# FENWICK SOLAR FARM

Fenwick Solar Farm EN010152

## **Environmental Statement**

Volume V: Environmental Commitments and Mitigation Register

**Document Reference: EN010152/APP/6.5** 

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Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

October 2024 July 2025

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#### **Revision History**

<b>Revision Number</b>	Date	Details
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Prepared for:

Fenwick Solar Project Limited

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# 1. Environmental Commitments and Mitigation Register

1.1.1 Table 1 lists the environmental mitigation measures to be adopted during the construction, operation and maintenance, and decommissioning phases of the Scheme, and identifies where that mitigation is secured in Schedule 2 Requirements of the **Draft Development Consent Order (DCO)** [EN010152/APP/3.1].

Table 1: Fenwick Solar Farm Environmental Mitigation and Commitments Register

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
#CC-01	Chapter 6: Climate Change [EN010152/APP/6.1], Section 6.6.		Greenhouse Gas (GHG) emissions from construction materials.	Where practicable, the use of alternative materials with lower embodied GHG emissions such as locally sourced products and materials with a higher recycled content.	N/A	Embedded	Procurement	Requirement 4. Detailed Design Approval Requirement 11. CEMP.	Detailed Design <del>,</del> _Applicant
#CC-02	Chapter 6: Climate Change [EN010152/APP/6.1], Section 6.6.		GHG emissions from energy use and construction materials.	Low carbon design specifications, such as energy-efficient lighting and durable construction materials to reduce maintenance and replacement cycles.	N/A	Embedded	Procurement	Requirement 4. Detailed Design Approval. Requirement 11. CEMP.	
#CC-03	Chapter 6: Climate Change [EN010152/APP/6.1], Section 6.6.		GHG emissions from construction traffic (including vehicles on site and transportation of materials) and end embodied emissions of materials and products.	Standards of good practice will be followed to minimise greenhouse gas emissions from activities and vehicles, such as adopting the Considerate Constructors Scheme (CSS), implementing staff minibuses and car sharing where practicable, ensuring construction vehicles conform to European Union (EU) vehicle emissions standards for the types of plant vehicles to be used, not idling or revving (turning vehicles off when not in use), segregating construction waste to be reused and recycled where reasonably practicable and designing, constructing and implementing the Scheme in such a way as	N/A	Embedded	Construction Operation and maintenance Decommissioning	Requirement 11. CEMP. Requirement 12. OEMP. Requirement 13. CTMP. Requirement 18. DEMP.	All Phases; Applicant, Contractor

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				to minimise the creation of waste.					
#CC-04	Change	Chapter 9: Water Environment [EN010152/APP/6.1].	Increased flood risk onsite due to climate change needing to be considered in the design.	A number of climate change risks have been identified. Mitigation measures have been incorporated into the early design stages of the Scheme and have been further developed at the ES stage. Mitigation measures embedded within the Scheme include:  Measures specified in the Framework CEMP [EN010152/APP/7.7], including but not limited to:  a. Conducting regular planned maintenance of the plant and machinery to operate efficiently;  b. Storing topsoil and other construction materials outside of the 1 in 100-year floodplain extent, as far as reasonably practicable;  c. Named person(s) — likely Safety, Health and Environment Manager/Clerk of Works — to monitor weather forecasts and receive Environment Agency flood alerts to allow works to be planned and carried out accordingly to manage extreme	N/A	Embedded	Construction Decommissioning	Requirement 11. CEMP Requirement 18. DEMP	Construction/D ecommissionin g, Applicant, Contractor

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
				weather conditions such as storms and flooding; and Health and safety plans developed for construction activities will be required to account for potential climate change impacts on workers, such as flooding and heatwaves. To include measures such as toolbox talks on training on dangers of extreme weather conditions.					
#CC-05	Chapter 6: Climate Change [EN010152/APP/6.1], Section 6.6	Chapter 9: Water Environment [EN010152/APP/6.1].	Climate Change Risks and extreme weather events.	Implementation of the Drainage Strategy (ES Volume III Appendix 9-4: Drainage Strategy [EN010152/APP/6.3]), including attenuation of surface water runoff to minimise flood risk at the Scheme components.	N/A	Embedded	Construction Operation and maintenance Decommissioning	Requirement 11. CEMP Requirement 12. OEMP Requirement 18. DEMP	All Phases, Applicant, Contractor
#CC-06	Chapter 6: Climate Change [EN010152/APP/6.1], Section 6.6		Climate Change Risks and extreme weather events.	Flood risk consideration and mitigation measures are outlined in the Flood Risk Assessment (ES Volume III Appendix 9-3: Flood Risk Assessment [EN010152/APP/6.3]). Infrastructure flood resilience methods have been set, including the requirement for Solar PV Panels to be set back by 10 m from all water features.	N/A	Embedded	Construction Operation and maintenance Decommissioning	Requirement 11. CEMP Requirement 12. OEMP Requirement 18. DEMP	All Phases, Applicant, Contractor
#CC-07	Chapter 6: Climate Change [EN010152/APP/6.1], Framework CEMP	Chapter 13: Transport & Access [EN010152/APP/6.1].	GHG emissions from construction traffic (including vehicles on site and transportation of	A Construction Traffic Management Plan (CTMP) and Decommissioning Traffic	N/A	Embedded	Construction Decommissioning	Requirement 11. CEMP.	Pre- Construction/D

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
	[EN010152/APP/7.7] Table 3-1.		materials) and end embodied emissions of materials and products.	Management Plan (DTMP) will be developed by a Contractor prior to construction/decommissi oning to reduce the volume of construction staff and employee trips to the Order limits. The CTMP and DTMP will be developed in consultation with the appropriate Local Planning Authority. These will use the Framework CTMP [EN010152/APP/7.17] as the starting point.				Requirement 13. CTMP. Requirement 18. DEMP.	ecommissionin g, _Applicant ,Contractor
#CC-08	Chapter 6: Climate Change [EN010152/APP/6.1], Framework CEMP [EN010152/APP/7.7] Table 3-1.	_	Climate Change Risks and extreme weather events.	Consideration will also be given to the UKCP18 climate change projections outlined in ES Volume I Chapter 6: Climate Change [EN010152/APP/6.1] section 6.5, and the resilience of the Scheme's infrastructure to these, through the detailed design process.		Embedded	Construction Operation_and maintenance	Requirement 11. CEMP Requirement 12. OEMP	Detailed Design <del>,</del> _Applicant
#CC-09	Chapter 6: Climate Change [EN010152/APP/6.1], Framework OEMP [EN010152/APP/7.8] Table 3-1.		, ·	Standards of good practice to minimise greenhouse gas emissions from operation such as use of motion detection security lighting and thermal/IR CCTV system to avoid permanent lighting and reduce energy demand of the Scheme, regular maintenance of the Scheme, switching off equipment when not in use and avoiding idling,	N/A	Embedded	Operation_and maintenance	Requirement 12. OEMP Requirement 6. LEMP	Operation;  and maintenance – Applicant, Contractor

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				and establish, monitor, and manage landscape and ecology mitigation and enhancement (BNG) measures embedded in the design, secured through the Framework Landscape and Ecological Management Plan (LEMP) [EN010152/APP/7.14].					
#CC-10	Chapter 6: Climate Change [EN010152/APP/6.1], Framework OEMP [EN010152/APP/7.8] Table 3-1.		Climate Change Risks and extreme weather events.	Field Station Units will have a cooling system installed to control the temperature and allow the inverters to operate efficiently in warmer conditions. The Solar PV Panels and transformers have a wide range of acceptable operational temperatures, and it has been determined that increasing temperatures will not adversely affect their operation.	N/A	Embedded	Operation and maintenance	Requirement 12. OEMP	Detailed Design <del>,</del> Applicant
#CC-11	Chapter 6: Climate Change [EN010152/APP/6.1], Framework DEMP [EN010152/APP/7.9] Table 3-1.	Chapter 14: OET, Materials and Waste [EN010152/APP/6.1].	GHG emissions from end embodied emissions of materials and products.		N/A	Embedded	Decommissioning	Requirement 18. DEMP	Decommissioning, Applicant, _Contractor

