

YG-DCO-032-5.3.3A(BC)

# Yorkshire Green Energy Enablement (GREEN) Project

Volume 5

Document 5.3.3A(BC) ES Chapter 3 Appendix 3A - Embedded  
Measures Schedule [\(Tracked\)](#)

Final Issue [BC](#)

[April/July](#) 2023

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Infrastructure Planning (Applications: Prescribed Forms and  
Procedure) Regulations 2009 Regulation 5(2)(a)

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## Version History

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Date	Version	Status	Description / Changes
01/10/2022	A	Final	First Issue
26/04/2023	B	Final	Corrections, as identified in the responding to the Examining Authority's First Written Questions Q1.0.2, at page 20 and page 57 of the Embedded Measures Schedule
<u>28/07/2023</u>	<u>C</u>	<u>Final</u>	<u>Third Issue updated to reflect corrections required as a result of changes in Requirements 8, 9 and 10 of the draft DCO (Document 3.1(E)), responses to Examining Authority second round of written questions (Document 8.25.1) and Issue Specific Hearings Action Points</u>

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# 1. Embedded measures schedule

- 1.1.1 The environmental measures outlined in the table below are provided as a summary of all environmental measures proposed. For further details the relevant management plan (see “Delivery Mechanism” column) should be consulted. The measures will be implemented as described below unless otherwise outlined in a management plan or agreed by the relevant Local Planning Authority and/or statutory consultee under the associated DCO Requirement.

Location	ES Mitigation ID	Topic	Potential changes and effects	Measure proposed	Reference to policy, guidance, legislation (where relevant)	Project Phase	Delivery Mechanism	DCO Requirement	Discharge Authority	CoCP ID	ES reference
<a href="#">Order Limits</a>	<a href="#">n/a</a>	<a href="#">n/a</a>	<a href="#">Impacts on local landowners and occupiers from construction activities and traffic</a>	<a href="#">Implementation of National Grid Land Officer(s) / Agent(s) to liaise with landowners/occupiers on issues affecting land related matters</a>	<a href="#">n/a</a>	<a href="#">Construction and 5 years post-construction</a>	<a href="#">Code of Construction Practice</a>	<a href="#">Requirement 5(2)(a)</a>	<a href="#">Relevant planning authority or highway authority as appropriate</a>	<a href="#">Table 2.1</a>	<a href="#">Chapter 3, Appendix 3B (Document 5.3.3B)</a>
<a href="#">Order Limits</a>	<a href="#">n/a</a>	<a href="#">n/a</a>	<a href="#">Impacts on local landowners and occupiers from construction activities and traffic</a>	<a href="#">Implementation of Agricultural Liaison Officer(s) to liaise day to day with landowners/occupiers on issues affecting land related matters</a>	<a href="#">n/a</a>	<a href="#">Construction and 5 years post-construction</a>	<a href="#">Code of Construction Practice</a>	<a href="#">Requirement 5(2)(a)</a>	<a href="#">Relevant planning authority or highway authority as appropriate</a>	<a href="#">Table 2.1</a>	<a href="#">Chapter 3, Appendix 3B (Document 5.3.3B)</a>
Order Limits	n/a	Air Quality	Increase in dust emissions and adverse effects on human and ecological receptors.	Carry out regular on and <b>off-site</b> inspections to monitor compliance with the dust management measures set out in the CoCP, record inspection results, and make an inspection log available to the relevant Local Authority when asked. This should include regular dust soiling checks of surfaces such as street furniture.	IAQM Guidance on the assessment of dust from demolition and construction (2014)	Construction	Code of Construction Practice	Requirement 5(2)(a)	Relevant planning authority or highway authority as appropriate	AQ01	Chapter 3, Appendix 3B, (Document 5.3.3B)
Order Limits	n/a	Air Quality	Increase in dust emissions and adverse effects on human and ecological receptors.	Increase the frequency of site inspections by the person accountable for air quality and dust issues on site when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions	IAQM Guidance on the assessment of dust from demolition and construction (2014)	Construction	Code of Construction Practice	Requirement 5(2)(a)	Relevant planning authority or highway authority as appropriate	AQ02	Chapter 3, Appendix 3B, (Document 5.3.3B)
Order Limits	n/a	Air Quality	Increase in dust emissions and adverse effects on human and ecological receptors.	Consider the need for dust deposition, dust flux, or real-time PM10 continuous monitoring locations with the relevant Local Authority through the Pollution Incident Prevention Plan.	IAQM Guidance on the assessment of dust from demolition and construction (2014)	Pre-construction and construction	Code of Construction Practice and pollution incident control plan	Requirement (2)(a) Requirement 6(1)(c)	Relevant planning authority or highway authority as appropriate	AQ03	Chapter 3, Appendix 3B (Document 5.3.3B) and Chapter 13 (Document 5.2.13)

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Order Limits	n/a	Air Quality	Increase in dust emissions and adverse effects on human and ecological receptors.	Ensure all vehicles switch off engines when stationary - no idling vehicles	IAQM Guidance on the assessment of dust from demolition and construction (2014)	Construction	Code of Construction Practice	Requirement 5(2)(a)	Relevant planning authority or highway authority as appropriate	AQ04	Chapter 3, Appendix 3B, <b>(Document 5.3.3B)</b>
Order Limits	n/a	Air Quality	Increase in dust emissions and adverse effects on human and ecological receptors.	Avoid the use of diesel or petrol-powered generators and use mains electricity or battery powered equipment where practicable.	IAQM Guidance on the assessment of dust from demolition and construction (2014)	Construction	Code of Construction Practice	Requirement 5(2)(a)	Relevant planning authority or highway authority as appropriate	AQ05	Chapter 3, Appendix 3B, <b>(Document 5.3.3B)</b>
Order Limits	n/a	Air Quality	Increase in dust emissions and adverse effects on human and ecological receptors.	Comply with measures set out in the Construction Traffic Management Plan <b>(Volume 5, Document 5.3.3F)</b> -to manage the sustainable delivery of goods and materials.	IAQM Guidance on the assessment of dust from demolition and construction (2014)	Construction	Construction Traffic Management Plan	Requirement 5(2)(d)	Relevant planning authority or highway authority as appropriate	AQ06	Chapter 13 <b>(Document 5.2.13)</b>
Order Limits	n/a	Air Quality	Increase in dust emissions and adverse effects on human and ecological receptors.	Adhere to maximum speed limits imposed during the construction phase on all temporary and permanent access roads (as opposed to public/private roads with existing speed limits in place)	IAQM Guidance on the assessment of dust from demolition and construction (2014)	Construction	Code of Construction Practice	Requirement 5(2)(a)	Relevant planning authority or highway authority as appropriate	AQ07	Chapter 3, Appendix 3B, <b>(Document 5.3.3B)</b>
Order Limits	n/a	Air Quality	Increase in dust emissions and adverse effects on human and ecological receptors.	Comply with measures set out in the Construction Traffic Management Plan <b>(Volume 5, Document 5.3.3F)</b> supports and encourages sustainable travel (public transport, cycling, walking, and car-sharing).	IAQM Guidance on the assessment of dust from demolition and construction (2014)	Construction	Construction Traffic Management Plan	Requirement 5(2)(d)	Relevant planning authority or highway authority as appropriate	AQ08	Chapter 13 <b>(Document 5.2.13)</b>
Order Limits	n/a	Air Quality	Increase in dust emissions and adverse effects on human and ecological receptors.	Only use cutting, grinding or sawing equipment fitted or in conjunction with suitable dust suppression techniques such as water	IAQM Guidance on the assessment of dust from demolition and	Construction	Code of Construction Practice	Requirement 5(2)(a)	Relevant planning authority or highway	AQ09	Chapter 3, Appendix 3B, <b>(Document 5.3.3B)</b>

Location	ES Mitigation ID	Topic	Potential changes and effects	Measure proposed	Reference to policy, guidance, legislation (where relevant)	Project Phase	Delivery Mechanism	DCO Requirement	Discharge Authority	CoCP ID	ES reference
				sprays or local extraction, for example, suitable local exhaust ventilation systems.	construction (2014)				authority as appropriate		
Order Limits	n/a	Air Quality	Increase in dust emissions and adverse effects on human and ecological receptors.	Ensure an adequate water supply on the site for effective dust/particulate matter suppression/mitigation, using non-potable water where possible and appropriate.	IAQM Guidance on the assessment of dust from demolition and construction (2014)	Construction	Code of Construction Practice	Requirement 5(2)(a)	Relevant planning authority or highway authority as appropriate	AQ10	Chapter 3, Appendix 3B, <b>(Document 5.3.3B)</b>
Order Limits	n/a	Air Quality	Increase in dust emissions and adverse effects on human and ecological receptors.	Use enclosed chutes and conveyors and covered skips.	IAQM Guidance on the assessment of dust from demolition and construction (2014)	Construction	Code of Construction Practice	Requirement 5(2)(a)	Relevant planning authority or highway authority as appropriate	AQ11	Chapter 3, Appendix 3B, <b>(Document 5.3.3B)</b>
Order Limits	n/a	Air Quality	Increase in dust emissions and adverse effects on human and ecological receptors.	Minimise drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment and use fine water sprays on such equipment wherever appropriate.	IAQM Guidance on the assessment of dust from demolition and construction (2014)	Construction	Code of Construction Practice	Requirement 5(2)(a)	Relevant planning authority or highway authority as appropriate	AQ12	Chapter 3, Appendix 3B, <b>(Document 5.3.3B)</b>
Order Limits	n/a	Air Quality	Increase in dust emissions and adverse effects on human and ecological receptors.	Ensure equipment is readily available on site to clean any dry spillages and clean up spillages as soon as reasonably practicable after the event using appropriate cleaning methods.	IAQM Guidance on the assessment of dust from demolition and construction (2014)	Construction	Code of Construction Practice	Requirement 5(2)(a)	Relevant planning authority or highway authority as appropriate	AQ13	Chapter 3, Appendix 3B, <b>(Document 5.3.3B)</b>
Order Limits	n/a	Air Quality	Increase in dust emissions and adverse effects on human and ecological receptors.	Plan site layout so that machinery and dust causing activities are located away from receptors, as far as is possible.	IAQM Guidance on the assessment of dust from demolition and construction (2014)	Construction	Code of Construction Practice	Requirement 5(2)(a)	Relevant planning authority or highway authority as appropriate	AQ14	Chapter 3, Appendix 3B, <b>(Document 5.3.3B)</b>
Order Limits	n/a	Air Quality	Increase in dust emissions and adverse effects on human and ecological receptors.	Consider the use of solid screens or barriers around dusty construction activities in areas where construction	IAQM Guidance on the assessment of dust from demolition and	Construction	Code of Construction Practice	Requirement 5(2)(a)	Relevant planning authority or highway	AQ15	Chapter 3, Appendix 3B, <b>(Document 5.3.3B)</b>



Location	ES Mitigation ID	Topic	Potential changes and effects	Measure proposed	Reference to policy, guidance, legislation (where relevant)	Project Phase	Delivery Mechanism	DCO Requirement	Discharge Authority	CoCP ID	ES reference
				works are within 100m sensitive receptors.	construction (2014)				authority as appropriate		
Order Limits	n/a	Air Quality	Increase in dust emissions and adverse effects on human and ecological receptors.	Avoid site runoff of water or mud.	IAQM Guidance on the assessment of dust from demolition and construction (2014)	Construction	Code of Construction Practice	Requirement 5(2)(a)	Relevant planning authority or highway authority as appropriate	AQ16	Chapter 3, Appendix 3B, <b>(Document 5.3.3B)</b>
Order Limits	n/a	Air Quality	Increase in dust emissions and adverse effects on human and ecological receptors.	Keep site fencing, barriers and scaffolding clean to avoid the transfer of dust when these elements are transported.	IAQM Guidance on the assessment of dust from demolition and construction (2014)	Construction	Code of Construction Practice	Requirement 5(2)(a)	Relevant planning authority or highway authority as appropriate	AQ17	Chapter 3, Appendix 3B, <b>(Document 5.3.3B)</b>
Order Limits	n/a	Air Quality	Increase in dust emissions and adverse effects on human and ecological receptors.	Remove materials that have a potential to produce dust from site as soon as possible, unless being re-used on site. If they are being re-used on-site cover as described below.	IAQM Guidance on the assessment of dust from demolition and construction (2014)	Construction	Code of Construction Practice	Requirement 5(2)(a)	Relevant planning authority or highway authority as appropriate	AQ18	Chapter 3, Appendix 3B, <b>(Document 5.3.3B)</b>
Order Limits	n/a	Air Quality	Increase in dust emissions and adverse effects on human and ecological receptors.	Comply with the outline Soil Management Plan (secured in Requirement 5, Draft DCO, Volume 3, Document 3.1) in relation to the covering, seeding or fencing of stockpiles to prevent wind whipping as soon as it is practical.	IAQM Guidance on the assessment of dust from demolition and construction (2014)	Construction	Code of Construction Practice	Requirement 5(2)(a)	Relevant planning authority or highway authority as appropriate	AQ19	Chapter 3, Appendix 3B, <b>(Document 5.3.3B)</b>
Order Limits	n/a	Air Quality	Increase in dust emissions and adverse effects on human and ecological receptors.	Record all dust and air quality complaints, identify cause(s), take appropriate measures to reduce emissions in a timely manner, and record the measures taken.	IAQM Guidance on the assessment of dust from demolition and construction (2014)	Construction	Code of Construction Practice	Requirement 5(2)(a)	Relevant planning authority or highway authority as appropriate	AQ20	Chapter 3, Appendix 3B, <b>(Document 5.3.3B)</b>
Order Limits	n/a	Air Quality	Increase in dust emissions and adverse effects on human and ecological receptors.	Make the complaints log available to the local authority when asked.	IAQM Guidance on the assessment of dust from demolition and	Construction	Code of Construction Practice	Requirement 5(2)(a)	Relevant planning authority or highway	AQ21	Chapter 3, Appendix 3B,

Location	ES Mitigation ID	Topic	Potential changes and effects	Measure proposed	Reference to policy, guidance, legislation (where relevant)	Project Phase	Delivery Mechanism	DCO Requirement	Discharge Authority	CoCP ID	ES reference
					construction (2014)				authority as appropriate		(Document 5.3.3B)
Order Limits	n/a	Air Quality	Increase in dust emissions and adverse effects on human and ecological receptors.	Record any exceptional incidents that cause dust and/or air emissions, either on- or offsite, and the action taken to resolve the situation in the logbook.	IAQM Guidance on the assessment of dust from demolition and construction (2014)	Construction	Code of Construction Practice	Requirement 5(2)(a)	Relevant planning authority or highway authority as appropriate	AQ22	Chapter 3, Appendix 3B, (Document 5.3.3B)
Order Limits	n/a	Air Quality	Increase in dust emissions and adverse effects on human and ecological receptors.	No bonfires and burning of waste materials.	IAQM Guidance on the assessment of dust from demolition and construction (2014)	Construction	Code of Construction Practice	Requirement 5(2)(a)	Relevant planning authority or highway authority as appropriate	AQ23	Chapter 3, Appendix 3B, (Document 5.3.3B)
Order Limits	n/a	Air Quality	Increase in dust emissions and adverse effects on human and ecological receptors.	Ensure effective water suppression is used during dismantling. Handheld sprays are more effective than hoses attached to equipment as the water can be directed to where it is needed. In addition, high volume water suppression systems, manually controlled, can produce fine water droplets that effectively bring the dust particles to the ground.	IAQM Guidance on the assessment of dust from demolition and construction (2014)	Construction	Code of Construction Practice	Requirement 5(2)(a)	Relevant planning authority or highway authority as appropriate	AQ24	Chapter 3, Appendix 3B, (Document 5.3.3B)
Order Limits	n/a	Air Quality	Increase in dust emissions and adverse effects on human and ecological receptors.	Bag and remove any biological debris or damp down such material before dismantling takes place.	IAQM Guidance on the assessment of dust from demolition and construction (2014)	Construction	Code of Construction Practice	Requirement 5(2)(a)	Relevant planning authority or highway authority as appropriate	AQ25	Chapter 3, Appendix 3B, (Document 5.3.3B)
Order Limits	n/a	Air Quality	Increase in dust emissions and adverse effects on human and ecological receptors.	Comply with measures set out in the Outline Soil Management Plan to minimise the risk of dust from earthworks (Volume 5: Document 5.3.3E – Appendix 3E).	IAQM Guidance on the assessment of dust from demolition and construction (2014)	Construction	Code of Construction Practice	Requirement 5(2)(a)	Relevant planning authority or highway authority as appropriate	AQ26	Chapter 3, Appendix 3B, (Document 5.3.3B)

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Order Limits	n/a	Air Quality	Increase in dust emissions and adverse effects on human and ecological receptors.	Ensure sand and other aggregates are stored in bunded areas and are not allowed to dry out, unless this is required for a particular process, in which case ensure that appropriate additional control measures are in place.	IAQM Guidance on the assessment of dust from demolition and construction (2014)	Construction	Code of Construction Practice	Requirement 5(2)(a)	Relevant planning authority or highway authority as appropriate	AQ27	Chapter 3, Appendix 3B, <b>(Document 5.3.3B)</b>
Order Limits	n/a	Air Quality	Increase in dust emissions and adverse effects on human and ecological receptors.	Avoid scabbling (roughening of concrete surfaces) if possible.	IAQM Guidance on the assessment of dust from demolition and construction (2014)	Construction	Code of Construction Practice	Requirement 5(2)(a)	Relevant planning authority or highway authority as appropriate	AQ28	Chapter 3, Appendix 3B, <b>(Document 5.3.3B)</b>
Order Limits	n/a	Air Quality	Increase in dust emissions and adverse effects on human and ecological receptors.	Ensure bulk cement and other fine powder materials are delivered in enclosed tankers and stored in silos with suitable emission control systems to prevent escape of material and overfilling during delivery.	IAQM Guidance on the assessment of dust from demolition and construction (2014)	Construction	Code of Construction Practice	Requirement 5(2)(a)	Relevant planning authority or highway authority as appropriate	AQ29	Chapter 3, Appendix 3B, <b>(Document 5.3.3B)</b>
Order Limits	n/a	Air Quality	Increase in dust emissions and adverse effects on human and ecological receptors.	For smaller supplies of fine powder materials, ensure bags are sealed after use and stored appropriately to prevent dust.	IAQM Guidance on the assessment of dust from demolition and construction (2014)	Construction	Code of Construction Practice	Requirement 5(2)(a)	Relevant planning authority or highway authority as appropriate	AQ30	Chapter 3, Appendix 3B, <b>(Document 5.3.3B)</b>
Order Limits	n/a	Air Quality	Increase in dust emissions and adverse effects on human and ecological receptors.	Use water-assisted dust sweeper(s) on the access and local roads, to remove, as necessary, any material tracked out of the site.	IAQM Guidance on the assessment of dust from demolition and construction (2014)	Construction	Code of Construction Practice	Requirement 5(2)(a)	Relevant planning authority or highway authority as appropriate	AQ31	Chapter 3, Appendix 3B, <b>(Document 5.3.3B)</b>
Order Limits	n/a	Air Quality	Increase in dust emissions and adverse effects on human and ecological receptors.	Avoid dry sweeping of large areas.	IAQM Guidance on the assessment of dust from demolition and construction (2014)	Construction	Code of Construction Practice	Requirement 5(2)(a)	Relevant planning authority or highway authority as appropriate	AQ32	Chapter 3, Appendix 3B, <b>(Document 5.3.3B)</b>

