensure that suitable safeguards are in place to provide a safe working environment. Gas monitoring will be undertaken in accordance with guidance documents such as:

BS 8576: 2013: Guidance on investigations for ground gas – permanent gases and volatile organic compounds (VOCs), BSI Standards Publication;
BS 10175: 2011+A1: 2013: Investigation of potentially contaminated sites. A code of practice, BSI Standards Publication;
BS 8485: 2007: Code of practice for the characterization and remediation from ground gas in affected developments, BSI Standards Publication; and
BS 5930: 1999+A2: 2010: Code of practice for site investigations, BSI Standards Publication.

All gas monitors that are used will be calibrated and tested with copies of supporting certificates available on site. Provisions will be made to ensure that sufficient monitors are available at all times during works to cover all tasks.
Gas monitors may be carried by individuals or placed at appropriate locations in relation to the works being undertaken. The monitors will be placed to ensure that the atmosphere being tested is the same as that to which potential receptors are exposed. A monitoring regime will be designed to address the works being undertaken. The following bulk gases will be tested for:

Methane (CH_4);
Carbon dioxide (CO_2);
Oxygen (O_2);
Carbon monoxide (CO); and
Hydrogen sulphide (H_2S).

The following recommended trigger levels and action levels, presented within the Coal Authority guidance: Guidance on Managing the Risk of Hazardous Gases when Drilling or Piling Near Coal, 2012; measured within the general working area are presented in Table 5.13.1 (Table 3.2 of CEMP).
Should concentrations of gas exceed a trigger level, further assessment and if required provision of additional mitigation (as required) would be implemented. Should concentrations of gas exceed an action level, works would immediately be halted, the working area would be evacuated and no return to the affected area until a competent person has investigated and assessed that it is safe to do so.
Table 5.13.1 (Table 3.2 of the CEMP) Recommended Trigger and Action Levels for Primary Bulk Gases
<table>
<tr><th>Gas</th><th>Trigger Level</th><th>Action Level</th></tr>
<tr><td>Methane</td><td>≥0.1% v/v</td><td>≥1% v/v (20% LEL)</td></tr>
<tr><td>Carbon dioxide</td><td>≥0.5 % v/v (LTEL)</td><td>≥1.5 % v/v (STEL)</td></tr>
<tr><td>Oxygen</td><td>≥19 % v/v</td><td>≥18 % v/v</td></tr>
<tr><td>Carbon monoxide</td><td>≥30ppm (LTEL)</td><td>≥100ppm (50% STEL)</td></tr>
<tr><td>Hydrogen sulphide</td><td>≥1ppm (20% LTEL)</td><td>≥5ppm (50% STEL)</td></tr>
<tr><td colspan="3">Notes: LTEL – long-term exposure limit (8 hour time weighted average (TWA) reference period); STEL – short-term exposure limit (15min reference period) – Reference EH40/2007 and 2011 Workplace Exposure Limits , Health and Safety Executive (HSE).
LEL – lower explosive limit; ppm – parts per million; v/v – volume/volume</td></tr>
</table>
</td><td>Volume 5.26.1C, Paragraphs 3.3.33 to 3.3.37</td><td>Schedule 3, Requirement 5</td><td>Relevant Planning Authority</td></tr>
</table>

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
Road Sweeping	5.14.1	Road sweeping will be undertaken where required and in accordance with the CTMP (Volume 5.26.5C), to remove deposits of silt from roads and reduce the risk of silt being washed into surface water gullies and watercourses.	Volume 5.26.1C, Paragraph 3.3.38	Schedule 3, Requirement 5	Relevant Planning Authority Relevant Highways Authority
Inspections	5.15.1	Inspections and any action required, relating to non-conformance with the CEMP, will be undertaken in accordance with sections 1.12 and 1.13 of the CEMP. In particular the following monitoring will be undertaken: a) a watching brief will be carried out, where necessary, during piling and foundation works for unexpected contamination; b) bulk materials imported to site will be assessed, as described in paragraph 3.4.14 of the BMS (Volume 5.26.3A); c) ground gas, in particular methane and carbon dioxide will be monitored when work is undertaken in areas underlain by coal measures or workings; d) ground and surface water conditions will be monitored for spills or uncontrolled tipped surface spoil; e) oil tanks and associated bunds will be monitored for leaks; and f) plant containing oils will be inspected daily and maintained to both prevent and identify leaks.	Volume 5.26.1C, Paragraph 3.3.39 and 3.3.40	Schedule 3, Requirement 5	Relevant Planning Authority
6.0 Hydrology and Water Resources (Volume 5.10.1, Section 10.7, Volume 5.23.5.1A and Volume 5.26.1C, Section 3.4) and ES Sensitivity Test (Volume 5.29)					
Pollution Prevention	6.1.1	The following EA Pollution Prevention Guidance (PPGs) will be followed on site to prevent pollution. a) Guidance for storing and handling materials and products: i. PPG2: Above ground oil storage tanks; ii. PPG 6: Working at construction and demolition sites; iii. PPG 7: Refuelling facilities; and iv. PPG 26: Drums and intermediate bulk containers. b) Guidance for site drainage, dealing with sewage and trade effluents: i. PPG 3: Use and design of oil separators in surface water drainage systems; ii. PPG 4: Disposal of sewage where no mains drainage is available; and iii. PPG 13: Vehicle washing and cleaning. c) Guidance on general good environmental practice: i. PPG 1: General guide to the prevention of pollution; ii. PPG 5: Works in, near or liable to affect watercourses; and iii. PPG 21: Incident response planning.	Volume 5.26.1C, Paragraph 3.4.2	Schedule 3, Requirement 5	Relevant Planning Authority
Drainage Management	6.2.1	In accordance with Schedule 3, Requirement 17, a DMP will be produced, following detailed drainage investigations and hydrological assessments, which will determine potential risks in relation to the water environment, including land drains, and identify appropriate control measures to avoid or reduce the risks. Examples of the mitigation measures that will be implemented to reduce the risk to the water environment are described below. A series of DMPs will be produced covering discrete sections of the route and each construction compound. Each DMP will be approved by the consenting authority prior to the commencement of any stage of construction works.	Volume 5.26.1C, Paragraph 3.4.3	Schedule 3, Requirements 6 and 17	Relevant Planning Authority, following consultation with the Sewerage Undertaker, Environment Agency and/or Relevant Drainage Authority as appropriate

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
Surface Water Discharges	6.3.1	Construction activities may adversely affect the quality of surface water or ground water as a result of contaminated runoff from, or spillages on the construction site. Control and mitigation measures to be implemented to prevent pollution include: a) dewatering of all excavations to be subject to a permit and/or land drainage consent from the EA or the Internal Drainage Boards (IDBs), as appropriate; the process proactively managed to meet at least the permit conditions; b) no silty water to be pumped directly into any watercourse but to be allowed to settle out (for example, in settlement lagoons) or filtered (for example, using straw bales to filter out coarse particles) prior to discharge, in accordance with permit conditions; c) where settlement or filtering is not practicable or effective, alternative disposal options will be considered for example, discharge onto a grassed area (with consent from the landowner and following EA or IDB consultation as appropriate), and discharge to foul sewer (with consent from the local sewerage undertaker); d) if clean water is discharged into a watercourse, a baffle will be fitted to the discharge point to prevent disturbance of the watercourse bed; e) watercourses will be protected from contaminated surface water run-off by using French drains, cut off ditches, grips, silt fences or bunds round the edge of watercourses. Numerous small, passive mitigation measures will be installed in preference to one large treatment system to prevent large-scale water build-up, using Sustainable Drainage Systems (SuDS) principles; f) existing and new surface water drains will be kept clear of silt or weed build up; g) roads and hard surfaces will be kept clean, to prevent a build-up of mud and sediment that could contaminate surface water; and h) implementation of a monitoring schedule to ensure that measures taken to protect watercourses, boreholes and wells are effective. Working areas, where possible will not be within 9m of watercourses. Where this is not possible, approaches will follow guidance in *PPG5: Works in, near or liable to affect watercourses.*	Volume 5.26.1C, Paragraphs 3.4.4 and 3.4.5	Schedule 3, Requirements 5 and 17	Relevant Planning Authority, following consultation with the Sewerage Undertaker, Environment Agency and/or Relevant Drainage Authority as appropriate
Other Discharges	6.4.1	Other effluents may be produced that need to be properly managed and controlled in order to prevent contamination of surface water. The contractor will ensure that: a) washing of equipment using detergent is carried out at commercial facilities only; b) washing of vehicles and equipment without the use of detergent is only carried out at either commercial facilities, or at purpose-built wash stations where the water is contained for controlled disposal; c) all foul effluent will be contained; and d) the foul effluent container will be subject to daily inspection and a maintenance and emptying schedule as recommended by the manufacturer. The effluent will be removed by tanker and disposed of at a licensed facility.	Volume 5.26.1C, Paragraph 3.4.7	Schedule 3, Requirements 5 and 17	Relevant Planning Authority, following consultation with the Sewerage Undertaker, Environment Agency and/or Relevant Drainage Authority as appropriate

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
Disposal of Accumulated Rainfall and Surface Water	6.5.1	Rainwater and surface water may accumulate in a number of locations on site, for example in uncovered bunds and drip trays. This has the potential to become contaminated. To reduce this risk, the following measures will be included in the DMP: a) bunds or drum pallets will be covered, where possible, to prevent the accumulation of rainwater. Where this is not possible, (c) will be followed; b) interceptor type drip trays will be provided rather than standard drip trays (for locations where drip trays will be permanently in place) or plant nappies (for mobile plant); c) if a standard drip tray or uncovered bund is used, the contractor will: i. ensure it is regularly inspected (daily) and emptied either via tanker and disposed of immediately off site at an appropriately licensed facility (for large quantities) or to an on-site, bunded, storage facility for later off-site disposal (small quantities). The inspection frequency will increase during times of frequent rainfall; ii. check water from uncovered bunds for obvious signs of contamination (for example, visible oil and smells) in order that the correct disposal option can be identified; iii. ensure that only uncontaminated water is disposed of by draining it onto a grassed or stoned area on the site which is at least 10m from any drains and 50m away from any boreholes or wells. If contaminated, it will be disposed of as Hazardous Waste; and iv. ensure that any oil present is absorbed using a spill kit and disposed of as Hazardous Waste.	Volume 5.26.1C, Paragraph 3.4.8	Schedule 3, Requirement 6	Relevant Planning Authority
Permitted Discharges	6.6.1	Discharges, other than uncontaminated surface water run-off, will require a permit from the Environment Agency (for discharges to controlled waters, including rivers, other watercourses and soakaways) or the local sewerage undertaker (for discharges to sewer). Such discharges may also require land drainage consent from the relevant IDB. Discharges will not be made without prior consent from the EA, IDB or sewerage undertaker, as appropriate. To ensure discharges are appropriately authorised, the following measures will be followed: a) consult with the appropriate consenting body before any discharge is expected to be required from the site and obtain a permit, or where a permit is not required, obtain written confirmation that one is not required; b) ensure that any permitted discharge is sampled and analysed at the frequency specified in the permit to ensure compliance and that monitoring results are kept. More frequent analysis may be required if analytical results indicate that limits are being approached or exceeded; and c) ensure that the consenting body is advised if results indicate that limits are being exceeded, and report the occurrence as an incident in accordance with section 1.13 of the CEMP. Take immediate steps to rectify the situation; check receiving water for pollution resulting from exceedance; carry out any remediation works necessary.	Volume 5.26.1C, Paragraph 3.4.9	Schedule 3, Requirements 5 and 17	Relevant Planning Authority, following consultation with the Sewerage Undertaker, Environment Agency and/or Relevant Drainage Authority as appropriate
Abstraction License	6.7.1	Where water is required from a potable water supply or natural resource (for example, for hydrostatic testing), an Abstraction Licence will be obtained from the local water company or EA, as appropriate. It will be ensured: a) any necessary Abstraction Licences are obtained or other sources of water are provided in cases where an Abstraction Licence is not granted; b) Abstraction Licence conditions are complied with; c) Volumes of water abstracted are recorded; and d) a permit is obtained to discharge abstracted water to ground or via a sewer, soakaway or watercourse on completion of hydrostatic testing.	Volume 5.26.1C, Paragraph 3.4.10	Schedule 3, Requirement 5	Relevant Planning Authority
Flooding	6.8.1	<u>Stockpiling of Topsoil</u> The Flood Risk Assessment (Volume 5.23.5.1A) identifies a number of mitigation measures in relation to stockpiles of topsoil.	Volume 5.23.5.1A, Table 7.1	Schedule 3, Requirement 21	Relevant Planning Authority, following consultation with the

<table>
<tr><th>Aspect</th><th>Ref.</th><th>Mitigation</th><th>Reference in the ES and/or Mitigation Plan</th><th>Delivery Mechanism</th><th>Discharging Authority (ies)</th></tr>
<tr><td></td><td></td><td>Table 6.8.1 (Table 3.3 of the CEMP) Mitigation Measures Stockpiling of Topsoil
<table>
<tr><th>Mitigation</th><th>Reason</th><th>Mitigation Reference</th></tr>
<tr><td>Stockpiles will be located on higher ground (i.e. outside Flood Zone 3) where practicable.</td><td>To minimise loss of floodplain volume; To minimise the risk of top soil being washed away in the event of a major flood event.</td><td>S1</td></tr>
<tr><td>Each stockpile will not exceed 25m in length.</td><td>To minimise disruption of flow paths and maintain hydraulic continuity of the floodplain around both ends of each stockpile.</td><td>S2</td></tr>
<tr><td>There will be a minimum gap of 25m between adjacent stockpiles, except where both adjacent stockpiles are shorter, in which case the gap must be at least as long as the longest adjacent stockpile. Some stock pile lengths and associated gaps may only be 10m.</td><td>To prevent trapping large volumes of water behind the stockpiles and to maintain natural flow paths</td><td>S3</td></tr>
<tr><td>Where stockpiles are placed on both sides of the haul road the gaps between them should coincide.</td><td>To maintain connectivity of flow paths</td><td>S4</td></tr>
<tr><td>Gaps in the stockpiles will be located to preserve existing low points and flow paths.</td><td>To minimise the interruption of natural flow routes</td><td>S5</td></tr>
<tr><td>Stockpiles should not exceed 1.4m above the existing ground level, and be less than 8m wide at the toe.</td><td>To retain a workable footprint width using typical construction plant for the stockpile with 1:2.5 side slopes and a crest width of up to 1m.</td><td>S6</td></tr>
<tr><td>Sections of haul road with stockpiles alongside will not exceed a total of 1/3 of the length of all haul roads within Flood Zone 3.</td><td>To prevent floodplain compartmentalisation and to maintain natural flow paths</td><td>S7</td></tr>
<tr><td>Stockpiles to be seeded to encourage stabilisation of topsoil.</td><td>To prevent sedimentation of watercourses; To prevent loss of topsoil in a major flood event, thereby reducing the availability of material for reinstatement.</td><td>S8</td></tr>
</table></td><td>Volume 5.26.1C, Paragraph 3.4.11, Table 3.3</td><td></td><td>Environment Agency or Relevant Drainage Authority - as appropriate</td></tr>
<tr><td></td><td>6.8.2</td><td><u>Haul Roads</u>
The Flood Risk Assessment (Volume 5.23.5.1A) identifies a number of mitigation measures in relation to haul roads.</td><td>Volume 5.23.5.1A, Table 7.2</td><td>Schedule 3, Requirement 5</td><td>Relevant Planning Authority
Environment Agency and/or Relevant Drainage Authority as appropriate</td></tr>
</table>

<table>
<tr><th>Aspect</th><th>Ref.</th><th>Mitigation</th><th>Reference in the ES and/or Mitigation Plan</th><th>Delivery Mechanism</th><th>Discharging Authority (ies)</th></tr>
<tr><td></td><td></td><td>Table 6.8.2 (Table 3.4 of the CEMP) Mitigation Measures – Haul Roads
<table>
<tr><th>Mitigation</th><th>Reason</th><th>Mitigation Reference</th></tr>
<tr><td>Haul roads generally to be as close to ground level as possible (between 50mm and 100mm above the ground surface except where crossing peat or embanked over watercourse crossings. Where haul roads cross peat they must be on floating roads with drainage pipes.</td><td>To avoid disrupting flow paths and compartmentalising the floodplain thereby losing the hydraulic connection between the “upstream” and “downstream” sides of the haul road.
Slightly raised road surface is required to allow to drain.
Floating roads on peat to have drainage pipes to retain floodplain connectivity.</td><td>H1</td></tr>
<tr><td>Where haul roads cross any rhyne, no stockpile is to be placed within 9m of the top of either bank.</td><td>The IDB require access on both banks for maintenance and to minimise flow impedance around the structure.</td><td>H2</td></tr>
<tr><td>Haul roads would be constructed of material that is at least as permeable as the topsoil removed, where practicable.</td><td>To retain the natural runoff (Greenfield) rate</td><td>H3</td></tr>
<tr><td>Runoff from haul roads would generally not be drained via a piped or open channel drainage system. Runoff would discharge directly from the haul road to allow it to filter through vegetated verges. Where settlement or filtering is not practicable or effective, alternative disposal options would be considered for example, discharge onto a grassed / vegetated area (with consent from the landowner and following EA consultation). No formal haul road drainage system to be constructed except where floating roads are used on peat.</td><td>To retain natural drainage as far as possible;
To reduce the likelihood of rapid runoff from the haul road and minimise erosion;
To prevent sediment washing off the haul roads and entering watercourses (to maintain water quality).</td><td>H4</td></tr>
<tr><td>All haul road construction material to be removed at the end of construction and reinstatement with stockpiles of topsoil to a level slightly above natural ground level (typically <50mm).</td><td>To return the haul roads to a natural condition, allowing for settlement of reinstated topsoil.</td><td>H5</td></tr>
</table></td><td>Volume 5.26.1C, Table 3.4</td><td></td><td></td></tr>
<tr><td></td><td>6.8.3</td><td><u>Compounds</u>
Table 6.8.3.1 describes the measures to reduce the risk of flooding for each construction compound. The compounds will be erected in accordance with the FRAs. Each measure is given a specific reference (C1 to C7). Depending on the location of specific compounds different measures may be appropriate, largely driven by the Flood Zone in which the compound is located. Table 6.8.3.2 summarises each compound, the route section in which it is located, and the proposed measures.
Table 6.8.3.1 (Table 3.5 of the CEMP) Compound Mitigation Measures
<table>
<tr><th>Mitigation</th><th>Reason</th><th>Mitigation Reference</th></tr>
</table></td><td>Volume 5.23.5.1A, Table 7.3 and 7.4</td><td>Schedule 3, Requirement 5</td><td>Relevant Planning Authority
Environment Agency and/or Relevant Drainage Authority as appropriate</td></tr>
</table>

Aspect	Ref.	Mitigation			Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
		Compounds will be surfaced with material that is at least as permeable as the topsoil to be removed, where practicable. This is with the exception of the use of bitumen (20mx20m) for a platform for the crane at the A38 Compound.	To retain natural runoff (Greenfield) rate.	C1	Volume 5.26.1C, Paragraph 3.4.12, Table 3.5 and Table 3.6		
		Any runoff from the compounds would be to the vegetated ground in line with SuDS principles. SuDS measures may include attenuation storage; infiltration trenches/soakaways. Where settlement or filtering is not practicable or effective, alternative disposal options would be considered for example, discharge onto a grassed / vegetated area (with consent from the landowner and following EA consultation).	To avoid disruption to natural flow paths; To retain natural runoff (Greenfield) rate; To avoid discharge of sediment into watercourses (to maintain water quality).	C2			
		At sites with bunds or other forms of visual / acoustic barriers, ensure appropriate gaps in the screening (or culverts through earth bunds where these are used).	To allow free flow of water in the main direction of flow across the compound; To allow free drainage of surface water from the compound.	C3			
		Offices and other site facilities will be raised above the modelled 1 in 10 (10%) annual probability event level where modelled data are available. Where not available this would be estimated from the best available information. Facilities could be elevated on stilts, or in some cases, located on the higher areas of the compound.	To minimise loss of floodplain storage; To minimise risk of equipment being mobilised by flood waters, impacting somewhere else downstream; To allow free flow of water across the compound in a flood event.	C4			
		Minimal stockpiling of materials. Where storage of materials is necessary, store above the 1 in 10% (10%) annual probability event level.	To minimise loss of floodplain storage; To minimise risk of materials being mobilised by flood waters, impacting somewhere else downstream; To allow free flow of water across the compound in a flood event.	C5			
		Minimal storage of potential pollutants e.g. fuel, hazardous substances.	To minimise risk of pollution of watercourses, as well as mobilisation of drums and other storage containers that could result in downstream impacts.	C6			
		Site closure and evacuation plan	To minimise the loss of plant, materials, risk to operatives in a flood event; To minimise risk of pollution of flood water.	C7			