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
				prepared before works commence to control on- site waste and set goals for waste volumes.					
#CH-01	Chapter 7: Cultural Heritage [EN010152/APP/6.1], Section 7.7		Impacts on cultural heritage assets.	Cultural heritage assets within the Order Limits have been avoided where practicable to minimize potential impacts, using heritage buffer areas. Additionally, soft landscaping and screening have been incorporated around parts of the perimeter of the Solar PV Site to reduce visual impacts. Furthermore, a programme of archaeological evaluation surveys has been conducted, identifying areas of archaeological interest that are preserved in-situ within designated heritage buffer areas.	N/A	Embedded	Construction Operation and maintenance	Requirement 10. Archaeology. Requirement 11. CEMP. Requirement 12. OEMP.	Detailed Design, Applicant
#CH-02	Chapter 7: Cultural Heritage [EN010152/APP/6.1], Section 7.7	-	Impacts on the setting of heritage assets – Listed Buildings.	The exclusion from development of a number of fields immediately surrounding the listed buildings at Fenwick Hall Farm [1314800] and Lily Hall (at Riddings Farm) [NHLE 1151609] and the Scheduled Monument Fenwick Hall moated site [NHLE 1012459], so as to preserve the open, pasture fields in their immediate surrounds.	N/A	Embedded	Procurement	Requirement 4. Detailed Design Approval. Requirement 11. CEMP. Requirement 12. OEMP. Requirement 18. DEMP.	Detailed Design <del>,</del> Applicant
#CH-03	Chapter 7: Cultural Heritage	-	Impacts on the setting of heritage assets – Scheduled Monuments.	Heritage buffer area in the field adjacent to the Scheduled Monument	N/A	Embedded	Construction	Requirement 11. CEMP.	Construction <del>,</del> Applicant, Contractor

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	[EN010152/APP/6.1], Section 7.7			Fenwick Hall moated site [NHLE 1012459]. This Heritage Buffer Area incorporates a 20 m setting buffer as agreed with Historic England and has been extended to the full extents of the field to incorporate archaeological remains that may be associated with the moated site.				Requirement 4. Detailed Design Approval.	
#CH-04	Chapter 7: Cultural Heritage [EN010152/APP/6.1], Section 7.7	-	Temporary impacts on the setting of heritage assets – Hedgerows.	Enhancement of existing hedgerows along Lawn Lane to reduce visual intrusion and change to setting of the nondesignated Haggs Farm and Croft Farm and to protect the character of the approach to the designated assets at Fenwick Hall and Riddings Farm.	N/A	Embedded	Construction	Requirement 11. CEMP. Requirement 4. Detailed Design Approval.	Construction, Applicant, Contractor
#CH-05	Chapter 7: Cultural Heritage [EN010152/APP/6.1], Section 7.7	-	Temporary impacts on the setting of heritage assets – Hedgerows.	Replanting/enhancement of existing hedgerows/boundaries that are remnants of the medieval/post-medieval historic landscape in order to maintain the historic connectivity with associated heritage assets such as Fenwick Hall moated site, as secured in the Framework LEMP [REP2-042].	N/A	Embedded	Construction	Requirement 6. LEMP. Requirement 11. CEMP. Requirement 4. Detailed Design Approval.	Construction,Applicant, Contractor
#CH-06	Chapter 7: Cultural Heritage [EN010152/APP/6.1], Section 7.7	-	Temporary impacts on the setting of heritage assets – Hedgerows.	Retention and enhancement of hedgerows identified as 'important' hedgerows.	N/A	Embedded	Construction	Requirement 11. CEMP. Requirement 4. Detailed Design Approval.	Construction, Applicant, Contractor

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
#CH-07	Chapter 7: Cultural Heritage [EN010152/APP/6.1], Section 7.7	-	Temporary impacts on the setting of heritage assets – Hedgerows.	Enhancement of existing hedgerows in proximity to designated heritage assets in order to screen views of the Scheme and reduce potential impacts to their setting, including along the western-most extent of the Solar PV Site, as secured in the Framework LEMP [REP2-042].	N/A	Embedded	Construction	Requirement 6. LEMP. Requirement 11. CEMP. Requirement 4. Detailed Design Approval.	Construction,  Applicant, Contractor
#CH-08	Chapter 7: Cultural Heritage [EN010152/APP/6.1], Section 7.7		Temporary impacts on the setting of heritage assets – Archaeological Areas of Interest.	Heritage buffer areas for areas of archaeological interest identified from the archaeological evaluation surveys, of potentially high sensitivity to impacts. These areas include archaeological remains that may be associated with the Scheduled Monument Fenwick Hall moated site in Field SE1; and possible Iron Age/Romano-British settlement corridor that extends along the northern extent of the Fleet Drain through Fields NE11, NE12, NE10, NE8, and SE1. Where Heritage Buffer Areas also correlate with other environmental mitigation areas, there will be no below ground impacts that could result in impacts to archaeological remains. There will be no solar PV and associated infrastructure installed within these areas, and	N/A	Embedded	Construction Operation_and maintenance Decommissioning	Requirement 10. Archaeology. Requirement 11. CEMP. Requirement 12. OEMP Requirement 18. DEMP Requirement 4. Detailed Design Approval.	All Phases,Applicant, Contractor

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				the land will be managed to provide setting buffer for the Scheduled Monument Fenwick Hall moated site; and preserve the ridge and furrow and preserve in situ areas of archaeological interest identified from the geophysical survey.					
#CH-09	Chapter 7: Cultural Heritage [EN010152/APP/6.1], Framework CEMP & DEMP [EN010152/APP/7.7 & 7.9], Table 3-2.	Chapter 13: Transport and Access [EN010152/APP/6.1].	Temporary impacts on the setting of heritage assets – Transport.	The planning of construction traffic routes and modes of transport has sought to reduce impacts to numerous receptors, including heritage assets. Construction traffic will be managed via the detailed Construction and Decommissioning Traffic Management Plans (CTMP and DTMP respectively). These will be based off the Framework CTMP [EN010152/APP/7.17] submitted as part of the ES.	N/A	Embedded	Construction Decommissioning	Requirement 11. CEMP. Requirement 13. CTMP. Requirement 18. DEMP.	Pre-Construction/D ecommissionin g-Applicant, Contractor
#CH-10	Chapter 7: Cultural Heritage [EN010152/APP/6.1], Framework CEMP/OEMP/DEMP [EN010152/APP/7.7- 7.9], Table 3.2.	-	Impacts on the setting of heritage assets.	The Contractor will incorporate into the detailed CEMP/OEMP/DEMP the measures for managing cultural heritage during the construction phase, as set out in the detailed Archaeological Mitigation Strategy (AMS) (based on the Framework AMS [EN010152/APP/7.19] submitted as part of this ES). These measures will	N/A	Embedded	Construction	Requirement 10. Archaeology. Requirement 11. CEMP. Requirement 12. OEMP. Requirement 14. DEMP.	All Phases, Applicant, Contractor