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Order Limits	n/a	Air Quality	Increase in dust emissions and adverse effects on human and ecological receptors.	Ensure vehicles carrying materials which may produce dust entering and leaving sites are covered to prevent escape of materials during transport.	IAQM Guidance on the assessment of dust from demolition and construction (2014)	Construction	Code of Construction Practice	Requirement 5(2)(a)	Relevant planning authority or highway authority as appropriate	AQ33	Chapter 3, Appendix 3B, <b>(Document 5.3.3B)</b>
Order Limits	n/a	Air Quality	Increase in dust emissions and adverse effects on human and ecological receptors.	Inspect temporary access roads as required for integrity and instigate necessary repairs to the surface as soon as reasonably practicable.	IAQM Guidance on the assessment of dust from demolition and construction (2014)	Construction	Code of Construction Practice	Requirement 5(2)(a)	Relevant planning authority or highway authority as appropriate	AQ34	Chapter 3, Appendix 3B, <b>(Document 5.3.3B)</b>
Order Limits	n/a	Air Quality	Increase in dust emissions and adverse effects on human and ecological receptors.	Record all inspections of temporary access roads and any subsequent action in a site logbook.	IAQM Guidance on the assessment of dust from demolition and construction (2014)	Construction	Code of Construction Practice	Requirement 5(2)(a)	Relevant planning authority or highway authority as appropriate	AQ35	Chapter 3, Appendix 3B, <b>(Document 5.3.3B)</b>
Order Limits	n/a	Air Quality	Increase in dust emissions and adverse effects on human and ecological receptors.	Implement a wheel washing system (with rumble grids to dislodge accumulated dust and mud prior to leaving the site) at appropriate locations and where reasonably practicable.	IAQM Guidance on the assessment of dust from demolition and construction (2014)	Construction	Code of Construction Practice	Requirement 5(2)(a)	Relevant planning authority or highway authority as appropriate	AQ36	Chapter 3, Appendix 3B, <b>(Document 5.3.3B)</b>
Order Limits	n/a	Air Quality	Increase in dust emissions and adverse effects on human and ecological receptors.	Ensure there is an adequate area of hard standing within construction compounds between the wheel wash facility and the site exit, wherever site size and layout permits.	IAQM Guidance on the assessment of dust from demolition and construction (2014)	Construction	Code of Construction Practice	Requirement 5(2)(a)	Relevant planning authority or highway authority as appropriate	AQ37	Chapter 3, Appendix 3B, <b>(Document 5.3.3B)</b>
Order Limits	n/a	Historic Environment	Direct disturbance of archaeological remains during intrusive construction works	Comply with of scheme of archaeological investigation as mitigation, described in a Written Scheme of Investigation (WSI).	n/a	Construction	Archaeological Written Scheme of Investigation	Requirement 5(2)(b)	Relevant planning authority or highway authority as appropriate	n/a	Chapter 7 <b>(Document 5.2.7)</b>
Order Limits	n/a	Historic Environment	Disturbance or removal of assets could result in a direct effect resulting from loss of archaeological interest.	Selection of route alignment and detailed consideration of pylon placement has been undertaken to avoid, as far as possible, identified	n/a	Construction	DCO Works Plan and Limits of Deviation	Requirement 3 and Article 5	n/a	n/a	Chapter 7 <b>(Document 5.2.7)</b>



Location	ES Mitigation ID	Topic	Potential changes and effects	Measure proposed	Reference to policy, guidance, legislation (where relevant)	Project Phase	Delivery Mechanism	DCO Requirement	Discharge Authority	CoCP ID	ES reference
				areas of greater archaeological potential.							
Order Limits	n/a	Historic Environment	Disturbance or removal of assets could result in a direct effect resulting from loss of archaeological interest.	Plant access to pylons and other work sites will use existing access routes as far as possible to minimise disturbance and preclude compaction of archaeological remains.	n/a	Construction	Code of Construction Practice	Requirement 5(2)(a)	Relevant planning authority or highway authority as appropriate	HE01	Chapter 3, Appendix 3B, <b>(Document 5.3.3B)</b>
Order Limits	n/a	Historic Environment	Disturbance or removal of assets could result in a direct effect resulting from loss of archaeological interest.	Use of trackway panels for access and working platforms to avoid movement or construction activity on archaeologically sensitive areas, as set out in section 3.6 of the ES Chapter 3: Description of the Project, Volume 5, Document 5.2.3).	n/a	Construction	Code of Construction Practice	Requirement 5(2)(a)	Relevant planning authority or highway authority as appropriate	HE02	Chapter 3, Appendix 3B, <b>(Document 5.3.3B)</b>
Order Limits	n/a	Historic Environment	Disturbance or removal of assets could result in a direct effect resulting from loss of archaeological interest.	Trackway to be installed as per the Method Statement set out in ES Appendix 7H, Volume 5, Document 5.3.7H.	n/a	Construction	Code of Construction Practice	Requirement 5(2)(a)	Relevant planning authority or highway authority as appropriate	HE03	Chapter 3, Appendix 3B, <b>(Document 5.3.3B)</b>
Order Limits	n/a	Historic Environment	Change to setting arising from visibility of pylons and overhead line infrastructure can give rise to an indirect effect arising through loss of or harm to historic and architectural interests.	Selection of route alignment and detailed consideration of pylon placement has been undertaken to avoid, as far as possible, direct impacts on designated heritage assets and to minimise change to setting.	n/a	Construction	DCO Works Plan and Limits of Deviation	Requirement 3 and Article 5	n/a	n/a	Chapter 7 <b>(Document 5.2.7)</b>
Order Limits	n/a	Historic Environment	Change to setting arising from visibility of pylons and overhead line infrastructure can give rise to an indirect effect arising through loss of or harm to historic and architectural interests.	Working methods for access which may affect designated heritage assets through inadvertent damage or disturbance will be specified to ensure that appropriate protective measures are in place.	n/a	Construction	Code of Construction Practice	Requirement 5(2)(a)	Relevant planning authority or highway authority as appropriate	HE05	Chapter 3, Appendix 3B, <b>(Document 5.3.3B)</b>

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Order Limits	n/a	Historic Environment	Change in historic landscape character arising from visibility of temporary access routes and change to historic routes and landscape divisions arising from construction and demolition accesses could give rise to direct effects through harm to historic interests of assets.	Selection of route alignment and detailed consideration of pylon placement has been undertaken to avoid, as far as possible, and to minimise change to sensitive historic landscape features.	n/a	Construction	DCO Works Plan and Limits of Deviation	Requirement 3 and Article 5	n/a	n/a	Chapter 7 (Document 5.2.7)
Order Limits	n/a	Historic Environment	Change in historic landscape character arising from visibility of temporary access routes and change to historic routes and landscape divisions arising from construction and demolition accesses could give rise to direct effects through harm to historic interests of assets.	Temporary accesses will be removed and reinstated following the completion of the construction/dismantling works.	n/a	Construction	Code of Construction Practice	Requirement 5(2)(a)	Relevant planning authority or highway authority as appropriate	HE04	Chapter 3, Appendix 3B, (Document 5.3.3B)
Order Limits	n/a	Historic Environment	Potential change to setting of asset	Identification and demarcation of sensitive structures or sites in immediate proximity to access routes and working areas and an appropriate buffer zone defined to avoid inadvertent harm/disturbance. Specific work instructions to be issued to the contractor(s)	n/a	Construction	Code of Construction Practice	Requirement 5(2)(a)	Relevant planning authority or highway authority as appropriate	HE06	Chapter 3, Appendix 3B, (Document 5.3.3B)
Order Limits	n/a	Historic Environment	Contamination of archaeological remains	Best-practice pollution control measures to avoid inadvertent contamination of archaeological remains.	n/a	Construction	Code of Construction Practice	Requirement 5(2)(a)	Relevant planning authority or highway authority as appropriate	HE07	Chapter 3, Appendix 3B, (Document 5.3.3B)
Order Limits	n/a	Historic Environment	Potential change to setting of asset	Best-practice noise abatement measures to minimise audible change to setting.	n/a	Construction	Code of Construction Practice	Requirement 5(2)(a)	Relevant planning authority or highway authority as appropriate	HE08	Chapter 3, Appendix 3B, (Document 5.3.3B)

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Order Limits - Hedgerows	n/a	Historic Environment	Sections of hedgerows would be removed to facilitate the Project, with the potential to cause direct adverse effects on these heritage assets and historic landscape character more widely.	Any effects will be controlled through a tree and hedgerow protection strategy, in accordance with the Tree Removal and Protection Plan. Where possible, hedgerows will be cut or trimmed to allow for regrowth rather than removed. Any Sections of hedgerow which are removed for temporary access will be reinstated where future access is not required.	Hedgerow Regulations 1997	Construction	Tree and hedgerow protection strategy	Requirement 6(1)(g)	Relevant planning authority or highway authority as appropriate	HE09	Chapter 7 (Document 5.2.7)
Order Limits	n/a	Agriculture and Soils	Permanent loss of agricultural land including BMV. May be direct loss as a consequence of built infrastructure, or indirect through permanent change to non-agricultural use to facilitate these developments	As part of the route design - the location of permanent development on non-agricultural land in preference to agricultural land; and on agricultural land of lower classification where agricultural land could not be avoided; where practicable and taking into account technical and other environmental considerations.	Natural England (2012) Agricultural Land Classification: Protecting the Best and Most Versatile Agricultural Land	Construction	DCO Works Plan and Limits of Deviation	Requirement 3 and Article 5	n/a	n/a	Chapter 11 (Document 5.2.11)
Order Limits	n/a	Agriculture and Soils	Temporary loss of agricultural land including BMV	As part of the route design - the location of temporary development on non-agricultural land in preference to agricultural land; and on agricultural land of lower classification where agricultural land could not be avoided; where practicable and taking into account technical and other environmental considerations.	Natural England (2012) Agricultural Land Classification: Protecting the Best and Most Versatile Agricultural Land	Construction	DCO Works Plan and Limits of Deviation	Requirement 3 and Article 5	n/a	n/a	Chapter 11 (Document 5.2.11)

Location	ES Mitigation ID	Topic	Potential changes and effects	Measure proposed	Reference to policy, guidance, legislation (where relevant)	Project Phase	Delivery Mechanism	DCO Requirement	Discharge Authority	CoCP ID	ES reference
Order Limits	n/a	Agriculture and Soils	Effects on Agricultural operations and soil.	Construction works will be carried out in such a way as to ensure that disturbance to agricultural operations and other land uses, is controlled and that appropriate measures are adopted to protect the agricultural land and soils of these areas in accordance with relevant good practice and statutory provisions/legislative requirements	N/A	Construction	Code of Construction Practice	Requirement 5(2)(a)	Relevant planning authority or highway authority as appropriate	AS01	Chapter 3, Appendix 3B, <b>(Document 5.3.3B)</b>
Order Limits	n/a	Agriculture and Soils	Damage to and loss of soil resources.	Adoption of industry standard methods for the handling and storage of soils; based on Defra's current good practice guidelines, standard working methods and techniques used to protect soil resources.	DEFRA (2011) Code of Practice for the Sustainable Use of Soils on Construction Sites. The Institute of Quarrying (2021) Good Practice Guide for Handling Soils in Mineral Workings. British Society of Soil Science (2022) Benefitting from Soil Management in Development and Construction. IEMA Assessing Land and Soils for Environmental Impact Assessments (2022).	Pre-construction and construction	Outline soil management plan and soil and aftercare management plan	Requirements 5(3) and 6(1)(a), 6(2) and 6(3)	Relevant planning authority or highway authority as appropriate	AS02	Chapter 11 <b>(Document 5.2.11)</b>



Location	ES Mitigation ID	Topic	Potential changes and effects	Measure proposed	Reference to policy, guidance, legislation (where relevant)	Project Phase	Delivery Mechanism	DCO Requirement	Discharge Authority	CoCP ID	ES reference
Order Limits	n/a	Agriculture and Soils	Damage to and loss of soil resources.	To minimise the risk of damage to soil structure, the following main rules must be observed during all soil handling tasks: no trafficking/driving of vehicles/plant or materials storage to occur outside designated areas (access roads, construction working areas and material storage areas within the Order Limits); no trafficking/driving of vehicles/plant on reinstated soil (topsoil or subsoil); where practicable only direct movement of soil from donor to receptor areas (no triple handling and/or ad hoc storage); no soil handling to be carried out when the soil moisture content is above the lower plastic limit (test detailed in the OSMP); soils should only be moved under the driest practicable conditions and this must take account of prevailing weather conditions (rainfall “stop” criteria detailed in the OSMP); no mixing of topsoil with subsoil, or of soil with other materials; soil only to be stored in designated soil storage areas; where practicable plant and machinery to work only when ground or soil surface conditions enable their maximum operating efficiency, to be determined by the Site Foreman; all plant and machinery must always be maintained in a safe and efficient working condition, which should be	n/a	Pre-construction and construction	Outline soil management plan and soil and aftercare management plan	Requirements 5(3) and 6(1)(a), 6(2) and 6(3)	Relevant planning authority or highway authority as appropriate	AS03	<b>Chapter 3, Appendix 3E (Document 5.3.3E)</b>

Location	ES Mitigation ID	Topic	Potential changes and effects	Measure proposed	Reference to policy, guidance, legislation (where relevant)	Project Phase	Delivery Mechanism	DCO Requirement	Discharge Authority	CoCP ID	ES reference
				monitored by the Site Foreman following H&S procedures; and daily records of construction activities undertaken, and site and soil conditions should be maintained (summary of monitoring and record keeping schedule provided in the OSMP).							
Order Limits	n/a	Agriculture and Soils	Temporary loss of agricultural land including BMV.	Where temporary land take occurs on agricultural land, land will be reinstated to the same quality (same ALC grade) or better and will be returned to agricultural use in agreement with the landowner. Facilitated by the correct management of the supporting soil resources as outlined in the Outline Soil Management Plan (Measures AS03).	Natural England (2012) Agricultural Land Classification: Protecting the Best and Most Versatile Agricultural Land	Pre-construction and construction	Outline soil management plan and soil and aftercare management plan	Requirement 5(2)(a) and Requirement 11, Requirements 5(3) and 6(1)(a), 6(2) and 6(3)	Relevant planning authority or highway authority as appropriate	AS04	Chapter 11 (Document 5.2.11)
Order Limits	n/a	Agriculture and Soils	Temporary loss of agricultural land through indirect causes such as field severance and separation of livestock from water supplies	Feedback from landowners will be taken into account when managing construction works (taking into account environmental and engineering constraints) which would be facilitated by landowner communications through the Project's Land Team.	n/a	Construction	Code of Construction Practice	Requirement 5(2)(a)	Relevant planning authority or highway authority as appropriate	AS05	Chapter 3, Appendix 3B, (Document 5.3.3B)
Order Limits	n/a	Agriculture and Soils	Damage to and loss of soil resources.	Use of trackway panels rather than stoned roads to access construction areas, where practicable, would minimise the stripping and handling of soil resources. The proposed use of trackway is set out in paragraph 3.6.6 – 3.6.8 of the ES Chapter 3: Description of the Project,	Sustainable Use of Soils on Construction Sites.  The Institute of Quarrying (2021) Good Practice Guide for Handling Soils in Mineral Workings.	Construction	Code of Construction Practice	Requirement 5(2)(a)	Relevant planning authority or highway authority as appropriate	AS06	Chapter 3, Appendix 3B, (Document 5.3.3B)

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				Volume 5, Document 5.2.3. Where practicable, all construction traffic should be confined to designated temporary access roads, construction compounds and land that is protected from trafficking, such as with trackways.	British Society of Soil Science (2022) Benefitting from Soil Management in Development and Construction.  IEMA Assessing Land and Soils for Environmental Impact Assessments (2022).						
Order Limits	n/a	Agriculture and Soils	Damage to and loss of soil resources, particularly peat and peaty soils.	No peat deposits or peaty soils are identified in the available published data which fall within the Order Limits. Should peat deposits or peaty soils subsequently be identified impacts to these areas would be avoided, where practicable, in line with the requirements of other disciplines and engineering constraints.	Sustainable Use of Soils on Construction Sites. The Institute of Quarrying (2021) Good Practice Guide for Handling Soils in Mineral Workings. British Society of Soil Science (2022) Benefitting from Soil Management in Development and Construction. IEMA Assessing Land and Soils for Environmental Impact Assessments (2022).	Pre-construction and construction	Outline soil management plan and soil and aftercare management plan	Requirement 5(2)(a) and Requirement 11, Requirements 5(3) and 6(1)(a), 6(2) and 6(3)	Relevant planning authority or highway authority as appropriate	AS07	<b>Chapter 3, Appendix 3E (Document 5.3.3E)</b>
Order Limits	n/a	Agriculture and Soils	Effects on soil resource	All land subject to disturbance within the Order Limits should be subject to a detailed survey to accurately record the baseline conditions. The detailed soil survey results should inform the site-specific Detailed Soil	N/A	Pre-construction and construction	Outline soil management plan and soil and aftercare management plan	Requirement 5(2)(a) and Requirement 11, Requirements 5(3) and 6(1)(a), 6(2) and 6(3)	Relevant planning authority or highway authority as appropriate	AS08	<b>Chapter 3, Appendix 3E (Document 5.3.3E)</b>