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)

Table 6.8.3.2 (Table 3.6 of the CEMP) Site-Specific Mitigation Measures for Each Compound

Route Section	Compound Name	Nation Grid Reference	Greenfield Runoff Allowable Discharge (l/s/ha)	Mitigation Reference
A	Bridgwater Tee (Bath Road)	3327 1396	7.0	C1-7
B	A38 Bristol Road (Underground Cables)	3375 1529	7.7	C1-7
B	A38 Bristol Road (Overhead Line)	3373 1530	7.7	C1-7
B	South of the Mendip Hills (Hams Lane)	3373 1544	7.7	C1-7
C	Barton Road	3383 1563	9.2	C1-2
C	Castle Hill	3406 1583	8.9	C1-2
D	Towerhead Road	3412 1595	9.7	C1-2
D	AT Route Overhead Line Compound	3413 1607	8.5	C1-7
D	Sandford Substation Compound	3415 1603	8.5	C1-2
D	Engine Lane	3456 1695	8.7	C1-2
D	Nailsea	3461 1708	8.5	C1-2
D	Church Lane	3459 1717	8.8	C1-7
E	Clevedon Road	3462 1719	8.8	C1-2
E	Whitehouse Lane	3480 1730	9.1	C1-2
E	Caswell Hill	3490 1748	9.2	C1-2
F	Sheepway	3487 1757	9.2	C1-7
F	BW Underground Cable Route West	3491 1767	9.2	C1-2
G	BW Underground Cable Route East	3513 1764	8.4	C1-7
G	St Andrews Road	3518 1787	8.1	C1-7
G	Kings Weston Lane	3534 1789	8.1	C1-7
G	G Route Underground Cables (East of M49)	3539 1789	8.1	C1-7
G	Seabank (Severn Road)	3540 1821	7.9	C1-7

<table>
<tr><th>Aspect</th><th>Ref.</th><th>Mitigation</th><th>Reference in the ES and/or Mitigation Plan</th><th>Delivery Mechanism</th><th>Discharging Authority (ies)</th></tr>
<tr><td></td><td>6.8.4</td><td><u>Culvert Crossings</u>
Temporary culvert crossings will be constructed to minimise the impact on flood risk using the mitigation measures outlined below:
Table 6.8.4 (Table 3.7 of the CEMP) Mitigation Measures – Culvert Crossings
<table>
<tr><th>Mitigation</th><th>Reason</th><th>Mitigation Reference</th></tr>
<tr><td>Culvert size to be selected to minimise afflux (maximum afflux of 100mm), and invert level to be determined by topographic survey. Over-pumping during installation of culverts (as required).</td><td>Maintain existing conveyance capacity and hydraulic performance, allowing for seasonal level and flow changes</td><td>W1</td></tr>
<tr><td>No multiple pipes</td><td>Maintain existing conveyance capacity and minimise risk of collection of debris</td><td>W2</td></tr>
<tr><td>Box culverts will have no concrete bedding</td><td>Minimise environmental damage</td><td>W3</td></tr>
<tr><td>Circular culverts will have concrete bedding on IDB ditches</td><td>Prevent settling and therefore loss of flow capacity</td><td>W4</td></tr>
<tr><td>Headwalls will have a batter</td><td>Stability</td><td>W5</td></tr>
<tr><td>Maintain minimum clearance of overhead lines over watercourses: 10.9m over bank level in the case of overhead lines over Main Rivers; 8.1m in the case of 400kV overhead lines over ordinary watercourses; and 7m in the case of 132kV overhead lines over ordinary watercourses.</td><td>Ensure safe access for watercourse maintenance</td><td>W6</td></tr>
</table></td><td>Volume 5.23.5.1A, Table 7.5

Volume 5.26.1C, Paragraph 3.4.13, Table 3.7</td><td>Schedule 3, Requirement 5
Schedule 3, Requirement 33</td><td>Relevant Planning Authority
Environment Agency and/or Relevant Drainage Authority as appropriate</td></tr>
<tr><td></td><td>6.8.5</td><td><u>Bridge Crossings</u>
Permanent bridge crossings will be constructed to minimise the impact on flood risk using the mitigation measures identified in Table 6.8.5 (Table 3.8 of the CEMP)
Table 6.8.5 (Table 3.8 of the CEMP) Bridge Crossings Measures
<table>
<tr><th>Mitigation</th><th>Reason</th><th>Mitigation Reference</th></tr>
<tr><td>Bridge soffit will be above the 100 year flood level plus 600mm to allow for climate change and freeboard.</td><td>Minimise loss of channel capacity.</td><td>B1</td></tr>
<tr><td>No piers in the watercourse</td><td>Minimise loss of channel capacity</td><td>B2</td></tr>
<tr><td>Maintain minimum clearance of overhead lines over watercourses: 10.9m above bank level in the case of overhead lines over Main Rivers; 8.1m in the case of 400kV overhead lines over ordinary watercourses; and 7m in the case of 132kV overhead lines over ordinary watercourses.</td><td>Ensure access for maintenance</td><td>B3</td></tr>
</table></td><td>Volume 5.26.1C, Paragraph 3.4.14, Table 3.8</td><td>Schedule 3, Requirement 5
Schedule 3, Requirement 33</td><td>Relevant Planning Authority
Environment Agency and/or Relevant Drainage Authority as appropriate</td></tr>
<tr><td></td><td>6.8.6</td><td><u>Laying Underground Cables</u>
The method of laying underground cable will require topsoil stripping. Where physically and technically possible, the topsoil stripped from within Flood Zone 3, wherever it is close to the boundary with Flood Zone 1, should be stockpiled in Flood Zone 1. The material stripped</td><td>Volume 5.23.5.1A, Paragraph 7.2.14</td><td>Schedule 3, Requirement 21</td><td>Relevant Planning Authority, following consultation with the Environment Agency</td></tr>
</table>

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
		within Flood Zone 1 will be stored within the same zone. In all cases, stockpiling mitigation measure constraints will be observed. Trenches for cable laying are open for a short term only, being backfilled as the cable laying progresses, therefore, the associated stockpiles are not included in the floodplain displacement volume calculations.	Volume 5.26.1C, Paragraph 3.4.15		or Relevant Drainage Authority - as appropriate
	6.8.7	<u>Flooding Warning, Escape and Evacuation</u> Details of evacuation plans for different parts of the proposed route will be developed prior to commencing construction and will detail the procedure to be followed once a flood warning is received, either from the Environment Agency for fluvial/tidal flooding, or from Bristol Water for a reservoir breach. Primary considerations for the evacuation plan include: • evacuation of personnel from the working areas at risk of flooding – this is the primary safety consideration, and is the highest priority in the unlikely event that there is insufficient time to undertake the following activities; • making the site safe and prior to evacuation – this will include appropriate storage of equipment and materials, securing items within site compounds to prevent them being mobilised in flood water; and • removal of critical plant and equipment from Flood Zone 3 – this may be removal from the haul roads or from the compounds and could include raising critical items above the design flood level or removing them from the floodplain completely to a suitable alternative compound. During construction, the contractor will identify the need (or not) to remove equipment from working areas based on the flood warnings. Potential evacuation routes that will be used for all compounds located within Flood Zone 3 and for compounds in other Flood Zones that are surrounded by Flood Zone 3 are listed in Table 7.10 of the Route FRA at Volume 5.23.5.1A.	Volume 5.26.1C, Paragraphs 3.4.16 and 3.4.17	Schedule 3, Requirement 6	Relevant Planning Authority, following consultation with the Environment Agency or Relevant Drainage Authority - as appropriate
Inspections	6.9.1	Inspections and any action required, relating to non-conformance with the CEMP, will be undertaken in accordance with sections 1.12 and 1.13 of the CEMP (Volume 5.26.1C).	Volume 5.26.1C, Paragraph 3.4.18	Schedule 3, Requirement 5	Relevant Planning Authority
7.0 Historic Environment (Volume 5.11.1, Section 11.7, Volume 5.26.1C, Section 3.5 and Volume 5.26.4C), Off-site Planting and Enhancement Scheme (Volume 5.25B), s106 (Volume 8.4B) and ES Sensitivity Test (Volume 5.29)					
General Measures	7.1.1	A Written Scheme of Investigation (WSI) has been prepared which provides the framework for the proposed approach to mitigate the construction phase effects of the Proposed Development on heritage assets with archaeological interest. This is provided at Volume 5.26.4C. The mitigation measures summarised in this section of the CEMP are described in further detail in the WSI. Detailed archaeological method statements will be provided for the stages of the archaeological works outlined in the WSI and secured via Schedule 3, Requirement 6 of the DCO. The method statements will outline the techniques and approaches that will be used in providing the field surveys proposed in the WSI. The WSI also provides measures for archaeological recording to mitigate breaches of historic hedgerows (reference 7.5.1 below). Replacement planting of historic hedgerows will be secured by Requirement 10 of the DCO, as referenced in Table 4.1 (reference 24.1.1 below). Enhancement measures in relation to the OSPES proposals and the historic environment are described in Table 4.1 below (reference 26.1.1). Measures proposed by National Grid in relation to Tickenham Church, Portbury Church and Kings Weston House are included in the s106 Agreement (see also Table 4.1, reference 26.1.2-26.1.4 of this document below).	Volume 5.26.4C Volume 5.25B Volume 8.4B	Schedule 3, Requirement 5 Schedule 3, Requirement 6 Schedule 3, Requirement 10 s106 Agreement	Relevant Planning Authority

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
Measures to Mitigate Effects on Heritage Assets with Archaeological Interest	7.2.1	The WSI (Volume 5.26.4C) provides a summary, at Annex A, of known heritage assets with archaeological interest within the Order Limits and the applicable procedure to mitigation of predicted adverse effects. The WSI also provides a summary of the mitigation measures by Proposed Development component (see Annex B of the WSI). The work outlined by the Written Scheme of Investigation (WSI) will take place prior to, during and after construction and will comprise: <u>Pre-construction Phase Assessment:</u> • Targeted archaeological geophysical survey and trenched evaluation <u>Pre-construction Phase Mitigation:</u> • Archaeological controlled strip • Preservation in situ • Pre-construction excavation • Topographic survey of earthworks within the Order Limits at Bridgwater Tee • Historic building recording of Ashtrees Farmhouse, Mark Causeway, Section B <u>Construction Phase Assessment:</u> • Archaeological watching brief <u>Construction Phase Mitigation:</u> • Preservation in situ • Archaeological excavation <u>Post-construction Phase Mitigation:</u> • Post excavation review and project design • Post-excavation assessment • Appropriate and proportionate reporting and publication of all above-named phases, archiving and appropriate public dissemination. In addition to the general programme outlined above, some of the post excavation assessment and analysis may be undertaken on completion of that phase of work; for example the assessment of the results of field evaluation would be undertaken to inform the strategy for subsequent phases of field work and analysis. The proposed archaeological phase of works is outlined at Inset 4.1 of the WSI. It may also be necessary to reinstate areas of intrusive archaeological work undertaken in advance of the main construction programme. This is in relation to other environmental considerations. This includes measures proposed in relation to the Special Areas of Conservation (SAC) bat foraging habitat, where archaeological mitigation works will accord with measures proposed in relation to minimising habitat loss.	Volume 5.26.4C, Paragraphs 1.4 and 1.5 Volume 5.26.4C, Paragraphs 4.2 to 4.4	Schedule 3, Requirement 5	Relevant Planning Authority

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
	7.2.2	A method statement will be provided for each of the following activities and will include asset site-specific methods and generic approaches to commonly encountered asset types, as appropriate: • field evaluation including geophysical survey and trial trenching; • archaeological controlled strip; • archaeological watching brief; • archaeological excavation; • palaeo-environmental and geo-archaeological assessment and analysis; • historic building recording; • archaeological earthwork (topographic) survey; • post excavation assessment, analysis, reporting and archiving; and • public outreach activities.	Volume 5.26.4C, Paragraph 1.9	Schedule 3, Requirement 6	Relevant Planning Authority
	7.2.3	<u>Assessment and Approval of the Detailed Archaeological Method Statements</u> The local planning authorities' archaeological representatives and Historic England are collectively referred to as 'the relevant consultees'. Historic England will act in an advisory role to the local planning authorities in matters relating to non-designated heritage assets. The local planning authorities' archaeological representatives will represent the relevant planning authority in approving the detailed archaeological method statements, in accordance with Schedule 3, Requirement 6 of the DCO. In accordance with the Overarching National Policy Statement for Energy (EN-1), paragraph 5.8.21, National Grid will continue to engage with the relevant consultees and seek their agreement of the WSI, in writing. This will assist the Secretary of State, who will be asked to approve and certify the CEMP and WSI, secured by Schedule 3, Requirement 5 of the DCO. The locations provisionally identified in this document for further assessment and mitigation works will be subject to appropriate consultation and agreement with the relevant consultees, prior to field work commencing. Any amendments to these locations, or to the archaeological method statements, will also be subject to appropriate consultation and agreement. The archaeological method statements will be periodically reviewed with the relevant consultees during the construction phase of the Proposed Development to ensure that they reflect any policy, guidance or best practice updates and remain appropriate to the findings of the archaeological mitigation works. The relevant consultees will also be invited to monitor the archaeological field work during implementation. Should as yet unknown heritage assets with archaeological interest be identified during the course of the watching brief, there may be a need to develop site specific mitigation strategies during the course of the onsite works. These strategies may require 'stand-alone' method which would be subject to appropriate consultation statements and agreement with the relevant consultees. Consultation and agreement will, in this circumstance, need to take place within a reasonable timescale commensurate to the construction programme. The timescale will be agreed at the time of the request being made. Further details on this are provided in Section 8 of the WSI.	Volume 5.26.4C, Paragraphs 1.12 to 1.16	Schedule 3, Requirement 6	Relevant Planning Authority

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
	7.2.4	<u>Roles and Responsibilities</u> National Grid will provide its main works contractors (the contractor) with locations and descriptions of all known heritage assets within and adjacent to construction works, including restrictions to construction methods to protect heritage assets, where these have been identified in the ES and WSI, including any restrictions to construction methods to protect built heritage assets where necessary. All actions required of the contractor will apply to the entire workforce whether directly employed by the contractor or a sub-contractor. National Grid and the contractor will agree a programme that allows sufficient time for the implementation of the archaeological survey works prior to and during construction as set out in this WSI. National Grid will appoint an appropriately qualified Archaeological Clerk of Works (ACoW) who will report to the Safety, Health and Environment (SHE) Manager. The contractor will facilitate archaeological specialists undertaking the works as specified, as an appropriate mitigation measure (including purposive investigation and/or watching brief works). All archaeological mitigation recording, analysis, reporting and archiving will be undertaken by a suitably qualified and demonstrably experienced specialist archaeological organisation (the archaeological contractor). The archaeological contractor employed to implement the mitigation works will provide risk assessments and the detailed archaeological method statements referred to above for the works they undertake. The archaeological contractor will appoint a supervising archaeologist who will notify any significant archaeological finds to the ACoW and liaise with the contractor regarding programme and progress. They will also maintain a log of the mitigation works undertaken and results obtained and update the historic environment data held by the contractor on a regular basis.	Volume 5.26.4C, Paragraphs 1.17 to 1.22	Schedule 3, Requirement 5	Relevant Planning Authority
	7.2.5	<u>Preservation in Situ of Archaeological Remains</u> Where the conservation of the whole or a material part of a heritage asset's significance is justified (e.g. for assets of demonstrably equivalent significance to a designated heritage asset), and where preservation in situ is achievable, the following techniques will be considered: • avoidance of the heritage asset through a minor variation (within the Limits of Deviation) in the proposed working area; • use of non-open cut techniques, where available; and • protection of subsoil within the working area (e.g. through the use of floating trackway panels, topsoil retention, or any other suitable technique). The implementation of any of the above techniques will be subject to review by the engineers and could be influenced by other environmental constraints.	Volume 5.26.4C, Paragraphs 10.1 and10.2	Schedule 3, Requirement 5	Relevant Planning Authority
	7.2.6	<u>Assessment, Reporting and Publication</u> In accordance with the principles of Management of Research Projects in the Historic Environment (MoRPHE) (Historic England 2006) and the Management of Archaeological Project, 2nd Ed (MAP2) (Historic England 1991), a staged programme of post-excavation assessment and reporting will be undertaken, to commence on completion of archaeological mitigation fieldwork. The terminology used in relation to this is 'project design' and 'updated project design'. In this context 'project' references the archaeological post excavation project and not the Proposed Development.	Volume 5.26.4C, Paragraph 11.1	Schedule 3, Requirement 5	Relevant Planning Authority
Mere Bank Scheduled Monument	7.3.1	The DCO Order Limits and the Limits of Deviation for the G Route 132kV underground cables are within the designated area of the Mere Bank Scheduled Monument. The contractor will be notified to ensure that an appropriate exclusion zone is maintained and that no works are undertaken on the ground which would directly and physically affect the area protected as a Scheduled Monument.	Volume 5.26.4C, Paragraph 10.9	Schedule 3, Requirement 5	Historic England
Horsey Medieval Village Scheduled Monument	7.4.1	At the Bridgwater Tee (Section A) there are two non-designated heritage assets (Assets AR20 and AR23) which relate to deserted medieval village sites at Crook and Horsey. Earthwork remains associated with these heritage assets are visible within the Order Limits. The post excavation assessment will include proposals for additional analysis and publication of the results of the archaeological mitigation associated with Horsey and Crook medieval villages. The analysis and publication of these sites will include consideration of previous investigations so that the results of the archaeological mitigation recording can be placed in context and advance understanding of these assets.	Volume 5.26.4C, Paragraph 5.10 Volume 5.26.4C, Paragraph 11.6	Schedule 3, Requirement 5	Historic England

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
Historic Hedgerows	7.5.1	Historically significant important hedgerows have been identified within the historic environment baseline data and the location of historically significant hedgerows provided to the contractor. During construction, archaeological recordings will be undertaken by the Archaeological Clerk of Works (ACOW) for any gaps made in historic important hedgerows. This will be undertaken through watching brief conditions, to record in section the hedgerow profile and any associated structure or dating evidence.	Volume 5.26.4C, Paragraphs 8.15 and 8.16	Schedule 3, Requirement 5	Relevant Planning Authority
Public Outreach	7.6.1	A proportionate programme of outreach activities, commensurate to the findings of the archaeological mitigation works, will be provided by National Grid. The scope of these works will be defined in a method statement, provided to the relevant consultees for their agreement (via Schedule 3, Requirement 6 of the DCO), prior to post excavation works commencing.	Volume 5.26.4C, Paragraph 11.7	Schedule 3, Requirement 6	Relevant Planning Authority
Health, Safety, Environment and Quality Controls	7.7.1	All archaeological mitigation works will be undertaken strictly in accordance with the Proposed Development's health and safety plan and task specific risk assessments. All companies working on the project will adhere to National Grid's required quality, health, safety and environment controls.	Volume 5.26.4C, Paragraphs 12.1	Schedule 3, Requirement 5	Relevant Planning Authority
Inspections	7.8.1	Inspections and any action required, relating to non-conformance with the CEMP, will be undertaken in accordance with sections 1.12 and 1.13 of the CEMP (Volume 5.26.1C) and measures described in the WSI (Volume 5.26.4C). A specialist archaeological organisation will be appointed to implement the measures in the WSI. The ACoW will monitor all archaeological mitigation works. If there are any significant archaeological findings, these will be reported by the archaeological organisation to the ACoW. The ACoW will also maintain a log of the mitigation works undertaken and the results obtained, update the historic environment data on a regular basis and liaise with the relevant consultees in accordance with the overarching framework for delivery of the archaeological mitigation works provided in the WSI. The contractor will undertake appropriate monitoring of the mitigation measures implemented and the effectiveness of the measures to ensure compliance with the archaeological risk assessments and detailed archaeological method statements. The contractor will be required to monitor compliance using an appropriately qualified archaeologist, with specific responsibility for supervising works with the potential to affect historic environment interests. All archaeological mitigation works will also be monitored by the relevant consultee. This will normally be the local planning authorities' archaeological representatives. If the works are in relation to a designated heritage asset or asset of demonstrably equivalent significance to a designated heritage asset, that role may defer to Historic England. Historic England will also provide the support of its specialist Scientific Advisor in relation to palaeo-environmental or geo-archaeological assets.	Volume 5.26.1C, Paragraphs 3.5.18 and 3.5.19 Volume 5.26.4C, Paragraphs 1.23 and 1.24	Schedule 3, Requirement 5	Relevant Planning Authority
8.0 Traffic and Transport (Volume 5.12, Section 12.7, Volume 5.26.1C, Section 3.6 and Volume 5.26.5C), ES Sensitivity Test (Volume 5.29) and s106 (Volume 8.4B)					
General Measures	8.1.1	The measures that will be implemented through the CTMP, include: a) a Traffic Management Group (TMG) will be established, prior to construction, to implement and monitor the CTMP; b) all HGV and LGV construction vehicles associated with the Proposed Development will be clearly identifiable through the use of a vehicle marking scheme (Schedule 3, Requirement 24 of the DCO); c) only those construction traffic routes and haul roads which have been agreed with the relevant authorities will be used; d) Heavy Goods Vehicles (HGV) movements will be restricted during identified peak periods, particularly at certain junctions, as detailed in the CTMP and Schedule 3, Requirement 23 of the DCO; e) a 'Banksman' or other qualified personnel will be in place at all bellmouth locations to guide construction traffic; and record arrivals and departure of vehicles against the deliveries schedule; f) all vehicles exiting from a bellmouth will pass over a wheel cleaning facility prior to using the public highway; g) condition surveys will be conducted on the Local Road Network (LRN) (including haul roads and connections to the LRN), PRoW and cycle routes; and h) Temporary Traffic Management Procedures (TTM) will be used where required to enhance safety conditions on the LRN and mitigate potential impacts of the construction of the bellmouths and haul roads.	Volume 5.26.1C, Paragraph 3.6.2	Schedule 3, Requirement 5 Schedule 3, Requirement 23 Schedule 3, Requirement 24	Relevant Highway Authority N/A Relevant Highway Authority, following consultation with the Relevant Planning Authority