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				include but will not be limited to: Setting out a methodology for how buffer zones are maintained, inclusion of heritage management measures in site inductions and Toolbox Talks and measures for minimising impacts to heritage assets.					
#CH-11	Chapter 7: Cultural Heritage [EN010152/APP/6.1], Section 7.9		Potential direct impacts on buried archaeological remains	Potential direct impacts on buried archaeological remains will be managed through a programme of additional mitigation which may include preservation in situ, archaeological investigation and recording, archaeological monitoring and a protocol for dealing with unexpected archaeological discoveries during construction. These measures will be set out in an AMS which will be agreed with City of Doncaster Council.  The AMS will include a requirement for Site-Specific Written Scheme of Investigation (WSI) to be produced by the Applicant's Archaeological Contractor to achieve the mitigation measures. The Site-Specific WSI's will be agreed with the Applicant's appointed Archaeological Clerk of Works and the	construction.	Additional	Construction	Requirement 10. Archaeology. Requirement 11. CEMP.	Pre-Construction,  _Applicant, Contractor

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				archaeology officer for City of Doncaster Council prior to the commencement of the archaeological works.					
#EC-01	Chapter 8: Ecology [EN010152/APP/6.1], Section 8.10		Impacts on statutorily designated sites.	The Scheme design (ES Volume II Figure 2-3: Site Layout [EN010152/APP/6.2]) avoids all sites statutorily designated for their biodiversity value and avoids or seeks to minimise impacts on sites that are nonstatutorily designated for their biodiversity value. With the retention of LWS within the Order limits the Scheme also offers the opportunity for enhancement. Measures embedded within the Scheme design ensure that designated sites are not adversely impacted during construction, operation and maintenance, or decommissioning e.g. through siting construction routes away from designated sites, incorporating suitable buffer zones and erection of temporary construction fencing to avoid incursion into exclusion zones.	N/A	Embedded	Construction	Requirement 4. Detailed Design Approval. Requirement 11. CEMP.	Detailed Design,Applicant
#EC-02	Chapter 8: Ecology [EN010152/APP/6.1], Section 8.10	Chapter 10: Landscape & Visual [EN010152/APP/6.1]. Appendix 10-7: Aboricultural Impact	Impacts on key nature conservation and ecological features.	From the outset, the Scheme has been designed to avoid key nature conservation and ecological features present within or	N/A	Embedded	Construction	Requirement 4. Detailed Design Approval. Requirement 11. CEMP.	Detailed Design <del>,</del> Applicant

rimary Topic and ocation in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
	Assessment [EN010152/APP/6.3].		adjacent to the Order limits. Accordingly, the following buffers from key habitat features have been applied, with practicable:  a. All woodland – at least 15 m;  b. All trees within hedgerows, lines of trees and individual trees – protected by clearly defined root protection areas, concordant with the requirements for each individual tree, in line with British Standard BS 5837: Trees in relation to design, demolition and construction – Recommendations and detailed in ES Volume III Appendix 10-7: Arboriculture Impact Assessment [EN010152/APP/6.3];  c. Watercourses (where practicable and open trenching is not required during construction) – at least 10 m from the bank-top of the watercourse to protect riparian habitats and to mitigate for potential hazards such as chemical and soils spills into watercourses and avoid potential direct impacts to					

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				watercourses and any protected species that may use them. This will be achieved using Horizontal Directional Drilling (HDD); d. Standing water – at least 20 m; and Hedgerows (without trees) – where practicable, at least 5 m.					
#EC-03	Chapter 8: Ecology [EN010152/APP/6.1], Section 8.10.		Clearance or damage of habitat to facilitate construction – resulting in temporary or permanent reduction in habitat extent and potential direct and indirect effects on associated species.	Sustainable management of soil resources which	N/A	Embedded	Construction Decommissioning	Requirement 11. CEMP. Requirement 15. SMP. Requirement 18. DEMP.	Construction/D ecommissionin g <sub>7</sub> Applicant, Contractor
#EC-04	Chapter 8: Ecology [EN010152/APP/6.1], Section 8.10.		Removal of vegetation present within the Order limits.	Vegetation clearance will be undertaken in advance of construction and at an appropriate	N/A	Embedded	Construction Operation and maintenance	Requirement 6. LEMP. Requirement 11. CEMP.	Pre- Construction/O peration

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			Effects on protected or notable species.	time of year to avoid the nesting bird period where reasonable practicable and minimise incidental injuring or killing of reptiles and amphibians. Therefore, construction will avoid the nesting bird period (i.e. March to August inclusive) for vegetation clearance and, in areas suitable for reptiles, would be undertaken at an appropriate time of year, concordant with requirements for other species (such as nesting birds and brown hare). Any required management of vegetation within the Scheme will be undertaken in accordance with legislative requirements associated with breeding birds e.g. undertaken outside of the bird nesting season (typically March to August inclusive) and with reptiles and amphibians.				Requirement 12. OEMP.	and maintenance – Applicant, Contractor
#EC-05	Chapter 8: Ecology [EN010152/APP/6.1], Section 8.10.		Removal of vegetation present within the Order limits. Effects on protected or notable species.	Where vegetation clearance within the nesting bird period is unavoidable, vegetation will be checked for the presence of any nests by a suitably experienced ornithologist, prior to removal. If active nests are found, appropriate buffer zones will be put in place and the area		Embedded	Construction Decommissioning	Requirement 6. LEMP. Requirement 11. CEMP. Requirement 18. DEMP.	Pre- Construction/D ecommissionin gApplicant, Contractor

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				monitored until follow up surveys can confirm that the young birds have fledged.					
#EC-06	Chapter 8: Ecology [EN010152/APP/6.1], Section 8.10.		Removal of vegetation present within the Order limits.  Effects on protected or notable species.	Vegetation with the potential to support reptiles will be cut in a phased approach, firstly cutting to 30cm (centimetres), then, following a period of no less than 24 hours, to 15cm and then to ground level, after another 24 hours Any habitat features which may conceal hibernating reptiles (e.g. log piles, rubble mound bunds, any other debris) will not be dismantled during winter months (i.e. between November and February) and will be conducted during the reptile active season (i.e. March (dependent on weather) to October) during warm weather conditions (i.e. above 5°C) to avoid killing or injuring potential hibernating reptiles.  Cleared ground would be maintained in a disturbed state in the run-up to construction commencing to minimise the risk of ground nesting birds attempting to nest on cleared ground.	N/A	Embedded	Construction Decommissioning	Requirement 6. LEMP. Requirement 11. CEMP. Requirement 18. DEMP.	Pre-Construction/D ecommissionin g-Applicant, Contractor
#EC-07	Chapter 8: Ecology [EN010152/APP/6.1], Section 8.10.	-	Removal of vegetation present within the Order limits.	Checks for nesting birds listed under Schedule 1 of the WCA 1981 (as amended), especially	N/A	Embedded	Construction Decommissioning	Requirement 6. LEMP. Requirement 11. CEMP.	Pre- Construction/D ecommissionin g <sub>7</sub>

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				barn owl ( <i>Tyto alba</i> ) will be undertaken prior to construction (including the appropriate season prior to for monitoring purposes, and immediately prior to for vegetation clearance) and will be carried out where the Scheme intersects or passes close to suitable breeding habitats or known breeding locations for these species. If nesting Schedule 1 birds are found, a suitably qualified ornithologist will be consulted to advise whether a temporary no disturbance buffer around the nest is required to avoid disturbance to Schedule 1 breeding species, the size of which will be determined by the species, stage of nesting and construction activity proposed.				Requirement 18. DEMP.	Applicant, Contractor
#EC-08	Chapter 8: Ecology [EN010152/APP/6.1], Section 8.10.	-	construction – resulting in temporary or permanent reduction in habitat extent and potential direct and indirect effects on associated species.	A permanent perimeter fence will be implemented early in the construction phase to secure the Solar PV Site and prevent construction activity in proximity to peripheral habitats and retained habitats within the Order limits. The fence design will include gaps or suitable gates to allow mammals that may use woodland or scrub habitats, including	Check by Environmental Manager during detailed design, procurement, and installation.	Embedded	Construction Operation and maintenance Decommissioning	Requirement 6. LEMP. Requirement 11. CEMP. Requirement 12. OEMP. Requirement 18. DEMP.	All Phases,  _Applicant, Contractor