Location	ES Mitigation ID	Topic	Potential changes and effects	Measure proposed	Reference to policy, guidance, legislation (where relevant)	Project Phase	Delivery Mechanism	DCO Requirement	Discharge Authority	CoCP ID	ES reference
				Management Plans (DSMP) which will be produced following the Outline Soil Management Plan (OSMP) with site specific information, constraints and equipment to be used.							
Order Limits	n/a	Agriculture and Soils	Effects on soil resource	Low ground pressure models (LGP models) and tracked vehicles should be used where ground conditions indicate this measure is required. This will greatly minimise the extent and/or intensity of the soil loosening required after construction and/or site aftercare. Consequently, it will reduce the costs and potential delays due to the need for additional soil cultivation.	N/A	Pre-construction and construction	Outline soil management plan and soil and aftercare management plan	Requirement 5(2)(a) and Requirement 11, Requirements 5(3) and 6(1)(a), 6(2) and 6(3)	Relevant planning authority or highway authority as appropriate	AS09	<b>Chapter 3, Appendix 3E (Document 5.3.3E)</b>
Order Limits	n/a	Climate change	Reduction of embodied GHG emissions associated with the raw materials used to construct the Project.	Where possible, choice of local sourcing of construction should be encouraged. Circular economy principles should be considered and deployed where possible. Carbon measuring and reporting would be undertaken. <u>The main works contractor(s) will maintain a Carbon Interface Tool (CIT) that will record the carbon footprint and will be reviewed every quarter by the contractor and National Grid. Where possible, the contractors will seek opportunities to reduce the carbon footprint of the Project which will be discussed with National Grid at focused Sustainability Workshops.</u>	n/a	Construction	Code of Construction Practice	Requirement 5(2)(a)	Relevant planning authority or highway authority as appropriate	CC01	Chapter 3, Appendix 3B, (Document 5.3.3B)



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Order Limits	n/a	Climate change	Reduction of GHG emissions associated with construction traffic.	Deliveries should be consolidated where possible and there should be no idling vehicles. Measures set out in the Construction Traffic Management Plan seek to ensure the movement of people and materials in a sustainable manner and minimise the number of construction trips where feasible.	n/a	Construction	Code of Construction Practice and Construction Traffic Management Plan	Requirement 5(2)(a) and (d)	Relevant planning authority or highway authority as appropriate	CC02	Chapter 3, Appendix 3B <b>(Document 5.3.3B)</b> and Chapter 3, Appendix 3F <b>(Document 5.3.3F)</b>
Order Limits	n/a	Climate change	Use of construction materials has associated embodied carbon GHG emissions	The reconductoring works proposed as part of the Project utilise existing pylons as far as possible rather than introducing new construction materials.	n/a	Construction	Design plans	Requirement 3	n/a	n/a	Chapter 17 <b>(Document 5.2.17)</b>
Order Limits	n/a	Climate change	The use of SF6 within switchgear equipment is a potential source of GHG emission during the operational lifetime of the Project. These GHG emissions have been estimated as part of the GHG assessment	National Grid have adopted a Science Based Target (SBT) of reducing operational emissions by 50% and have equated this to a 30% reduction in SF6 emissions . To aid the achievement of this SBT, National Grid report to have a Network Asset Risk Metric (NARM) framework in place. The NARM framework is a scoring system and works to determine whether equipment intervention is required. National Grid would monitor SF6 via a density gauge which is fitted to the relevant equipment and is inspected regularly. This gauge also has alarm levels for low and falling SF6 density. Any top ups that are required are recorded in terms of the mass of gas used and this data forms part of the NARM	n/a	Operation	Network Asset Risk Metric (NARM) framework	N/A	N/A	N/A	Chapter 17 <b>(Document 5.2.17)</b>

Location	ES Mitigation ID	Topic	Potential changes and effects	Measure proposed	Reference to policy, guidance, legislation (where relevant)	Project Phase	Delivery Mechanism	DCO Requirement	Discharge Authority	CoCP ID	ES reference
				framework for deciding upon Asset Health interventions meaning that, within certain criteria, leaking assets are prioritised for intervention.							
Order Limits	n/a	Climate change	Extreme weather (heat and hot, dry conditions, drought, heavy rainfall and storm events)	All construction activities will be planned through use of a Risk Assessment Method Statement (RAMS) alongside issued safety bulletins regarding extreme weather. The RAMS will identify measures such as working patterns for extreme weather, tool box talks and Personal Protective Equipment (PPE).	n/a	Construction	Code of Construction Practice	Requirement 5(2)(a)	n/a	CC03, CC04, CC05, CC06	Chapter 3, Appendix 3B, (Document 5.3.3B)
Order Limits	n/a	Geology and Hydrogeology	Harm to human health resulting from exposure to contaminants or gases in the ground.	Compliance with relevant health and safety legislation, including measures specific to the risks of land contamination and ground gas. This will include the use of appropriate Personal Protective Equipment (PPE) and statutory health and safety compliance (for example, compliance with the Confined Spaces Regulations 1997 in relation to ground gas risks from working in trenches), to minimise the potential risks associated with	Statutory health and safety compliance (for example, compliance with the Confined Spaces Regulations 1997 in relation to ground gas risks from working in trenches)The Control of Asbestos Regulations 2012 , CAR-SOIL 2012 , and CIRIA 773	Construction	Code of Construction Practice	Requirement 5(2)(a)	Relevant planning authority or highway authority as appropriate	GH01	Chapter 3, Appendix 3B, (Document 5.3.3B)

Location	ES Mitigation ID	Topic	Potential changes and effects	Measure proposed	Reference to policy, guidance, legislation (where relevant)	Project Phase	Delivery Mechanism	DCO Requirement	Discharge Authority	CoCP ID	ES reference
				encountering expected and/or unexpected contamination or ground gas. This embedded measure will include compliance with The Control of Asbestos Regulations 2012, CAR-SOIL 2012, and CIRIA 773, which will ensure that any unexpected asbestos finds are identified, assessed and dealt with correctly.							
Order Limits	n/a	Geology and Hydrogeology	Inadvertent exposure to contaminants in the ground, or release of contaminants from the ground to an aquifer due to unexpected ground conditions during construction.	Ground investigation and testing to be undertaken prior to construction to verify the anticipated ground conditions and minimise the risk where further detail is needed. Contingency procedures in the event that unexpected contamination is encountered during construction ('stop protocol', testing, risk assessment). Dust suppression and stockpile management (for example, sheeting) as necessary to minimise airborne emissions and/or leachate generation from soils affected by contamination, to be incorporated into the series of dust management measures in the CoCP.	n/a	Construction	Code of Construction Practice	Requirement 5(2)(a) and Requirement 12	Relevant planning authority or highway authority as appropriate	GH02	Chapter 3, Appendix 3B, (Document 5.3.3B)
Order Limits	n/a	Geology and Hydrogeology	Deterioration of groundwater quality due to discharges from the Project (for example, water pumped from excavations during construction).	The risk of deterioration of groundwater quality due to discharges from the Project (for example, water pumped from excavations during construction) will be	n/a	Construction	Code of Construction Practice	Requirement 5(2)(a)	Relevant planning authority or highway authority as appropriate	GH03	Chapter 3, Appendix 3B, (Document 5.3.3B)

Location	ES Mitigation ID	Topic	Potential changes and effects	Measure proposed	Reference to policy, guidance, legislation (where relevant)	Project Phase	Delivery Mechanism	DCO Requirement	Discharge Authority	CoCP ID	ES reference
				mitigated by ensuring that all discharges follow best practice, including appropriate pre-treatment (for example, de-silting) where required.							
Order Limits	n/a	Geology and Hydrogeology	Contamination of groundwater, or harm to human health, resulting from the leakage or incorrect handling or storage of fuels and chemicals.	Contamination of groundwater, or harm to human health, resulting from the leakage or incorrect handling or storage of fuels and chemicals will be prevented through the following measures: 1. Correct environmental management, handling and storage of fuels and chemicals (for example, compliance with The Control of Pollution (Oil Storage) Regulations 2001 and Environment Agency guidance 'Protect groundwater and prevent groundwater pollution' . 2. Use of oil-water separators as necessary (for example, for drainage from refuelling areas). 3. Collection of process water from the washout/cleaning of ready-mix concrete vehicles and equipment for treatment/disposal. 4. Appropriate training of construction workers in the use and handling of chemicals. 5. General construction site good environmental and waste management procedures (for example, regular vehicle checks, use	The Control of Pollution (Oil Storage) Regulations 2001 and Environment Agency guidance 'Protect groundwater and prevent groundwater pollution'	Construction	Code of Construction Practice	Requirement 5(2)(a)	Relevant planning authority or highway authority as appropriate, and Environment Agency	GH04	Chapter 10 (Document 5.2.10)

Location	ES Mitigation ID	Topic	Potential changes and effects	Measure proposed	Reference to policy, guidance, legislation (where relevant)	Project Phase	Delivery Mechanism	DCO Requirement	Discharge Authority	CoCP ID	ES reference
				of spill kits, correct waste storage and disposal).							
Works within Groundwater Source Protection Zones	n/a	Geology and Hydrogeology	Contamination of potable water supplies.	Vehicle parking, fuel storage, de-icer storage, rock salt storage, and washout/cleaning of ready-mix concrete vehicles and equipment to be sited outside SPZ1 and outside SPZ2 designations where possible. Application of salt grit (for example, to prevent access tracks freezing) to comply with recommended rates in CIRIA 648, with control of run-off during any application in SPZs	n/a	Construction	Code of Construction Practice	Requirement 5(2)(a)	Relevant planning authority or highway authority as appropriate	GH05	Chapter 3, Appendix 3B, <b>(Document 5.3.3B)</b>



Location	ES Mitigation ID	Topic	Potential changes and effects	Measure proposed	Reference to policy, guidance, legislation (where relevant)	Project Phase	Delivery Mechanism	DCO Requirement	Discharge Authority	CoCP ID	ES reference
Order Limits	n/a	Geology and Hydrogeology	Contamination of groundwater due to piling activities.	Contamination of groundwater due to piling activities will be prevented through suitable piling design. This will include consideration of pile type (for example, driven versus bored) as necessary to minimise pollution risks. All piling activities will be conducted in line with a risk assessment prepared in accordance with Environment Agency guidance documents 'Piling and penetrative ground improvement methods on land affected by contamination: guidance on pollution prevention' and 'Piling into contaminated sites'.	Piling and Penetrative Ground Improvement Methods on land affected by Contamination: Guidance on Pollution Prevention (Report NC/99/73)' and 'Piling Into Contaminated Sites'	Construction	Code of Construction Practice	Requirement 5(2)(a)	Relevant planning authority or highway authority as appropriate	GH06	Chapter 3, Appendix 3B, (Document 5.3.3B)
Order Limits	n/a	Geology and Hydrogeology	Harm to human health from exposure to legacy ground contamination that has arisen from the Project, or the long-term release of such contamination to aquifers.	During the construction phase, all earthworks or material movements will be conducted under appropriate environmental permits, exemptions or in accordance with CL:AIRE 'The Definition of Waste: Development Industry Code of Practice', which will ensure proper control on the chemical suitability of these materials.	CL:AIRE 'The Definition of Waste: Development Industry Code of Practice'	Construction	Code of Construction Practice	Requirement 5(2)(a)	Relevant planning authority or highway authority as appropriate	GH07	Chapter 3, Appendix 3B, (Document 5.3.3B)
Order Limits	n/a	Geology and Hydrogeology	Harm to human health or groundwater from herbicides, should vegetation control be required as part of operational maintenance. Harm to human health resulting from exposure to contaminants or gases in the ground.	Herbicides to be used in accordance with DEFRA Code of Practice for Using Plant Protection Products and the Plant Protection Products (Sustainable Use) Regulations 2012 .	DEFRA Code of Practice for Using Plant Protection Products and the Plant Protection Products (Sustainable Use) Regulations 2012 Confined Spaces Regulations 1997	Operation	Code of Construction Practice	Requirement 5(2)(a)	Relevant planning authority or highway authority as appropriate	GH08	Chapter 3, Appendix 3B, (Document 5.3.3B)

Location	ES Mitigation ID	Topic	Potential changes and effects	Measure proposed	Reference to policy, guidance, legislation (where relevant)	Project Phase	Delivery Mechanism	DCO Requirement	Discharge Authority	CoCP ID	ES reference
Order Limits	n/a	Geology and Hydrogeology	Harm to human health or groundwater from herbicides, should vegetation control be required as part of operational maintenance. Harm to human health resulting from exposure to contaminants or gases in the ground.	Compliance with relevant health and safety legislation, including measures specific to the risks of land contamination and ground gas. This will include the use of appropriate PPE and statutory health and safety compliance (for example, compliance with the Confined Spaces Regulations 1997 in relation to ground gas risks from working in trenches), to minimise the potential risks associated with encountering expected and/or unexpected contamination or ground gas.	DEFRA Code of Practice for Using Plant Protection Products and the Plant Protection Products (Sustainable Use) Regulations 2012  Confined Spaces Regulations 1997	Operation	Requirements of legislation, Appointed contractor Risk Assessment Method Statement	N/A	N/A	GH09	Chapter 10 (Document 5.2.10)
Order Limits	n/a	Noise and Vibration	Potential adverse effects from the construction and operation of the Project	A Noise and Vibration Management Plan (NVMP) will provide a framework for managing noise from the Project and will be a live document throughout the construction of the Project.	N/A	Construction and operation	Noise and Vibration management plan	Requirement 5(2)(f)	Relevant planning authority or highway authority as appropriate	N/A	Chapter 3, Appendix 3H (Document 5.3.3H)
Order Limits	n/a	Noise and Vibration	Potential adverse effects from construction noise	All construction activities will be undertaken within the Order Limits; including areas designated as stockpiles and temporary access roads.	N/A	Construction	DCO Work plans and Limits of Deviation.	Requirement 3 Article 5	N/A	NV01	Chapter 14 (Document 5.2.14)
Order Limits	n/a	Noise and Vibration	Potential adverse effects from construction noise	Prior to construction works, the detailed design, working methods and mitigation proposals will be developed and approved by National Grid and its contractor(s) to minimise adverse effects at off-site receptors, as far as can reasonably be achieved.	N/A	Construction	Noise and Vibration management plan	Requirement 5(2)(f)	Relevant planning authority or highway authority as appropriate	NV02	Chapter 3, Appendix 3B (Document 5.3.3B)

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Order Limits	n/a	Noise and Vibration	Potential adverse effects from construction noise	National Grid will have a system for the receipt and recording of any noise or vibration complaints, and procedures for investigating and acting appropriately as necessary upon those complaints. This is detailed in the NVMP.	N/A	Construction	Noise and Vibration management plan	Requirement 5(2)(f)	Relevant planning authority or highway authority as appropriate	NV03	<b>Chapter 3, Appendix 3H (Document 5.3.3H)</b>
Order Limits	n/a	Noise and Vibration	Potential adverse effects from construction noise	A screening strategy of noise contributing equipment is required in the following locations: - proposed Overton Substation area; - proposed Monk Fryston Substation area; - proposed Overton Substation temporary construction compound areas; - proposed Monk Fryston Substation temporary construction compound areas; - Shipton CSECs temporary construction compound areas; - Tadcaster CSECs temporary construction compound area; - Horizontal Directional Drilling (HDD) working area in vicinity of Tadcaster TCC; - construction of pylon ID XC424 working area; - construction / dismantling of temporary pylon ID XC005T working area; and - construction / dismantling of temporary pylon ID XC481T working area.	n/a	Construction	Noise and Vibration management plan	Requirement 5(2)(f)	Relevant planning authority or highway authority as appropriate	NV04	Chapter 3, Appendix 3H <b>(Document 5.3.3H)</b> and Chapter 14, Appendix 14D <b>(Document 5.3.14D)</b>

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Order Limits	n/a	Noise and Vibration	Potential adverse effects from construction noise from static compressors and generators along the construction route	Where required, all compressors and generators to be 'sound reduced' models fitted with properly lined and sealed acoustic covers which are to be kept closed whenever the machines are in use. Additionally, ancillary pneumatic percussive tools to be fitted with mufflers or suppressers.	n/a	Construction	Code of Construction Practice	Requirement 5(2)(a)	Relevant planning authority or highway authority as appropriate	NV05	Chapter 3, Appendix 3B, <b>(Document 5.3.3B)</b>
Order Limits	n/a	Noise and Vibration	Potential adverse effects from construction noise from mobile and static plant along the construction route	The plant would be properly maintained in accordance with the manufacturers' instructions to ensure that the occurrence of malfunctions, which can give rise to elevated noise levels, is reduced and any malfunctions that do occur are swiftly repaired.	n/a	Construction	Code of Construction Practice	Requirement 5(2)(a)	Relevant planning authority or highway authority as appropriate	NV05	Chapter 3, Appendix 3B, <b>(Document 5.3.3B)</b>
Order Limits	n/a	Noise and Vibration	Potential adverse effects from construction noise from mobile and static plant along the construction route	Machines in intermittent use shall be shut down in the intervening periods between work or, where this is impracticable, throttled down to a minimum.	n/a	Construction	Code of Construction Practice	Requirement 5(2)(a)	Relevant planning authority or highway authority as appropriate	NV05	Chapter 3, Appendix 3B, <b>(Document 5.3.3B)</b>
Order Limits	n/a	Noise and Vibration	Potential adverse effects from construction noise from mobile and static plant along the construction route	Where practicable, plant with directional noise characteristics to be positioned to minimise noise at nearby properties.	n/a	Construction	Code of Construction Practice	Requirement 5(2)(a)	Relevant planning authority or highway authority as appropriate	NV05	Chapter 3, Appendix 3B, <b>(Document 5.3.3B)</b>
Order Limits	n/a	Noise and Vibration	Potential adverse effects from construction noise from static plant along the construction route	Static equipment and machinery to be sited as far as is practicable from inhabited buildings.	n/a	Construction	Code of Construction Practice	Requirement 5(2)(a)	Relevant planning authority or highway authority as appropriate	NV05	Chapter 3, Appendix 3B, <b>(Document 5.3.3B)</b>
Order Limits	n/a	Noise and Vibration	Potential adverse effects from construction noise	Only designated temporary access roads will be used on-site.	n/a	Construction	Code of Construction Practice	Requirement 5(2)(a)	Relevant planning authority or highway	NV06	Chapter 3, Appendix 3B,