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
	8.1.2	Additional mitigation measures will be implemented for abnormal load movements, including, but not limited to: a) escorts to warn other road users of the abnormal load vehicles; b) delivery programmes timed to have minimal disruption; and c) vehicles marked as abnormal or long vehicles and temporary warning signs.	Volume 5.26.1C, Paragraph 3.6.3	Schedule 3, Requirement 5	Relevant Highway Authority
Access Route and Point Signing	8.2.1	Temporary signage will be erected along construction traffic routes on the LRN to provide access (directional) routeing information. These will be placed to ensure that construction vehicles and staff are able to travel directly to site from the SRN. Locations of the temporary signage will be drafted in plan format and approved by the relevant LHA ahead of installation in accordance with Schedule 3, Requirement 25 of the DCO. This temporary signage will also be provided in the vicinity of each bellmouth and also will provide warning to other road users of the likely presence of construction vehicles. Temporary signage will be produced and agreed with the LHAs in accordance with Schedule 3, Requirement 25 of the DCO. The method of sign installation is described in the bellmouth and haul road construction method statements at Volume 5.3.2, Appendix 3G (10) – 'Hazard Identification, Risk Assessment and Method Statement for Ducted Road Crossings and Access Bellmouth Installations'.	Volume 5.26.5C, Paragraphs 5.1.1 to 5.1.3	Schedule 3, Requirement 5 Schedule 3, Requirement 25	Relevant Highway Authority
Haul Road Signing	8.3.1	Similar to the above access route, temporary signage will be erected along proposed construction haul roads where necessary. The signage will provide drivers with information on distances to destination, and warning (hazard) information relating to potential vehicle conflict areas (cross over points). Locations of the temporary signage will be drafted in plan format and approved by the relevant LHA ahead of installation.	Volume 5.26.5C, Paragraphs 5.2.1 to 5.2.2	Schedule 3, Requirement 5 Schedule 3, Requirement 25	Relevant Highway Authority
Temporary Diversion Signing	8.4.1	In the event that any diversions of traffic along the construction traffic routes are required, temporary signage will be installed by National Grid or the relevant LHA or both in accordance with relevant signage design guidance as is standard.	Volume 5.26.5C, Paragraph 5.3.1	Schedule 3, Requirement 5 Schedule 3, Requirement 25	Relevant Highway Authority
Working Hours	8.5.1	Construction work will take place in accordance with the 'Construction Hours' set out in Schedule 3, Requirement 7 of the DCO.	Volume 5.26.5C, Paragraph 5.4.1	Schedule 3, Requirements 5 and 7	Relevant Planning Authority Relevant Highway Authority
HGV and LGV Construction Vehicle Identification	8.6.1	All heavy goods vehicles (HGVs) and light goods vehicles (LGVs) associated with construction of the Proposed Development will be clearly identifiable through the use of a vehicle marking scheme. The purpose of this is to assist with the monitoring process of the construction vehicles over the strategic road network (SRN) and local road network (LRN). It is envisaged that this will be by a sign attached to the side of all HGVs and LGVs entering and exiting the working areas onto the LRN. This signage will be passed to appointed contractors prior to the start of construction. The exact form of identification is still to be determined; however, wording stating "Working on behalf of National Grid" or similar will be used. It is anticipated that the signs will be a minimum 21cm x 30cm for LGVs and 30cm x 42cm for HGVs. The attachment method may differ from one supplier or contractor to another. Where a vehicle is based full time on the project it will be secured by adhesive bond. However, for others (for example stone haulage vehicles that may have other clients from one day to the next) detachable magnetic signs will be used.	Volume 5.26.5C, Paragraphs 6.2.1 to 6.2.4	Schedule 3, Requirement 24	Relevant Highway Authority, following consultation with the Relevant Planning Authority

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
Prescribed HGV and LGV Construction Routes	8.7.1	Only those construction traffic routes and haul roads which have been agreed with the local highway authorities (LHAs) and HE will be used. The construction traffic routes and haul roads are shown at Annex C of the CTMP (Volume 5.26.5C) The proposed construction routes from eight distinct traffic networks which link the haul roads to the SRN via the LRN. The primary considerations for each routeing strategy are: a) to use the shortest route from the location of bellmouths to the primary distributive network; b) to avoid settlement and any other sensitive receptors to reduce congestion and minimise effects in cities, towns and villages; and c) to minimise travel on the LRN and use haul roads where possible. The construction traffic routes and haul roads are shown at Annex C of Volume 5.26.5C supersede those previously provided in the TA at Volume 5.22.3, Figure 22.1 in the DCO application made in May 2014.	Volume 5.26.5C, Paragraphs 6.3.1 and 6.3.2	Schedule 3, Requirement 5	Relevant Highway Authority
HGV Traffic Movement Restrictions	8.8.1	It is important to the mitigation strategy that National Grid restricts heavy goods vehicle movements during the identified peak periods at those junctions on the LRN that are predicted to operate at over their practical capacity (i.e. over 0.85 RFC or 90% DoS) during future design year scenario. The peak periods are 08.00-09.00 and 17.00-18.00. All junctions that are predicted to be operating over capacity in the future baseline scenario (with the exception of the strategic road network (SRN)) will have the restrictions in place for the duration of the construction of the Proposed Development. The LRN junctions where these restrictions will take place are set out below. The junction restrictions form Schedule 3, Requirement 23 of the DCO. a) (2) A39/Puriton Hill; b) (4) A39 Puriton Hill/Bath Road; c) (6) A39 Bath Road/Woolavington Hill; d) (10) A38 Bristol Road/Harp Road; e) (13) Dunball Roundabout; f) (14) A38 Bristol Road/The Drove; g) (15) A38 Bristol Road/Wylds Road; h) (16) Wylds Road/The Drove; i) (28) Central Way/Southern Way; j) (31) Northern Way/B3133 Tickenham Road; k) (32) Clevedon Road/B3128 Tickenham Hill; and l) (41) A403 St Andrew's Way/Kings Weston Way. HGV restrictions at the above LRN junctions will reduce the HGV traffic on the adjoining SRN junctions. The proposed mitigation does not include restrictions on the SRN, however, limiting traffic at junctions close to the SRN will reduce traffic on the SRN during peak periods. Except in exceptional circumstances or if HGVs are required in association with out of hours working specifically requested by the relevant highway authority (e.g. for road crossings; scaffold erection), HGV movements associated with the Proposed Development will not be permitted on the LRN at the following times: a) between the movement hours of 19:00 and 07:00 (Monday to Saturday); and b) at the LRN junctions identified above between 08:00 – 09:00 and 17:00 – 18:00. The above restrictions do not apply to the movements of HGV's on the SRN or in relation to AILs. 'Exceptional circumstances' are defined in Schedule 3 of the DCO and discussed in section 6.9.8 of the CTMP (Volume 5.26.5C). Physical junction mitigation measures are proposed only at Factory Lane where TTM procedures are proposed.	Volume 5.26.5C, Paragraphs 6.4.1 to 6.4.9	Schedule 3, Requirement 23	N/A

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
HGV Emissions	8.9.1	All vehicles used in the construction of the Proposed Development will be to Euro standard VI class.	Volume 5.26.5C, Paragraph 6.5.1	Schedule 3, Requirement 5	Relevant Highway Authority
Banksman or Presence of Qualified Personnel at Access	8.10.1	Qualified personnel (Banksmen) will be in place at key locations during construction of the Proposed Development. Qualified personnel can be provided at other location as required.	Volume 5.26.5C, Paragraph 6.6.1	Schedule 3, Requirement 5	Relevant Highway Authority
Timings of HGV Movements	8.11.1	A booking system (Delivery Management System) will be used to ensure deliveries to the sites will be spread across the whole day where possible. This will minimise the impact of HGV traffic during the network peak periods. This booking schedule also will form part of and inform the monitoring process of the CTMP.	Volume 5.26.5C, Paragraph 6.7.1	Schedule 3, Requirement 5	Relevant Highway Authority
Routeing Staff	8.12.1	Staff will be employed to travel on the construction routes and monitor LGV and HGV traffic using the routes where all construction vehicles associated with the Proposed Development will be clearly identifiable. Staff will be trained to conduct this monitoring process, collect and collate data and present the data for the Transport Co-ordinator (TCO) and Traffic Management Group (TMG).	Volume 5.26.5C, Paragraph 6.8.1 and 6.8.2	Schedule 3, Requirement 5	Relevant Highway Authority
				Schedule 3, Requirement 27	Relevant Highway Authority
Traffic Incident Management Plan	8.13.1	The TIMP outlines the arrangements for the control of Proposed Development construction traffic movements to minimise potential impacts on the road network in the event of an incident. The TIMP sets out the relationship between National Grid, the Emergency Services and Highways Authorities and details the communication, management and response procedures which will be undertaken to ensure the operational safety of the employees and the general public, should an incident occur. The TIMP identifies National Grid's ongoing roles and responsibilities including their responsibilities in the event of an incident which will need to be adhered to throughout the duration of the Proposed Development construction programme. The further development of the TIMP will be undertaken in accordance with Schedule 3, Requirement 26 of the DCO. The strategies contained within the TIMP will be based on the existing procedures undertaken by the LHA, Emergency Services and HE. The key elements of the TIMP will be the provision of planning, strategy and contingencies for the following key elements of incident management: a) Incident Management Area (IMA). b) HGV/Construction vehicle routeing. c) Incident Detection. d) Incident Verification. e) Incident Response. f) Traveller Information. g) Site Management. h) Traffic Management. i) Site Clearance. j) Monitoring. The TIMP will set out the strategies and contingencies that National Grid will put in place to control the movement of construction vehicles to the various sites over the construction route network in the event of an accident within the IMA. The information provided herein set out the key principles of the TIMP.	Volume 5.26.5C, Paragraphs 6.9.1 to 6.9.4	Schedule 3, Requirements 5 and 26	Relevant Highway Authority
	8.13.2	<u>Construction Traffic Routes</u> Construction traffic routes detailed in the TIMP are those agreed with the LHA and contained within Annex C of the CTMP (Volume 5.26.5C).	Volume 5.26.5C, Paragraph 6.9.6	Schedule 3, Requirement 5	Relevant Highway Authority

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
	8.13.3	<u>HGV Movements</u> National Grid will control the number of construction vehicle movements, as stated in Section 6.4 of the CTMP (Volume 5.26.5C). National Grid will observe, manage and restrict construction vehicle movements at the key locations (junctions). Adherence to these restrictions will be verified through the agreed monitoring process.	Volume 5.26.5C, Paragraph 6.9.7	Schedule 3, Requirements 5 and 23	Relevant Highway Authority
	8.13.4	<u>Exceptional Circumstances</u> There may be exceptional circumstances when traffic movements on the SRN or LRN are compromised which will impact on construction vehicles being able to use the agreed construction traffic routes and access the necessary bellmouth. These exceptional circumstances are defined in Schedule 3 of the DCO. In the event of these exceptional circumstances resulting in construction vehicles particularly HGVs not being able to arrive at or depart from a site, the following impacts need to be considered with regard to highways and construction of the Proposed Development: a) incidents on the highway network of vehicles not being able to access the site resulting in stoppage (at agreed locations) or rescheduling of delivery; b) incidents on the highway network causing delays, resulting in construction vehicles travelling through restricted junctions in the peak period; and c) impacts of delivery not being made with specific regard to construction works on site, specifically health and safety issue due to lack of equipment of material or stop to construction works and delays to construction programme.	Volume 5.26.5C, Paragraphs 6.9.8 and 6.9.9	Schedule 3, Requirements 1 and 5	Relevant Highway Authority
	8.13.5	<u>Incident Management Area</u> The IMA has been determined by the extents of the prescribed route from each bellmouth to the SRN used by the construction vehicles as detailed in Table 4.1: Bellmouth Locations (Volume 5.26.5C). Therefore, on the SRN the IMA extends between Junction 18 to 23 only. With regard to the LRN roads within the IMA, these are only those LRN roads listed at Table 4.1 of the CTMP up to the furthest bellmouth from the SRN. Given the scale of the used road network and the ownership of the road networks over this area, the IMA would be broken down to three areas as defined by the Local Highway Authority boundary lines. Therein, the IMA would be made up of three distinct areas which represent Somerset, North Somerset and Bristol. This approach of defining the extents of the IMA will need to be discussed and agreed with the LHAs.	Volume 5.26.5C, Paragraphs 6.9.10 to 6.9.12	Schedule 3, Requirements 5 and 26	Relevant Highway Authority
	8.13.6	<u>Abnormal Indivisible Loads</u> HE's Electronic Service Delivery for Abnormal Loads (ESDAL) system will be used to notify HE, LHAs and the Police of AIL movement details, times, types and route. The ESDAL system will be used to notify the aforementioned authorities prior to departure. A full road condition survey of any proposed AIL delivery route will be undertaken both before and after delivery. The method of the surveys will be discussed and agreed with the relevant Local Authorities prior to being undertaken. The movement of abnormal vehicles is controlled by The Motor Vehicles (Authorisation of Special Types) General Order 2003 and subject to management and prior agreement with the Police and Highways England. Leaflet drops will be undertaken at key sections along the AIL delivery routes to inform local residents.	Volume 5.26.5C, Paragraphs 6.9.13 to 6.9.16	Schedule 3, Requirement 5	Relevant Highway Authority
	8.13.7	<u>Incident Detection</u> National Grid's role with regard to incident detection is based on Schedule 3, Requirement 26 to establish and implement an agreed TIMP. The CTMP set out the monitoring system which will be in place for the duration of the construction programme and the management of the construction vehicles accessing the site of the Proposed Development. Therefore, on notification of an incident on the road network, National Grid's responsibility is to implement the TIMP as appropriate (depending on location and severity).	Volume 5.26.5C, Paragraph 6.9.17	Schedule 3, Requirements 5 and 26	Relevant Highway Authority
	8.13.8	<u>Incident Verification</u> National Grid will have no direct role in the verification process of an incident unless it directly involves its operations, i.e. at a construction site or involving a construction vehicle.	Volume 5.26.5C, Paragraph 6.9.18	Schedule 3, Requirements 5 and 26	Relevant Highway Authority

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
	8.13.9	<u>Response to Incident</u> National Grid will have the responsibility of notifying all suppliers (those listed on the Delivery Management System (DMS) for that day) of the occurrence of an incident after it has been notified by the Emergency Services, the Local Authority or HE. National Grid will reduce or stop any additional HGVs (construction vehicles) entering the incident area within the IMA where necessary. Given the scale of the IMA it is anticipated that some vehicles within the IMA may not be travelling in the vicinity of the incident site or in an area impacted by the incident. Subject to location and impacts on the road network further afield, advice would be sought by National Grid from the Police and Highway Authorities.	Volume 5.26.5C, Paragraph 6.9.19	Schedule 3, Requirements 5 and 26	Relevant Highway Authority
	8.13.10	<u>Response to Incident – Communications</u> The following means of communication will be utilised to notify appropriate parties of an incident: a) National Grid will be notified of an incident by the LHA or the Highways Agency. b) National Grid will notify suppliers by telephone. c) Suppliers will notify their drivers by appropriate means, i.e. pagers, radio (subject to H&S best practice). d) Suppliers will notify National Grid of the actions taken by supplier's drivers (this will be relative to their locations on the road network. This action may be to hold up the pre-designated and agreed positions on/off the road network (including common laybys, haul roads, compounds), diversions routes as directed by the Emergency Services and using diversion routes as directed by the Emergency Services and using diversions routes or diversion routes as included within the construction routes and agreed by the LHA). National Grid will ensure that suitable training is provided to ensure that all drivers are made aware of any fixed diversion routes set out in the construction routes. Subject to the location of an incident within the IMA and the expected deliveries, National Grid and the suppliers will notify their drivers and notify them if the incident requires hold up or recall. Given the scale of the IMA it is possible that an incident within IMA may have no impact on the movement of traffic on the road network further afield and therefore deliveries can continue to be made.	Volume 5.26.5C, Paragraphs 6.9.20 to 6.9.22	Schedule 3, Requirements 5 and 26	Relevant Highway Authority
	8.13.11	<u>Traffic Management – Diversion Routes</u> In the event of an incident on the road network, the Police may implement diversion routes for all traffic. Under these circumstances, Proposed Development construction vehicles will utilise the diversion as directed by the Police. As part of the agreed construction routes, a secondary construction route links Hewish and Nailsea via the A370. This route us to be used only where the primary route is not accessible. HE has a number of existing diversion routes east of Bridgwater that could be utilised should an incident occur on the SRN. National Grid will ensure that suitable training is provided to ensure that all drivers will be made aware of the secondary construction route and the existing HE diversion routes.	Volume 5.26.5C, Paragraphs 6.9.23 to 6.9.26	Schedule 3, Requirements 5 and 26	Relevant Highway Authority
	8.13.12	<u>Incident Clearance</u> National Grid will not have a direct role in incident clearance with the exception of a National Grid (or supplier) vehicle associated with their operation breaking down on the road network. National Grid will then be responsible for implementing measures to recover the vehicle. Once cleared, normal procedures relating to construction vehicle movements will continue. Once cleared, National Grid will advise the supplier/driver that the incident is cleared.	Volume 5.26.5C, Paragraph 6.9.27	Schedule 3, Requirements 5 and 26	Relevant Highway Authority

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
	8.13.13	<u>Scenario Testing</u> It is considered that there is potential for four varied scenarios which may arise and affect the operation of the road network, the construction of the Proposed Development and the movement of the construction vehicles. These are: a) traffic incident involving National Grid vehicle: b) traffic congestion as a result of an incident on the road network: c) protest incident (at HPC and which may potentially affect Section H of the Proposed Development); and d) a nuclear emergency (at HPC and which may potentially affect Section H of the Proposed Development). Subject to the location of construction vehicles, the following recommended measures are considered applicable in the event of the above incidents occurring: a) National Grid to implement measures set out in the TIMP; b) all construction vehicles stopped from entering the IMA/incident area; c) construction vehicles inside the area would be moved to a safe location or, subject to geographic location, this may include continuing with the designated journey (if beyond incident); and d) suppliers contacted to cancel/postpone deliveries (as appropriate). National Grid will ensure that suitable training is provided to ensure that all drivers are made aware of the control measures which will need to be implemented in the event of any of the above incidents occurring,	Volume 5.26.5C, Paragraphs 6.9.28 to 6.9.30	Schedule 3, Requirements 5 and 26	Relevant Highway Authority
Cleaning of Vehicles	8.14.1	All vehicles exiting from a bellmouth will pass over a wheel cleaning facility prior to using the public highway. The cleansing of vehicles will ensure the removal of debris from all vehicles ahead of joining the road network. If required, National Grid will use a road sweeper to further ensure that the LRN remains clear of debris.	Volume 5.26.5C, Paragraph 6.11.1	Schedule 3, Requirement 5	Relevant Highway Authority
Bellmouth Highway Maintenance and Repair	8.15.1	As set out at Volume 8.4B, Schedule 2, Section 3 (Agreement between National Grid and the Joint Councils pursuant to section 106 of the Town and Country Planning Act), National Grid shall: • Inspect and maintain each bellmouth adjacent to a bellmouth highway during the construction period. • Carry out the inspections pursuant to paragraph 3.1 weekly to ensure that the surface of the bellmouth remains in good repair and safe for the public traffic using the highway. • Carry out such repairs as are required to maintain the bellmouths throughout the construction period. National Grid shall not commence the construction of a bellmouth until it has carried out a bassline deflectograph conditions survey of the bellmouth highway and submitted the survey results to the Highway Authority.	Volume 5.26.5C, Paragraphs 6.12.1 and 6.12.2	Schedule 3, Requirement 5 s106 Agreement	Relevant Highway Authority
Temporary Traffic Management Procedures	8.16.1	TTM will be used where required to enhance safety conditions on the LRN and mitigate potential impacts of the construction of the bellmouths and haul roads. Consideration has been given to each bellmouth design and liaison with the LHAs has ensured that the design reflects the predicted traffic volumes and also the conditions and operation of the LRN within the vicinity of each bellmouth. TTMs will be employed during the construction of the bellmouths where each bellmouth meets the LRN. Once the bellmouth works are completed, the TTM will be removed until the access is returned back to its original condition. TTMs will either employ temporary traffic signals or manned stop and go boards or road narrowing. All TTM measures and implementation plans will need to be agreed with the LHAs. Details of the TTM arrangement have been included at Annex B to the CTMP (Volume 5.26.5C) and are indicative. Detailed, site specific plans will be produced at the detailed design stage for bellmouths as required. These detailed plans will be agreed with the relevant LHA. This TTM arrangement will be in accordance with Schedule 13, Article 41 of the DCO (Temporary Prohibition of Vehicular Access and No Waiting and Speed Restriction).	Volume 5.26.5C, Paragraphs 6.13.1 to 6.13.5	Schedule 3, Requirement 5 Schedule 3, Requirement 22	Relevant Highway Authority Relevant Highway Authority