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				Badger, Brown Hare, and Hedgehog, to pass underneath at strategic locations and this fence will be maintained during operation and maintenance of the Scheme. Equally, in some locations, gaps will be avoided to allow the security fencing to act as an anti-predator fence, particularly in areas targeted at providing habitat for groundnesting birds.  The fencing will also prevent construction activity in proximity to retained vegetation, in particular Priority habitats and designated sites within and adjacent to the Order limits and where required specific tree protection measures will be implemented, including fencing and construction exclusion zones.					
#EC-09	Chapter 8: Ecology [EN010152/APP/6.1], Section 8.10.		Clearance or damage of habitat to facilitate construction – resulting in temporary or permanent reduction in habitat extent and potential direct and indirect effects on associated species.	Temporary heras-style fencing (which does not	N/A	Embedded	Construction Decommissioning	Requirement 11. CEMP. Requirement 18. DEMP.	Pre- Construction/D ecommissionin gApplicant, Contractor

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				and adjacent to the Order limits.					
#EC-10	Chapter 8: Ecology [EN010152/APP/6.1], Section 8.10.	Chapter 10: Landscape & Visual [EN010152/APP/6.1].	Potential for spillages to enter watercourses and impact ecology, noise and vibration disturbance to species, dust deposition on sensitive ecological features.	Controls on lighting/illumination to minimise visual intrusion and potential adverse effects on sensitive ecological features (e.g. water bodies, watercourses, woodlands, hedgerows and individual trees) will be implemented as far as reasonably practicable. Lighting to be designed in accordance with reference to the Institute of Lighting Professionals Guidance Notes (in particular GN-8: Bats and Artificial Lighting which was produced in collaboration with the Bat Conservation Trust. Further detail on lighting specifications is provided in commitment #LV-05.	The SHE Manager/ECoW will undertake site checks as required.	Embedded	Construction Decommissioning	Requirement 6. LEMP. Requirement 11. CEMP. Requirement 18. DEMP.	Detailed Design/Constru ction/Decommis sioning,Applicant, Contractor
#EC-11	Chapter 8: Ecology [EN010152/APP/6.1], Section 8.10.	Chapter 9: Water Environment [EN010152/APP/6.1].	Disturbance to species/habitats during HDD operations	During the construction of the Grid Connection Cables, Moss Road and London Hill Drain, Moss Little Common Drain, Hawkhouse Green Dike, Mill Dike, Wrancarr Drain, Engine Dike and Thorpe Marsh Drain will be crossed using underground HDD techniques that would not disturb the watercourses. All cables will be installed a minimum of 1.5 m below the bed of watercourses, except for		Embedded	Construction	Requirement 4. Detailed Design Approval.  Requirement 11. CEMP.	Detailed Design/Constru ction,  —Applicant, Contractor

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				Thorpe Marsh Drain and Engine Dike due to connectivity to the River Don where the minimum installation depth would be 5.0 m below the riverbed within the Grid Connection Corridor.					
#EC-12	Chapter 8: Ecology [EN010152/APP/6.1], Section 8.10/Framework CEMP [EN010152/APP/7.7], Table 3-3, Ecology.	Chapter 9: Water Environment [EN010152/APP/6.1].	habitat to facilitate construction – resulting in temporary or permanent reduction in habitat extent and potential direct and indirect effects on associated species.	Where cables are installed beneath watercourses/ditches (not Main Rivers) by open cut techniques, habitats will be reinstated. The working widths will be kept to a minimum where cables are laid using open cut methods to limit temporary habitat loss. It is assumed that where open-cut crossings are required that water flow would be maintained by damming and over pumping or fluming. Works will be carried out in the drier months where practicable as this would reduce the risk of pollution propagating downstream, particularly in the case of ephemeral watercourses. The watercourses will be reinstated as found and water quality monitoring will be undertaken prior to, during and following on from the construction activity. Monitoring of the vegetation reestablishment of the banks will also be undertaken. A Method	Water quality monitoring of potentially impacted watercourses will be undertaken to ensure that pollution events can be detected against baseline conditions and can be dealt with effectively. Specific details will be confirmed in detailed CEMP.	Embedded	Construction	Requirement 11. CEMP.	Detailed Design/Constru ction,Applicant, Contractor

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
				Statement would be developed to ensure works within watercourse crossings include suitable measures to allow the continued passage of fish and riparian mammals throughout construction (i.e. during fluctuating water levels).					
#EC-13	Chapter 8: Ecology [EN010152/APP/6.1], Section 8.10.	•	Disturbance to species/habitats during HDD operations	The installation of new culverts will be avoided. Where small watercourses/ditches (not Main Rivers) are crossed for access (either temporarily during construction or permanently during operation and maintenance), new crossings will be clear-span and wide enough to avoid the loss of inchannel and riparian habitats.	N/A	Embedded	Construction	Requirement 4. Detailed Design Approval. Requirement 11. CEMP.	Detailed Design,Applicant
#EC-14	Chapter 8: Ecology [EN010152/APP/6.1], Section 8.10/Framework CEMP [EN010152/APP/7.7], Table 3-3, Ecology.	Environment [EN010152/APP/6.1].	Potential for spillages to enter watercourses and impact ecology, noise and vibration disturbance to species, dust deposition on sensitive ecological features.	With the exception of open trench crossing and Horizontal Directional Drilling (HDD) of watercourses for cable installation, where required, no works will be undertaken within at least 10 m of watercourses and ponds (30 m of Moss Road and London Hill Drain, Moss Little Common Drain, Hawkhouse Green Dike, Mill Dike, Wrancarr Drain, Engine Dike and Thorp Marsh Engine		Embedded	Construction Decommissioning	Requirement 4. Detailed Design Approval. Requirement 11. CEMP. Requirement 18. DEMP.	

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ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
				Drain) which is considered sufficient to mitigate for potential hazards such as chemical spills to avoid potential direct impacts to watercourses and any protected/notable species that use them. The detailed CEMP would also specify requirements for the safe storage of chemicals/other hazardous materials (e.g. fuel) reaching watercourses during flood events during construction.  The buffer from water features, together with the measures to be outlined within the Framework CEMP [EN010152/APP/7.7], will ensure all construction activities for the installation of Solar PV Panels and infrastructure would be offset from surface watercourses, other than where there is a need for crossing of a watercourse (such as for cabling installation or possible temporary access) or connection for surface water drainage (that may be for					
#EC15	Chapter 8: Ecology [EN010152/APP/6.1], Section 8.10.	Chapter 9: Water Environment [EN010152/APP/6.1].	Potential for spillages to enter watercourses and impact ecology, noise	temporary works or for the operational Scheme). ES Volume III Appendix 9-4: Framework Drainage Strategy	The SHE Manag- er/ECoW will under-take site checks as required.	Embedded	Construction Operation and maintenance	Requirement 4. Detailed Design Approval.	All Phases, Applicant, Contractor

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
			to species, dust deposition on sensitive ecological features.	been developed to manage surface water runoff and will reduce the likelihood and severity of potential pollution incidents and flooding affecting watercourses and the local ditch network to reduce or eliminate adverse effects for aquatic and riparian species and habitats. The Framework Drainage Strategy only considers the land within the Solar PV Site and relates to handling surface water generated by new impermeable areas within this part of the Order limits (the BESS Area and On-Site Substation). The proposed attenuation strategy for the BESS Area consists of gravel-filled attenuation basins that discharge into a swale. The swale discharges into a local watercourse. The proposed attenuation strategy for the On-Site Substation consists of a filter drain that connects to an attenuation basin. The attenuation basin then discharges to a local drain via a pipe network. There are strict obligations under the Environmental Damage (Prevention and Remediation) (England) Regulations 2015) and			Decommissioning	Requirement 9. Surface and foul water drainage. Requirement 11. CEMP. Requirement 12. OEMP. Requirement 18. DEMP.	