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									authority as appropriate		(Document 5.3.3B)
Order Limits	n/a	Noise and Vibration	Potential adverse effects from construction noise	Temporary access roads will be well maintained to minimise noise generated from vehicles travelling over uneven surfaces and potholes.	n/a	Construction	Code of Construction Practice	Requirement 5(2)(a)	Relevant planning authority or highway authority as appropriate	NV07	Chapter 3, Appendix 3B, (Document 5.3.3B)
Order Limits	n/a	Noise and Vibration	Potential adverse effects from construction noise	Temporary access roads will avoid steep gradients where practicable to reduce HGV engine noise emissions.	n/a	Construction	Code of Construction Practice	Requirement 5(2)(a)	Relevant planning authority or highway authority as appropriate	NV08	Chapter 3, Appendix 3B, (Document 5.3.3B)
Order Limits	n/a	Noise and Vibration	Potential adverse effects from construction noise	Where health and safety obligations can be achieved and where it is possible to do so, mobile construction plant will be fitted with low noise or broadband reversing alarms to minimise potential for annoyance to sensitive receptors.	n/a	Construction	Noise and Vibration management plan	Requirement 5(2)(f)	Relevant planning authority or highway authority as appropriate	NV09	Chapter 3, Appendix 3H (Document 5.3.3H)
Order Limits	n/a	Noise and Vibration	Potential adverse effects from construction noise	Loading/unloading activities will be located away from sensitive receptors and acoustically screened (see NV04), where practicable.	n/a	Construction	Code of Construction Practice	Requirement 5(2)(a)	Relevant planning authority or highway authority as appropriate	NV10	Chapter 3, Appendix 3B, (Document 5.3.3B)
Order Limits	n/a	Noise and Vibration	Potential adverse effects from construction noise	Materials will be handled in a manner than minimises noise. This will include restricting drop heights during lorry loading to the minimum required for safe and efficient operations.	n/a	Construction	Code of Construction Practice	Requirement 5(2)(a)	Relevant planning authority or highway authority as appropriate	NV11	Chapter 3, Appendix 3B, (Document 5.3.3B)
Order Limits	n/a	Noise and Vibration	Potential adverse effects from construction noise	Where night-time work is required, it will be carried out in a manner that	n/a	Construction	Code of Construction Practice	Requirement 5(2)(a)	Relevant planning authority or highway	NV12	Chapter 3, Appendix 3B,



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				minimises noise and vibration at all times.					authority as appropriate		(Document 5.3.3B)
Order Limits	n/a	Noise and Vibration	Potential adverse effects from construction noise	Where night-time work is required close to receptors, prior warning will be given.	n/a	Construction	Code of Construction Practice	Requirement 5(2)(a)	Relevant planning authority or highway authority as appropriate	NV13	Chapter 3, Appendix 3B, (Document 5.3.3B)
Order Limits	n/a	Noise and Vibration	Potential adverse effects from construction noise	No amplified sound will be generated at any time within the site or at any time during any phase of works for the development. This constraint will not apply in the event of emergencies or emergency drills to the extent necessary to deal with an emergency or drill, or other health and safety requirements. This constraint will also not apply to the amplified noise generated by construction plant as a reversing alarm.	n/a	Construction	Code of Construction Practice	Requirement 5(2)(a)	Relevant planning authority or highway authority as appropriate	NV14	Chapter 3, Appendix 3B, (Document 5.3.3B)
Order Limits	n/a	Noise and Vibration	Potential adverse effects from construction noise	Training and instruction will be provided to site personnel on methods and techniques to minimise off-site noise and vibration impacts.	n/a	Construction	Code of Construction Practice	Requirement 5(2)(a)	Relevant planning authority or highway authority as appropriate	NV15	Chapter 3, Appendix 3B, (Document 5.3.3B)
Order Limits	n/a	Noise and Vibration	Potential adverse effects from construction noise	On-site 'toolbox' training will be provided to enable site workers to understand how their actions will interact with the environment and potentially impact upon sensitive receptors near to their work areas.	n/a	Construction	Code of Construction Practice	Requirement 5(2)(a)	Relevant planning authority or highway authority as appropriate	NV16	Chapter 3, Appendix 3B, (Document 5.3.3B)
Pylon ID XCP008	n/a	Noise and Vibration	Potential adverse effects from piling construction works.	Riverbank stability and vibration at the edge of the River Ouse will be monitored during the piling	n/a	Construction	Code of Construction Practice	Requirement 5(2)(a)	Relevant planning authority or highway	NV17	Chapter 3, Appendix 3B,

Location	ES Mitigation ID	Topic	Potential changes and effects	Measure proposed	Reference to policy, guidance, legislation (where relevant)	Project Phase	Delivery Mechanism	DCO Requirement	Discharge Authority	CoCP ID	ES reference
				activities undertaken at pylon ID XC421.					authority as appropriate		(Document 5.3.3B)
Monk Fryston Substation	n/a	Noise and Vibration	Potential adverse effects from the operation of a new substation	Locating the proposed Monk Fryston Substation adjacent to the existing substation to minimise the potential for new receptors being exposed to operational noise from the four SGTs.	n/a	Operation	DCO Works Plan and Limits of Deviation.	Requirement 3 Article 5	n/a	n/a	Chapter 14 (Document 5.2.14)
Overton and Monk Fryston Substations	n/a	Noise and Vibration	Potential adverse effects from the operation of the new Monk Fryston substation	Sourcing SGTs and inclusion of noise enclosures to achieve an insertion loss of 20 dB at 100Hz within the proposed Monk Fryston Substation to National Grid technical specifications which include requirements regarding audible noise including confirmation by type testing and Factory Acceptance testing.	n/a	Operation	Noise and Vibration management plan	Requirement 5(2)(f)	Relevant planning authority or highway authority as appropriate	n/a	Chapter 14 (Document 5.2.14)
Overton Substation	n/a	Noise and Vibration	Potential adverse effects from the operation of Overton substation	Sourcing SGTs and inclusion of noise enclosures to achieve an insertion loss of 20 dB at 100Hz within the proposed Overton Substation to National Grid technical specifications which include requirements regarding audible noise including confirmation by type testing and Factory Acceptance testing.	n/a	Operation	Noise and Vibration management plan	Requirement 5(2)(f)	Relevant planning authority or highway authority as appropriate	n/a	Chapter 14 (Document 5.2.14)

Location	ES Mitigation ID	Topic	Potential changes and effects	Measure proposed	Reference to policy, guidance, legislation (where relevant)	Project Phase	Delivery Mechanism	DCO Requirement	Discharge Authority	CoCP ID	ES reference
Order Limits	n/a	Noise and Vibration	Potential adverse effects from the operation of the Project	Locating the proposed substations, associated infrastructure, CSECs and new and realigned sections of overhead line away from noise sensitive receptors where possible.  Selection of conductor type and conductor system configuration to ensure electrical stress, and hence audible noise, is minimised as far as practicable.	n/a	Operation	DCO Works Plan and Limits of Deviation.	Requirement 3 Article 5	n/a	n/a	Chapter 14 (Document 5.2.14)
Overton and Monk Fryston Substations	n/a	Noise and Vibration	Potential adverse effects from the operation of new substations	SGTs and, if required, standby generators, within the substation would be mounted on anti-vibration mountings, meaning the vibration from plant and apparatus within the substation would be very low level.	n/a	Operation	Noise and Vibration management plan	Requirement 5(2)(f)	Relevant planning authority or highway authority as appropriate	n/a	Chapter 14 (Document 5.2.14)
Overhead lines being removed from or constructed over existing roads, PRow, rail and watercourses	n/a	Traffic and Transport	Potential effects from overhead lines being removed from or constructed over existing roads, PRow, rail and watercourses	A crossing schedule will be prepared which includes a crossing methodology for each crossing of road, rail, PRow and watercourse.	n/a	Construction	Code of Construction Practice	Requirement 5(2)(a)	Relevant planning authority or highway authority as appropriate	TT03	Chapter 3, Appendix 3B, (Document 5.3.3B)
PRow	n/a	Traffic and Transport	Potential effects on users of existing PRow	Signage and/or temporary PRow/PRow diversions will be provided during construction, including rights of navigation	n/a	Construction	Public Right of Way Management Plan	Requirement 5(2)(e)	Relevant planning authority or highway authority as appropriate	TT02	Chapter 12 (Document 5.2.12)

Location	ES Mitigation ID	Topic	Potential changes and effects	Measure proposed	Reference to policy, guidance, legislation (where relevant)	Project Phase	Delivery Mechanism	DCO Requirement	Discharge Authority	CoCP ID	ES reference
Local and strategic roads and associated receptors	n/a	Traffic and Transport	Increased traffic at receptors in settlements and villages	The HGV routing during the construction period to individual accesses will be developed to avoid settlements such as Sherburn in Elmet, South Milford, Micklefield, Saxton, Bramham, Clifford, Boston Spa, Tadcaster Centre, Healaugh, Tockwith, Long Marston, Rufforth, Askham, Angram, Nether Poppleton, Central York and Haxby.	n/a	Construction	Construction Traffic Management Plan	Requirement 5(2)(d)	Relevant planning authority or highway authority as appropriate	TT01	Chapter 12 (Document 5.2.12)
Local and strategic roads	n/a	Traffic and Transport	Damage to local and strategic roads and associated highways safety issues	Highways condition surveys will be undertaken before, during and after the construction phase and repairs conducted to any damage to highways as a result of Yorkshire GREEN construction HGVs on the highways included within the Study Area.	Design Manual for Roads and Bridges (DMRB)	Construction	Construction Traffic Management Plan	Requirement 5(2)(d)	Relevant planning authority or highway authority as appropriate	TT01	Chapter 12 (Document 5.2.12)
PRoW	n/a	Traffic and Transport	Damage to local PRoW	Condition surveys of PRoW on affected sections such as at the overhead line crossing points will be undertaken before, during and after the construction phase. If damage is identified as a result of the construction phase, the damage will be repaired. Post-construction, all PRoWs will be returned to their pre-construction condition or better.	Design Manual for Roads and Bridges (DMRB)	Construction	Public Right of Way Management Plan	Requirement 5(2)(e)	Relevant planning authority or highway authority as appropriate	TT02	Chapter 12 (Document 5.2.12)
Order Limits	n/a	Traffic and Transport	Temporary access to the local highways network during construction	Construction access will be provided with visibility splays designed to Design Manual for Roads and Bridges ( <del>DRMB</del> DMRB) or local design standards, whichever is appropriate, as agreed with the relevant	Design Manual for Roads and Bridges (DMRB) or local design standards	Construction	Construction Traffic Management Plan	Requirement 5(2)(d)	Relevant planning authority or highway authority as appropriate	TT01	Chapter 12 (Document 5.2.12)

Location	ES Mitigation ID	Topic	Potential changes and effects	Measure proposed	Reference to policy, guidance, legislation (where relevant)	Project Phase	Delivery Mechanism	DCO Requirement	Discharge Authority	CoCP ID	ES reference
				highway authorities. This will provide for safe accesses where construction vehicles can access the highways network in a safe way which should reduce the risk of accidents related to the Project.							
Local Roads	n/a	Traffic and Transport	Permanent access to the local highways network	Permanent accesses will be designed to DMRB or local design standards, whichever is appropriate. This measure will allow for a safe and formal access to be provided to the highways network from permanent infrastructure.	Design Manual for Roads and Bridges (DMRB) or local design standards	Construction	Construction Traffic Management Plan and DCO Works Plans	Requirement 5(2)(d) Schedule 1	Relevant planning authority or highway authority as appropriate	TT01	Chapter 12 (Document 5.2.12)
Order Limits	n/a	Traffic and Transport	Highways Safety	All arrangements for scaffolding at road crossings will be agreed with the relevant highway authority. Road closures will be avoided where possible.	n/a	Construction	Construction Traffic Management Plan	Requirement 5(2)(d)	Relevant planning authority or highway authority as appropriate	TT01	Chapter 12 (Document 5.2.12)



Location	ES Mitigation ID	Topic	Potential changes and effects	Measure proposed	Reference to policy, guidance, legislation (where relevant)	Project Phase	Delivery Mechanism	DCO Requirement	Discharge Authority	CoCP ID	ES reference
PRoW	n/a	Traffic and Transport	Management of PRoW Routes during Construction	<p>National Grid proposes to manage and provide mitigation for each PRoW that is affected by the Project and a series of mitigation measures have been set out within the PRoWMP which will be applied to different types of PRoW and, where appropriate and agreed with the relevant highway authority, Open Access Land (OAL) affected.</p> <p>Temporary diversions will ensure that the affected PRoW passes around the work areas or is diverted onto routes away from the haul roads or overhead line works at safe locations that can be managed.</p> <p>The proposed signage strategies will inform the public of the construction schedule and the implications for each affected PRoW.</p> <p>The active management of crossing points and shared accesses will be temporary in nature and will required site specific signage to inform the public and construction vehicle drivers.</p>	Design Manual for Roads and Bridges (DMRB)	Construction	Public Right of Way Management Plan	Requirement 5(2)(e)	Relevant planning authority or highway authority as appropriate	TT02	Chapter 12 (Document 5.2.12)

Location	ES Mitigation ID	Topic	Potential changes and effects	Measure proposed	Reference to policy, guidance, legislation (where relevant)	Project Phase	Delivery Mechanism	DCO Requirement	Discharge Authority	CoCP ID	ES reference
National Cycle Network Route 65 on Overton Road	n/a	Traffic and Transport	Management of National Cycle Network Route 65 on Overton Road	Provision of a dedicated 3/4m wide off-carriageway cycle route around fields to the south and west of Overton Road to avoid the widened section of Overton Road to be used by construction traffic for the Overton Substation and associated overhead line works for the duration of the construction phase. Cycle path to be designed in consultation with Sustrans and in accordance with Sustrans guidance. Signage for the diversion, due to length of time it will be in place, will be required and should be consistent with a signage for a permanent diversion.	Design Manual for Roads and Bridges (DMRB)	Construction	Public Right of Way Management Plan	Requirement 5(2)(e)	Relevant planning authority or highway authority as appropriate	TT02	Chapter 12 (Document 5.2.12)
Rawcliffe Lane/A63 Junction	n/a	Traffic and Transport	Potential safety issue relative to right turning HGVs from A63 to Rawfield Lane.	Agreement was reached with NYCC that to alleviate any potential highways safety issues regards access to Rawfield Lane for HGVs routing from the west, a left in left out arrangement would be the best approach at the junction. Traffic from the west would route east along the A63, past Rawfield Lane and then reach a roundabout with the A162. Here traffic can undertake a turn around the roundabout and route back on the A63 west bound and make a left turn into Rawfield Lane.	n/a	Construction	Construction Traffic Management Plan	Requirement 5(2)(d)	Relevant highway authority	TT01	Chapter 12 (Document 5.2.12)
Local highway interaction	n/a	Traffic and Transport	Effects on users of local highways	Where required, temporary traffic management measures such as temporary traffic signals and manned stop/go boards.	Section 14 of the Road Traffic Regulation Act 1984 (as necessary)	Construction	Construction Traffic Management Plan	Requirement 5(2)(d)	Relevant highway authority	TT01	Chapter 3, Appendix 3F (Document 5.3.3F)

Location	ES Mitigation ID	Topic	Potential changes and effects	Measure proposed	Reference to policy, guidance, legislation (where relevant)	Project Phase	Delivery Mechanism	DCO Requirement	Discharge Authority	CoCP ID	ES reference
				Temporary traffic implementation plans would be approved by relevant highway authority at detailed design stage.							
Local highway interaction	n/a	Traffic and Transport	Effects on users of local highways	Temporary highways signage to provide routing information for construction vehicles and avoid use of short cuts (for example, at Station Lane off of the A19 in Shipton by Beningbrough as identified by the Parish Council) and to warn other road users of likely presence of construction vehicles	N/A	Construction	Construction Traffic Management Plan	Requirement 5(2)(d)	Relevant highway authority	TT01	Chapter 3, Appendix 3F <b>(Document 5.3.3F)</b>
Access routes	n/a	Traffic and Transport	Safety along access routes	Temporary signage along the proposed onsite construction access roads where necessary to provide construction vehicle drivers with information on the distances to construction sites (destinations) and warning (hazard) information related to potential vehicle conflict or pedestrian conflict areas	N/A	Construction	Construction Traffic Management Plan	Requirement 5(2)(d)	Relevant highway authority	TT01	Chapter 3, Appendix 3F <b>(Document 5.3.3F)</b>
All highways	n/a	Traffic and Transport	Effects on highways safety	Implementation of delivery management system. DMS records would be compiled and stored centrally so that any complaints received concerning driver/vehicle conduct can be first referenced against the DMS to confirm whether the vehicle in question is associated with the Project. If necessary, appropriate action will be taken to address poor driver behaviour by contractors engaged on this project.	N/A	Construction	Construction Traffic Management Plan	Requirement 5(2)(d)	Relevant highway authority	TT01	Chapter 3, Appendix 3F <b>(Document 5.3.3F)</b>