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
Delivery Management Systems (DMS)	8.17.1	Records will be kept of project deliveries being made to site. Qualified personnel will be located at key bellmouth locations. This will ensure the management of deliveries and allow the number of vehicles accessing/egressing to be recorded. This information will be collated by the TCO and reported to the LHAs at the TMG meetings. The role of the TCO and TMG are discussed in Section 7 of Volume 5.26.5C. The objectives of the DMS are: a) to control the delivery of materials and equipment in line with the construction programme; b) to minimise the number of construction vehicles on the road network (will be scheduled to meet/adhere to any agreed restrictions); and c) ensure construction vehicles do not exceed any agreed restrictions, i.e. peak period travel through certain junctions.	Volume 5.26.5C, Paragraphs 6.14.1 and 6.14.3	Schedule 3, Requirement 5	Relevant Highway Authority
Information Packs and Communications	8.18.1	Information packs will be provided to all contractors which will form part of the contractual agreement between the contractors and National Grid. The information pack will contain the details of the following CTMP requirements: a) HGV restrictions; b) construction routes; c) non-compliance guidance; d) complaints procedure; e) CTMP protocols and indications required for all contractors including a Code of Good Practice; f) guidance on standard communication procedures between contractors and site; and g) CTMP contacts (emergency and non-emergency). Information packs and communications details will be shared with the LHAs ahead of any construction works.	Volume 5.26.5C, Paragraphs 6.15.1 and 6.15.2	Schedule 3, Requirement 5	Relevant Highway Authority
Abnormal Indivisible Loads	8.19.1	The movement of abnormal vehicles is controlled by The Motor Vehicles (Authorisation of Special Types) General Order 2003 and subject to management and prior agreement with the Police and HE. All vehicles will be escorted by a pilot car and Police escort and be scheduled to travel during off-peak hours where possible. This will ensure the safety of other road users and result in minimal disruption. The local communities affected by the delivery of the AILs will be contacted prior to any movements. It is envisaged that this will include leaflet drops and publication in the local press advising of the AIL movements.	Volume 5.26.5C, Paragraphs 6.16.1 to 6.16.3	Schedule 3, Requirement 5	Relevant Highway Authority
Temporary Repositioning of Bus Stops	8.20.1	Once the detailed temporary traffic management designs are finalised, works which may affect bus stops will be confirmed and National Grid will liaise with the relevant bus companies about any necessary temporary repositioning of bus stops. National Grid will ensure that the least possible inconvenience is caused to all parties. Any temporary bus stop relocation(s) will be kept to the minimum distance possible from the existing stop to ensure safety for all users of the highway.	Volume 5.26.5C, Paragraphs 6.17.1 to 6.17.2	Schedule 3, Requirement 5	Relevant Highway Authority

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
Travel Plan	8.21.1	A Travel Plan (TP) will be implemented for the Proposed Development which sets out a number of travel planning initiatives including: a) travel planning awareness; b) welfare van provision for staff from external locations to site; c) public transport; d) car sharing; e) construction traffic management; f) modal shift management; and g) travel plan co-ordinator (TPC). The Travel Plan can be found at Annex A of the CTMP (Volume 5.26.5C).	Volume 5.26.5C, Paragraphs 6.18.1 and 6.18.2	Schedule 3, Requirements 5 and 27	Relevant Planning Authority
	8.21.2	<u>Travel Planning Awareness</u> A key initiative of a TP will be the distribution of travel planning material. All employees will receive an introductory pack before starting work and such packs can be critical in influencing travel patterns. The contents of the packs will include, but not necessarily be limited to: • introduction to TPs; • website produced with up to date information on Proposed Development transport services, locations and timings; • literature on the health benefits of walking, cycling and environmental benefits of sustainable modes of transport; • maps showing local pick up and drop off points for welfare van services; • details of public transport services, including timetables and routes; and • details of the TPC.	Volume 5.26.5C, Annex A, Paragraph 3.2.1	Schedule 3, Requirements 5 and 27	Relevant Planning Authority
	8.21.3	<u>Staff Welfare Van Transport Service</u> Welfare van services will be provided to allow staff to gain access to and from external locations to and from the site. These services will be arranged and co-ordinated according to designated shift patterns and staff accommodation and will allow staff to be picked up and dropped off at key locations, i.e. central town locations/residential locations. Typically construction gangs will stay in local accommodation together and travel in welfare vans together. This will ensure vans operate at their full capacity. Pick up points will typically be off the highway network at the site of accommodation. If a pick up occurs from the highway it would be from a safe existing pick up position such as a layby or car park. Local staff may choose to use public transport to access pick up locations; however, this will be arranged on a case by case basis. The provision of these services will ensure that the staff travel profile will be sustainable. Staff traffic movements (including welfare van traffic movements) have been accounted for in the supporting Transport Assessment (see Volume 5.22). All vehicles have been assessed as travelling to and from the M5 to the Proposed Development.	Volume 5.26.5C, Annex A, Paragraphs 3.3.1 to 3.3.6	Schedule 3, Requirements 5 and 27	Relevant Planning Authority
	8.21.4	<u>Modal Shift Monitoring</u> Information on the methods of construction staffs travel to site will be collected by the Travel Plan Co-ordinator and reported to the TMG.	Volume 5.26.5C, Annex A, Paragraph 3.4.1	Schedule 3, Requirements 5 and 27	Relevant Planning Authority
	8.21.5	<u>Public Transport</u> It is anticipated that there may be some locally employed members of staff who may choose to use public transport to access a welfare van pick up location as such public transport information including timetables would be provided in Introductory Packs, and on staff notice boards.	Volume 5.26.5C, Annex A, Paragraph 3.5.1	Schedule 3, Requirements 5 and 27	Relevant Planning Authority

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
	8.21.6	<u>Car Sharing</u> There will be no on-site parking provision for staff who wish to travel to site by private car, however, a car sharing data base will be created to identify those members of staff that live in the same area so that they could travel to the local accommodation together.	Volume 5.26.5C, Annex A, Paragraph 3.6.1	Schedule 3, Requirements 5 and 27	Relevant Planning Authority
	8.21.7	<u>Construction Traffic Management</u> Sustainable movement of plant and materials will be adopted. This will include ensuring vehicles arrive and exit the site loaded where practical. In addition, plant and materials will be sourced locally where possible.	Volume 5.26.5C, Annex A, Paragraphs 3.7.1 and 3.7.2	Schedule 3, Requirements 5 and 27	Relevant Planning Authority
	8.21.8	<u>Travel Plan Co-ordinator</u> The primary support and leadership for implementing a TP will come from an individual with a specific remit for delivering the measures proposed within the TP. This person is appointed as the TPC. The TPC will assume overall responsibility of the TP once adopted. This role will be managed by the appointed contractor(s) and will be separate to the Transport Co-ordination Officer's role as described in the CTMP. The roles and responsibilities of the TPC are as follows: • co-ordinate and attend and TMG meetings; • prepare monitoring report to present to TRG. This will be shared with the Joint Councils at the quarterly TMG meetings; • be the first point of contact in case of any problems or information relating to the CTMP; and • ensure that the CTMP is meeting the objectives set out above.	Volume 5.26.5C, Annex A, Paragraphs 3.8.1 and 3.8.2	Schedule 3, Requirements 5 and 27	Relevant Planning Authority

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
Traffic Management Group	8.22.1	A Traffic Management Group (TMG) will be established prior to construction to implement and monitor the CTMP. The TMG will meet to discuss and review the traffic and transportation elements of the construction phase of the Proposed Development. The primary role of the TMG meetings will be to review the following information: a) implementation and effectiveness of mitigation measures; b) contractor obligations with regard to the CTMP; and c) suitable changes to the CTMP based on the success of the mitigation measures seeking to enhance the efficiency and effectiveness of the CTMP. It is suggested that TMG meetings will be held on commencement of the project and every three months thereafter for the duration of the construction of the Proposed Development. That is unless specific issues which need to be addressed are brought to the attention of the TCO. In such cases, additional meetings or discussions will be co-ordinated by the TCO as and when required. In the event that a particular junction is identified by the LHA for assessment, this junction will be added to the monitoring list and surveys will be undertaken accordingly. Discussion in the scheduled meetings will be aided by a monitoring report produced by the TCO. Discussions will also relate to the CTMP objectives outlined in Table 1.1 of the CTMP (Volume 5.26.5C). The TMG will include representatives from National Grid, the TCO and the following organisations will also be asked to provide representatives: • National Grid; • Somerset County Council; • West Somerset District Council; • Sedgemoor District Council; • North Somerset Council; • Bristol City Council; • South Gloucestershire Council; and • The Highways Agency.	Volume 5.26.5C, Paragraphs 7.2.1 to 7.2.6	Schedule 3, Requirement 5	Relevant Highway Authority
Monitoring and Review	8.23.1	<u>Monitoring Strategy</u> The TMG will be established and a TCO will be appointed prior to construction as part of the CTMP to oversee the implementation and monitoring of the CTMP in line with the agreed Requirement. The contractor will undertake monitoring as necessary to ensure compliance with the requirements of the CTMP and this will include the maintenance of records and traffic management measures. National Grid will ensure that a full time, qualified member of staff is employed to conduct surveys and monitor construction vehicle activity at specific locations on the construction route network to ensure contractors' obligations are met as well as adherence to the CTMP. This will include the monitoring of construction vehicles on the LRN, the monitoring of three randomly selected peak hours at junctions with HGV restrictions per week and speed enforcement monitoring. The road network through Bridgwater has a number of automatic number plate recognition (ANPR) cameras at positions leading to the Hinkley Point C Power Station. National Grid will discuss the potential use of the cameras along proposed construction traffic routes with Somerset County Council to assist the monitoring strategy.	Volume 5.26.5C, Paragraphs 7.3.1 to 7.3.4	Schedule 3, Requirement 5	Relevant Highway Authority
	8.23.2	<u>Review</u> The TMG will monitor and review the CTMP. These reviews are required to ensure that the CTMP delivers on the commitments and achieves the goals agreed as set out in the document.	Volume 5.26.5C, Paragraph 7.3.5	Schedule 3, Requirement 5	Relevant Highway Authority
Compliance	8.24.1	As part of the CTMP a series of mechanisms will be established to provide all parties with a clear understanding of the enforcement procedures that will be applied if the requirements contained within the CTMP are not achieved. It is anticipated that these mechanisms will be determined at a later stage and will include:	Volume 5.26.5C, Paragraph 7.4.1	Schedule 3, Requirement 5	Relevant Highway Authority

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
		a) RAMS procedures – National Grid will implement the CTMP, adhere to the requirements and meet the goals through management practices. This will include site inductions for contractors, briefing on the obligations of National Grid standards, induction and adherence to RAMS procedure, DMS briefing, driver induction and compliance guidance; b) contractual conditions – to be employed as part of the CTMP compliance methodology and will be built into the contactors contract, this will be subject to performance review by National Grid/TMG; and c) actions – to be employed if the commitments of the CTMP are breached. National Grid has agreed with the Local Authorities that a complaints management procedure will be in place prior to the start of construction and implemented via a Schedule 3, Requirement 31 of the DCO.	and 7.4.2	Schedule 3, Requirement 31	
Enforcement and Corrective Measures	8.25.1	National Grid will ensure that appropriate measures are taken to ensure that contractor behaviour and performance is monitored and where appropriate corrective measures are taken to resolve, redress and enhance service performance which is in breach of the standards within the CTMP. National Grid will require that the relevant contractor's disciplinary procedures incorporating the project commitments, including this CTMP, are reflected in the contract between National Grid and the relevant contractors. National Grid will have the power to remove person(s) from the project should it be required and deemed appropriate.	Volume 5.26.5C, Paragraphs 7.5.1 and 7.5.2	Schedule 3, Requirement 5	Relevant Highway Authority
Inspections	8.26.1	Inspections and any action required, relating to non-conformance with the CEMP, will be undertaken in accordance with section 1.12 and 1.13 of the CEMP (Volume 5.26.1C) and measures described in the CTMP (Volume 5.26.5C). The TMG will ensure that the measures in the CTMP are implemented. Information packs will be provided to all contactors which will contain the details of the commitments in the CTMP.	Volume 5.26.1C, Paragraphs 3.6.4 to 3.6.5	Schedule 3, Requirement 5	Relevant Highway Authority
9.0 Air Quality and Emissions (Volume 5.13, Section 13.7 and Volume 5.26.1C, Section 3.7)					
Regular Review	9.1.1	The air quality provisions of the CEMP (Volume 5.26.1C) will be reviewed on a regular basis, at least annually throughout the duration of the Proposed Development's construction period, to ensure that the mitigation measures proposed remain adequate, effective and reflect advances in best practice, including but not necessarily limited to the guidance published by the Institute of Air Quality Management (IAQM).	Volume 5.26.1C, Paragraph 3.7.2	Schedule 3, Requirement 5	Relevant Planning Authority
Dust and Smoke	9.2.1	The following mitigation measures will be implemented to reduce the effect of dust and smoke from construction activities: a) dusty materials, will be sheeted or prevented in some other way from becoming wind-borne; b) wheel cleaning facilities will be provided and road sweeping will be undertaken in accordance with the CTMP (Volume 5.26.5); c) where activities could create dust clouds, dust suppression techniques will be adopted, for example water sprays and dampening of access roads. Suppression techniques will be used more frequently during periods of dry weather; d) waste will be disposed of in accordance with the WMP (Volume 5.26.2C) and the SWMPs; e) materials kept at site, including the stockpiling of soils, will be protected by appropriate measures, for example membranes, spraying or seeding; f) loaded vehicles that are carrying dust generating materials will be covered, for example with sheets, when leaving site; g) there will be no burning of materials on site; h) all plant and vehicles will be maintained in good order so that they do not emit dark smoke, grit or dust; i) the use of diesel generators will be minimised and battery powered generators will be used where available; j) engines will be turned off when vehicles are not in use to avoid 'idling'; k) the site speed limit will be signposted and will not exceed 10mph; l) alternative methods for business travel will be considered by all employees to reduce vehicle use; and m) all working areas will be kept in a clean and tidy condition.	Volume 5.26.1C, Paragraph 3.7.3	Schedule 3, Requirement 5 Schedule 3, Requirement 6	Relevant Planning Authority Relevant Planning Authority

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
Odour	9.3.1	Covers will be put over items liable to emit odour. Odour monitoring will be undertaken in accordance with the EA's publication Horizontal Guidance on Odour (H4 Odour Management, 2011).	Volume 5.26.1C, Paragraph 3.7.4	Schedule 3, Requirement 5	Relevant Planning Authority
Inspections and monitoring	9.4.1	Inspections and any action required, relating to non-conformance with the CEMP, will be undertaken in accordance with sections 1.12 and 1.13 of the CEMP (Volume 5.26.1C). Additionally, on site daily inspections of working areas and observation of works activities will be carried out by site supervisors, to include: a) Logging of any observed visible dust during work activities; b) Daily logged inspection of on-site areas, particularly surfaces (e.g. vehicles, any surface and vegetation) close to the boundary for deposited dust; c) Cleanliness of surfaced haul routes; d) General perceived effectiveness of mitigation. Where visible dust is observed, or conditions likely to increase the risk of dust generation, for example prolonged dry weather prevail, mitigation may be increased, for example further dust suppression will be applied. This inspection regime will be included in the Construction Phase HSE Plan (Section 2.2 of the CEMP (Volume 5.26.1C)), to be developed. Daily or weekly inspections of representative off-site receptors will also be carried out, in the vicinity of active works, by site SHE advisors. Such receptors will be selected from 'clusters' of receptors, close to areas where high risk activities are taking place at that time. The inspections will comprise: a) Logging of any observed visible dust considered to be from site activity; b) 'Walk past' inspection of off-site areas, particularly surfaces, for deposited dust; c) Cleanliness of roads at and close to bellmouths; and d) General perceived effectiveness of mitigation. The frequency of such off-site inspection will be determined using the 'risk matrix' as set out in Table 3.9 (Volume 5.26.1C). This matrix compares the sensitivity (low to high/very high) of human and ecological receptors with the level of risk associated with specific activities, categorised as low to high. Both receptor sensitivity and activity risk as in accordance with ES Volume 5.13.1, Section 13.3.	Volume 5.26.1C, Paragraphs 3.7.5 to 3.7.9	Schedule 3, Requirement 5	Relevant Planning Authority

<table>
<tr><th>Aspect</th><th>Ref.</th><th>Mitigation</th><th>Reference in the ES and/or Mitigation Plan</th><th>Delivery Mechanism</th><th>Discharging Authority (ies)</th></tr>
<tr><td></td><td>9.4.1 (cont'd)</td><td>Table 9.4.1 (Table 3.9 of the CEMP) Inspection Risk Assessment Matrix
<table>
<tr><th rowspan="2">Sensitivity of Receptors Present</th><th colspan="3">Activity Risk</th></tr>
<tr><th>Low</th><th>Medium</th><th>High</th></tr>
<tr><td>Low
(Residential/ecological site not present within 100m*)</td><td colspan="3">No off-site inspections</td></tr>
<tr><td>Medium
(Residential/ecological sites present within 100m)</td><td>Weekly</td><td>Weekly</td><td>Weekly</td></tr>
<tr><td>High or Very High
(Residential/ecological sites within 50/20m)</td><td>Weekly</td><td>Daily</td><td>Daily</td></tr>
</table>
The presence and proximity of receptors for inspection purposes will be identified in advance of activities by SHE advisors with reference to mapping and information from the Ordnance Survey Address Base.

'High Risk' activities are likely to include: topsoil stripping for cable trenching or haul roads (large area), surfaced haul road construction (movement of vehicles over exposed soil, stone placement etc.), construction compound surfacing, excavation and reinstatement of cable trenches and similar activities involving bulk movement of friable materials. 'Medium Risk' activities are likely to include: soil stripping for pylon foundations (with or without crane pad), construction of pylon foundations, removal of pylon foundations, excavations/construction of cable jointing bays, horizontal directional drilling.

'Low Risk' activities are likely to include: aluminium sheeting or similar temporary access route construction, removal of conductors and dismantling of steel pylons.

Records will be kept of air quality incidents and complaints in accordance with section 1.11 of the CEMP (Volume 5.26.1C).