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
				the Environmental Permitting (England and Wales) Regulations 2016), to prevent the pollution of watercourses. Construction site runoff is minimised through a range of measures secured in the Framework CEMP [EN010152/APP/7.7]. Furthermore, temporary SuDS measures will be deployed to reduce runoff rates. The SuDS measures will protect the water environment from pollution impacts, there is a statutory obligation for construction projects to consider water quality impacts.  A detailed Drainage Strategy will be prepared by the contractor postconsent (as secured by DCO Requirement through the Framework Drainage Strategy).					
#EC-16	Chapter 8: Ecology [EN010152/APP/6.1], Section 8.10/Framework CEMP [EN010152/APP/7.7], Table 3-3, Ecology.		reduction in habitat extent and potential	Updated species surveys, including but not limited to bats, breeding and non-breeding (wintering) birds, otter, water vole and badger, would be completed as appropriate to re-confirm the status of protected species identified, to support protected species licence applications, if required. Such surveys would be undertaken sufficiently	N/A	Embedded	Construction	Requirement 6. LEMP. Requirement 11. CEMP.	Pre-Construction,Applicant, Contractor

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
				far in advance of					
				construction works to					
				account for seasonality					
				constraints and to allow					
				time for the					
				implementation of any					
				necessary mitigation,					
				prior to construction.					
				Additional surveys may					
				be required during the					
				advance works, site					
				clearance and					
				construction phase as					
				advised by the					
				Applicant's ecologist,					
				based on the findings of					
				the updated walkover					
				and protected species					
				surveys, or otherwise as					
				identified as appropriate by the Applicant or their					
				appointed Contractor.					
				Immediately prior to site clearance and the start of					
				construction in each					
				relevant part of the Order					
				limits, further site					
				walkover surveys would					
				be undertaken by the					
				ECoW (or ecologist) to					
				confirm whether the risks					
				remain as previously					
				assessed and/or to					
				confirm the correct					
				implementation of impact					
				avoidance measures					
				(e.g. protected species					
				stand-offs). The scope of					
				the required walkovers					
				would be defined on a					
				case-by-case basis, in					
				consultation with the					
				project team, or other					
				relevant statutory					
				consultees as necessary,					

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
				based on the specific risks.					
#EC-17	Chapter 8: Ecology [EN010152/APP/6.1], Section 8.10.		reduction in habitat extent and potential direct and indirect effects on associated species.	Reasonable avoidance measures (RAMs), including appropriate buffers (of up to 30 m) around any identified active badger setts present), or trees with bat roost suitability (a buffer of 15 m) where practicable throughout the Scheme (e.g. Solar PV Site and along the Grid Connection Corridor). Implementation of measures to avoid animals being injured or killed within construction working areas, through excluding them from such areas and preventing them falling into and becoming trapped in excavations. Where maintenance of equipment and vegetation is required throughout the operation and maintenance phase, the aforementioned RAMs throughout the Order limits will be implemented.		Embedded	Construction Operation and maintenance Decommissioning	Requirement 11. CEMP. Requirement 12. OEMP Requirement 18. DEMP.	All Phases,Applicant, Contractor
#EC-18	Chapter 8: Ecology [EN010152/APP/6.1], Framework CEMP/DEMP [EN010152/APP/7.7 & 7.9], Table 3-3, Ecology.	-	Potential to introduce/spread invasive non-native species (INNS) within and beyond the Order limits during construction of the Scheme through vehicles/machinery and people.	surveys will be undertaken where required to provide an	Pre-construction site walkovers will be undertaken in advance of mobilisation/any potential advance works to reconfirm the ecological baseline conditions and to identify any new ecological risks, and any		Construction Decommissioning	Requirement 11. CEMP. Requirement 18. DEMP.	Pre-construction/De commissioning,Applicant Contractor

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
				inform the implementation of measures to prevent their spread.	INNS present within the Order limits.				
#EC-19	Chapter 8: Ecology [EN010152/APP/6.1], Framework CEMP/DEMP [EN010152/APP/7.7 & 7.9], Table 3-3, Ecology.	Major Accidents & Disasters [EN010152/APP/6.1],	Potential to introduce/spread invasive non-native species (INNS) within and beyond the Order limits during construction of the Scheme through vehicles/machinery and people.	construction/decommissi oning (secured through DCO Requirement) will	Ongoing monitoring of habitats and species will be undertaken throughout construction, over seen by an appointed ECoW of suitable qualifications and experience, or in charge of a team of appropriately qualified ecologists. The ECoW will have the appropriate authority to review RAMS, oversee works and recommend action as appropriate, including temporarily stopping works where noncompliant working is observed, for example to safeguard protected species and their habitats, or where any other breaches of environmental legislation are likely to occur.	Embedded	Construction Decommissioning	Requirement 11. CEMP. Requirement 15. SMP. Requirement 18. DEMP.	Pre-Construction/D ecommissionin g,Applicant, Contractor
#EC-20	Chapter 8: Ecology [EN010152/APP/6.1], Framework CEMP/DEMP [EN010152/APP/7.7 & 7.9], Table 3-3, Ecology.	Environment [EN010152/APP/6.1]. Chapter 14: OET, Air Quality	Potential for spillages to enter watercourses and impact ecology, noise and vibration disturbance to species, dust deposition on sensitive ecological features.	The design of the Scheme will comply with industry good practice and environmental protection legislation during construction e.g. prevention of surface and ground water pollution, fugitive dust management, noise prevention or amelioration.	N/A	Embedded	Construction Decommissioning	Requirement 11. CEMP. Requirement 15. SMP. Requirement 18. DEMP.	Construction/D ecommissionin g <sub>7</sub> Applicant, Contractor

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#EC-21	Chapter 8: Ecology [EN010152/APP/6.1], Framework CEMP/DEMP [EN010152/APP/7.7 & 7.9], Table 3-3, Ecology.	Chapter 9: Water Environment; Chapter 11: Noise & Vibration; and Chapter 14: OET, Air Quality [EN010152/APP/6.1].	Potential for spillages to enter watercourses and impact ecology, noise and vibration disturbance to species, dust deposition on sensitive ecological features.	Prior to construction, the Contractor will develop an Emergency Response Plan (ERP).	The SHE Manag- er/ECoW will under-take site checks as required.	Embedded	Construction Decommissioning	Requirement 11. CEMP. Requirement 18. DEMP.	Pre- Construction/D ecommissionin gApplicant, Contractor
#EC-22	Chapter 8: Ecology [EN010152/APP/6.1], Section 8.10.	Chapter 9: Water Environment [EN010152/APP/6.1].	Disturbance to species/habitats during HDD operations.	Construction methods across Wrancarr Drain which makes up part of Wrancarr Drain and Braithwaite Delves Local Wildlife Site, will utilise trenchless HDD.  Where watercourses/ditches are crossed by cabling works and open cut techniques are required, habitats that are temporarily lost will be reinstated after installation.  A security perimeter fence will be implemented early in the construction phase to secure the Order limits and prevent construction activity from intruded into the LWS.	N/A	Embedded	Construction	Requirement 11. CEMP.	Construction,Applicant, Contractor
#EC-23	Chapter 8: Ecology [EN010152/APP/6.1], Section 8.10.	Chapter 11: Noise & Vibration [EN010152/APP/6.1].	Disturbance to species/habitats during HDD operations	The core fish migration season of September to February, and May, will be avoided where practiable for HDD beneath watercourses, unless the depth of the HDD is confirmed to be of a sufficient minimum distance of approximately 5m below the riverbed to avoid noise and vibration effects.	N/A	Embedded	Construction	Requirement 11. CEMP.	Construction, Applicant ,_Contractor