Location	ES Mitigation ID	Topic	Potential changes and effects	Measure proposed	Reference to policy, guidance, legislation (where relevant)	Project Phase	Delivery Mechanism	DCO Requirement	Discharge Authority	CoCP ID	ES reference
All highways	n/a	Traffic and Transport	Effects on highways safety	Information packs will be provided to all contractors to all staff driving vehicles on the Project by the final construction contractors that are used by National Grid.	N/A	Construction	Construction Traffic Management Plan	Requirement 5(2)(d)	Relevant highway authority	TT01	Chapter 3, Appendix 3F <b>(Document 5.3.3F)</b>
Order Limits	HY1	Hydrology	<p>Deterioration in the water quality of aquatic environment receptors via generation of sediment laden water and entrained nutrients (Nitrogen (N) and Phosphorous (P)) or as a result of construction activities, e.g., watercourse crossings and excavations.</p> <p>Potential effects on the hydromorphology and flow conveyance as a result of increased sediment inputs or direct watercourse disturbance.</p> <p>Potential change to surface water quality affected by chemical leaching of concrete footings (subsurface corrosion of concrete), or concrete or fuel spillages.</p> <p>Potential change to water quality of a water supply resource which may affect the viability of a surface water abstraction.</p> <p>Deterioration in the water quality of aquatic environment receptors and dependent surface water abstractions affected by accidental release of pollutants (e.g. oil), arising from periodic maintenance activities.</p>	<p>HY1 – Inspection and monitoring</p> <p>Good working practices, consistent with best practice guidance summarised in <b>Table 9.4, Volume 5, Document 5.2.9</b>. An inspection and monitoring schedule will be implemented by the contractor to ensure that the measures taken to protect the surface water environment are effective.</p>	n/a	Construction	Code of Construction Practice	Requirement 5(2)(a)	Relevant planning authority, Environment Agency, relevant Internal Drainage Board, Lead Local Flood Authority	HY1	Chapter 3, Appendix 3B, <b>(Document 5.3.3B)</b>

Location	ES Mitigation ID	Topic	Potential changes and effects	Measure proposed	Reference to policy, guidance, legislation (where relevant)	Project Phase	Delivery Mechanism	DCO Requirement	Discharge Authority	CoCP ID	ES reference
Watercourse crossings	HY2	Hydrology	Deterioration in the water quality of aquatic environment receptors via generation of sediment laden water and entrained nutrients (Nitrogen (N) and Phosphorous (P)) or as a result of construction activities, e.g., watercourse crossings and excavations. Potential effects on the hydromorphology and flow conveyance as a result of increased sediment inputs or direct watercourse disturbance. Potential change to surface water quality affected by chemical leaching of concrete footings (subsurface corrosion of concrete), or concrete or fuel spillages. Potential change to water quality of a water supply resource which may affect the viability of a surface water abstraction. Deterioration in the water quality of aquatic environment receptors and dependent surface water abstractions affected by accidental release of pollutants (e.g. oil), arising from periodic maintenance activities.	HY2/FM2 - Stand-off from watercourses Where possible, a stand-off distance from the top of bank of all watercourses/waterbodies will be established (with the exception of crossings and where existing field access roads are already located adjacent to watercourses are to be utilised). To align with Environment Agency and IDB consenting requirements, it is proposed that this will be 8m for non-tidal Main Rivers, 7m from adopted drains within the KUOIDB district and 9m from adopted watercourses within the AIDB district. These stand-off distances would also apply to flood defences. Appropriate stand-off distances should also be implemented where Project construction activities coincide with water supply and sewerage infrastructure. These are to be agreed on a case-by-case basis. For any instances where the stand-off distances stated above cannot be achieved between construction works and watercourses, these works would be subject to the appropriate consent by the relevant drainage authority (FRAP for main rivers, OWC for ordinary watercourses).	n/a	Construction	Code of Construction Practice; FRAP or OWC where necessary	Requirement 5(2)(a)	Relevant planning authority, Environment Agency, relevant Internal Drainage Board, Lead Local Flood Authority	HY2	Chapter 3, Appendix 3B (Document 5.3.3B) and Chapter 9 (Document 5.2.9)
Order Limits	HY3	Hydrology	Deterioration in the water quality of aquatic environment receptors via generation of	HY3/FM3 - Drainage Management Plan (construction)	n/a	Construction	Drainage Management Plan	Requirement 6(1)(b)	Relevant planning authority,	HY3	Chapter 9 (Document 5.2.9)



Location	ES Mitigation ID	Topic	Potential changes and effects	Measure proposed	Reference to policy, guidance, legislation (where relevant)	Project Phase	Delivery Mechanism	DCO Requirement	Discharge Authority	CoCP ID	ES reference
			<p>sediment laden water and entrained nutrients (Nitrogen (N) and Phosphorous (P)) or as a result of construction activities, e.g., watercourse crossings and excavations.</p> <p>Potential effects on the hydromorphology and flow conveyance as a result of increased sediment inputs or direct watercourse disturbance.</p> <p>Potential change to surface water quality affected by chemical leaching of concrete footings (subsurface corrosion of concrete), or concrete or fuel spillages.</p> <p>Potential change to water quality of a water supply resource which may affect the viability of a surface water abstraction.</p> <p>Deterioration in the water quality of aquatic environment receptors and dependent surface water abstractions affected by accidental release of pollutants (e.g. oil), arising from periodic maintenance activities.</p>	<p>Appropriate control of runoff from working areas will be achieved through implementation of a Drainage Management Plan (DMP) for the construction phase. The DMP will use SuDS principles, promoting infiltration of runoff wherever possible and specifying appropriate treatment and attenuation storage to ensure any discharges to watercourses are uncontaminated and limited to greenfield rates. The DMP will cover all aspects of construction works and temporary infrastructure. It will be developed by the construction contractor post granting of the DCO and prior to commencement of works and will be secured through DCO Requirement 6.</p> <p>Drainage measures will be phased to be completed before the commencement of earthwork operations, in a specific area, and will be retained until the drainage system of the completed Project is fully operational, or site restoration works are completed. This will include the temporary diversion of existing agricultural drainage around working areas, if required, followed by reinstatement on completion of works. Reinstatement will be secured through DCO Requirement 11.</p>				Post works: Requirement 11	Environment Agency, relevant Internal Drainage Board, Lead Local Flood Authority		

Location	ES Mitigation ID	Topic	Potential changes and effects	Measure proposed	Reference to policy, guidance, legislation (where relevant)	Project Phase	Delivery Mechanism	DCO Requirement	Discharge Authority	CoCP ID	ES reference
Order Limits	HY4	Hydrology	Deterioration in the water quality of aquatic environment receptors via generation of sediment laden water and entrained nutrients (Nitrogen (N) and Phosphorous (P)) or as a result of construction activities, e.g., watercourse crossings and excavations. Potential effects on the hydromorphology and flow conveyance as a result of increased sediment inputs or direct watercourse disturbance. Potential change to surface water quality affected by chemical leaching of concrete footings (subsurface corrosion of concrete), or concrete or fuel spillages. Deterioration in the water quality of aquatic environment receptors affected by mobilisation of contaminants from contaminated soil, accidental spillage of pollutants (e.g. fuel or oil) or sewage effluent from worker welfare facilities and site offices. Potential change to water quality of a water supply resource which may affect the viability of a surface water abstraction. Changes to surface water flood risk due to changes in runoff rates resulting from ground disturbance and creation of impermeable surfaces. Deterioration in the water quality of aquatic environment receptors and dependent surface water abstractions affected by accidental release of pollutants (e.g. oil), arising	HY4 - Water discharges off-site (construction) No silty water would be discharged directly into any watercourse. Runoff from access routes/haul road and working areas should be allowed to infiltrate wherever possible. Where practicable, groundwater dewatered from excavations (e.g. pylon foundation excavations) should be discharged to adjacent grassed/vegetated agricultural land, away from watercourses. Where there remains the potential for this silty water to runoff into nearby surface water features or agricultural land used for crops, additional control measures would be put in place as specified in the DMP. These may include surrounding the discharge area (grassed/vegetated agricultural land) with sediment fencing or passing the silt-laden water through a Siltbuster® or similar. Infiltration is the preferred option for any dewatering discharges. The discharge rate must match the rate of infiltration into the soil which will vary with the soil type, amount of vegetation cover and the gradient. In the unlikely scenario that in-channel works are needed to construct a discharge outfall, a consent (FRAP for main river; OWC for ordinary watercourses) would be required.	n/a	Construction	Code of Construction Practice, DMP, Flood Emergency Response Plan; FRAP and OWC where necessary	DCO Requirement 5(2)(a), 6(1)(b) and (e)	Relevant planning authority, Environment Agency, relevant Internal Drainage Board, Lead Local Flood Authority	HY4	Chapter 3, Appendix 3B (Document 5.3.3B) and Chapter 9 (Document 5.2.9)

Location	ES Mitigation ID	Topic	Potential changes and effects	Measure proposed	Reference to policy, guidance, legislation (where relevant)	Project Phase	Delivery Mechanism	DCO Requirement	Discharge Authority	CoCP ID	ES reference
			from periodic maintenance activities.	Groundwater dewatering should cease if a Flood Alert or Flood Warning has been issued by the Environment Agency for a working area or an area downstream. Actions to be taken in the event of Flood Alerts or Warnings being issued will be detailed in the Flood Emergency Response Plan (HY14). If the groundwater pumped from excavations is suspected to be contaminated, appropriate measures would be taken in accordance with Environment Agency guidance and the Environmental Permitting Regulations to prevent uncontrolled or unauthorised releases of this water to ground or to the surface water environment.							
Order Limits	HY5	Hydrology	<p>Deterioration in the water quality of aquatic environment receptors via generation of sediment laden water and entrained nutrients (Nitrogen (N) and Phosphorous (P)) or as a result of construction activities, e.g., watercourse crossings and excavations.</p> <p>Potential effects on the hydromorphology and flow conveyance as a result of increased sediment inputs or direct watercourse disturbance.</p> <p>Potential change to surface water quality affected by</p>	<p>HY5 – Soil stockpiles</p> <p>A Soil Management Plan will be prepared which will outline the management of soil stockpiles associated with the Project. This will ensure areas of exposed ground and stockpiles would be minimised where reasonably practicable to reduce silty runoff. Geotextiles would be used as necessary to shield stockpiles, and soil stockpiles to be left for more than three months would be seeded</p>	n/a	Construction	Code of Construction Practice, Outline Soil Management Plan and Detailed soil and aftercare management plans	Requirements 5(2)(a), 5(3) and 6(2)(a)	Relevant planning authority, Environment Agency, relevant Internal Drainage Board, Lead Local Flood Authority	HY5	Chapter 3, Appendix 3B <b>(Document 5.3.3B)</b> and Chapter 9 <b>(Document 5.2.9)</b>

Location	ES Mitigation ID	Topic	Potential changes and effects	Measure proposed	Reference to policy, guidance, legislation (where relevant)	Project Phase	Delivery Mechanism	DCO Requirement	Discharge Authority	CoCP ID	ES reference
			<p>chemical leaching of concrete footings (subsurface corrosion of concrete), or concrete or fuel spillages.</p> <p>Deterioration in the water quality of aquatic environment receptors affected by mobilisation of contaminants from contaminated soil, accidental spillage of pollutants (e.g. fuel or oil) or sewage effluent from worker welfare facilities and site offices.</p> <p>Potential change to water quality of a water supply resource which may affect the viability of a surface water abstraction.</p> <p>Deterioration in the water quality of aquatic environment receptors and dependent surface water abstractions affected by accidental release of pollutants (e.g. oil), arising from periodic maintenance activities.</p>								

Location	ES Mitigation ID	Topic	Potential changes and effects	Measure proposed	Reference to policy, guidance, legislation (where relevant)	Project Phase	Delivery Mechanism	DCO Requirement	Discharge Authority	CoCP ID	ES reference
Order Limits	HY6	Hydrology	<p>Deterioration in the water quality of aquatic environment receptors via generation of sediment laden water and entrained nutrients (Nitrogen (N) and Phosphorous (P)) or as a result of construction activities, e.g., watercourse crossings and excavations.</p> <p>Potential effects on the hydromorphology and flow conveyance as a result of increased sediment inputs or direct watercourse disturbance.</p>	<p>HY6/FM5 – Open trenching in watercourses and floodplains</p> <p>Where it has been established that undergrounding of assets is required under a watercourse, it is assumed, as a worst-case scenario, that an open trenching approach will be used. All open trenching within the watercourse will be undertaken in an isolated, dry channel. The flows from the watercourse will be over-pumped and discharged to the channel downstream.</p> <p>Appropriate silt protection would be put in place, such as silt fencing and silty water would not be released to the watercourse.</p> <p>The works will only be performed during a dry period, when flows in the watercourse are low, and will be timed to be outside of fish spawning periods. All watercourse trenches will be infilled, with the channel bed and banks returned to pre-construction condition. Banks will be re-seeded and appropriate erosion protection provided (e.g. geotextiles) to allow vegetation to re-establish.</p>	n/a	Construction	Code of Construction Practice and FRAP/OWC for watercourse crossings as appropriate.	Requirement 5(2)(a); Requirement 11	Relevant planning authority, Environment Agency, relevant Internal Drainage Board, Lead Local Flood Authority	HY6	Chapter 3, Appendix 3B <b>(Document 5.3.3B)</b>



Location	ES Mitigation ID	Topic	Potential changes and effects	Measure proposed	Reference to policy, guidance, legislation (where relevant)	Project Phase	Delivery Mechanism	DCO Requirement	Discharge Authority	CoCP ID	ES reference
Order Limits	HY7	Hydrology	Potential effects on the hydromorphology and flow conveyance as a result of increased sediment inputs or direct watercourse disturbance.Changes to watercourse flow conveyance as a result of new or modified permanent watercourse crossings (e.g., culvert or bridge).	HY7 – Construction access watercourse crossing designWhere possible, existing watercourse crossings will be used. However, in some locations new temporary crossings may be required. Temporary bridges will be used in preference to culverts for main rivers and WFD reportable watercourses and designed to ensure an appropriate level of flood conveyance in the construction phase and to avoid the requirement for in-channel works. Culverts will be used for crossing of other watercourses. These will either be arch culverts, leaving the natural bed undisturbed, or they would be installed with the invert set below the natural bed level to allow for a semi natural bed to establish within the culvert.All construction related, temporary crossings will be designed to ensure that existing channel conveyance and floodplain storage are preserved.These design principles will be secured via the CoCP, Volume 5.3, Document 5.3.3B (DCO Requirement 5). Specific detailed designs for each watercourse crossing, consistent with these design principles, will be prepared by the construction contractor post-grant of the DCO. These will be subject to the appropriate consent	n/a	Construction	Code of Construction Practice and FRAP/OWC as appropriate	Requirement 5(2)(a) and Requirement 13	Relevant planning authority, Environment Agency, relevant Internal Drainage Board, Lead Local Flood Authority	HY7	Chapter 9 (Document 5.2.9)

Location	ES Mitigation ID	Topic	Potential changes and effects	Measure proposed	Reference to policy, guidance, legislation (where relevant)	Project Phase	Delivery Mechanism	DCO Requirement	Discharge Authority	CoCP ID	ES reference
					by the relevant drainage authority (FRAP for main rivers, OWC for ordinary watercourses*). Temporary watercourse crossings will be removed within 12 months of completion of construction, and the bed and banks restored to their pre-construction condition, as far as possible. This would be secured via DCO Requirement 13.						
Pylon footings	HY8	Hydrology	Potential change to surface water quality affected by chemical leaching of concrete footings (subsurface corrosion of concrete), or concrete or fuel spillages.	HY8 – Pylon footings Corrosion and pH resistant concrete formulas will be utilised for pylon foundations to minimise the risk of leaching of harmful compounds into soil, groundwater and watercourses	n/a	Construction	Code of Construction Practice	Requirement 5(2)(a)	Relevant planning authority or Environment Agency	HY8	Chapter 3, Appendix 3B, (Document 5.3.3B)

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Order Limits	HY9	Hydrology	<p>Potential change to surface water quality affected by chemical leaching of concrete footings (subsurface corrosion of concrete), or concrete or fuel spillages.</p> <p>Deterioration in the water quality of aquatic environment receptors affected by mobilisation of contaminants from contaminated soil, accidental spillage of pollutants (e.g. fuel or oil) or sewage effluent from worker welfare facilities and site offices.</p> <p>Potential change to water quality of a water supply resource which may affect the viability of a surface water abstraction.</p> <p>Deterioration in the water quality of aquatic environment receptors and dependent surface water abstractions affected by accidental release of pollutants (e.g. oil), arising from periodic maintenance activities.</p>	<p>HY9 – Fuel, oil and chemicals storage</p> <p>All fuels, chemicals and oils will be stored within bunded areas in accordance with good practice guidance such as Above Ground Oil Storage Tanks, GPP 265; Use and Design of Oil Separators in Surface Water Drainage Systems, PPG 366; and Safe Storage – Drums and Intermediate Bulk Containers, GPP 2673 .</p> <p>Fuel and chemical storage would be located in Flood Zone 1 and a minimum of 10m away from any watercourse.</p> <p>Areas of construction compounds that are used for fuel storage, plant maintenance and refuelling would be surfaced with fully impermeable materials to prevent any infiltration of contaminated runoff and contain bunding.</p> <p>Where large, stationary, construction related plant require refuelling in situ, outside of construction compounds, adequate appropriate mitigation will be put in place. This will likely include the use of “plant nappies” (impermeable sheets or absorbent pads) with spill kits available.</p> <p>All water runoff from designated refuelling areas would be channelled to an oil separator or an alternative treatment system prior to discharge.</p>	GPP 2, PPG 3 and GPP 26	Construction	Code of Construction Practice and PICP	Requirement 5(2)(a) and Requirements 6(1)(c)	Relevant planning authority or Environment Agency	HY9	Chapter 3, Appendix 3B (Document 5.3.3B) and Chapter 9 (Document 5.2.9)

Location	ES Mitigation ID	Topic	Potential changes and effects	Measure proposed	Reference to policy, guidance, legislation (where relevant)	Project Phase	Delivery Mechanism	DCO Requirement	Discharge Authority	CoCP ID	ES reference
				<p>A Pollution Incident Control Plan (PICP) would be developed to ensure any spillages or potential pollution incidents are dealt with appropriately including the provision of containment for spills of contaminating liquids<sup>71, 72</sup>.</p> <p>Mobile plant would be maintained in good working order. Larger items of plant such as excavators would undergo recorded inspections by a competent person (usually the operator) for any defects. Where defects are evident, the item or plant shall be removed from the land within the proposed construction working area immediately and serviced or replaced as soon as possible.</p> <p>Leaking or empty oil drums would be removed from land within the proposed construction working area immediately and disposed of via an appropriately licensed waste disposal contractor.</p> <p>Plant and machinery used during the construction and operation phases would be maintained to minimise the risks of oil leaks or similar. Where practicable all stationary plant used would be fitted with measures such as drip trays to retain any leakage of oil or fuel</p>							