Stakeholder and community engagement and public information will be managed as set out in Section 1.10 of the CEMP (Volume 5.26.1C), including the display of contact details for members of the public to make complaints regarding dust and air quality.</td><td>Volume 5.26.1C, Paragraphs 3.7.10 to 3.7.15</td><td>Schedule 3, Requirement 5</td><td>Relevant Planning Authority</td></tr>
<tr><td colspan="6">10.0 Noise and Vibration (Volume 5.14, Section 14.6, Volume 5.26.1C, Section 3.8 and Volume 5.26.7B) and ES Sensitivity Test (Volume 5.29)</td></tr>
</table>

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
General Measures	10.1.1	All construction contractors will be required to follow standard good construction practice as outlined in BS 5228-1:2009+A1:2014 and BS 5228-2:2009+A1:2014. This will include the following measures: a) construction work will be undertaken in accordance with Schedule 3, Requirement 7 of the DCO; b) Electrical items of plant will be used instead of diesel plant where possible particularly in sensitive locations. c) Plant will be started up sequentially rather than all together. d) Internal haul roads will be well maintained and avoid steep gradients where possible. e) Loading/unloading activities will be located away from residential properties and shielded from those properties where practicable. f) Drop heights of materials will be minimised. g) The bunding (soil stockpiles) and fencing proposed at the construction compounds will be maintained to help to attenuate noise. h) Continuous noisy plant will be housed in acoustic enclosures, where practicable. i) Exhaust silencing and plant muffling equipment will be fitted and maintained in good working order. j) Static plant known to generate significant level of vibration will be fitted with vibration dampening features. k) Each item of plant used will be selected so as to comply with the noise limits quoted in the relevant European Commission Directive 2000/14/EC/United Kingdom Statutory Instrument (SI) 2001/1701. l) Consideration will be given to the recommendations set out in Annex B of Part 1 of BS 5228 noise sources, remedies and their effectiveness. m) Equipment will be well-maintained and where possible will be used in the mode of operation that minimises noise. n) Plant and equipment will be shut down when not in use. o) Semi-static equipment will be sited and orientated as far as is reasonably practicable away from occupied buildings and, where feasible, will be fitted with suitable enclosures. p) Mobile construction plant will be located, as far as is reasonably practicable, away from adjacent occupied buildings or as close as possible to noise barriers or site hoardings to provide additional screening from sensitive noise receptors. q) Materials will be handled in a manner that minimises noise. r) Vehicles will not wait or queue on the public highway with engines idling; construction traffic movements will be undertaken in accordance with the CTMP (Volume 5.26.5C). s) All appropriate National Grid/WPD staff and their contractor's personnel will be instructed on BPM measures to reduce noise and vibration as part of their induction training, and followed up by 'tool box' talks. t) Noisy activities will be staggered in time and space where feasible. u) Only designated haul routes (on site) will be used.	Volume 5.26.7B, Paragraph 3.1.1	Schedule 3, Requirement 5	Relevant Planning Authority
Working Hours	10.2.1	Works will be undertaken in accordance with Schedule 3, Requirement 7 of the DCO. The contractor will carry out the works in such a way as to limit the adverse noise and vibration impact of the construction activities.	Volume 5.26.7B, Paragraph 2.1.2	Schedule 3, Requirement 7	Relevant Planning Authority
Site Area	10.3.1	All construction work activities will be undertaken within the designated operational site boundaries; including areas designed to accommodate stockpiles and haul routes.	Volume 5.26.7B, Paragraph 3.2.1	Schedule 3, Requirement 5	Relevant Planning Authority
Reversing	10.4.1	The contractor will manage the noise from reversing alarms by means of the following: a) The site layout will be designed to limit and where reasonably practicable, avoid the need for the reversing of vehicles. b) A banksman will be utilised to avoid the use of reversing alarms. c) Reversing alarms incorporating one or more of the features listed below or any other comparable system will be used: highly directional sounders, broad band signals, self-adjusting output sounders, flashing warning lights. Reversing alarms will be set to the minimum output noise level required for health and safety compliance.	Volume 5.26.7B, Paragraphs 3.3.1and 3.3.2	Schedule 3, Requirement 5	Relevant Planning Authority
Erection of Physical Barriers	10.5.1	Where deemed appropriate (through risk assessment), physical barriers will be erected around activities that are expected to generate particularly high noise levels to provide screening attenuation.	Volume 5.26.7B, Paragraph 3.4.1	Schedule 3, Requirement 5	Relevant Planning Authority

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
Training	10.6.1	All site personnel will receive training appropriate to the nature of their roles and responsibility; the training will include specific information in relation to noise and vibration management. If their work activities are assessed as being particularly noise/vibration emission prone all staff will receive induction training that will incorporate environmental awareness training, plus specific training in relation to noise and vibration. On site 'tool-box' training will enable site workers to understand how their actions will interact with the environment and potentially impact upon sensitive receptors close to their work areas.	Volume 5.26.7B, Paragraph 3.5.1	Schedule 3, Requirement 5	Relevant Planning Authority
Cable Transition Jointing	10.7.1	Cable transition jointing operations may be required to continue through the night (due to overruns). However, this would mainly comprise low noise generating activities, such as resin pouring involving the use of a generator for operation of lighting and a dehumidifier. To minimise potential noise impacts, National Grid will set an obligation on the appointed contractor to complete the cable cutting process within core daytime working hours.	Volume 5.26.7B, Paragraph 3.6.1	Schedule 3, Requirement 5	Relevant Planning Authority

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
Section 61 Consent Applications	10.8.1	Contractors will be required to submit applications for Section 61 consents, variations and dispensations under the Control of Pollution Act 1974 (CoPA) for all construction activities that may generate a significant noise and/or vibration effect, including piling and activities to be undertaken outside of core working hours, unless otherwise agreed with the relevant planning authority. Activities that typically do not require a Section 61 consent include those which do not have significant noise and vibration impact, and would occur during core working hours, such as construction of temporary haul roads and scaffolding works. The potential for a significant noise and/or effect, and therefore the trigger for the need to submit a Section 61 application to the relevant local authority, is defined against the following criteria: • driven (sheet or column) piling operations within 50m of a private residential property; • vibratory compaction of haul road/bellmouth within 20m of a private residential property; • transition jointing operations outside of core working hours within 275m of a private residential property; • cable trench within 15m of a private residential property; and • horizontal directional drilling (HDD) pit within 25m of a private residential property. The contractor will be required to demonstrate that Best Practicable Means (BPM), as defined under Section 72 of the CoPA, are employed at all times for all activities, to minimise noise and vibration effects. Where a Section 61 consent is to be sought, before starting any construction activities which may cause significant noise and/or vibration, the contractor will, or as agreed with the local authority, prepare and submit to the relevant local authority information which will include: a) an outline of the proposed construction method, type and number of plant to be used; b) definition of the working hours required and, where these differ from the core working hours detailed in Schedule 3, Requirement 7 of the DCO, a justification for the working hours sought; c) a work programme which identifies the location and duration of each significant noise-generating activity; d) the sound power levels, or sound pressure level at 10m, for each item of plant for each relevant activity; e) appropriate (in terms of noise/vibration level, duration and working hours) justification that the method and plant proposed demonstrates that BPM has been employed to control noise and vibration impacts; f) predicted noise and vibration levels at specified locations supported by calculations as per the methodology in BS 5228 part 1 and part 2; and g) all steps to be employed to minimise noise and vibration during the works. The number, extent (geographically and in terms of construction activities) and duration of Section 61 approvals will be the subject of timely consultation between the contractor and each relevant planning authority. Where works are near local authority boundaries, the Section 61 submission will be made to the planning authority within which the construction activities are located, with a noise assessment made at locations representative of all neighbouring noise-sensitive receptors. Neighbouring local authorities will be consulted in advance of the works to determine the need for any additional measures. Where the works are to be undertaken on the boundary within two local authorities, an application will be made to each authority. The authorities are requested, through discussion, to agree a common set of consent conditions to be issued from each local authority. Typical generic noise and vibration suppression measures to be employed are included in section 3 of this report and will be adopted on all sites where applicable. Agreement of proposed measures will be sought from the relevant planning authority through Section 61 consent, dispensation or variation applications. Notification of the start of works and the provision of advanced information to local stakeholders is a key part of mitigating the effect of noise and vibration. The CoPA appeals process (Control of Pollution Act, 1974) (Sections 60(7) and 61(7) has been changed by the Development Consent Order (DCO). The contractor will be responsible for any appeals under the DCO in relation to Sections 60 and 61 of the CoPA.	Volume 5.26.7B, Paragraphs 4.1.1 to 4.1.11.	Schedule 3, Requirement 5	Relevant Planning Authority

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
	10.8.2	<u>Implementation</u> Before any works are undertaken which may generate significant noise and/or vibration effects, including any works outside of core working hours, the contractor will submit an application to the relevant planning authority for prior consent under Section 61 of the CoPA. The Section 61 application will set out the specific method of working, the actual working hours required, and the specific standards and measures that will be used at identified locations to minimise noise and vibration. The contractor will engage in early discussions with the relevant planning authorities with respect to the information to be provided prior to submitting any Section 61 applications. This will include a list of the activities/stages for which separate Section 61 applications will be required. This is to enable all parties to focus on and agree those activities that could give rise to noise complaint and the most efficient approach to the Section 61 consent, dispensation or variation. As required by the CoPA, BPM will be employed and demonstrated through programme, method and noise predictions in the Section 61 consent application(s) to the relevant planning authority. Justification, detailed description and assessment will be provided for activities outside core working hours.	Volume 5.26.7B, Paragraphs 4.1.12 to 4.1.16	Schedule 3, Requirement 5	Relevant Planning Authority
	10.8.3	<u>Dispensation/Variation</u> In the event that works (for which a Section 61 consent has been applied for) have to be rescheduled or modified (e.g. method or working hours) for reasons not envisaged at the time of the Section 61 consent submission, the contractor will apply for a dispensation or variation from the relevant planning authority in advance of the start of those works and at the time specified within the CoPA. The dispensation will be sought by means of an application for a variation to the agreed matters, setting out the revised construction programme or method and the relevant noise calculations. Where the rescheduling relates to work of a more urgent or critical nature (such as a key activity likely to delay other key activities), the contractor will apply to the relevant planning authority using the Section 61 process, where practicable. This change application will be issued seven days (but at least two working days) before the start of those works. Where working outside of core hours has been accepted in a Section 61 consent (including dispensation or a variation), occupiers of nearby residential or other sensitive properties who are likely to be affected will be informed, as soon as reasonably practicable, by the contractor and the likely duration of planned works (in accordance with section 4.4 of the NVMP. The contractor will be required to maintain an up to date log of all relevant agreed hours and controls on working. This will incorporate any changes to working hours or practices set out in the NVMP which have been agreed through the Section 61 process.	Volume 5.26.7B, Paragraphs 4.2.1 to 4.2.4	Schedule 3, Requirement 5	Relevant Planning Authority
	10.8.4	<u>Unscheduled Overruns</u> In the event that planned works not covered by a consent (either full Section 61 application or dispensation/variation) extend beyond the approved working hours and continue due to unforeseen circumstances that would affect safety or engineering practicability, the relevant planning authority will be kept informed of the nature, time, location and reasons for the overrun as soon as possible, and records kept by the site management. The relevant planning authority will be requested to provide a telephone number and nominate an officer to receive such notifications. Overruns and the reasons for these will be reviewed by the National Grid/WPD, its contractors and the relevant planning authority, with the aim of reducing the potential for further unplanned overruns. In the case of work required in response to an emergency (or which, if not completed, would be damaging or unsafe), the relevant planning authority will be advised as soon as is reasonably practicable of the reasons for, and likely duration of, such works.	Volume 5.26.7B, Paragraphs 4.3.1 to 4.3.3	Schedule 3, Requirement 5	Relevant Planning Authority

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
	10.8.5	<u>Public Notification</u> Schedule 3, Requirement 31 sets out a need for a system for the provision of information to local residents and occupiers about the works and for the handling of complaints to be submitted to and approved by the relevant planning authority prior to the commencement of works. As described in Volume 5.26.1C, section 1.10 (the CEMP), a community relations agency will be appointed to provide dedicated community relations and external communication support. Amongst other duties, the community relations team will be responsible for managing the interface between the project and the communities in which the works are being undertaken. In respect of the NVMP the following procedures will be implemented: • Local residents will be informed of the commencement and likely duration of the construction work activities through a letter drop. The letter will include a contact telephone number which will be manned at all times that construction activities are being undertaken on site. • If construction activities are likely to generate noise levels in excess of the construction noise trigger levels (refer to Table 5.1), written agreement will be obtained from the relevant planning authority and local residents informed of the works at least 48 hours prior to works commencing. • Where a person from a community local to the works makes a complaint with respect to construction noise and/or vibration, it will be passed initially to the community relations team. The community relations team will liaise with the other members of the project team to investigate the complaint. Appropriate action will be taken by the project construction team.	Volume 5.26.7B, Paragraphs 4.4.1 and 4.4.2	Schedule 3, Requirement 5 Schedule 3, Requirement 31	Relevant Planning Authority

<table>
<tr><th>Aspect</th><th>Ref.</th><th>Mitigation</th><th>Reference in the ES and/or Mitigation Plan</th><th>Delivery Mechanism</th><th>Discharging Authority (ies)</th></tr>
<tr><td>Noise Insulation and temporary re-housing</td><td>10.9.1</td><td>
Exceedances of threshold levels trigger a responsibility on the developer to provide noise insulation or a scheme to facilitate temporary rehousing. This represents additional protection for a residential property in the event that it is not practical to mitigate construction noise on site, or reduce its exposure durations to tolerable levels.

The standard suggests that noise insulations should be provided if the trigger levels shown in Table 10.8.1 of this volume (Table 5.1 of Volume 5.26.7B) are predicted to be exceeded for a period of ten or more days of working in any 15 consecutive days, or for a total number of days exceeding 40 in any six month period.

This process will be undertaken as part of the Section 61 consent process.

Where noise levels at affected residential properties are expected to exceed the trigger for the periods defined in Table10.8.1 of this volume (Table 5.1 of Volume 5.26.7B) and where the temporal criteria is met, approved noise insulation, (or reimbursement of the reasonable costs thereof), or temporary re-housing of occupants as appropriate, will be offered. Affected parties will be notified in advance of the commencement of works which may cause the relevant trigger levels to be exceeded.

Noise insulation or temporary re-housing will be offered to qualifying parties where noise levels are predicted, or measured, to exceed:

a) the relevant trigger levels as detailed in Table 10.8.1; or

b) where the current ambient noise level is greater than the noise insulation trigger level:

i. the ambient noise level shall be used as the noise insulation trigger level.

ii. the ambient noise level +10dB shall be used as the temporary re-housing trigger level.

Acceptance of the offer of noise insulation or temporary rehousing would be voluntary.

Table 10.9.1 (Table 5.1 of the NVMP) Noise Trigger Levels
<table>
<tr><th>Day</th><th>Relevant Time Period</th><th>Averaging Time, T</th><th>Noise Insulation Trigger Level, dB $L_{Aeq, T}$ [1]</th><th>Temporary Re-housing Trigger Level, dB $L_{Aeq, T}$ [1]</th></tr>
<tr><td rowspan="5">Monday to Friday</td><td>07:00-08:00</td><td>1h</td><td>70</td><td>80</td></tr>
<tr><td>08:00-18:00</td><td>10h</td><td>75</td><td>85</td></tr>
<tr><td>18:00-19:00</td><td>1h</td><td>70</td><td>80</td></tr>
<tr><td>19:00-22:00</td><td>3h</td><td>65</td><td>75</td></tr>
<tr><td>22:00-07:00</td><td>1h</td><td>55</td><td>65</td></tr>
<tr><td rowspan="5">Saturday</td><td>07:00-08:00</td><td>1h</td><td>70</td><td>80</td></tr>
<tr><td>08:00-13:00</td><td>5h</td><td>75</td><td>85</td></tr>
<tr><td>13:00-14:00</td><td>1h</td><td>70</td><td>80</td></tr>
<tr><td>14:00-22:00</td><td>3h</td><td>65</td><td>75</td></tr>
<tr><td>22:00-07:00</td><td>1h</td><td>55</td><td>65</td></tr>
<tr><td rowspan="2">Sunday and Public Holidays</td><td>07:00-21:00</td><td>1h</td><td>65</td><td>75</td></tr>
<tr><td>21:00-07:00</td><td>1h</td><td>55</td><td>65</td></tr>
</table>
Note 1) Equivalent continuous A-weighted noise level predicted or measured at a point 1m in front of the most exposed windows or doors leading directly to a habitable room (living room or bedroom) in an eligible dwelling, due to construction noise only.
</td><td>Volume 5.26.7B, Paragraphs 5.1.1 to 5.1.6</td><td>Schedule 3, Requirement 5</td><td>Relevant Planning Authority</td></tr>
</table>

<table>
<tr><th>Aspect</th><th>Ref.</th><th>Mitigation</th><th>Reference in the ES and/or Mitigation Plan</th><th>Delivery Mechanism</th><th>Discharging Authority (ies)</th></tr>
<tr><td></td><td>10.9.2</td><td>Noise insulation (or reasonable costs thereof against agreed bills) will be offered to owners, where applied for by owners or legal occupiers, if all of the following apply to a property lawfully occupied as a permanent dwelling:
a) The predicted noise level exceeds the noise trigger level for noise insulation at the property during at least ten days out of any period of fifteen consecutive days or alternatively during 40 days in any six month period.
b) Noise insulation does not already exist that is of an equivalent standard to that which would be allowed for under the Noise Insulation (Railways and Other Guided Transport Systems) Regulations 1996.
c) The property complies with all other requirements of the Noise Insulation (Railways and Other Guided Transport Systems) Regulations 1996.
Temporary re-housing (or the reasonable costs thereof) will be provided, where applied for by legal occupiers, if both of the following apply to a permanent dwelling:
a) The predicted noise level exceeds the noise trigger level for temporary re-housing at that property for at least ten days out of any period of 15 consecutive days or alternatively 40 days in any six month period.
b) The property complies with all other requirements of the Noise Insulation (Railways and Other Guided Transport Systems) Regulations 1996.
The noise insulation and temporary re-housing policy is primarily applicable to residential buildings; however non-residential buildings will be considered on a case by case basis where these are occupied by noise sensitive uses such as hospitals and educational establishments.</td><td>Volume 5.26.7B, Paragraphs 5.1.7 to 5.1.9</td><td>Schedule 3, Requirement 5</td><td>Relevant Planning Authority</td></tr>
<tr><td>Vibration Action Levels</td><td>10.10.1</td><td>Whilst the levels are not expected to be significant, the construction activities with the greatest potential to result in perceived vibration effects at nearby residential properties will include piling works (pylon construction) and ground compaction (cabling). Nuisance impacts of piling will be limited by restricting working hours, and through public liaison and communications.
The construction vibration action level provided in Table 10.9.1 of this volume (Table 6.4 of Volume 5.26.7B) below relates to typical site construction activities, and is based upon guidance provided in BS 5228- 2:2009+A1:2014.
Table 10.9.1 (Table 6.1 of the NVMP) Vibration Action Level
<table>
<tr><th>Construction Activity</th><th>Vibration Level (mm/s PPV)</th><th>Effect</th></tr>
<tr><td rowspan="2">All activities</td><td>1.0</td><td>It is likely that vibration of this level in residential environments will cause complaint, but can be tolerated if prior warning and explanation is provided to residents.</td></tr>
<tr><td>15</td><td>Onset of possible cosmetic damage to residential or light commercial buildings.</td></tr>
</table>
In the event that a complaint of excessive vibration levels is received, a vibration monitoring exercise will be undertaken at impacted sensitive receptors. If the levels of vibration recorded are determined to exceed those stated in the table above, National Grid/WPD or their contractors will investigate the cause and cease the responsible activity until appropriate mitigation measures have been applied to prevent further exceedances.</td><td>Volume 5.26.7B, Paragraphs 6.1.1 to 6.1.3</td><td>Schedule 3, Requirement 5</td><td>Relevant Planning Authority</td></tr>
<tr><td>Noise and Vibration Monitoring</td><td>10.11.1</td><td>In the event that complaints regarding noise and/or vibration are received, measurements will be undertaken either at the complainant's property or at a suitable known reference distance from the works so that any additional attenuation factors can be determined in accordance with the procedures in BS 5228 part1 and part 2; measurements if required will also be undertaken in accordance with these and other appropriate standards.</td><td>Volume 5.26.7B, Paragraph 7.1.2</td><td>Schedule 3, Requirement 5</td><td>Relevant Planning Authority</td></tr>
<tr><td>Inspections</td><td>10.12.1</td><td>Inspections and any action required, relating to non-conformance with the CEMP, will be undertaken in accordance with sections 1.12 and 1.13 of the CEMP (Volume 5.26.1C).
Records will be kept of noise and vibration incidents and complaints in accordance with section 1.10 of the CEMP.</td><td>Volume 5.26.1C, Paragraph 3.8.6 and 3.8.7</td><td>Schedule 3, Requirement 5</td><td>Relevant Planning Authority</td></tr>
<tr><td colspan="6">11.0 Socio-economics and Land Use (Volume 5.15.1, Section 15.7, Volume 5.26.1C, Section 3.9), ES Sensitivity Test (Volume 5.29) and Supplemental s106 (Volume 8.29A)</td></tr>
</table>