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#EC-24	Chapter 8: Ecology [EN010152/APP/6.1], Section 8.10.	Chapter 11: Noise & Vibration [EN010152/APP/6.1].	Disturbance to species/habitats during HDD operations	A hierarchy of mitigation measures for HDD activities will ensure that where required, HDD activity noise effects (disturbance to species and habitats) will be reduced as far as reasonably practicable. This hierarchy includes (but is not limited to) the potential for the use of quieter equipment than listed in ES Volume III Appendix 11-4: Construction and Operation Noise Modelling [EN010152/APP/6.3].	N/A	Embedded	Construction	Requirement 11. CEMP.	Pre-Construction,Applicant, Contractor
#EC-25	Chapter 8: Ecology [EN010152/APP/6.1], Section 8.10.	Chapter 9: Water Environment [EN010152/APP/6.1].	Disturbance to species/habitats during HDD operations	A site-specific hydraulic fracture risk assessment would be developed prior to construction following further investigation of specific ground conditions at the crossing locations, and appropriate mitigation developed in line with best construction practice. This will assess the risk of drill fluid leaking into the watercourse during HDD activities. If any bentonite leakage occurs during drilling, the drilling must cease.	N/A	Embedded	Construction	Requirement 11. CEMP.	Pre-Construction,Applicant, Contractor
#EC-26	Chapter 8: Ecology [EN010152/APP/6.1], Framework CEMP [EN010152/APP/7.7], Table 3-3, Ecology.	-	Disturbance to species/habitats during HDD operations	ECoW may be required at the drilling location with regard to disturbance to protected species due to vegetation	N/A	Embedded	Construction	Requirement 11. CEMP.	Construction, Applicant, Contractor

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
				clearance, noise and vibrations.					
#EC-27	Chapter 8: Ecology [EN010152/APP/6.1], Section 8.10.	Appendix 10-7: Aboricultural Impact Assessment [EN010152/APP/6.3].	Removal of vegetation present within the Order limits.	Habitats supporting the majority of breeding bird species throughout the Order limits, such as hedgerows and woodland areas, will be retained, however there will be loss arable fields that are suitable for ground-nesting birds.	N/A	Embedded	Construction	Requirement 11. CEMP.	Detailed Design <del>,</del> _Applicant
#EC-28	Chapter 8: Ecology [EN010152/APP/6.1], Section 8.10.	-	Removal of vegetation present within the Order limits.	Habitats of value to reptiles will be retained and avoided and sensitive vegetation clearance, under the assumption of reptile and amphibian presence, will be adopted to displace reptiles into adjacent habitats and ensure no mortality occurs. This will comprise phased and directional vegetation clearance, moving at a walking pace to allow reptiles and amphibians to disperse.	N/A	Embedded	Construction Decommissioning	Requirement 6. LEMP. Requirement 11. CEMP. Requirement 18. DEMP.	Pre-Construction/D ecommissionin g,Applicant, Contractor
#EC-29	Chapter 8: Ecology [EN010152/APP/6.1], Framework CEMP [EN010152/APP/7.7], Table 3-3, Ecology.	-	Removal of vegetation present within the Order limits.	If any tree pruning is required where this was not previously anticipated, a suitably qualified ecologist must be contacted and further surveys for potential roosting bats may be required.	N/A	Embedded	Construction Decommissioning	Requirement 11. CEMP. Requirement 18. DEMP.	Pre-Construction/D ecommissionin g,Applicant, Contractor
#EC-30	Chapter 8: Ecology [EN010152/APP/6.1], Section 8.10.	Chapter 9: Water Environment [EN010152/APP/6.1].	reduction in habitat ex-	Whilst the Scheme design retains habitats of greater aquatic interest, measures to ensure incursion into these habitats does not occur	N/A	Embedded	Construction	Requirement 11. CEMP.	Pre-Construction,Applicant, Contractor

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			and indirect effects on associated species.	will be put in place (e.g. security fencing), which will be implemented at an early stage to protect retained habitats from incursion during construction. Where practicable, culverts extensions and any improved structure will be set 150mm (millimetres) below bed level to allow sedimentation and a naturalised bed to form, which will maintain longitudinal connectivity for aquatic fauna. Where a new drainage ditch crossing is required, an open span bridge crossing will be used, with the specific type of crossing selected being determined based on Site specific factors and in consultation with the relevant authority (generally the Internal Drainage Board (IDB) or Lead Local Flood Authority (LLFA) for the Solar PV Site). This will also ensure that connectivity is maintained along the watercourses.					
#EC-31	Chapter 8: Ecology [EN010152/APP/6.1], Framework CEMP [EN010152/APP/7.7], Table 3-3, Ecology.		Clearance or damage of habitat to facilitate construction – resulting in temporary or permanent reduction in habitat extent and potential direct and indirect effects on associated species.	Existing designated sites will be avoided, and measures will be embedded within the Scheme design to ensure that they are not impacted during construction and operation, e.g. through		Embedded	Procurement	Requirement 4. Detailed Design Approval.  Requirement 11. CEMP.	Detailed Design <del>,</del> Applicant

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				siting construction routes away from and out with designated sites and buffer zones, and security fencing to protect retained habitats and protected sites from incursion.					
#EC-32	Chapter 8: Ecology [EN010152/APP/6.1], Section 8.10.		habitat to facilitate construction – resulting in temporary or permanent reduction in habitat ex-	Preparation of mitigation strategies for protected species and, where required, application for species licences (or the District Level Licence (DLL) scheme with regards to great crested newts (GCN) from Natural England for translocation of animals away from construction areas sufficiently in advance of the works to meet with the optimum time for mitigation and to minimise any changes to the construction programme.  The District Level Licence (DLL) for Great crested newt route has been pursued for the Scheme. The Impact Assessment and Conservation Payment Certificate (IACPC) has been issued by Natural England. The DLL will be in place prior to commencement of work.	N/A	Embedded	Construction Decommissioning	Requirement 6. LEMP. Requirement 11. CEMP. Requirement 18. DEMP.	Pre-Construction/D ecommissionin g,Applicant, Contractor
#EC-33	Chapter 8: Ecology [EN010152/APP/6.1], Section 8.10.	-		There is currently no requirement for any other protected species licenses (other than the DLL discussed above),	N/A	Embedded	Construction Decommissioning	Requirement 11. CEMP. Requirement 18. DEMP.	Pre- Construction/D ecommissionin g <sub>7</sub>

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				as the Scheme has committed to avoiding all features known to support protected species. However, if species distributions within the Order limits change, and impacts are unavoidable, then the appropriate licenses from Natural England will be applied for and obtained in preparation of construction.					_Applicant, Contractor
#EC-34	Chapter 8: Ecology [EN010152/APP/6.1], Section 8.10.	ES Volume III Appendix 10-7: Arboricultural Impact Assessment (AIA) [EN010152/APP/6.3]		Specific tree protection measures will be implemented, including fencing and construction exclusion zones. Tree Root Protection fencing will be erected around retained trees, in line with 'British Standard BS 5837: Trees in relation to design, demolition and construction – Recommendations' and these undeveloped buffers will be of at least 15 m for individual veteran/ancient trees, 15 m from woodlands, individual trees and hedgerows with trees and at least 5 m from hedgerows without trees. This will prevent damage/compaction of roots by plant and other machinery and prevent direct or indirect impacts to trees.	N/A	Embedded	Construction Decommissioning	Requirement 6. LEMP. Requirement 11. CEMP. Requirement 18. DEMP.	Pre-Construction/D ecommissionin g,Applicant, Contractor