Location	ES Mitigation ID	Topic	Potential changes and effects	Measure proposed	Reference to policy, guidance, legislation (where relevant)	Project Phase	Delivery Mechanism	DCO Requirement	Discharge Authority	CoCP ID	ES reference
Order Limits	HY10	Hydrology	<p>Deterioration in the water quality of aquatic environment receptors affected by mobilisation of contaminants from contaminated soil, accidental spillage of pollutants (e.g. fuel or oil) or sewage effluent from worker welfare facilities and site offices.</p> <p>Potential change to water quality of a water supply resource which may affect the viability of a surface water abstraction.</p> <p>Deterioration in the water quality of aquatic environment receptors and dependent surface water abstractions affected by accidental release of pollutants (e.g. oil), arising from periodic maintenance activities.</p>	<p>HY10 – Soil Management Plan</p> <p>Excavated materials during construction works would be segregated and stored/re-used on-site in accordance with a Soil Management Plan (outline soil management plan and detailed soils and aftercare management plan) (in compliance with the CL:AIRE Definition of Waste: Code of Practice ).</p> <p>Any temporary on-site storage of excavated materials suspected or confirmed to be contaminated would be on impermeable sheeting, covered over and with adequate leachate/runoff drainage to prevent migration of contaminants from the stockpile. Materials would be segregated where possible to prevent cross-contamination occurring. Such materials would only be reused if they are confirmed as suitable for use in line with the requirements of the Soil Management Plan.</p>	CL:AIRE Definition of Waste: Code of Practice	Construction	Code of Construction Practice, SMP, Detailed soil and aftercare management plan, Written Scheme for Ground Conditions	Requirements 5(2)(a), 5 (3), 6(2)(a) and 12.	Relevant planning authority or Environment Agency	HY10	Chapter 3, Appendix 3B <b>(Document 5.3.3B)</b> , Chapter 3, Appendix 3E <b>(Document 5.3.3E)</b> and Chapter 9 <b>(Document 5.2.9)</b>
Order Limits	HY11	Hydrology	<p>Deterioration in the water quality of aquatic environment receptors affected by mobilisation of contaminants from contaminated soil, accidental spillage of pollutants (e.g. fuel or oil) or sewage effluent from worker welfare facilities and site offices. Potential change to water quality of a water supply resource which may affect the</p>	<p>HY11 - Foul drainage from temporary compounds</p> <p>Appropriate treatment and disposal of sewage will be provided where no foul sewer is available to ensure protection of the water environment. Should discharge of treated effluent to watercourses or to land be required, this would be</p>	n/a	Construction	Code of Construction Practice; Environmental Permit as required.	Requirement 5(2)(a)	Relevant planning authority or Environment Agency	HY11	Chapter 3, Appendix 3B <b>(Document 5.3.3B)</b>



Location	ES Mitigation ID	Topic	Potential changes and effects	Measure proposed	Reference to policy, guidance, legislation (where relevant)	Project Phase	Delivery Mechanism	DCO Requirement	Discharge Authority	CoCP ID	ES reference
			viability of a surface water abstraction.	subject to an Environmental Permit.							
Order Limits	HY12	Hydrology	Changes to surface water flood risk due to changes in runoff rates resulting from ground disturbance and creation of impermeable surfaces.	HY12/FM6 – Reinstatement of working areas Once constructed, all temporary access route and temporary working area construction material will be removed and the ground reinstated to its pre-construction state (or similar), with the soil stockpile material used to backfill any excavations (to a level slightly above natural ground level to allow for settlement)..	n/a	Construction	Code of Construction Practice, Reinstatement	Requirement 5(2)(a) and 11	Relevant planning authority, Environment Agency, relevant Internal Drainage Board, Lead Local Flood Authority	HY12	Chapter 3, Appendix 3B <b>(Document 5.3.3B)</b>
Flood plains	HY13	Hydrology	Volumetric displacement of flood water associated with the construction of temporary spoil mounds and raised access tracks and hardstanding in floodplain areas	HY13/FM1– Preserve floodplain storage and conveyance Access roads and working areas in the floodplain are to be as close to ground level as possible (a slight raised surface, relative to the adjacent land, is often required to allow for drainage). This is to minimise the loss of floodplain storage volumes associated with raised structures. Cross drainage will be provided as necessary at topographic low points. Material stockpiles will be located outside of the	n/a	Construction	Code of Construction Practice and DMP	Requirement 5(2)(a) and 6(1)(b)	Relevant planning authority, Environment Agency, relevant Internal Drainage Board, Lead Local Flood Authority	HY13	Chapter 3, Appendix 3B <b>(Document 5.3.3B)</b>

Location	ES Mitigation ID	Topic	Potential changes and effects	Measure proposed	Reference to policy, guidance, legislation (where relevant)	Project Phase	Delivery Mechanism	DCO Requirement	Discharge Authority	CoCP ID	ES reference	
				<p>floodplain wherever possible, although noting that it may not be possible to move soil between different fields/land holdings. Stockpile impacts in the floodplain, where unavoidable, will be mitigated through appropriate alignment, leaving gaps and cross-drainage.</p> <p>Approaches to bridges and culverts in Flood Zones will minimise ramping up to the bridge deck so to minimise loss of floodplain storage.</p> <p>Works will not be carried out during flood flows to avoid undue erosion of the riverbeds and/or banks, to protect construction personnel and plant, and to ensure that flood conveyance is not reduced.</p>								
Flood plains	HY14	Hydrology	Direct flooding of works; displacement, conveyance or runoff effects for third parties.	<p>HY14/FM7 – Emergency Response Plan for Flood Events (ERPFE)</p> <p>An ERPFE will be prepared for those construction activities which must take place in areas of higher flood risk. This will describe the flood hazard, assess the risk to infrastructure and personnel, specify roles and responsibilities, arrangements for receiving Flood Alerts and Warnings, responses to Flood Alerts and Warnings (including evacuation as required), and evacuation routes. In addition, the ERPFE will set out arrangements for cessation of excavation dewatering activities should</p>	n/a	Construction	Emergency Response Plan for Flood Events	Requirement 6(1)(e)	Relevant planning authority or Environment Agency	HY14	Chapter 9 (Document 5.2.9)	

Location	ES Mitigation ID	Topic	Potential changes and effects	Measure proposed	Reference to policy, guidance, legislation (where relevant)	Project Phase	Delivery Mechanism	DCO Requirement	Discharge Authority	CoCP ID	ES reference
					a Flood Alert or Warning be received, to minimise any impacts on flood flow conveyance and to maintain access for watercourse maintenance. The ERPFE will be developed by the construction contractor post granting of the DCO and prior to commencement of works and will be secured via DCO Requirement 6.						
Overhead line	HY15	Hydrology	Volumetric displacement of flood water associated with the permanent infrastructure.	HY15 – Micro siting of infrastructure Earlier optioneering studies and design development subsequent to statutory and non-statutory consultation (Chapter 2, Document 5.2.2, Volume 5) has been undertaken to identify the preferred siting of the Project infrastructure to ensure that, amongst a number of other factors, none of the CSECs or substation siting areas are at risk of flooding from rivers.	n/a	Operation	DCO Works plans and Limits of Deviation	Requirement 3 Article 5	Relevant planning authority	n/a	Chapter 9 (Document 5.2.9)
Overton and Monk Fryston Substation	HY16	Hydrology	Changes to surface water flood risk due to changes in runoff rates resulting from creation of impermeable surfaces.	HY16/FM4 – Detailed surface water drainage design (operational) Detailed drainage design for permanent project infrastructure with new impermeable surfaces, comprising substations, CSECs and associated access roads, will be carried out post-grant of the DCO, and will be subject to approval from the relevant drainage authority. The detailed drainage design for the substations will be consistent with the drainage	n/a	Operation	Drainage management plan	Requirement 6 (1)(b) and (4)	Local planning authority, relevant IDB, Lead Local Flood Authority	n/a	Chapter 9 (Document 5.2.9)

Location	ES Mitigation ID	Topic	Potential changes and effects	Measure proposed	Reference to policy, guidance, legislation (where relevant)	Project Phase	Delivery Mechanism	DCO Requirement	Discharge Authority	CoCP ID	ES reference
				strategies produced to support the DCO application (Appendix 5.3.9D, Annexes 9D.5 and 9D.6, Volume 5.3, Document 5.3.9D). Detailed drainage design for the CSECs and access roads will be to the same standard, including the use of appropriate SuDS							
Order Limits	HY17	Hydrology	Deterioration in the water quality of aquatic environment receptors by accidental spillage of pollutants (e.g. fuel or oil) or sewage effluent from worker welfare facilities.	HY17 – Detailed design of surface water pollution control and foul drainage systems at substations. Oil-filled transformers will be isolated from the wider site surface water drainage system and drained via Bund Water Control Units and Oil Separators to minimise the risk to receiving watercourses from accidental hydrocarbon spillage. Appropriate SuDS treatment features will be provided for wider site drainage systems (Appendix 9D, Annexes 9D.5 and 9D.6, Volume 5.2, Document 5.3.9). Appropriate treatment and disposal of sewage from welfare facilities will be provided where no foul sewer is available to ensure protection of the water environment. Should discharge of treated effluent to watercourses or to land be required, this would be subject to an Environmental Permit.	n/a	Operation	Environmental Permit for any treated sewage discharges to watercourses or to land and DMP.	Requirement 6(4)	Environment Agency	n/a	Chapter 9 (Document 5.2.9)

Location	ES Mitigation ID	Topic	Potential changes and effects	Measure proposed	Reference to policy, guidance, legislation (where relevant)	Project Phase	Delivery Mechanism	DCO Requirement	Discharge Authority	CoCP ID	ES reference
Order Limits	n/a	Hydrology	Impacts to hydrological assets	It is anticipated that similar environmental measures to those embedded into the Project design for the construction phase would be implemented at the decommissioning phase. The decommissioning phase would be subject to a written phase of decommissioning for approval by the local planning authority (DCO Requirement 16)	n/a	Decommissioning	Written phase of decommissioning	Requirement 16	Relevant planning authority, Environment Agency, relevant Internal Drainage Board, Lead Local Flood Authority	n/a	Chapter 9 (Document 5.2.9)
Order Limits	n/a	Health and Wellbeing	All potential impacts arising from the Project as listed here.	Develop and implement a stakeholder communications plan that includes community engagement before work commences on-site.	n/a	Construction	Code of Construction Practice	Requirement 5(2)(a)	Relevant planning authority or highway authority as appropriate	N/A	Chapter 3, Appendix 3B, (Document 5.3.3B)
Order Limits	n/a	Health and Wellbeing	Increased dust emissions, potential adverse effects from construction noise, visual impacts and likely adverse effects on the health of local receptors	Code of Construction Practice (CoCP) will implement dust management measures.	n/a	Construction	Code of Construction Practice	Requirement 5(2)(a)	Relevant planning authority or highway authority as appropriate	Table 3.3, Table 3.10 and 3.11	Chapter 3, Appendix 3B, (Document 5.3.3B)
PRoWs	n/a	Health and Wellbeing	Potential impacts on the health of users of existing PRoW	Signage and/or temporary public PRoW /PRoW/footpath diversions will be provided during construction.	Design Manual for Roads and Bridges (DMRB)	Construction	Public Right of Way Management Plan	Requirement 5(2)(e)	Relevant highway authority	TT02	Chapter 15 (Document 5.2.15)
Order Limits and construction access routes	n/a	Health and Wellbeing	Increased traffic in settlements and villages resulting in potential impacts on the health of users	Proposed heavy goods vehicle (HGV) routing to individual accesses during the construction period has been developed to avoid major settlements.	Design Manual for Roads and Bridges (DMRB)	Construction	Construction Traffic Management Plan	Requirement 5(2)(d)	Relevant highway authority	TT01	Chapter 15 (Document 5.2.15)
PRoWs	n/a	Health and Wellbeing	Delays to users of local PRoW resulting in potential health impacts	PRoWs that cross the various overhead line routes will be managed or diverted over the shortest distance possible with potential to provide adjacent crossings.	Design Manual for Roads and Bridges (DMRB)	Construction	Public Right of Way Management Plan	Requirement 5(2)(e)	Relevant highway authority	TT02	Chapter 15 (Document 5.2.15)



Location	ES Mitigation ID	Topic	Potential changes and effects	Measure proposed	Reference to policy, guidance, legislation (where relevant)	Project Phase	Delivery Mechanism	DCO Requirement	Discharge Authority	CoCP ID	ES reference
Order Limits	n/a	Health and Wellbeing	Access to the local highways network resulting in potential health impacts	Construction accesses will be provided with visibility splays designed to DMRB design standards as agreed with the relevant highways authorities. This will provide for safe accesses where construction vehicles can access the highways network in a safe way which should reduce the risk of accidents related to the Project. Wherever this is not possible, appropriate traffic management measures would be put in place (i.e. signals).	Design Manual for Roads and Bridges (DMRB)	Construction	Construction Traffic Management Plan and DCO Works plans.	Requirement 5(2)(d), Schedule 1	Relevant highway authority	TT01	Chapter 15 (Document 5.2.15)
Order Limits	n/a	Health and Wellbeing	Access to the local highways network resulting in potential health impacts	Permanent accesses required for the Project will be designed to DMRB design standards. This measure will allow for a safe and formal access to be provided to the highways network to permanent infrastructure.	Design Manual for Roads and Bridges (DMRB)	Construction	Construction Traffic Management Plan and DCO Works plans.	Requirement 5(2)(d), Schedule 1	Relevant highway authority	TT01	Chapter 15 (Document 5.2.15)
Order Limits	n/a	Health and Wellbeing	Potential adverse effects from the operation of the Project	Locating the proposed substations, associated infrastructure, CSECs and new and realigned sections of overhead line away from sensitive receptors where possible, to minimise the potential adverse effects on health and wellbeing.	n/a	Operation	DCO Works plans and Limits of Deviation	Requirement 3 Article 5	n/a	n/a	Chapter 15 (Document 5.2.15)
Hedgerows and Trees	n/a	Landscape and Visual	Temporary reduction by coppicing or trimming back lengths of hedgerows and trees to accommodate construction access. Permanent loss of hedgerows and trees at location of proposed substations, CSE Compounds and to accommodate maintenance	Project layout has been optimised to maximise the use of existing access points and to minimise the loss of hedgerows and trees where new access is unavoidable and where clearance is required for substations, pylons, and other infrastructure as set	Hedgerow Regulations 1997	Construction	DCO Works Plans, outline landscape mitigation strategy, and tree and hedgerow protection strategy	Requirement 3 Requirement 6(1)(g) Requirement 8 and 9	Relevant planning authority or highway authority as appropriate	n/a	Chapter 6 (Document 5.2.6)

Location	ES Mitigation ID	Topic	Potential changes and effects	Measure proposed	Reference to policy, guidance, legislation (where relevant)	Project Phase	Delivery Mechanism	DCO Requirement	Discharge Authority	CoCP ID	ES reference
			access tracks. Potential for impact upon landscape character and visual amenity.	out in the Arboricultural Impact Assessment (AIA) and Tree and Hedgerow Protection Strategy.							
Temporary compounds and substation sites	n/a	Landscape and Visual	Impact of construction focussed within the temporary compounds and substation sites including construction activity, materials, temporary buildings, vehicle and plant movements and lighting (24/7 working).	Siting of substations and construction compounds away from high sensitivity visual receptors	n/a	Construction	Works Plans and the outline landscape mitigation strategy	Requirement 3 Requirement 8	Relevant planning authority or highway authority as appropriate	n/a	Chapter 6 <b>(Document 5.2.6)</b>
Temporary compounds and substation sites	n/a	Landscape and Visual	Impact of construction focussed within the temporary compounds and substation sites including construction activity, materials, temporary buildings, vehicle and plant movements and lighting (24/7 working).	Adoption of temporary earth bunding or a solid fence to the perimeter of compounds and substations to restrict visibility of construction materials and activity from the wider landscape. Temporary lighting to be utilised for minimum periods and to be designed to minimise light pollution.	n/a	Construction	Code of Construction Practice and lighting scheme	Requirement 5(2)(a) Requirement 6(1)(d)	Relevant planning authority or highway authority as appropriate	LV01 and LV02	Chapter 3, Appendix 3B <b>(Document 5.3.3B)</b>
Order Limits	n/a	Landscape and Visual	The introduction of new electricity transmission infrastructure has the potential for significant adverse Effects on landscape character of the host areas and upon the visual amenity of the highest sensitivity receptors.	The selection and subsequent refinement of the new 400kV and 275kV overhead lines, CSECs and substation locations has minimised adverse landscape and visual effects. New native woodland and scrub planting on low-level earth bunding with gentle slopes, would minimise landscape and visual effects.	n/a	Operation	Works Plans and the outline landscape mitigation strategy	Requirement 3 Requirement 8	Relevant planning authority or highway authority as appropriate	n/a	Chapter 6 <b>(Document 5.2.6)</b>

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Overton Substation, Monk Fryston Substation, Tadcaster CSECs	n/A	Landscape and Visual	Landscape and visual effects	Permanent earth mounds up to 3.5m high and with 1:3 slopes would be created in the vicinity of the Overton and Monk Fryston substations as illustrated in Landscape Mitigation Strategy. The mounding would be formed from the soils excavated from the foundations for the substations and would be planted with woodland at the earliest opportunity <u>in line with the Outline Landscape Mitigation Strategy (Figures 3.10 and 3.12 of Document 5.4.3) and no later than the first available planting season (November to March) after the substation infrastructure is first brought into operational use and prior to completion of the substation infrastructure.</u> The formation of permanent earth mounds and advance planting at the earliest opportunity in areas that would not be affected by construction works. in the construction programme would assist in minimising adverse effects upon landscape character and visual amenity.	n/a	pre-construction, construction, operation	Landscape and mitigation planting	Requirement 8 and <u>910</u>	Relevant planning authority or highway authority as appropriate	LV03	Chapter 3, Figures 3.10 to 3.12 ( <b>Document 5.4.3</b> )
Order Limits	ID1	Biodiversity	Impacts to biodiversity receptors	Pre-construction update surveys: Pre-construction update surveys would be undertaken for protected species where relevant and necessary	Wildlife and Countryside Act 1981, and Badger Act 1992	Pre-construction	Biodiversity Mitigation Strategy	Requirement 5(2)(c)	Relevant planning authority or highway authority as appropriate	BD01	Chapter 8 ( <b>Document 5.2.8</b> )