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
Procurement	11.1.1	Opportunities will be sought to maximise the procurement of materials and employees from within the South West in accordance with Volume 8.29A.	Volume 5.26.1C, Paragraph 3.9.2 Volume 8.29A	Schedule 3, Requirement 5 Supplemental s106 Agreement	Relevant Planning Authority
Agricultural Land	11.2.1	A Soil Management Plan (SMP) (as described at section 3.3 of the CEMP) will be prepared, which provides relevant guidance in relation to the reinstatement of agricultural land to maintain existing agricultural land quality. A PRoW Management Plan (Volume 5.26.6C) will be implemented, as described at section 3.10 of the CEMP, which seeks to minimise the extent to which usage of PRoW is disrupted.	Volume 5.26.1C, Paragraphs 3.9.3 and 3.9.4	Schedule 3, Requirement 6	Relevant Planning Authority
Consultation	11.3.1	Consultation will be undertaken with the relevant authorities prior to each stage of construction commencing to identify and understand any constraints in the area that will need to be accounted for.	Volume 5.26.1C, Paragraph 3.9.5	Schedule 3, Requirement 5	Relevant Planning Authority
Inspections	11.4.1	Inspections and any action required, relating to non-conformance with the CEMP, will be undertaken in accordance with sections 1.12 and 1.13 of the CEMP (Volume 5.26.1C).	Volume 5.26.1C, Paragraph 3.9.6	Schedule 3, Requirement 5	Relevant Planning Authority
12.0 Waste Management Plan (Volume 5.26.2C)					
Involvement of Local Authorities and Other Statutory Bodies	12.1.1	Where required, permits from the Environment Agency (EA), will be sought prior to commencement of the relevant works.	Volume 5.26.2C, Paragraph 1.4.3	Schedule 3, Requirement 5	Relevant Planning Authority
Sustainable Waste Management Principles	12.2.1	<u>Prevent</u> The SWMPs will consider the application of WRAP Technical Solutions for Designing out Waste for Civil engineering Projects, to reduce materials use as well as waste arisings. Both will be monitored as part of the SWMPs' review process.	Volume 5.26.2C, Paragraph 3.2.6	Schedule 3, Requirement 5 Schedule 3, Requirement 6	Relevant Planning Authority Relevant Planning Authority
	12.2.2	<u>Reuse</u> Opportunities for reusing 'waste' before recycling, recovery or disposal will be considered. For example, one of the principle waste materials generated by the Proposed Development would be excavated soils and substrate. Where possible, and appropriate, such materials will be re-used on site. During the construction phase, working areas would be set out and temporary access roads constructed. This would involve stripping vegetation and topsoil for some of these areas. Surface vegetation, topsoil and subsoils will be stored separately for re-use and handled in accordance with the Defra guidance 'Construction Code of Practice for the Sustainable Use of Soils on Construction Sites'. Further details on the management of excavated soils and substrate is provided in section 4.3 of the WMP (Volume 5.26.2C).	Volume 5.26.2C, Paragraphs 3.2.7 to 3.2.8	Schedule 3, Requirement 5 Schedule 3, Requirement 6 Schedule 3, Requirement 21	Relevant Planning Authority Relevant Planning Authority Relevant Planning Authority, following consultation with the Environment Agency or Relevant Drainage Authority - as appropriate
	12.2.3	<u>Recycle</u> If materials cannot be appropriately reused on site, they shall be assessed for their potential for recycling.	Volume 5.26.2C, Paragraphs	Schedule 3, Requirement 5	Relevant Planning Authority

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
		The principal recyclable waste produced by the Proposed Development would be steel and aluminium from the removal of existing overhead lines. Steel and aluminium are recyclable with a high degree of efficiency. The granular stone haul road, which would be constructed using virgin aggregates, will be taken to an appropriate facility for recycling, for onward use, for example as secondary aggregate in the construction industry. Other recyclable, general construction waste may be produced, such as wood, plastics and cardboard packaging. These will be segregated and stored for short periods on site in secure designated areas prior to removal from site to a recycling facility.	3.2.9 to 3.2.12	Schedule 3, Requirement 6	Relevant Planning Authority
				Schedule 3, Requirement 21	Relevant Planning Authority, following consultation with the Environment Agency or Relevant Drainage Authority - as appropriate
	12.2.4	<u>Recover</u> Stripped vegetation and removed trees (with landowner agreement except where this is identified for re-use or recycling) and general food waste will be taken to a composting, anaerobic digestion or biomass plant.	Volume 5.26.2C, Paragraph 3.2.13	Schedule 3, Requirement 5	Relevant Planning Authority
				Schedule 3, Requirement 6	Relevant Planning Authority
	12.2.5	<u>Disposal</u> The disposal of waste from the Proposed Development to landfill will be regarded as a last resort. All other options, as described above, will be considered prior to considering disposing of waste to landfill. If required, disposal will be undertaken in a safe and responsible manner ensuring that all waste carriers and management facilities are appropriately licensed, in accordance with the procedures outlined in the WMP.	Volume 5.26.2C, Paragraph 3.2.14	Schedule 3, Requirement 5	Relevant Planning Authority
				Schedule 3, Requirement 6	Relevant Planning Authority
National Grid and WPD Waste Management Procedures	12.3.1	<u>Standards</u> A set of standard measures will be employed for the management of waste and are listed below; more detailed measures are set out after relating to Duty of Care, Hazardous Waste and the Storage of Waste: a) the treatment of recyclable waste materials from the Proposed Development will be undertaken off-site at an appropriate facility. Waste materials will be recovered and sorted on site for transportation and taken from site to the recycling facility; b) material will be stored for short periods on site in secure designated places in the identified construction working areas until taken away for recycling; c) all waste materials shall be stored securely on site in order to prevent their escape and protect them against vandalism, vermin or	Volume 5.26.2C, Paragraph 3.3.3	Schedule 3, Requirement 5	Relevant Planning Authority

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
		outside interference; d) hazardous waste (e.g. paints, solvents, sealants) will be segregated on-site to avoid contaminating other material and waste streams (For further details see Hazardous Waste section below); e) waste management activities on sites operating under an Environmental Permit will be managed by a nominated Technically Competent Manager i.e. the manager will be technically competent to manage the permitted activity, as defined by CIWM/WAMITAB's Operator Competence Scheme); f) all waste management contractors carrying waste shall be authorised to do so and all sites that receive the waste shall be authorised to do so; g) a sample of waste management routes will be subject to an annual audit to confirm that waste is being managed correctly; h) management of all waste will be accompanied by the relevant statutory transfer documentation that adequately describes the waste and the documentation will be retained and be readily accessible; i) quantities of waste generated will be recorded and monitored. Records will be kept for a minimum of three years; j) an authorised waste management contractor will deal with the disposal of any fly-tipped materials discovered. Any fly-tipping will be reported as an environmental incident and notified to the local authority and/or EA to enable them to investigate the incident; k) all employees and contractors involved with the handling and managing of waste will have the relevant training and be assessed as competent and training records retained; l) all employees and contractors will have a Duty of Care when controlling the carriage and disposal of waste to ensure it is handled in a responsible manner; m) all waste containers shall be labelled to indicate the types of waste that may be deposited in them; n) all staff and contractors working on the project shall understand which waste should be deposited where, and that they are not allowed to use the facilities for the disposal of domestic waste. This will be delivered by toolbox talks; and o) a SWMP shall be produced for all projects costing over specified thresholds.		Schedule 3, Requirement 6	Relevant Planning Authority
	12.3.2	<u>Duty of Care</u> In line with the Duty of Care requirements, waste produced will be: a) transferred only to an Authorised Person accompanied by a Waste Transfer Note or Hazardous Waste/Special Waste Consignment Note; and b) not able to escape from anyone's control on site or in transit. An Authorised Person is a Registered Waste Carrier, broker and/or the manager of a legitimate waste management facility, e.g. a waste disposal site. If a third party employed by National Grid, WPD or one of their contractors, arranges waste disposal, and is not the waste producer, the Registered Waste Carrier or the manager of a waste disposal site, then that third party shall be a Registered Waste Broker. Waste shall not be allowed to leave site unless Duty of Care checks are successfully completed. Where a contractor is employed to undertake work that produces waste, it is the contractor's responsibility as producer of the waste to carry out the Duty of Care checks outlined above (including Registered Waste Carriers, Registered Waste Brokers, and Environmental Permits/Waste Management Licences for waste disposal sites or proof of exemptions from licensing). However, National Grid and WPD retain a Duty of Care to ensure that waste is managed in a responsible manner; responsibility for contractors will vary between National Grid and WPD, depending upon which company is overseeing the particular works in question. The member of staff employing the contractor shall ensure the contractor has a system of works to ensure that adequate Duty of Care checks are being undertaken and shall carry out periodic checks to ensure the contractor is using only Authorised Persons. The contractor shall provide evidence of Duty of Care checks that have been undertaken on request.	Volume 5.26.2C, Paragraphs 3.3.6 to 3.3.12	Schedule 3, Requirement 5 Schedule 3, Requirement 6	Relevant Planning Authority Relevant Planning Authority

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
	12.3.3	<u>Non-Hazardous Waste</u> All non-hazardous waste arising from the work carried out by staff will be accompanied with a Waste Transfer Note when passed to a Registered Waste Carrier for removal from a site. All Waste Transfer Notes will be signed by a trained site representative. Prior to signing, the trained site representative must check the Waste Transfer Note includes: a) the date(s) to which the Waste Transfer Note applies, this could be up to one year; b) name and address of the waste producer and the site of waste production; c) the type of waste produced including the quantity and how it is packaged; d) the appropriate European Waste Catalogue (EWC) code for the waste; e) the Standard Industry Code (SIC) of the business; f) the name and address of the person who is receiving the waste and details of the permit or exemption of the person receiving the waste; g) registered Waste Carriers shall be checked using the information held on the EA's website; h) a final disposal site that is authorised to accept the waste; and i) a declaration that the waste producer has taken all reasonable measures to apply the waste hierarchy when the waste is transferred. The site representative signing the Waste Transfer Note will ensure all Waste Transfer Notes are placed in the site Waste Management File and kept for a minimum period of three years.	Volume 5.26.2C, Paragraphs 3.3.13 to 3.3.15	Schedule 3, Requirement 5 Schedule 3, Requirement 6	Relevant Planning Authority Relevant Planning Authority
	12.3.4	<u>Hazardous Waste</u> As outlined in section 2, the LoW identifies types of hazardous waste. If the waste is not listed, it shall be analysed for hazardous properties prior to disposal to ensure the appropriate method of disposal is arranged. If a site produces more than 500kg of hazardous waste in a year, the Site Manager shall ensure the site is registered with the EA. Hazardous waste will be correctly labelled, shall not be mixed with non-hazardous waste and securely contained preferably on hard standing. A Hazardous Waste/Special Waste Consignment Note shall be completed for every movement of hazardous waste. Hazardous Waste/Special Waste Consignment Notes will be signed on behalf of National Grid or WPD by a trained site representative. If hazardous waste is being returned to a depot for assessment it will be handled and transported appropriately. A waste carrier's license will also be obtained. Hazardous Waste Consignment Notes will be placed in the Site Waste Management File and kept for a minimum period of three years. All waste containers will be clearly labelled. Materials potentially generating small volumes of hazardous waste such as oily rags, aerosols and dry cell batteries from mobile operations shall be returned to the nearest waste storage site for assessment to determine if the material is waste. Waste materials shall be assessed for their hazardous nature, potential for re-use, recycling or some other form of recovery prior to disposal.	Volume 5.26.2C, Paragraphs 3.3.16 to 3.3.23	Schedule 3, Requirement 5 Schedule 3, Requirement 6	Relevant Planning Authority Relevant Planning Authority
	12.3.5	<u>Storage of Waste</u> Waste may be stored at construction compounds for a limited amount of time to help to limit the number of vehicle movements to and from site as far as possible to minimise effects on the local roads. a) storage of waste on site shall either be: i. within the scope of, and comply with, the requirements of one or more of the activities specified as exempt form Waste Management Licensing; or ii. carried out under an environmental Permit issued by the EA. b) waste will be stored in secure designated areas, in enclosures or containers to prevent material being dispersed by the wind; c) designated areas will be sited at least 10m away from drains and watercourses to limit risk of escape and contamination of water	Volume 5.26.2C, Paragraph 3.3.24	Schedule 3, Requirement 5 Schedule 3, Requirement 6	Relevant Planning Authority Relevant Planning Authority

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
		courses; d) waste storage containers will be labelled with their waste type and their LoW code; any labelling will be consistent with Industry Best Practice at the time construction commences and reviewed annually; e) waste containers will be covered to prevent dust emissions and potential nuisances; f) the burning of any waste is prohibited; g) liquid wastes will be stored in containers within bunded zones with secondary containment of at least 110% capacity of the largest container or at least 25% of the total tank capacity inside the bunded zone (whichever is the greatest); and h) incompatible or hazardous wastes will be stored and handled in accordance with the Hazardous Wastes Regulations.		Schedule 3, Requirement 21	Relevant Planning Authority, following consultation with the Environment Agency or Relevant Drainage Authority - as appropriate
	12.3.6	<u>Site Waste Management Plan</u> As has been described, for the Proposed Development, SWMPs will be produced for each of the major project components; overhead lines, cables, substations and CSE compounds. The SWMPs shall record the following information: a) a description of the construction works (for the project component); b) proposals for managing the waste following the Waste Hierarchy to ensure that waste arisings are minimised, including 'designing out waste' and waste prevention measures; c) details of any decisions taken before the SWMP was drafted to minimise the quantity of waste produced on site; d) a description of each type of waste expected to be produced in the course of the project; e) an estimate of the quantity of each waste type that will be produced; f) identification of the waste management action proposed for each waste type, including reusing, recycling, recovery and disposal; g) a detailed action plan for the management of the waste, including roles and responsibilities, data collection and reporting procedures; h) details of any site waste storage facilities including the requirements of environmental permits and pollution control measures; and i) a declaration that material will be handled efficiently and waste managed appropriately. Following the estimate of quantities and identification of waste management methods, an analysis of waste management facilities will be carried out, in accordance with NPS EN-1. The SWMP will be updated as necessary, (if possible, every month; as a minimum every six months) to give a current picture of how the work is progressing against the waste estimates contained in the plan, this includes recording details of: a) types and quantities of waste produced and a comparison of the estimated quantities of each waste type against the actual quantities of each waste type; b) an explanation of any deviation from the SWMP; c) the identity of the person removing the waste (including waste carrier's registration number); d) all disposal documentation e.g. transfer and consignment notes, marked with the time and date of collection; e) details of the final destination of waste, a description of the waste type and the European Waste Classification (EWC) if appropriate; f) quantitative and qualitative estimate of site waste produced during construction; g) requirements for reporting under the Hazardous Waste Regulations; and h) an estimation of the cost savings that have been achieved by completing and implementing the SWMP. SWMPs will be prepared in accordance with Schedule 3, Requirement 6 (g). An example SWMP is provided in section 5 of Volume 5.26.2C.	Volume 5.26.2C, Paragraphs 3.3.26 to 3.3.30	Schedule 3, Requirement 6	Relevant Planning Authority

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
	12.3.7	<u>Communication and Training</u> To help ensure the principles, standards and requirements outlined in this document are delivered, the contractor(s) will develop and implement comprehensive communications and training programmes for all relevant staff, to include the following: a) understanding the different sources, types and nature; b) the legal responsibilities for waste and its impact on the Proposed Development; c) the requirements of the WMP and CEMP (Volume 5.26.1C); d) how to conduct basic waste audits to identify, estimate and report quantities of waste; e) how to produce a SWMP; f) the roles and responsibilities of waste regulators and licensed carriers; and g) the roles and responsibilities of site personnel in the management of waste. All site personnel will be made aware of the principles of sustainable waste management, as outlined in the WMP, and any project component specific requirements of SWMPs, of relevance to their work.	Volume 5.26.2C, Paragraphs 3.4.1 and 3.4.2	Schedule 3, Requirement 5	Relevant Planning Authority
				Schedule 3, Requirement 6	Relevant Planning Authority
Source of Waste	12.4.1	<u>Earthworks</u> Where appropriate, the majority of excavated material would be retained on-site for re-use as backfill and landscaping during the construction and operational phases. This material would not then be classified as 'waste'. For the 400kV underground cables, approximately 68% of excavated material is estimated to be re-used on site through reinstatement and landscaping; for the 400kV overhead line, approximately 80% of excavated material is estimated to be re-used on site. This may not be appropriate in certain areas of high biodiversity or landscape value, or within Flood Zone 3, In these cases, other suitable parts of the Proposed Development site may be used or the materials taken off site for disposal. In the event contaminated soils are encountered during excavation, these will be segregated on site for disposal off site to an appropriate treatment facility or authorised landfill, in accordance with section 3.4 of the CEMP, (Volume 5.26.1C). The Method Statement for Topsoil Stripping, provided at Volume 5.3.2, Appendix 3G (8) describes the method for removing and reinstating topsoil for the 132kV and 400kV underground sections of the Proposed Development. Soil management will be carried out in accordance with the Soil Management Plans. Surplus spoil is likely to be produced from the installation of underground cables, construction of CSE compounds and from pylon foundations. This will be reused wherever possible, for example in the creation of mounding and landscaped areas around CSE compounds and screening bunds around construction compounds. Where any of this material is to be 'discarded', and therefore come under the definition of waste, it would largely be classified as non-hazardous, inert waste.	Volume 5.26.2C, Paragraphs 4.3.2 to 4.3.6	Schedule 3, Requirement 5	Relevant Planning Authority
				Schedule 3, Requirement 6	Relevant Planning Authority
				Schedule 3, Requirement 21	Relevant Planning Authority, following consultation with the Environment Agency or Relevant Drainage Authority - as appropriate
	12.4.2	<u>Removal of Surface Vegetation</u> As described in paragraphs 3.2.8 and 3.2.13 of the WMP, stripped vegetation and removed trees (with landowner agreement except where this is identified for reuse or recycling) will be reused or recovered in line with the principles of sustainable waste management. Details of the likely quantities and proposed management of such arisings will be provided in SWMPs. Volume 5.26.3C, paragraph 3.2.10 (BMS) states that *"All tree and hedgerow works will comply with BS3998:2010 Tree Work – Recommendations".* Within this British Standard, section 13.2 relates to the *"Disposal, utilization and retention of arisings".* Waste arisings from trees and hedgerows would also be subject to this standard, within the principles set out in the WMP. Arboricultural arisings are considered by the EA) in their position statement of 2010 regarding the environmental regulation of wood, to be	Volume 5.26.2C, Paragraphs 4.3.7 to 4.3.12	Schedule 3, Requirements 5 and 6	Relevant Planning Authority

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
		virgin timber and not waste. This position is contingent on the material being mainly woody in composition and on the end use being one to which virgin timber is commonly put. Examples of such uses are provided by the EA and include: • woodchip for landscaping; • material for composting; • fuel for an appliance; and • a material to create or maintain a habitat as part of the natural cycle of land management. A schedule of all proposed tree removal and pruning will be produced, with annotated plans, in accordance with Schedule 3, Requirement 12 (2) (b) of the DCO. It is anticipated that all material that will be produced by tree pruning and felling operations will meet the EA criteria for virgin timber and therefore be capable of not being classed as waste. The treatment of such arisings will be detailed on a site by site basis along with the specification for pruning or removal, points of access and any other restrictions or requirements that are to be observed by the contractor. The preference will be to minimise both the distance and the amount of processing required.		Schedule 3, Requirement 12	Relevant Planning Authority
	12.4.3	<u>Removal of the Temporary Haul Road</u> The temporary granular stone construction haul road will be removed using excavators and taken to an agreed storage area. Care will be taken to remove and store the sub base and capping layers of stone separately. Once stockpiled, a method of disposal or re-use of the materials will be decided upon, following the principles of sustainable waste management and waste minimisation outlined in section 3 of the WMP (Volume 5.26.2C) and in compliance with the appropriate legislation. All geotextile separator membrane and Tensar Trax Geogrid (or similar) will be disposed of into suitable skips on site.	Volume 5.26.2C, Paragraphs 4.3.13 to 4.3.14	Schedule 3, Requirement 5	Relevant Planning Authority
				Schedule 3, Requirement 6	Relevant Planning Authority
				Schedule 3, Requirement 21	Relevant Planning Authority, following consultation with the Environment Agency or Relevant Drainage Authority - as appropriate
	12.4.4	<u>Removal of Overhead Lines</u> Steelwork would be cut-up or dismantled on site and then removed to a facility for recycling.	Volume 5.26.2C, Paragraph 4.3.19	Schedule 3, Requirement 5	Relevant Planning Authority
				Schedule 3, Requirement 6	Relevant Planning Authority
13.0 Public Rights of Way Management Plan (Volume 5.26.1C, Section 3.10 and Volume 5.26.6C, Section 3)					