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
#EC-35	Chapter 8: Ecology [EN010152/APP/6.1], Section 8.10.	ES Volume III Appendix 10-7: AIA [EN010152/APP/6.3]	construction – resulting in temporary or permanent reduction in habitat extent and potential direct and indirect effects on associated species.	In all cases RPA incursions (of which 17 features have been identified) will be managed so that there will be no detrimental impacts on the health or amenity of retained trees. Twenty-seven tree features have been identified as likely to require pruning to facilitate access, working space and visibility requirements. Proposed pruning will not significantly impact on the health or amenity of affected trees and will help to prevent any inadvertent damage during construction and where necessary, provide a framework for future management during operation.	N/A	Embedded	Construction Decommissioning	Requirement 6. LEMP. Requirement 11. CEMP. Requirement 18. DEMP.	Construction/D ecommissionin g,Applicant Contractor
#EC-36	Chapter 8: Ecology [EN010152/APP/6.1], Section 8.10/Framework CEMP/DEMP [EN010152/APP/7.7 & 7.9], Table 3-3, Ecology.	Chapter 10: Landscape and Visual [EN010152/APP/6.1].	habitat to facilitate construction – resulting in temporary or permanent reduction in habitat extent and potential direct and indirect effects on associated species.	Habitats to be temporarily lost or damaged during construction would be fully reinstated on a likefor-like basis at the same location on completion of construction works, where practical. Some habitats would be restored and/or created and managed with the aim of increasing their biodiversity value in the long-term as set out within the Framework LEMP [EN010152/APP/7.14].	N/A	Embedded	Construction Decommissioning	Requirement 6. LEMP. Requirement 11. CEMP. Requirement 18. DEMP.	Construction/D ecommissionin g,Applicant, Contractor

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#EC-37	Chapter 8: Ecology [EN010152/APP/6.1], Section 8.10/Framework CEMP/DEMP [EN010152/APP/7.7 & 7.9], Table 3-3, Ecology.	-	habitat to facilitate construction – resulting in temporary or permanent reduction in habitat ex-	A suitably experienced ECoW (or similar) will be employed/contracted to advise on relevant environmental commitments, the findings of the updated surveys, protected species licencing requirements and with reference to the relevant programmes.	N/A	Embedded	Construction Decommissioning	Requirement 6. LEMP. Requirement 11. CEMP. Requirement 18. DEMP.	Pre- Construction/D ecommissionin gApplicant, Contractor
#EC-38	Chapter 8: Ecology [EN010152/APP/6.1], Section 8.10/Framework CEMP/DEMP [EN010152/APP/7.7 & 7.9], Table 3-3, Ecology.	-	habitat to facilitate construction – resulting in	Relevant site staff will receive toolbox talks on the ecological risks present, legal requirements and working arrangements necessary to comply with legislation. Toolbox talks would be repeated as necessary over the duration of the relevant works.	N/A	Embedded	Construction Decommissioning	Requirement 6. LEMP. Requirement 11. CEMP. Requirement 18. DEMP.	Construction/D ecommissionin g,Applicant, Contractor
#EC-39	Chapter 8: Ecology [EN010152/APP/6.1], Section 8.10/Framework CEMP/DEMP [EN010152/APP/7.7 & 7.9], Table 3-3, Ecology.	-	habitat to facilitate construction – resulting in temporary or permanent reduction in habitat extent and potential direct and indirect effects on associated species.	In line with the Stakeholder Communications Plan, a display board will be installed on-site, and a website will be set up. These will include contact details for the Site Manager or alternative public interface with whom nuisance or complaints can be lodged. A logbook of complaints will be prepared and managed by the Site Manager.	N/A	Embedded	Construction Decommissioning	Requirement 11. CEMP. Requirement 18. DEMP.	Pre-Construction/D ecommissionin g,Applicant, Contractor
#EC-40	Chapter 8: Ecology [EN010152/APP/6.1], Section 8.10.	ES Volume III Appendix 10-7: AIA [EN010152/APP/6.3].	habitat to facilitate construction – resulting in	Should additional trees be identified for removal or reduction which are suitable for roosting bats,	N/A	Embedded	Construction Decommissioning	Requirement 11. CEMP. Requirement 18. DEMP.	Construction/D ecommissionin $g_{\bar{\tau}}$

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			reduction in habitat extent and potential direct and indirect effects on associated species.	further surveys will be undertaken as necessary, which may identify the requirement for additional mitigation and/or a Natural England mitigation licence, where impacts to roosting bats cannot be avoided. Where further surveys are necessary, and for the subsequent requirements and mitigation regarding loss of or disturbance to trees, the relevant guidance at the time would need to be followed which may differ from that in place when previous surveys were conducted.					Applicant, Contractor
#EC-41		Framework LEMP [EN010152/APP/7.14]	Effects on protected or notable species.	Precautionary working method statements would be produced to specify working requirements and other impact avoidance measures and would be controlled and implemented through the detailed CEMP.	N/A	Embedded	Construction Decommissioning	Requirement 6. LEMP. Requirement 11. CEMP. Requirement 18. DEMP	Pre- Construction/D ecommissionin g,Applicant, Contractor
#EC-42	Chapter 8: Ecology [EN010152/APP/6.1], Section 8.10	-	Effects on protected or notable species.	The Scheme can be designed during detailed design stage, to avoid badger setts within the Order limits. All known setts within the Order limits will have an appropriate exclusion zone of up to 30m around the sett to prevent disturbance and accidental damage. The Grid Connection Corridor	N/A	Embedded	Construction	Requirement 11. CEMP.	Pre-Construction,Applicant, Contractor

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				is sufficiently wide that the final route for the cable laying can be micro-sited to avoid any Badger setts, including a 30m exclusion zone around setts.					
#EC-43	Chapter 8: Ecology [EN010152/APP/6.1], Framework CEMP/DEMP [EN010152/APP/7.7 & 7.9], Table 3-3, Ecology.	-	Effects on protected or notable species.	Cleared ground would be maintained in a disturbed state in the run-up to construction commencing to minimise the risk of ground nesting birds attempting to nest on cleared ground.		Embedded	Construction Decommissioning	Requirement 11. CEMP. Requirement 18. DEMP.	Pre-Construction/D ecommissionin g <sub>7</sub> Applicant, Contractor
#EC-44	Chapter 8: Ecology [EN010152/APP/6.1], Framework CEMP/DEMP [EN010152/APP/7.7 & 7.9], Table 3-3, Ecology.	-	Effects on protected or notable species.	Precautionary measures would be implemented to prevent trapping wildlife in construction excavations in order to ensure compliance with animal welfare legislation. All excavations deeper than 1 m would be covered or fenced overnight, or where this is not practicable, a means of escape would be fitted (e.g. battened soil slope or scaffold plank) to provide an escape route should any animals stray into the construction site and fall into an excavation.	N/A	Embedded	Construction Decommissioning	Requirement 6. LEMP. Requirement 11. CEMP. Requirement 18. DEMP.	Construction/D ecommissionin g,Applicant, Contractor
#EC-45	Chapter 8: Ecology [EN010152/APP/6.1], Section 8.10.	Chapter 9: Water Environment [EN010152/APP/6.1].	Effects on protected or notable species.	Additional precautionary methods and ECoW will be required with regard to open-cut channel crossings, and fish rescues may be required.	N/A	Embedded	Construction	Requirement 11. CEMP.	Construction, Applicant, Contractor