Location	ES Mitigation ID	Topic	Potential changes and effects	Measure proposed	Reference to policy, guidance, legislation (where relevant)	Project Phase	Delivery Mechanism	DCO Requirement	Discharge Authority	CoCP ID	ES reference
Order Limits	ID2	Biodiversity	Impacts to biodiversity receptors	Standard best practice: The Project would be subject to standard best practice mitigation measures employed to avoid and minimise potential effects to habitats and species under the supervision of an appointed Ecological Clerk of Works (ECoW). These would include (but not be exclusive to) the establishment of buffer zones to key habitats and species, seasonally sensitive construction, minimising the removal of vegetation, covering excavations over night or providing a means of escape, and considered location of works.	Wildlife and Countryside Act 1981, and Badger Act 1992	Construction	Biodiversity Mitigation Strategy	Requirement 5(2)(c)	Relevant planning authority or highway authority as appropriate	BD01	Chapter 8 (Document 5.2.8)
Order Limits	ID3	Biodiversity	Impacts to biodiversity receptors	Minimise land take and micro-site: Detailed design would aim to minimise the land take for works and locate (through micro-siting within working areas inside the Limits of Deviation (LoD) which will form part of the DCO works plans) those works away from the more important habitat and species features, particularly woodland, boundaries including ditches and hedgerows, as well as ponds and other wetland features, which would consequently limit effects on associated species interest. Where practicable, works within HPI and sensitive sites (i.e. SINC's including candidate and deleted SINC's) would	Wildlife and Countryside Act 1981, and Badger Act 1992	Construction	Biodiversity Mitigation Strategy	Requirement 5(2)(c)	Relevant planning authority or highway authority as appropriate	BD01	Chapter 8 (Document 5.2.8)

Location	ES Mitigation ID	Topic	Potential changes and effects	Measure proposed	Reference to policy, guidance, legislation (where relevant)	Project Phase	Delivery Mechanism	DCO Requirement	Discharge Authority	CoCP ID	ES reference
				be avoided and/or minimised when micro-siting the proposed working areas.							
Order Limits	ID4	Biodiversity	Impacts to biodiversity receptors	Dust management: In line with good practice, the CoCP would ensure that any risk of effects on ecological features from dust emission is negligible by detailing methods for the employment of standard dust suppression.	Wildlife and Countryside Act 1981, and Badger Act 1992	Construction	Code of Construction Practice and Biodiversity Mitigation Strategy	Requirement 5(2)(a) Requirement 5(2)(c)	Relevant planning authority or highway authority as appropriate	BD02	Chapter 3, Appendix 3B <b>(Document 5.3.3B)</b> and Chapter 3, Appendix 3D <b>(Document 5.3.3D)</b>
Order Limits	ID5	Biodiversity	Impacts to biodiversity receptors	Sensitive vegetation removal: Vegetation would be retained where possible. To avoid destruction of active nests, where practicable, in any areas where vegetation clearance is required, such works would be undertaken outside the breeding bird season (outside March-August). Where this is not practicable, vegetation removal would be undertaken under supervision and appropriately managed to remove the risk of damaging or destroying active nests, young or eggs. Suitable methods would also be used to ensure vegetation with potential to support other legally	Wildlife and Countryside Act 1981, and Badger Act 1992	Construction - outside of March - August	Biodiversity Mitigation Strategy	Requirement 5(2)(c)	Relevant planning authority or highway authority as appropriate	BD01	Chapter 8 <b>(Document 5.2.8)</b>



Location	ES Mitigation ID	Topic	Potential changes and effects	Measure proposed	Reference to policy, guidance, legislation (where relevant)	Project Phase	Delivery Mechanism	DCO Requirement	Discharge Authority	CoCP ID	ES reference
				protected species (e.g. great crested newts and reptiles) is removed sensitively and in compliance with legal requirements.							
Order Limits	ID6	Biodiversity	Impacts to biodiversity receptors	Maintaining habitat connectivity: Habitat connectivity would be retained wherever possible by maintaining links within and to green corridors such as hedgerows and watercourses. Where effects on connectivity are unavoidable, the affected habitat would be artificially supplemented by, for instance the creation of temporary brash hedges as appropriate.	Wildlife and Countryside Act 1981, and Badger Act 1992	Construction and operation	Biodiversity Mitigation Strategy	Requirement 5(2)(c)	Relevant planning authority or highway authority as appropriate	BD01	Chapter 8 (Document 5.2.8)
Order Limits	ID7	Biodiversity	Impacts to biodiversity receptors	Protection of ancient/veteran trees: All identified ancient/veteran trees would be avoided by micro-siting the design. A suitable root protection zone (with reference to BS 5837) would be identified and used to site infrastructure with the Order Limits.	n/a	Construction and operation	Biodiversity Mitigation Strategy	Requirement 5(2)(c)	Relevant planning authority or highway authority as appropriate	BD01	Chapter 8 (Document 5.2.8)
Areas of trees	ID8	Biodiversity	Impacts to biodiversity receptors	Sensitive tree management for electrical safety clearance: Where tree loss is required to achieve electrical safety clearances, pollarding or coppicing (where regrowth would occur within a season) would be used to avoid total	n/a	Construction and operation	Biodiversity Mitigation Strategy	Requirement 5(2)(c)	Relevant planning authority or highway authority as appropriate	BD01	Chapter 8 (Document 5.2.8)

Location	ES Mitigation ID	Topic	Potential changes and effects	Measure proposed	Reference to policy, guidance, legislation (where relevant)	Project Phase	Delivery Mechanism	DCO Requirement	Discharge Authority	CoCP ID	ES reference
				loss of habitat where possible. A suitable root protection zone (with reference to BS 5837104) would protect trees adjacent to working areas.							
Construction working areas	ID9	Biodiversity	Impacts to biodiversity receptors	Protection of retained habitats: Appropriate delineation would be installed around those retained habitat features within the construction area, to protect them from direct effects during the works. Such delineation would be designed to avoid isolation/obstruction of protected species as necessary. The specific measures set out in the BMS (Document 5.3.3D, Volume 5), will require mapping illustrating the location of all retained areas of semi-natural habitat, as well as newly created habitats, where needed.	n/a	Construction	Biodiversity Mitigation Strategy	Requirement 5(2)(c)	Relevant planning authority or highway authority as appropriate	BD01	Chapter 8 (Document 5.2.8)
Order Limits	ID10	Biodiversity	Impacts to biodiversity receptors	Management of INNS: The use of tried and tested invasive species control and biosecurity measures to avoid the spread of INNS and infested materials would be applied.	n/a	Construction and operation	Biodiversity Mitigation Strategy	Requirement 5(2)(c)	Relevant planning authority or highway authority as appropriate	BD01	Chapter 8 (Document 5.2.8)
Order Limits	ID11	Biodiversity	Impacts to biodiversity receptors	Habitat reinstatement: Areas of temporary habitat loss would be reinstated, wherever practicable, following the completion of construction in each area. Wherever possible, reinstatement would be back to the type of habitat affected. Five year aftercare	n/a	Construction and Operation	Biodiversity Mitigation Strategy	Requirement 5(2)(c)	Relevant planning authority or highway authority as appropriate	BD01	Chapter 8 (Document 5.2.8)

Location	ES Mitigation ID	Topic	Potential changes and effects	Measure proposed	Reference to policy, guidance, legislation (where relevant)	Project Phase	Delivery Mechanism	DCO Requirement	Discharge Authority	CoCP ID	ES reference
				will apply to all re-instated habitat.							
Order Limits	ID12	Biodiversity	Impacts to biodiversity receptors	Sensitive access and enabling works: At sensitive crossing locations (e.g. rivers), existing access routes would be used as far as possible and the width of any required working area reduced as far as practicable. WFD watercourse crossings would involve temporary clear span bridges, involving no in channel works. Where required, temporary culverts (or temporary culvert upgrades) would be used on smaller watercourses (ordinary watercourses)/ditches but these will be sensitively designed to affect the minimum length possible, retaining the natural bed of the watercourse/ditch. Alternatively, they would be installed with the invert set below the natural bed level for a semi-natural bed to establish within the culvert. Habitat would be re-instated to pre-works condition or better following the removal of temporary bridges and culverts.	n/a	Construction and operation	Biodiversity Mitigation Strategy	Requirement 5(2)(c)	Relevant planning authority or highway authority as appropriate	BD01	Chapter 8 (Document 5.2.8)

Location	ES Mitigation ID	Topic	Potential changes and effects	Measure proposed	Reference to policy, guidance, legislation (where relevant)	Project Phase	Delivery Mechanism	DCO Requirement	Discharge Authority	CoCP ID	ES reference
Order Limits	ID13	Biodiversity	Impacts to biodiversity receptors	Protection of aquatic features: A minimum stand-off from all watercourses, ditches and ponds would be adopted where possible on a location-specific basis. This would be in line with regional Environment Agency and IDB requirements, excluding required access crossing points. In line with good practice, pollution prevention plans would be drawn up to detail how ground and surface waters would be protected during construction and operation. These would include information on the storage of any fuels, oils and other chemicals and pollution incidence response planning.	n/a	Construction and operation	Biodiversity Mitigation Strategy	Requirement 5(2)(c)	Relevant planning authority or highway authority as appropriate	BD01	Chapter 8 (Document 5.2.8)
Order Limits	ID14	Biodiversity	Impacts to biodiversity receptors	Sensitive lighting design: A lighting design of all temporary and permanent lighting would be developed once contractors are appointed; however, the principles of lighting design will be detailed at the time of application and informed by the joint guidance provided by the Bat Conservation Trust and Institution of Lighting Professionals. The lighting design will account for the potential effects on terrestrial ecology by taking measures to minimise lighting usage, minimise light spill, use most appropriate wave lengths of light and locate lighting in	Wildlife and Countryside Act 1981	Construction and operation	Biodiversity Mitigation Strategy	Requirement 5(2)(c) Requirement 6(4)	Relevant planning authority or highway authority as appropriate	BD01	Chapter 8 (Document 5.2.8)

Location	ES Mitigation ID	Topic	Potential changes and effects	Measure proposed	Reference to policy, guidance, legislation (where relevant)	Project Phase	Delivery Mechanism	DCO Requirement	Discharge Authority	CoCP ID	ES reference
				the most appropriate locations – this is to decrease the potential displacement effects on light sensitive fauna such as bats.							
All construction haul roads and access tracks	ID15	Biodiversity	Impacts to biodiversity receptors	Construction traffic speed limits: Speed limits would be imposed on all construction haul roads and access tracks (as opposed to public/private roads with existing speed limits in place) to minimise the risk of road traffic collisions with fauna such as badgers, otters, bats and barn owls.	Wildlife and Countryside Act 1981, and Badger Act 1992	Construction	Biodiversity Mitigation Strategy	Requirement 5(2)(c)	Relevant planning authority or highway authority as appropriate	BD01	Chapter 8 (Document 5.2.8)
Order Limits	ID16	Biodiversity	Impacts to biodiversity receptors	Protected species licences: A DLL licence with respect to great crested newts would be obtained from Natural England prior to Project commencement. Should pre-construction surveys indicate likely impacts on other protected species (bats, otter or badger) including habitat loss/disturbance/replacement, a licence from Natural England would be sought prior to Project commencement in order to avoid contravening legislation.	Wildlife and Countryside Act 1981, and Badger Act 1992	Construction and operation	Biodiversity Mitigation Strategy	Requirement 5(2)(c)	Relevant planning authority or highway authority as appropriate	BD01	Chapter 8 (Document 5.2.8)

Location	ES Mitigation ID	Topic	Potential changes and effects	Measure proposed	Reference to policy, guidance, legislation (where relevant)	Project Phase	Delivery Mechanism	DCO Requirement	Discharge Authority	CoCP ID	ES reference
Order Limits	ID17	Biodiversity	Impacts to biodiversity receptors	Installation of bat boxes: Where loss of a feature suitable for bat roosting is unavoidable, for example due to essential management for electrical safety clearance or visibility splays, bat boxes will be installed at suitable locations (including trees, buildings or free-standing poles as close as practicably possible to the lost roosting feature) at a replacement ratio of 2:1 for each tree with high/moderate potential to support roosting bats (but no evidence of confirmed roosting), Box type and location will be selected to mimic the conditions of the lost roosting feature as directed by the ECoW.	Wildlife and Countryside Act 1981, and Badger Act 1992	Construction	Biodiversity Mitigation Strategy	Requirement 5(2)(c)	Relevant planning authority or highway authority as appropriate	BD01	Chapter 8 (Document 5.2.8)
Order Limits	n/a	Biodiversity	Permanent or temporary land take/land use change resulting in habitat loss or degradation. Fragmentation of habitats resulting in a reduction in connectivity.	General measures ID 2, 3, 4, 6, 8 - 13: Specific measure: Project layout has been optimised so that important habitats would be avoided where possible and alternative options preferred. Where required habitat reinstatement would be reflective of the type and extent of habitats affected by the Project, as well as local conservation objectives and initiatives. The requirement for any habitat compensation would be identified through EclA process in line with the EclA mitigation hierarchy.  Standard Pollution	Standard Pollution Prevention Guidelines (PPGs) EclA process	Construction	Code of Construction Practice and Biodiversity Mitigation Strategy	Requirement 5(2)(a) and 5(2)(c)	Relevant planning authority or highway authority as appropriate	BD01 and BD02	Chapter 3, Appendix 3B (Document 5.3.3B) and Chapter 3, Appendix 3D (Document 5.3.3D)



Location	ES Mitigation ID	Topic	Potential changes and effects	Measure proposed	Reference to policy, guidance, legislation (where relevant)	Project Phase	Delivery Mechanism	DCO Requirement	Discharge Authority	CoCP ID	ES reference
				Prevention Guidelines (PPGs) would be followed.							
Order Limits	n/a	Biodiversity	Permanent or temporary land take/land use change resulting in ancient/veteran tree loss or degradation.	General measures ID 2, 3, 7 Specific measure: Access and construction activities have been sited within the Order Limits to avoid veteran trees and control measures to protect retained veteran trees such as root protection zones would be implemented during the construction phase to avoid damage to veteran trees.	n/a	Construction	Biodiversity Mitigation Strategy	Requirement 5(2)(c)	Relevant planning authority or highway authority as appropriate	BD01	Chapter 8 (Document 5.2.8)
Order Limits	n/a	Biodiversity	Permanent or temporary land take/land use change and fragmentation of habitats resulting in potential habitat loss or degradation, potential loss/damage to roosts, kill/injure bats, and/or affect distribution. Increased noise, vibration, light and movement levels resulting in disturbance to foraging, commuting bats, and/or disturbance to roosts.	General measures ID 1-3, 6, 9, 11, 12, 14 - 17 Specific measure: A method statement and tool-box talk that would include details of pre-construction verification surveys for bats and would describe the approach that would be followed to minimise the risk	Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2017 (as amended).	Construction	Biodiversity Mitigation Strategy	Requirement 5(2)(c)	Relevant planning authority or highway authority as appropriate	BD01	Chapter 8 (Document 5.2.8)
Order Limits	n/a	Biodiversity	Permanent or temporary land take/land use change and fragmentation of habitats resulting in potential habitat loss or degradation, potential loss/damage to hibernacula/refugia/breeding habitat/terrestrial habitat,	General measures ID 2, 17 A DLL licence would be obtained from Natural England should the Project be consented. The licence would include measures to be implemented by Natural England to compensate for all potential impacts on great crested newts	Natural England (2019) Guidance for works carried out under great crested newt district level licensing	Construction	District Level Licensing	n/a	Natural England	BD01	Chapter 8 (Document 5.2.8)

Location	ES Mitigation ID	Topic	Potential changes and effects	Measure proposed	Reference to policy, guidance, legislation (where relevant)	Project Phase	Delivery Mechanism	DCO Requirement	Discharge Authority	CoCP ID	ES reference
			kill/injure GCN, and/or affect distribution.	including habitat creation at an as yet unspecified location.							
Order Limits	n/a	Biodiversity	<p>Permanent or temporary land take/land use change and fragmentation of habitats resulting in potential habitat loss or degradation, potential loss/damage to holts, kill/injure otters, and/or affect distribution.</p> <p>Increased noise, vibration, light and movement levels resulting in disturbance to foraging, commuting otter, and/or disturbance to holts.</p>	<p>General measures ID 2, 3, 6, 12 - 17</p> <p>A method statement and tool-box talk to minimise the risk of contravening the Wildlife and Countryside Act 1981 (as amended) and The Conservation of Habitats and Species Regulations 2017 (as amended). Best practice guidelines would be followed including making all contractors aware of the potential presence of otters, and not leaving trenches uncovered overnight (or leaving an escape plank if excavations cannot be covered). Any obvious mammal trails would be kept clear of obstruction. As far as possible, all works would be undertaken between dusk and dawn. A pre-works check for holts and resting sites would be undertaken at each culvert/bridge location. These specific measures are included within the BMS.</p>	<p>Wildlife and Countryside Act 1981 (as amended) 13 and The Conservation of Habitats and Species Regulations 2017 (as amended) 9</p>	Construction	Biodiversity Mitigation Strategy	Requirement 5(2)(c)	Relevant planning authority or highway authority as appropriate	BD01	Chapter 8 (Document 5.2.8)

Location	ES Mitigation ID	Topic	Potential changes and effects	Measure proposed	Reference to policy, guidance, legislation (where relevant)	Project Phase	Delivery Mechanism	DCO Requirement	Discharge Authority	CoCP ID	ES reference
Order Limits	n/a	Biodiversity	Permanent or temporary land take/land use change and fragmentation of habitats resulting in potential habitat loss or degradation, potential loss/damage to burrows, kill/injure water vole, and/or affect distribution. Increased noise, vibration, light and movement levels resulting in disturbance to foraging, commuting water vole, and/or disturbance to burrows.	General measures: ID2, 3, 6, 9, 11-14, 16 A method statement and tool-box talk would be prepared detailing the required approach to minimise the risk of contravening the Wildlife and Countryside Act 1981 (as amended). Pre-works check and avoidance of active burrows if present. All site infrastructure and activities (with the exception of water course crossing points) would be located at least 5m from water courses wherever possible to minimise disturbance of water voles and their burrows. These specific measures are included within the BMS.	Wildlife and Countryside Act 1981 (as amended)	Construction	Biodiversity Mitigation Strategy	Requirement 5(2)(c)	Relevant planning authority or highway authority as appropriate	BD01	Chapter 8 (Document 5.2.8)
Order Limits	n/a	Biodiversity	Permanent or temporary land take/land use change and fragmentation of habitats resulting in potential habitat loss or degradation, potential loss/damage to hibernacula/refugia/commuting and foraging habitat, kill/injure reptiles, and/or affect distribution.	General measures: ID 2, 3, 5, 6, 9, 11, 12 A method statement and tool-box talk would be prepared to avoid contravening the Wildlife and Countryside Act 1981 (as amended). Removal of suitable habitat would be designed to avoid the risk of injury to reptiles, through measures such as timing ground works to avoid the reptile hibernation period and the gradual removal of habitat. Construction along the Project would be progressive and designed to avoid isolating or fragmenting reptile habitat.	Wildlife and Countryside Act 1981 (as amended)	Construction	Biodiversity Mitigation Strategy	Requirement 5(2)(c)	Relevant planning authority or highway authority as appropriate	BD01	Chapter 8 (Document 5.2.8)