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
General Management	13.1.1	The DCO grants the necessary powers to stop up temporarily PRoW affected by the Proposed Development; however the majority of the PRoW will be stopped up for short durations only (as indicated in column 6 of Table 2.2 in Volume 5.26.6C) and it is National Grid's hope and intention is to keep the majority of PRoW effectively open via management using short term temporary closures only (see blue rows in Volume 5.26.6C, Table 2.2). All points where PRoWs cross the Proposed Development will have appropriate signage, which will advise of dates and hours of working. National Grid will develop in discussion with PRoW Officers a standard form of signage relating to temporary closures to be used across the Project. Management will involve the use of contract staff at those crossing points where and when construction works affect a PRoW. In these instances PRoW users may have to wait for a short period of time whilst the PRoW is in use by the construction team, this may only be for a hours at most but would typically be of a far shorter duration, users will be advised when works are completed and it is safe to cross the PRoW by National Grid's contractor's staff at the crossing point. The indicative period of temporary closures, where PRoW management will be carried out is provided in column 6 of Table 2.2 of Volume 5.26.6C. These represent the duration of site activities that might require management of the PRoWs using the methods described above. National Grid will inform the relevant PRoW officer at least seven days in advance of any short term closure and notify them when the closure has ceased. Advance notice will include dates of closure and the likelihood of the path being reopened the same day.	Volume 5.26.6C, Paragraphs 3.2.1 and 3.2.4	Schedule 3, Requirement 5	Relevant Planning Authority
Temporary PRoW Closure and Temporary Diversion	13.2.1	Where a PRoW has been identified for a longer duration temporary closure (rather than management via short term closure as described above), the feasibility of temporary diversions has been discussed with the PRoW officers. Two temporary diversions have been identified and are shown on the Access and Rights of Way Plans. The longer duration temporary closures could be in effect for the entire construction period of the Proposed Development; however, National Grid will endeavour to ensure closure durations are minimised as far as possible and PRoW will be reopened at the earliest opportunity if no longer affected by the construction activities of the Proposed Development If it becomes necessary to implement an additional longer temporary closure or additional PRoW closure within the Order Limits that has not been identified in Table 2.2 of Volume 5.26.6C and Schedule 7 of the DCO these will be discussed and agreed with the relevant local PRoW officer and the landowners involved prior to implementation. Further, in such cases, Article 13(5)(b) of the DCO requires National Grid to obtain the consent of the relevant street authority which may attach reasonable conditions to such consent. Signage will be used to advise of the proposed closure advising of proposed dates and specific hours for the closure. Where National Grid has sought and obtained the consent of the relevant street authority for additional temporary diversions (beyond those identified in Table 2.2 of Volume 5.26.6C and Schedule 7 of the DCO), it will inform the relevant PRoW Officer at least seven days in advance of the start of any agreed closure and notify them when the closure has ceased.	Volume 5.26.6C, Paragraphs 3.3.1 to 3.3.3	Schedule 3, Requirement 5	Relevant Planning Authority
Signage	13.3.1	Signs will be erected warning PRoW users of the presence of construction work. Information signs detailing works and giving the Hinkley Point C Community Relations team contact number details will be maintained along the construction site. The location of signs providing information of temporary diversions and closures will be discussed with the relevant local PRoW Officer. Where applicable maps showing temporary diversions and alternative rights of way will be provided at site.	Volume 5.26.6C, Paragraphs 3.5.1 and 3.5.2	Schedule 3, Requirement 5	Relevant Planning Authority
Safety Measures	13.4.1	Suitable fencing will be erected where appropriate to form a safe corridor for users of the PRoW (all fencing will be subject to approval under Schedule 3, Requirement 16 of the DCO. The type and size of fencing will be agreed with the individual landowners and relevant local PRoW Officer prior to the start of construction. Regular inspections will take place to ensure that all signage and fencing are still in place and that the condition of the PRoW is suitable for use by the public. All PRoW crossing points affected by the Proposed Development will be identified on the construction plans. Where access points and bell mouths cross a PRoW or a footway or cycleway on the highway appropriate signage and fencing will be installed to ensure the safety of the public, road users and workforce. Appropriate traffic management measures for all works affecting highways are set out in the Construction Traffic Management Plan (Volume 5.26.5C). Where construction access routes follow existing PRoWs appropriate traffic management measures to ensure the safety of PRoW users will be employed following discussion with the relevant PRoW Officer.	Volume 5.26.6C, Paragraphs 3.6.1 to 3.6.4	Schedule 3, Requirement 5 Schedule 3, Requirement 16	Relevant Planning Authority Relevant Planning Authority
Condition Surveys	13.5.1	National Grid will undertake pre-commencement condition surveys of the relevant directly affected PRoWs prior to the commencement of construction. The surveys will include photographic records and written descriptions. A copy of the condition survey will be provided to the relevant PRoW officer within 28 days of the completion of the survey.	Volume 5.26.6C, Paragraph 3.7.1	Schedule 3, Requirement 5	Relevant Planning Authority
Reinstatement of PRoW	13.6.1	National Grid will reinstate the directly affected PRoWs (see Article 30 (Temporary Use of Land by National Grid) and Schedule 3, Requirement 15 of the DCO to the reasonable satisfaction of the relevant landowner and PRoW Officer but as a minimum to the same condition as was recorded prior to the commencement of construction.	Volume 5.26.6C, Paragraph 3.8.1	Schedule 3, Requirement 15	Relevant Planning Authority

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
Inspections	13.7.1	Inspections and any action required, relating to non-conformance with the CEMP, will be undertaken in accordance with sections 1.12 and 1.13 of the CEMP (Volume 5.26.1C). Inspections will be undertaken on the PRoW directly affected by construction and where the mitigation measures have been implemented, to ensure that all signage and fencing are still in place and that the condition of the PRoW is suitable for use by the public.	Volume 5.26.1C, Paragraph 3.10.9 Volume 5.26.6C, Paragraph 3.9.1	Schedule 3, Requirement 5	Relevant Planning Authority

3.0 OPERATIONAL MITIGATION

Table 3.1 Operational Mitigation

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
14.0 Landscape (Volume 5.6.1, Section 6.7) and Visual Effects (Volume 5.7.1.2, Section 7.7 and Volume 5.7.3.14A) and ES Sensitivity Test (Volume 5.29)					
Planting	14.1.1	Trees, groups of trees and hedges will be planted at the sites of the CSE compounds and at the Sandford Substation. Planting will be undertaken in accordance with the following Figures: <u>Bridgwater Tee 400kV CSE Compound</u> Planting at the Bridgwater Tee 400kV CSE Compound will be undertaken in accordance with Volume 5.7.3.14A, Figures 7.32: Bridgwater Tee CSE Compound – Landscape Mitigation and Detailed Planting Plans. <u>South of Mendip Hills 400kV CSE Compound</u> At the CSE compound to the south of the Mendip Hills AONB, planting will be undertaken in accordance with Volume 5.7.3.14A, Figures 7.33: South of Mendip Hills 400kV CSE Compound – Landscape Mitigation and Detailed Planting Plans. <u>Sandford 400kV/132kV Substation</u> At the Sandford 400kV / 132kV substation planting will be conducted in accordance with Volume 5.7.3.14A, Figures 7.35: Sandford 400kV/132kV Substation – Landscape Mitigation and Detailed Planting Plans. <u>Towerhead Brook Bridge</u> Planting at the Towerhead Brook Bridge will be conducted in accordance with Volume 5.7.3.14A, Figure 7.36: Towerhead Brook Bridge – Landscape Mitigation and Detailed Planting Plan.	Volume 5.6.1, Paragraph 6.7.19 Volume 5.7.1.2, Paragraph 7.7.17	Schedule 3, Requirement 9	Relevant Planning Authority
	14.1.2	Trees, groups of trees and hedges will be planted at the sites of the potential cable bridges if built. Planting will be undertaken in accordance with the following Figures: a) Volume 5.7.3.14A, Figure 7.34: River Axe Cable Bridge Option Landscape Mitigation and Detailed Planting Plan.	Volume 5.6.1, Paragraph 6.7.19 Volume 5.7.1.2, Paragraph 7.7.17	Schedule 3, Requirement 30	Relevant Planning Authority
	14.1.3	Replacement planting of trees, tree groups and hedges will be planted 'in-situ' in accordance with the Arboricultural Impact Assessment (AIA) at Volume 5.21.1B, section 9. Where 'in-situ' replacement planting is not possible (for example, under the overhead line or above the underground cables) replacement trees, tree groups and hedges will be planted in new locations with landowner agreement as part of reinstatement of land. Planting replacement trees, tree groups and hedges in new locations with landowner agreement is detailed in the AIA at Volume 5.21.1B, section 9.	Volume 5.6.1, Paragraph 6.1.7 Volume 5.7.1.2, Paragraph 7.7.15	Schedule 3, Requirement 10	Relevant Planning Authority
	14.1.4	Planting will consist of native species of local provenance, where available, with all trees and hedge plants, seed sources and nursery root management specified in accordance with UK Forestry Standard Guidelines: Forests and Climate Change (Forestry Commission (2011), Forests and Climate Change: UK Forestry Standard Guidelines).	Volume 5.6.1, Paragraph 6.5.417 Volume 5.7.1.2, Paragraph 7.7.18	Schedule 3, Requirement 10	Relevant Planning Authority
Advance Planting	14.2.1	<u>Sandford 400kV/132kV Substation</u> Advance planting will be conducted in accordance with Volume 5.7.3.14A, Figure 7.35.6.	Volume 5.7.3.14A, Figure 7.35.6	Schedule 3, Requirement 9	Relevant Planning Authority
	14.2.2	<u>South of Mendip Hills 400kV CSE Compound</u> Advance planting will be conducted in accordance with Volume 5.7.3.14A, Figure 7.33.1.	Volume 5.7.3.14A, Figure 7.33.1	Schedule 3, Requirement 9	Relevant Planning Authority
	14.2.3	<u>River Axe Crossing</u> Advance Planting will be conducted in accordance with Volume 5.7.3.14A, Figure 7.34.1.	Volume 5.7.3.14A, Figure 7.34.1	Schedule 3, Requirement 30	Relevant Planning Authority
15.0 Biodiversity and Nature Conservation (Volume 5.8.1, Section 8.7, Volume 5.26.3C and Volume 5.33.1) and ES Sensitivity Test (Volume 5.29)					

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
Bird Diverters and Monitoring	15.1.2	National Grid will fit bird diverters to the earth wire of the new 400kV overhead line on the following spans: • Pylon ZGA1 through to Pylon ZGA3 (2 spans). • Pylon LD2 through to pylon LD5 (3 spans). • Pylon LD8 through to pylon LD11 (3 spans). National Grid will ensure that on the section between Bridgwater Tee and Mark, the conductors and earth wires of the new 400kV are installed only after the removal of the F Route 132kV conductors and earth wires.	Volume 5.26.3C, Paragraphs 2.2.13 and 2.2.14	Schedule 3, Requirement 13	Relevant Planning Authority
	15.1.3	National Grid will undertake bird collision monitoring along the overhead line between Bridgwater Tee and Mark. The requirement to implement the monitoring strategy (entitled 'Bird Mortality Monitoring and Thresholds South of Mark' – see Volume 5.33.1) is set out in Schedule 3, Requirement 13 of the DCO. A set of thresholds have been agreed with Natural England that, if reached, would trigger the need for further investigation and potentially mitigation. The agreed thresholds and process that would be triggered should these levels be reached are detailed in Volume 5.33.1. Implementation of this strategy will be governed by a Working Group. As a minimum the Working Group will comprise representatives for National Grid and Natural England. Further information on the Working Group is provided in Volume 5.33.1.	Volume 5.26.3C, Paragraphs 2.2.15-2.2.16 Volume 5.33.1	Schedule 3, Requirement 13	Relevant Planning Authority
Internationally Designated Sites	15.2.1	<u>Somerset Levels and Moors SAC, SPA, Ramsar Site</u> Deflectors will be provided through stretches of the overhead line crossing the three potential flight corridors – the Huntspill River, King's Sedgemoor Drain and the River Brue. Monitoring will be informed by baseline surveys and monitoring during construction. The National Grid Bird Flight Diverter Protocol.	Volume 5.8.1, Table 8.30	Schedule 3, Requirement 13	Relevant Planning Authority
	15.2.2	<u>Severn Estuary SAC, SPA, Ramsar Site</u> Deflectors will be provided through stretches of the overhead line crossing the three potential flight corridors – the Huntspill River, King's Sedgemoor Drain and the River Brue. Monitoring will be informed by baseline surveys and monitoring during construction. The National Grid Bird Flight Diverter Protocol.	Volume 5.8.1, Table 8.30	Schedule 3, Requirement 13	Relevant Planning Authority
	15.2.3	<u>Hallen Marsh (SPA Offsetting Site)</u> No specific mitigation measures are required during the construction period as the site is not currently used by Ramsar and SPA birds. In recognition of the future purpose of the land, National Grid has committed to fitting bird flight diverters on the overhead line through Hallen Marsh when a trigger associated with habitat reinstatement works is met. The details of this commitment are set out in Schedule 3, Requirement 13 of the DCO.	Volume 5.8.1, Table 8.30 Volume 5.26.3C, Paragraphs 2.4.116 and 2.4.117	Schedule 3, Requirement 13	Relevant Planning Authority
16.0 Ground Environment (Volume 5.9.1, Section 9.7) and ES Sensitivity Test (Volume 5.29)					
Pollution Prevention	16.1.1	To avoid any incidents which may give rise to contamination of the ground and/or pollution of groundwater, sites will be managed according to existing best practice such as the Environment Agency's PPG1 General Guide to the Prevention of Pollution.	Volume 5.9.1, Paragraph 9.7.10	Schedule 3, Requirement 18	Relevant Planning Authority
	16.1.2	Maintenance work on the Proposed Development components will be undertaken in accordance with statutory guidance and best practice, such as the Environment Agency's PPG1: General guide to the prevention of pollution and the Health and Safety at Work Act 1974.	Volume 5.9.1, Paragraph 9.7.9	Schedule 3, Requirement 18	Relevant Planning Authority
17.0 Hydrology and Water Resources (Volume 5.10.1, Section 10.7) and ES Sensitivity Test (Volume 5.29)					
Pollution Prevention	17.1.1	In order to avoid any incidents which may give rise to pollution of surface or groundwater, sites will be managed according to existing best practice such as, the Environment Agency's PPG1 General Guide to the Prevention of Pollution.	Volume 5.10.1, Paragraph 10.7.43	Schedule 3, Requirement 17	Relevant Planning Authority

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
				Schedule 3, Requirement 18	Relevant Planning Authority
18.0 Flood Risk Assessment Bridgwater Tee CSE Compound (Volume 5.23.1, Section 7)					
Tidal Flooding	18.1.1	The primary measure to be taken at the proposed CSE compounds to mitigate flood risk is to raise all water sensitive equipment above the design flood level. The minimum proposed level for water sensitive equipment is 7.6mAOD, approximately 1.6m above ground level. This level is 750mm above the 1 in 200 (0.5%) annual probability event level of 6.85mAOD at 2020, and 440mm above the 1 in 200 (0.5%) annual probability event level of 7.16mAOD at the end of the design life at 2060. Under the H++ scenario, this design level is over 100mm above the 1 in 200 (0.5%) annual probability event level in 2060. This measure to build resilience by raising all critical components would also be adequate to address any minor residual risk from fluvial flooding (and other sources of flooding). Whilst this measure would not reduce the likelihood of flooding at the site, it would make it resilient thereby eliminating any impact from flooding. With the water sensitive equipment raised above the design flood level, the CSE compounds would continue to operate normally with significant depths of water around the sites for prolonged periods of time (several weeks for example). During any periods of flooding, the need for access to the site would be extremely unlikely.	Volume 5.23.1, Paragraphs 7.2.4 to 7.2.6	Schedule 3, Requirement 32	Relevant Planning Authority
	18.1.2	It is noted within section 5.3 of the Flood Risk Assessment Bridgwater Tee CSE Compound (Volume 5.23.1) with regard to Tidal Flooding that proposed operations at the sites may be required beyond the planned operational lifetime of the CSE compound assets. After 40 years, the CSE compound would reach the end of its operational life and all equipment at the site would need to be replaced. At that point, if operation at the site is still required, the defence level (or raised level for sensitive equipment) would be reviewed taking into consideration actual climate change, and flood risk management strategies in place at that time.	Volume 5.23.1, Paragraph 7.2.7	Schedule 3, Requirement 32	Relevant Planning Authority
Overland Flow and Surface Water	18.2.1	Although not specifically driven by the need to protect the proposed sites against flooding from surface water, as the foundation slabs would be set nominally just above the surrounding gravelled areas in accordance with standard design practices for CSE compounds, this would prevent the sites becoming unnecessarily waterlogged during prolonged wet periods. The finished level of the foundation slabs would be of the order of 50mm to 100mm above the gravelled areas and the surrounding adjacent natural ground level.	Volume 5.23.1, Paragraph 7.3.2	Schedule 3, Requirement 32	Relevant Planning Authority
Access and Egress	18.3.1	The site would generally be unmanned, apart from infrequent maintenance at the site. Given that flood risk at the site is most likely from extreme tides (possibly combined with high river flows) leading to overtopping of tidal defences, there would be advance warning of possible flood risk and overtopping risk. The execution of maintenance operations could therefore be planned to take account of adjacent river levels, forecast tidal surges and prevailing weather conditions. With the raised water sensitive equipment well above the design flood level, the CSE compounds would operate effectively during flood events and therefore, no access during flood events would be necessary. In the unlikely event that personnel were on site at the onset of flooding, egress from the CSE compounds would be initially immediately to the south to Horsey Lane and then to the A39. The closest high ground is around 1km away, along the A39 located to the north east of the site towards Knowle. However, egress from here would pass through an area at higher flood risk along the Bath Road (A39) just north of Horsey, based on the Environment Agency “defended” flood map (Inset 7.1). Alternative egress would be towards Chedzoy via Slape Cross located approximately 1.5km south east of the site. At this location, the high ground would provide a temporary refuge area until flood waters subsided. Whilst there are no significant issues regarding access and egress, an access and egress plan should be included within the management plan for the proposed CSE compounds to ensure that arrangements are made in the event of a flood affecting access from the north or west in extreme flood events.	Volume 5.23.1, Paragraphs 7.4.2 to 7.4.4	N/A	N/A

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
Flood Warning and Escape and Evacuation	18.4.1	As the proposed CSE compounds would be unmanned most of the time, scheduled maintenance is not a major consideration as the required activities could be planned around any likely major tidal flooding incidents, as these would be forecast. The proposed CSE compound sites lie within an area designated to receive a Flood Warning in the event that a flood is likely to occur. It is recommended that National Grid, as the operator of the proposed CSE compounds, is signed up to the Floodline Warnings Direct Service provided by the Environment Agency so that adequate action could be taken to evacuate the sites if necessary. Alternatively, the warning would be useful to inform the possible need for a post-flood inspection. As flood warnings can be provided by phone, text or email, and the site would generally be unmanned, arrangements should be made so that the warnings are issued to a suitable National Grid operations centre in order for personnel to take action accordingly in response to the warning. If evacuation is required, as noted above, the normal evacuation route would be via Horsey Lane and on to the A39. From the junction of Horsey Lane and the A39, there are two possible evacuation routes that should be considered, depending on the actual flood conditions: a) heading north east along the A39 towards high ground at Knowle, 1km away; and b) heading south west on the A39 for a short distance before turning to the left (south east towards Slape Cross) and then Chedzoy.	Volume 5.23.1, Paragraphs 7.5.2 to 7.5.5	N/A	N/A
19.0 Flood Risk Assessment South of the Mendip Hills CSE Compound (Volume 5.23.2, Section 7)					
Fluvial and Tidal Flooding	19.1.1	The primary measure to be taken at the site to mitigate flood risk is to raise all water sensitive equipment above the design flood level of 6.36mAOD. With a freeboard allowance of 0.3m to allow for data and model uncertainties, the minimum proposed level for water sensitive equipment would be 6.70mAOD, approximately 0.7m above the typical ground level at the site. However, by means of testing the sensitivity to the H++ scenario, allowing for a further 325mm for sea level rise and 350mm increase due to increased fluvial flows would give a design water level of 7.04mAOD (6.36mAOD + 0.675m). A design level of water sensitive equipment at 7.20mAOD would therefore be resilient to the H++ scenario. This measure to build resilience by raising all critical components would also be adequate to address any minor residual risk from fluvial flooding (and other sources of flooding). Whilst this measure would not reduce the likelihood of flooding at the site, it would make it resilient thereby eliminating any impact from flooding. With the water sensitive equipment raised above the design flood level, the CSE compound would continue to operate normally with significant depths of water around the site for prolonged periods of time (several weeks for example). During any periods of flooding, the need for access to the site would be extremely unlikely.	Volume 5.23.2, Paragraphs 7.2.4 to 7.2.7	Schedule 3, Requirement 32	Relevant Planning Authority
	19.1.2	It is noted within section 5.3 of the Flood Risk Assessment South of the Mendip Hills CSE Compounds (Volume 5.23.2) with regard to Tidal Flooding that proposed operations at the site may be required beyond the planned operational lifetime of the CSE compound assets. After 40 years, the CSE compound would reach the end of its operational life and all equipment at the site would need to be replaced. At that point, if operation at the site is still required, the defence level (or raised level for sensitive equipment) would be reviewed taking into consideration actual climate change, and flood risk management strategies in place at that time.	Volume 5.23.2, Paragraph 7.2.8	Schedule 3, Requirement 32	Relevant Planning Authority
Overland Flow and Surface Water	19.2.1	Although not specifically driven by the need to protect the proposed sites against flooding from surface water, as the foundation slabs would be set nominally just above the surrounding gravelled areas in accordance with standard design practices for CSE compounds, this would prevent the sites becoming unnecessarily waterlogged during prolonged wet periods. The finished level of the foundation slabs would be of the order of 50mm to 100mm above the gravelled areas and the surrounding adjacent natural ground level.	Volume 5.23.2, Paragraph 7.3.2	Schedule 3, Requirement 32	Relevant Planning Authority

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
Access and Egress for Operation and Maintenance	19.3.1	The site would generally be unmanned, apart from infrequent maintenance at the site, for which access would be via Hams Lane over the M5. Given that flood risk at the site is most likely from a combination of extreme tides and high river flows, there would typically be advance warning of a possible flood risk. The execution of maintenance operations can therefore be planned to take account of adjacent river levels, forecast tides and prevailing weather conditions. With the raised water sensitive equipment well above the design flood level, the CSE compound would operate effectively during flood events and therefore, no access during flood events would be necessary. In the unlikely event that personnel were on site at the onset of flooding, egress from the CSE compound would be initially immediately to the north via Hams Lane. The bridge over the M5 would provide a high level position out of the water; however as the remaining route is at risk of flooding, efforts should be made to continue north towards Loxton and seek higher ground in the village. This is approximately 1.5km from the site. There are no other overland routes away from the site as it is bounded by rivers without any crossing points east of the M5. Whilst there are no significant issues in general regarding access and egress, an access and egress plan should be included within the management plan for the proposed CSE compound to ensure that arrangements are made in the event of a flood affecting access in extreme flood events.	Volume 5.23.2, Paragraphs 7.4.2 to 7.4.4	N/A	N/A
Flood Warning and Escape and Evacuation	19.4.1	As the CSE compound would be unmanned most of the time, scheduled maintenance is not a major consideration as the required activities could be planned around any likely major flooding incidents, as these would be partly predictable due to the tidal influence and generally long lead time for a major fluvial flood event. The proposed CSE compound site lies within an area designated to receive a Flood Warning in the event that a flood is likely to occur. It is recommended that National Grid, as the operator of the CSE compound, is signed up to the Floodline Warnings Direct Service provided by the Environment Agency so that adequate action could be taken to evacuate the site if necessary. Alternatively, the warning would be useful to inform the possible need for a post-flood inspection. As flood warnings can be provided by phone, text or email, and the site would generally be unmanned, arrangements should be made so that the warnings are issued to a suitable National Grid operations centre in order for personnel to take action accordingly in response to the warning. If evacuation is required, as noted above, the normal evacuation route would be via Hams Lane and continue north towards Loxton to seek higher ground in the village.	Volume 5.23.2, Paragraphs 7.5.2 to 7.5.5	N/A	N/A
20.0 Flood Risk Assessment Sandford Substation (Volume 5.23.3, Section 7)					
Overland Flow and Surface Water	20.1.1	The current drain (Parish Rhyne) that passes across the proposed site would be diverted to the west of the substation, re-joining the existing drain to the north of the site. In determining the final re-alignment of the drain consideration would be given to the natural flow path in the surrounding area. Landscaping and ground works associated with both the drain and the substation ground levels would need to ensure that if the diverted stream flows out of bank (as may be anticipated in extreme localised rainfall events) the surface water flow path should be to the north and west, avoiding the site. The site plan as shown in Drawing no. 18/SWA/3846240 in Volume 5.23.3.2, Appendix B shows the ground contours, which indicate that the natural flow path would be towards the western corner of the site. Once the flow is passed the corner of the site, the natural flow path would continue away from the site. The plan also indicates that most of this part of the proposed substation is on an area of fill, elevated above the natural ground level. However, the extreme western corner of the site may remain vulnerable to surface water flows. Depending on the final details of the site layout and re-alignment of the drain, it may be necessary to provide some form of protection to the western corner of the proposed substation site, and along part of the length of the southwest facing site boundary. This could be in the form of a bund from the earthworks associated with the drain realignment, and would prevent any out of bank flows from the diverted stream flowing on to the site, as indicated on Drawing No. 18/SWA/3846240 in Volume 5.23.3.2, Appendix B. The proposed substation will also receive surface water runoff from the undeveloped area of the field to the east and south of the site as it flows towards the proposed site. It is therefore proposed to construct a filter drain and land drainage trench along the top of the cutting on the east and south east boundary of the proposed substation. These drains will collect surface water at the top of the cutting (Drawing 18/SWA/3846240, Volume 5.23.3.2, Appendix B). The flow along this trench will be directed into the existing field drainage ditches at the south and north east corners of the site. At detailed design stage the implications of the potential impacts on local natural drainage paths associated with these mitigation measures would be addressed in consultation with the Internal Drainage Board.	Volume 5.23.3, Paragraphs 7.2.2 to 7.2.4	Schedule 3, Requirement 32	Relevant Planning Authority
Access and Egress for Operation and Maintenance	20.2.1	Whilst there are no significant issues regarding access and egress (as access will generally be from the south) an access or egress plan should be included within the management plan for the proposed substation to ensure that arrangements are allowed for in the event of a flood affecting access from the north or west in extreme flood events.	Volume 5.23.3, Paragraph 7.3.3	N/A	N/A

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
Flood Warning and Escape and Evacuation Routes	20.3.1	As the substation would be unmanned most of the time, scheduled maintenance is not a major consideration as the required activities could be planned around any likely major tidal or fluvial flooding incidents, as these would be forecast. The current Flood Warning Area extends up to within 100m of the northern edge of the proposed substation. Whilst the proposed substation is not within the Flood Warning Area, given the criticality of the substation it is recommended that National Grid, as the operator of the proposed substation, is signed up to the Floodline Warnings Direct Service provided by the Environment Agency so that adequate action could be taken to evacuate the site if necessary. As flood warnings can be provided by phone, text or email, and the site would generally be unmanned, arrangements should be made so that the warnings are issued to a suitable National Grid operations centre in order for personnel to take action accordingly in response to the warning. If evacuation is required to the north (for any reason), the site area may be used as a safe refuge until evacuation can be provided to ensure the safety of the personnel. As noted above, ordinarily, evacuation would be to the south via Nye Road and the A368.	Volume 5.23.3, Paragraphs 7.4.2 to 7.4.4	N/A	N/A
21.0 Flood Risk Assessment Seabank Substation (Volume 5.23.4, Section 7)					
Tidal Flooding	21.1.1	The preferred measure to be taken at the site to mitigate flood risk would be to build a perimeter flood defence wall along the site boundary with flood gates at the site entrance. The minimum proposed finished level for the perimeter flood defence wall is 8.05mAOD, approximately 1.65m above the lowest ground level (approximately 6.40mAOD) on the site. This level is 1.15m above the present 1 in 1000 (0.1%) annual probability event level of 6.90mAOD, and 400mm above the 1 in 1000 (0.1%) annual probability event level of 7.65mAOD at the end of the design life of 40 years at around 2060, taking account of sea level rise. This option, as well as protecting the extension to the site and therefore the proposed new connection to the transmission system, would also provide resilience to the existing substation equipment that connects both the Seabank power station and the adjacent WPD 132kV substation. To test the sensitivity of the proposed flood defences to climate change, the H++ scenario is considered, giving an additional 325mm for sea level rise. This would give a design flood level of 7.98mAOD (7.65mAOD + 0.325m) which is marginally below the flood defence wall design level of 8.05mAOD. This measure would also be adequate to address any minor residual risk from fluvial flooding (and other sources of flooding). Within the substation area, it is anticipated that the existing pumped drainage system would operate to deal with potential surface water runoff within the 'enclosed' site compound when the flood gates are closed. This pump capacity would be confirmed at detailed design stage. Consideration has also been given to determination of the tidal flood water displaced by the proposed perimeter flood defence wall. It is estimated that approximately 17,000m3 of water would be displaced with a flood level up to the top of the flood defence. This represents the 1 in 1000 (0.1%) annual probability flood level at the end of the operational life of the substation, including the 400mm freeboard. Taking the 'at risk' area from the railway line north of the M49 as far as the Avonmouth area, it is estimated that this displaced volume would equate to an increase in flood level of less than 1mm for the 2055 design scenario. This extremely small change in flood depth would not result in any perceptible change in flood risk elsewhere and hence would not warrant any compensatory storage. Additionally, the presence of the flood wall would not locally affect flood levels elsewhere, as the site is not on a defined flow path – the entire site would be surrounded by water.	Volume 5.23.4, Paragraphs 7.2.8 to 7.2.11	Schedule 3, Requirement 32	Relevant Planning Authority
	21.1.2	The proposed operational life of the substation is 40 years although Hinkley Point C Power Station would be likely to generate power for an estimated 60 years. Therefore, consideration is given to operation for a further 20 years. This would give an estimated flood level of approximately 7.90mAOD (6.4mAOD + 1.5m maximum flood depth) at 2073 based on the SFRA (2013) flood mapping. This compares well to the estimated level of 7.87mAOD for 2080, based on and interpolation between the flood depths from the 2010 and 2110 flood mapping. The design level for the flood defences at the site at 8.05mAOD is approximately 150mm above these levels, and therefore, the site would continue to be protected, but with reduced freeboard. However, during the operational life of the substation, the required defence level would be reviewed, taking into consideration actual sea level rise and flood risk management strategies in place at that time. This approach is consistent with a managed adaptive response to climate change. The design of the flood defence wall with a defence height of 8.05mAOD would also allow for future raising depending on actual sea level rise and other (future) flood defences protecting the area. This is consistent with the precautionary principle such that the currently proposed works do not restrict future adaptation measures.	Volume 5.23.4, Paragraphs 7.2.12 and 7.2.13	Schedule 3, Requirement 32	Relevant Planning Authority
Overland Flow and Surface Water	21.2.1	The Proposed Development is located on a very flat of land at approximately 6.6mAOD (on average). The area to the east of the site is slightly higher with levels ranging from 7.0 to 11.0mAOD. There is potential that surface water runoff from the adjacent land to the east would flow towards the substation site. As noted in section 5, the risk of surface water flooding is very low. The proposed perimeter flood wall would protect the site against the risk of surface water flooding from overland flow from this general location. However, as noted above, the measures taken to protect against tidal flooding would be more than adequate for any minor residual flood risk from this source.	Volume 5.23.4, Paragraph 7.3.1	Schedule 3, Requirement 32	Relevant Planning Authority

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
Access and Egress for Operation and Maintenance	21.3.1	The site would generally be unmanned with access only required for maintenance and routine inspections. The flood gates at the site access would normally be closed to provide full protection. Given that flood risk at the site is most likely from extreme tides leading to overtopping of tidal defences, there would be advance warning of possible flood risk and overtopping risk. The execution of maintenance operations can therefore be planned to take account of adjacent river levels, forecast tides and prevailing weather conditions. With the flood wall around the site and the flood gates closed, the substation would operate effectively during flood events and therefore, no access during flood events would be necessary. In the unlikely event that personnel were on site at the onset of flooding, egress from the site compound would be initially immediately to the west and northwest along the site access road for Seabank Power Station to the A403 and then to the M49 (heading south) or M48 (heading north). The closest high ground along this route is around 8km away towards Aust village, along the M48 located to the north east of the site. However, egress from here would pass through an area at higher flood risk along the A403 at Redwick. Alternative egress would be towards Avonmouth via the A403 located approximately 3.5km south of the site. At this location, the high ground would provide a temporary refuge area until flood waters subsided. Operating procedures would have to ensure that temporary opening of the flood gate for vehicle egress would not compromise flood protection for the site. In the event that egress from the site by vehicle is not feasible, the slightly higher ground located immediately adjacent to the east of the site (at the landfill site) may be accessed on foot as a temporary emergency refuge area. Within the Avonmouth/Severnside SFRA for this area (Strategic Zone 4) it is specifically noted that new, improved access routes would be essential for safe access and egress during wave overtopping and breach events. However, it also notes that the effect of raising access routes to remain usable during a breach situation on flooding elsewhere would need to be carefully considered. Given the potentially extensive and long travel time required to reach high ground, it is anticipated that it would be necessary to liaise with the emergency services and the Local Authority's emergency planning function to agree a safe evacuation procedure. During a flood event there may be many people requiring evacuation from the surrounding area. Consequently it may be necessary to provide a refuge area where people could wait until rescue is available. With the proposed perimeter flood defence wall, the site compound could be used as a refuge area for site personnel. It is understood that all National Grid sites that are at flood risk, such as Seabank, have an agreed plan in place to manage safety of the site and personnel should there be a flood event.	Volume 5.23.4, Paragraphs 7.4.2 to 7.4.6	N/A	N/A
Flood Warning and Escape and Evacuation	21.4.1	The site lies within an area designated to receive a Flood Warning in the event that a flood is likely to occur. It is recommended that, National Grid, as the operator of the substation, is signed up to the Floodline Warnings Direct Service provided by the Environment Agency so that adequate action could be taken to evacuate the site if necessary. Any warning would be useful to inform of the possible need for a post-flood inspection. As flood warnings can be provided by phone, text or email, and the site would generally be unmanned, arrangements should be made so that the warnings are issued to a suitable National Grid operations centre in order for personnel to take action accordingly in response to the warning. If evacuation is required the normal evacuation route would be via the A403 initially as discussed in the previous section. Evacuation routes to the north or to the south should be considered, depending on the actual flood conditions.	Volume 5.23.4, Paragraphs 7.5.2 to 7.5.4	N/A	N/A
22.0 Flood Risk Assessment Hinkley Point C Connection Route (Volume 5.23.5.1A, Section 7)					
Bridge Crossings	22.1.1	Permanent bridge crossings will be constructed to minimise the impact on flood risk using the mitigation measures identified in Table 7.6 of the Flood Risk Assessment Hinkley Point C Connection Route (Volume 5.23.5.1A). a) Bridge soffit will be above the 100 year flood level plus 600mm to allow for climate change and freeboard. b) No piers in the watercourse. c) Maintain minimum clearance of overhead lines over watercourses of 8.1m above bank level over IDB managed rhynes and 10.9m above bank level over Main Rivers.	Volume 5.23.5.1A, Paragraph 7.2.13, Table 7.6	Schedule 3, Requirement 32	Relevant Planning Authority, following consultation with the Environment Agency and/or Relevant Drainage Authority as appropriate
Access and Egress for Maintenance	22.2.1	Once the works are completed, the requirement for access to the pylons, the overhead lines and underground cable works is limited. Any routine maintenance to these works would be in accordance with standard National Grid procedures and would be timed to avoid periods of flooding.	Volume 5.23.5.1A, Paragraph 7.5.1	N/A	N/A
	22.2.2	For the underground cables access to the jointing bays is typically required once every 4 to 5 years for inspection. In the event that planned access is needed, consideration would be given to the location of works in Flood Zone 3 and flood warnings for the area to avoid periods of flood risk. Routine inspections would be planned to take account of forecast tidal surges, major flood events and prevailing weather conditions.	Volume 5.23.5.1A, Paragraphs 7.5.3 and 7.5.4	N/A	N/A
23.0 Noise and Vibration (Volume 5.14, Section 14.14) and ES Sensitivity Test (Volume 5.29)					

Aspect	Ref.	Mitigation	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
Sandford Substation	23.1.1	The rating level of noise emitted from the Sandford substation site during its operation, and measured at the nearest residential properties, will not exceed existing background noise levels or 30dB(A) (whoever is greater).	N/A	Schedule 3, Requirement 29	Relevant Planning Authority

4.0 ENHANCEMENT MEASURES

Table 4.1 Enhancement Measures

Aspect	Ref.	Mitigation Measures	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
24.0 Landscape (Volume 5.6.1, Section 6.7), Visual Effects (Volume 5.7.1.2, Section 7.7) , OSPES (Volume 5.25B) and s106 (Volume 8.4B)					
Planting	24.1.1	The OSPES (Volume 5.25B) will be implemented in agreement with National Grid and the local authorities. This will provide funds for works to strengthen landscape character and further reduce visual effects of the Proposed Development.	Volume 5.6.1, Paragraph 6.8.5 Volume 5.7.1.2, Paragraph 7.7.15	s106 Agreement	In agreement with Relevant Planning Authority
	24.1.2	A financial contribution will be made by National Grid to the City Council for the Avonmouth Trees Contribution (street trees in Avonmouth Village). Once the City Council has published the proposed scheme to be funded by the Avonmouth Trees Contribution, the City Council and National Grid will work together in good faith to design the Avonmouth Garden Scheme	Volume 8.4B	s106 Agreement	Relevant Planning Authority
25.0 Biodiversity and Nature Conservation (Volume 5.8.1, Section 8.9), OSPES (Volume 5.25B) and s106 (Volume 8.4B)					
Local Wildlife Sites	25.1.1	Financial compensation will be provided for construction phase effects on Local Wildlife Sites.	Volume 8.4B	s106 Agreement	Relevant Planning Authority
OSPES	25.1.2	The OSPES (Volume 5.25B) will be implemented in agreement with National Grid and the local authorities. The OSPES will bring biodiversity benefits, for example improving the quality or extending the network of hedgerows.	Volume 5.8.1, Paragraph 8.9.2	s106 Agreement	In agreement with Relevant Planning Authority
	25.1.3	Small scattered groups of trees will be planted at the section of the Lox Yeo River between the M5 in the west and the sewage treatment works (near Max Mill Lane) in the east, which will be delivered through the OSPES (Volume 5.25B).	Volume 5.8.1, Paragraph 8.9.11	s106 Agreement	In agreement with Relevant Planning Authority
Avonmouth Severnside Enterprise Area	25.1.4	A financial contribution will be made by National Grid for ecological enhancement at Avonmouth Severnside Enterprise Area.	Volume 8.4B	s106 Agreement	Relevant Planning Authority
Tagging Study	25.1.5	A financial contribution will be made by National Grid towards a “tagging” study which researches the relationship between the Somerset Levels and Moors Special Protection Area (SPA) and the Severn Estuary SPA.	Volume 5.8.1, Paragraph 8.9.28	s106 Agreement	Relevant Planning Authority
26.0 Historic Environment (Volume 5.11.1, Section 11.7), OSPES (Volume 5.25B) and s106 (Volume 8.4B)					
OSPES	26.1.1	The OSPES (Volume 5.25B) will be implemented in agreement with National Grid and the local authorities subject to Section 106 Agreements with the local authorities and other nominated parties. The OSPES includes proposals that may address some of the predicted adverse effects on the settings of heritage assets.	Volume 5.11.1, Paragraph 11.7.19 Volume 5.25B	s106 Agreement	In agreement with Relevant Planning Authority
Tickenham Church	26.1.2	Prior to commencement of the relevant stage of the authorised development, National Grid shall make a financial contribution towards the Tickenham Church Mitigation Works.	Volume 8.4B	s106 Agreement	In agreement with Relevant Planning Authority
Portbury Church	26.1.3	If the approved Development Consent Order contains route option A then prior to commencement of the relevant stage of the authorised development, National Grid shall make a financial contribution towards the Portbury Church Mitigation Works.	Volume 8.4B	s106 Agreement	In agreement with Relevant Planning Authority

Aspect	Ref.	Mitigation Measures	Reference in the ES and/or Mitigation Plan	Delivery Mechanism	Discharging Authority (ies)
Kings Weston House	26.1.4	Prior to commencement of the relevant stage of the authorised development, National Grid shall make a financial contribution towards the Kings Weston Mitigation Works.	Volume 8.4B	s106 Agreement	In agreement with Relevant Planning Authority
27.0 Traffic and Transport (s106 - Volume 8.4B)					
Safety Measures	27.1	A financial contribution will be made by National Grid towards the cost of the County Council carrying out work and activities for the A39 Bath Road/Woolavington Hill highway safety measures.	Volume 8.4B	s106 Agreement	N/A
	27.2	A financial contribution will be made by National Grid to North Somerset Council as a contribution to costs of work and activities for Nye Road Safety Scheme.	Volume 8.4B	s106 Agreement	N/A