Location	ES Mitigation ID	Topic	Potential changes and effects	Measure proposed	Reference to policy, guidance, legislation (where relevant)	Project Phase	Delivery Mechanism	DCO Requirement	Discharge Authority	CoCP ID	ES reference
Order Limits	n/a	Biodiversity	<p>Permanent or temporary land take/land use change and fragmentation of habitats resulting in potential habitat loss or degradation, potential loss/damage to setts, kill/injure badger, and/or affect distribution.</p> <p>Increased noise, vibration, light and movement levels resulting in disturbance to foraging, commuting, resting badger, and/or disturbance to setts.</p>	<p>General measures: ID 2, 3, 6, 9, 12, 14, 15, 16, 17</p> <p>A method statement and tool-box talk would include details of pre-construction surveys to check on the presence of badgers and the approach that would be followed to minimise the risk of contravening the Protection of Badgers Act 1992.</p> <p>Access and construction activities would be micro-sited where possible to avoid impacts on badgers and their setts. Measures would include making all contractors aware of the potential presence of badgers, minimising artificial lighting during the hours of darkness, and not leaving trenches uncovered overnight (or leaving an escape plank if excavations cannot be covered). Any obvious mammal trails would be kept clear of obstruction.</p>	Protection of Badgers Act 1992	Construction	Biodiversity Mitigation Strategy	Requirement 5(2)(c)	Relevant planning authority or highway authority as appropriate	BD01	Chapter 8 (Document 5.2.8)
Order Limits	n/a	Biodiversity	<p>Permanent or temporary land take/land use change and fragmentation of habitats resulting in potential habitat loss or degradation, potential loss/damage to nests, kill/injure nesting birds, and/or affect distribution.</p> <p>Increased noise, vibration, light and movement levels resulting in disturbance to foraging, commuting nesting birds, and/or disturbance to nesting Schedule 1 birds.</p>	<p>General measures: ID2, 3, 5, 9, 12, 14, 16</p> <p>Where possible, vegetation clearance would be timed to avoid nesting bird season (that is March – August inclusive), otherwise nesting bird checks and avoidance of active nests may be necessary. The construction works programme would incorporate and account for all Schedule 1 species nests and avoid, amend or reduce works during sensitive periods.</p>	Wildlife and Countryside Act 1981	Construction	Biodiversity Mitigation Strategy	Requirement 5(2)(c)	Relevant planning authority or highway authority as appropriate	BD01	Chapter 8 (Document 5.2.8)

Location	ES Mitigation ID	Topic	Potential changes and effects	Measure proposed	Reference to policy, guidance, legislation (where relevant)	Project Phase	Delivery Mechanism	DCO Requirement	Discharge Authority	CoCP ID	ES reference
				Where works are unavoidable during the nesting bird season, appropriate control measures would be followed including pre-works surveys for nests.							
Order Limits	n/a	Biodiversity	Permanent or temporary land take/land use change and fragmentation of habitats resulting in potential habitat loss or degradation, kill/injure species, and/or affect distribution.	General measures: ID2, 3, 6, 12, 13, 17The general ecological method statement would outline ecological good practice measures to minimise impacts to all other species and their habitats. The ecological method statement would be briefed to site personnel through a tool-box talk to ensure site activities are conducted with awareness and sensitively for biodiversity.	Wildlife and Countryside Act 1981	Construction	Biodiversity Mitigation Strategy	Requirement 5(2)(c)	Relevant planning authority or highway authority as appropriate	BD01	Chapter 8 (Document 5.2.8)
Order Limits	n/a	Biodiversity	Changes in air quality resulting in damage to habitats and/or species through excessive dust	General measures ID4 Specific measures: Dust control measures would be implemented during the construction phase of work.	n/a	Construction	Code of Construction Practice and Biodiversity Mitigation Strategy	Requirement 5(2)(a) and 5(2)(c)	Relevant planning authority or highway authority as appropriate	BD01 and BD02, AQ1 to AQ37	Chapter 3, Appendix 3B (Document 5.3.3B) and Chapter 3, Appendix 3D (Document 5.3.3D)
Order Limits	n/a	Biodiversity	Increased noise, vibration, light and movement levels resulting in disturbance to foraging, commuting and resting species, and/or disturbance to resting places.	General measures: ID 2 Specific measures: Noise control measures would include maintaining buffer distances to sensitive receptors, use of best technology, dampers on	Wildlife and Countryside Act 1981	Construction	Code of Construction Practice and Biodiversity Mitigation Strategy	Requirement 5(2)(c)	Relevant planning authority or highway authority as appropriate	BD01, NV01 to NV10	Chapter 3, Appendix 3B (Document 5.3.3B) and Chapter 3, Appendix 3D

Location	ES Mitigation ID	Topic	Potential changes and effects	Measure proposed	Reference to policy, guidance, legislation (where relevant)	Project Phase	Delivery Mechanism	DCO Requirement	Discharge Authority	CoCP ID	ES reference
				vibrating or noise emitting equipment, timing of works.							(Document 5.3.3D)
Order Limits	n/a	Biodiversity	Pollution events resulting in damage to habitats and/or species through pollution (terrestrial and aquatic)	General measures: ID4, 13 Specific measures: Pollution prevention control measures would be detailed in a method statement and implemented during the construction phase to avoid damage to habitats/species. Construction practices would comply with the Environment Agency's Pollution Prevention Guidelines with a view to preventing the pollution of ground and surface water.	Wildlife and Countryside Act 1981	Construction	Biodiversity Mitigation Strategy	Requirement 5(2)(c)	Relevant planning authority or highway authority as appropriate	BD01	Chapter 8 (Document 5.2.8)
Order Limits	n/a	Biodiversity	Increased noise and vibration, resulting in disturbance to foraging, commuting, resting species, and/or disturbance to resting places.	Specific measures: Noise control measures would include maintaining buffer distances to sensitive receptors, use of best technology, dampers on vibrating or noise emitting equipment, timing of works.	Wildlife and Countryside Act 1981	Operation	Noise and Vibration Management Plan	Requirement 5(2)(f)	Relevant planning authority or highway authority as appropriate	n/a	Chapter 8 (Document 5.2.8)
Order Limits	n/a	Biodiversity	Increased light resulting in disturbance to foraging, commuting species, and/or disturbance to resting places.	Specific measures: A Lighting Scheme would be designed in accordance with best practice guidance. This would support the CoCP.	Wildlife and Countryside Act 1981	Operation	Lighting scheme	Requirement 6(1)(d)	Relevant planning authority or highway authority as appropriate	n/a	Chapter 8 (Document 5.2.8)
Order Limits	n/a	Biodiversity	Permanent or temporary land take/land use change and fragmentation of habitats resulting in potential habitat loss or degradation, potential loss/damage to resting places, kill/injure species, and/or affect distribution.	General measures: ID 2, 3, 5, 6, 9, 11, 12 These measures would avoid or minimise effects during construction works.	Wildlife and Countryside Act 1981	Construction	Biodiversity Mitigation Strategy	Requirement 5(2)(c)	Relevant planning authority or highway authority as appropriate	BD01	Chapter 8 (Document 5.2.8)
Order Limits	n/a	Arboriculture	Potential loss or impact to Ancient Woodland and veteran trees from construction or operation.	The location of new infrastructure and Order Limits have been developed to avoid ancient woodland	n/a	Construction	DCO works plans and Limits of Deviation	Requirement 3 Article 5	N/A		Chapter 3, Appendix 3.1



Location	ES Mitigation ID	Topic	Potential changes and effects	Measure proposed	Reference to policy, guidance, legislation (where relevant)	Project Phase	Delivery Mechanism	DCO Requirement	Discharge Authority	CoCP ID	ES reference
				and veteran trees where possible.							(Document 5.3.3I)
Order Limits	n/a	Arboriculture	Where tree loss is unavoidable and is to be mitigated with replacement planting this provides an opportunity to increase the resilience of the local tree stock (in terms of climate change and pests/disease risk) and maximise the appropriateness of any new tree planting.	Existing species range and diversity will be considered to help inform planting, in accordance with BS8545:2014 Trees: from nursery to independence in the landscape - Recommendations	BS8545:2014 Trees: from nursery to independence in the landscape - Recommendations	Construction	Landscape mitigation planting,	Requirement 8 <u>and 10</u>	Relevant planning authority or highway authority as appropriate	LV04	Chapter 3, Appendix 3.1 (Document 5.3.3I)
Order Limits	n/a	Arboriculture	Potential impact and damage to retained trees from construction operations.	A tree and hedgerow protection strategy including an Arboricultural Method Statement will be developed post consent in support of the Code of Construction Practice (CoCP) to ensure the protection and retention of significant individual trees and groups as fully as possible.	n/a	Construction	Code of Construction Practice and Tree and Hedgerow Protection Strategy,	Requirement 5(2)(a), <u>6(1)(g)</u> and <u>940</u>	Relevant planning authority or highway authority as appropriate	AR01	Chapter 3, Appendix 3B (Document 5.3.3B) and Chapter 3, Appendix 3.1 (Document 5.3.3I)
Order Limits	n/a	Arboriculture	Lengths of hedgerows will be removed or partially removed to facilitate the development proposals, with likely adverse effects on species that commute along the hedgerows.	The Project layout has been optimised to maximise hedgerow retention and the planting of new hedgerows will partly compensate for the losses and provide longer-term landscape enhancement.	n/a	Construction	Limits of Deviation	Article 5	N/A		Chapter 3, Appendix 3.1 (Document 5.3.3I)
Order Limits	n/a	Arboriculture	Tree features that will require ongoing pruning or management as part of the maintenance of new or reconducted overhead lines and associated infrastructure	Trees will be removed, pruned or coppiced to facilitate construction and this will provide a framework for future management in relation to the operation of the Project. Trees will be pruned or managed in accordance with BS3998:2010 and utility arboriculture best practice.	BS3998:2010	Operation	Tree and hedgerow protection strategy	Requirement <u>6(1)(g)</u> and <u>940</u>	Relevant planning authority or highway authority as appropriate	AR01 and AR02	Chapter 3, Appendix 3.1 (Document 5.3.3I)

Location	ES Mitigation ID	Topic	Potential changes and effects	Measure proposed	Reference to policy, guidance, legislation (where relevant)	Project Phase	Delivery Mechanism	DCO Requirement	Discharge Authority	CoCP ID	ES reference
Order Limits	n/a	Arboriculture	Tree and Hedgerows potentially impacted by construction works	An Arboricultural Method Statement will be developed post consent in support of the CoCP to ensure the protection and retention of significant individual trees and groups as fully as possible. Key principles include:- Top soil stripping will not take place within the Root Protection Areas (RPA) of trees to be retained unless specifically agreed otherwise and soil levels within RPAs will be maintained at existing levels.- Retained trees at risk of damage due to their proximity to construction operations will be protected with temporary fencing and/or ground protection. - Plant and vehicles will not track over the unsurfaced RPA of retained trees unless ground protection measures are in place or proposed access would not represent a change from the exiting use of the route.- No storage, washing, discharge or application of fuels, herbicides, oils, cements or other materials potentially toxic to tree roots and soils will take place within the RPA of a retained tree or where run off could reach the RPA.- Trees to be removed, coppiced or pruned will be managed in such a way as to avoid damage to retained trees, this could include directional felling, dismantling and rigging techniques as appropriate.	N/A	Construction	Code of Construction Practice and Tree and Hedgerow Protection Strategy	Requirement 5(2)(a), <del>940</del> <u>6(1)(g)</u>	Relevant planning authority or highway authority as appropriate	AR01	Chapter 3, Appendix 3B <b>(Document 5.3.3B)</b>

Location	ES Mitigation ID	Topic	Potential changes and effects	Measure proposed	Reference to policy, guidance, legislation (where relevant)	Project Phase	Delivery Mechanism	DCO Requirement	Discharge Authority	CoCP ID	ES reference
Order Limits	n/a	Arboriculture	Tree and Hedgerows potentially impacted by construction works	Treatment of material arising from tree and hedgerow removal, coppicing and pruning will be undertaken in accordance with British Standard 3998: 2010 Tree Work Recommendations and will observe good biosecurity best practice such as the Arboricultural Association Guidance Note 2 Application of Biosecurity in Arboriculture. Where it is to be retained in situ disease free woodchip mulch will not be piled around the stem base of trees to be retained (a minimum 1m gap will be observed) and will not exceed 100mm depth within an RPA. The stumps of felled trees (where they are not intended to regenerate as coppiced trees) should be left in situ or where removal is required be ground out with a stump grinder where they are located within the RPA of other trees to be retained.	British Standard 3998: 2010 Tree Work Recommendations Arboricultural Association Guidance Note 2 Application of Biosecurity in Arboriculture	Construction	Code of Construction Practice and Tree and Hedgerow Protection Strategy, secured via DCO requirement	Requirement 5(2)(a), <del>6(1)(g)</del> and <del>940</del>	Relevant planning authority or highway authority as appropriate	AR02	Chapter 3, Appendix 3B <b>(Document 5.3.3B)</b>
<u>Order Limits (Newlands Lane)</u>	<u>n/a</u>	<u>Arboriculture</u>	<u>Tree and Hedgerows potentially impacted by construction works</u>	<u>The existing field gate on the east side Newlands Lane leading to Newlands Farm north of Corban Lane at NGR 456383 459870 (Hedgerow reference H272, Sheet 2, Tree Removal and Protection Plan, Annex 3I.3, Document 5.3.3I) would be planted up with hedgerow planting as part of the replacement planting.</u>	<u>n/a</u>	<u>Construction</u>	<u>Replacement planting</u>	<u>Requirement 10</u>	<u>Relevant planning authority or highway authority as appropriate</u>	<u>AR03</u>	<u>Chapter 3, Appendix 3B (Document 5.3.3B)</u>

Location	ES Mitigation ID	Topic	Potential changes and effects	Measure proposed	Reference to policy, guidance, legislation (where relevant)	Project Phase	Delivery Mechanism	DCO Requirement	Discharge Authority	CoCP ID	ES reference
Order Limits	n/a	Climate change	Climate change trends such as high temperatures and drought conditions affecting Project assets.	Material specifications and the detailed design of Project assets, such as M&E equipment, overhead lines, foundations and road surfacing, will include operating tolerances taking into account future climate change. Additionally, the design of cables will include cable rating calculations considering a range of tolerances for changes in soil moisture and resistivity.	n/a	Operation	Design plans	Requirement 3	n/a	n/a	Chapter 17 (Document 5.2.17)
Order Limits	n/a	Climate change	Climate change trends such as high temperatures and drought conditions affecting Project assets or resulting in a prolonged growing season resulting in vegetation interfering with the overhead lines.	Adaptative capacity has been built into the operation and maintenance of the Project. For example, maintenance will highlight any heat-related or water-related deterioration and replacement requirements would accommodate climate change trends or increasing vegetation management regimes.	n/a	Operation	Landscape and mitigation planting	Requirement 8 and <a href="#">910</a>	Relevant planning authority or highway authority as appropriate	n/a	Chapter 3, Figures 3.10 to 3.12 (Document 5.4.3)
Order Limits	n/a	Climate change	Increased annual mean temperatures, especially in the summer months, and an increase in the frequency and intensity of hot spells resulting in cascading failures from interdependencies.	The Project design incorporates resilience measures to the interdependencies that affect the operation of the Project, such as back up telecommunication connections, or diesel generators in substations.	n/a	Operation	Design plans	Requirement 3	n/a	n/a	Chapter 17 (Document 5.2.17)
Order Limits	n/a	Climate change	Climate change trends such as high temperatures and drought conditions affecting maintenance and operation workforce.	Risk Assessment Method Statement (RAMS) will be used as part of operating procedures to plan operation and maintenance activities. For example, the RAMS will include measures for working in increasingly high temperatures, prolonged	n/a	Operation	Requirements of legislation, Appointed contractor Risk Assessment Method Statement	N/A	n/a	n/a	Chapter 17 (Document 5.2.17)

Location	ES Mitigation ID	Topic	Potential changes and effects	Measure proposed	Reference to policy, guidance, legislation (where relevant)	Project Phase	Delivery Mechanism	DCO Requirement	Discharge Authority	CoCP ID	ES reference
				wet weather and set out adequate planning for extreme weather events such as flooding and wildfire.							
Order Limits	n/a	Climate change	Climate change and extreme weather effects on the decommissioning workforce.	It is anticipated that similar environmental measures to those embedded into the Project design for the construction phase (for example health and safety procedures and emergency planning relating to extreme weather) would be implemented at the decommissioning phase. The decommissioning phase would be subject to a written phase of decommissioning for approval by the local planning authority (DCO Requirement 16)	n/a	Decommissioning	Written phase of decommissioning	Requirement 16	Relevant planning authority	n/a	Chapter 17 (Document 5.2.17)
Order Limits	n/a	Climate change	Climate change and extreme weather effects on the Project assets.	It is anticipated that similar environmental measures to those embedded into the Project design for the construction phase (for example material specifications in accordance with the climate conditions at that time) would be implemented at the decommissioning phase. The decommissioning phase would be subject to a written phase of decommissioning for approval by the local planning authority (DCO Requirement 16)	n/a	Decommissioning	Written phase of decommissioning	Requirement 16	Relevant planning authority	n/a	Chapter 17 (Document 5.2.17)

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