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#EC-46	Chapter 8: Ecology [EN010152/APP/6.1], Section 8.10.		Effects on protected or notable species.	A range of artificial bird and bat boxes will be installed in existing woodland areas, on existing individual trees, and on existing trees in hedgerows to increase the availability of nesting and roosting features and enhance the value of the Order limits for these species' groups.  Boxes of varying types to suit different species of birds and bats will be installed in locations to be determined by an ecologist at the time of installation. Information on the types of boxes that will be installed is provided in the Framework LEMP [EN010152/APP/7.14].		Embedded	Construction	Requirement 4. Detailed Design Requirement 6. LEMP Requirement 11. CEMP	Construction,Applicant, Contractor
#EC-47	Chapter 8: Ecology [EN010152/APP/6.1], Section 8.10.		Effects on protected or notable species.	Habitat piles and hibernacula will be constructed throughout the Solar PV Site in suitable areas, such as close to ponds or the newly created grassland areas. Habitat piles will be created using natural materials, generated during clearance of the Order limits, such as logs, brash, turf and grass strimmings. These will provide refuge and hibernation opportunities for reptiles and amphibians, as well as dead wood habitat for invertebrates, which would in turn benefit	N/A	Embedded	Construction Decommissioning	Requirement 4. Detailed Design. Requirement 6. LEMP. Requirement 11. CEMP. Requirement 18. DEMP.	Construction/D ecommissionin g <sub>τ</sub> Applicant Contractor

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
				fauna such as bats and birds.  Additional enhancement for terrestrial invertebrates will include the planting of blackthorn hedges to create food plants for brown hairstreak which have been recorded on Site.					
#EC-48	Chapter 8: Ecology [EN010152/APP/6.1], Framework OEMP [EN010152/APP/7.8], Table 3-3, Ecology.	Chapter 10: Landscape & Visual [EN010152/APP/6.1].	Disturbance to protected and notable species and associated habitat from artificial lighting.	During operation, the Solar PV Site will not require artificial lighting other than during temporary periods of maintenance/repair. All routine maintenance activities, except panel cleaning, will be scheduled for daylight hours as far as is practicable, and therefore it is anticipated that focussed task specific lighting should only be required in the event of emergency works/equipment failure requiring night-time working or panel cleaning operations.  Where lighting is required during operation, it will conform to good practice guidelines with respect to minimising light spill into adjacent habitats and prevent disturbance to bats and other species.		Embedded	Operation and maintenance	Requirement 6. LEMP. Requirement 13. OEMP.	Operation, and maintenance – Applicant , Contractor
#EC-49	Chapter 8: Ecology [EN010152/APP/6.1], Framework OEMP [EN010152/APP/7.8], Table 3-3, Ecology.		Reduction in habitat quality.	Habitats within the Order limits will be managed to achieve Biodiversity Net Gain (BNG) targets (as detailed in the <b>BNG</b>	Monitoring requirements, frequency and responsibility is outlined in the Framework LEMP [EN010152/APP/7.14]		Operation and maintenance	Requirement 6. LEMP. Requirement 7. BNG.	Operation, and maintenance – Applicant , Contractor

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				Assessment Report [EN010152/APP/7.11]) and to provide suitable habitat for a range of protected and notable species during the operation and maintenance phase of the Scheme. Habitat management principles are outlined in the Framework LEMP [EN010152/APP/7.14] and will be confirmed in the detailed LEMP. This includes management and monitoring of artificial bird and bat habitat boxes and any wetland features created for wading birds. Grazing by sheep is the Applicant's preferred option for the management of the grassland created within the solar farm. Should grazing not be achievable in some or all areas of the Solar PV Site, grassland will instead be managed by mowing/strimming.	and will be confirmed in the detailed LEMP.  In accordance with the Habitat Management and Monitoring Plan (HMMP) will be required before the scheme becomes operational, which will detail monitoring required. Monitoring surveys will assess the habitat quality and condition present and detail any remedial measures required.			Requirement 13. OEMP.	
#EC-50	Chapter 8: Ecology [EN010152/APP/6.1], Section 8.10.		Potential for future baseline to differ to that assumed in the EIA.	Pre-decommissioning surveys will be carried out to verify the adequacy of mitigation and protected species licensing, as required at the time of decommissioning. To include habitat and protected species surveys.	To be determined as part of the detailed DEMP.	Embedded	Decommissioning	Requirement 6. LEMP. Requirement 18. DEMP.	Decommissioni ng,Applicant, Contractor

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#EC-51	Chapter 8: Ecology [EN010152/APP/6.1], Section 8.13.	-	Biodiversity Net Gain	Enhancements are included within the Scheme design to increase the biodiversity of the Scheme. The Scheme is committed to deliver BNG in accordance with the requirements of the Draft DCO [EN010152/APP/3.1]. As set out in the Biodiversity Net Gain Assessment (BNG) [EN010152/APP/7.11], based on the illustrative layout, the Scheme is predicted to result in a net gain of 36.46% for area-based habitat units, 62.75% for hedgerow units, and 62.75% for watercourse units.	N/A	Additional	Construction Operation and maintenance Decommissioning	Requirement 11. CEMP. Requirement 12. OEMP. Requirement 18. DEMP.	All Phases,Applicant, Contractor
#EC-52	Chapter 8: Ecology [EN010152/APP/6.1], Section 8.13.	-	Loss of native vegetation.	Vegetation would be established through natural regeneration or in the case of grasslands from seed collection from the grasslands identified within the Order limits and through a suitable long-term habitat management regime. Consideration will be paid to microclimatic conditions when identifying appropriate species. Management will be undertaken in a variety of ways to ensure maximum biodiversity gains, with grassland managed by either low intensity grazing or infrequent hay cutting to	N/A	Additional	Construction Operation_and maintenance Decommissioning	Requirement 11. CEMP. Requirement 12. OEMP. Requirement 18. DEMP.	All Phases,Applicant, Contractor

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
				allow plant species to flower and seed.					
#EC-53	Chapter 8: Ecology [EN010152/APP/6.1], Section 8.13.	-	Reduction in habitat quality.	Habitat creation and management is detailed within the Framework LEMP [EN010152/APP/7.14], secured through the DCO, and will be further expanded within a detailed LEMP following submission.	N/A	Additional	Construction Operation and maintenance Decommissioning	Requirement 6. LEMP. Requirement 11. CEMP. Requirement 12. OEMP. Requirement 18. DEMP.	All Phases,Applicant, Contractor
#EC-55	Chapter 8: Ecology [EN010152/APP/6.1], Section 8.13.		Management of existing and additional hedgerows	Existing hedgerows will be managed to enhance biodiversity and improve ecosystem services. This will involve filling gaps and thickening hedgerows with a broader range of native species, where needed, and planting additional native hedgerow trees with locally appropriate species. Management practices will include adjusting cutting regimes to provide cover, shelter and food sources for biodiversity, including breeding birds and invertebrate species such as Brown Hairstreak.	N/A	Additional	Construction Operation_and maintenance	Requirement 6. LEMP. Requirement 11. CEMP. Requirement 12. OEMP.	Construction/O peration, and maintenance – Applicant, Contractor
#EC-56	Chapter 8: Ecology [EN010152/APP/6.1], Section 8.13.	-	Loss of new hedgerows	New hedgerows with trees will be planted across the Solar PV Site to help supplement the existing hedgerow network. Indicative species include Hazel Corylus avellana, hawthorn Crataegus monogyna, holly Ilex aquifolium, blackthorn	N/A	Additional	Construction Operation and maintenance	Requirement 6. LEMP. Requirement 11. CEMP. Requirement 12. OEMP.	Construction/O peration, and maintenance – Applicant, Contractor

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
				Prunus spinosa, dog rose Rosa canina, and guelder rose Viburnum opulus. New hedgerows with trees will provide valuable habitats for a range of species, allowing for better connectivity across the Scheme. Indicative hedgerow trees species include field maple Acer campestre, black poplar Populus nigra, bird cherry Prunus padus, English oak Quercus robur and white willow Salix alba. Hedgerows will be maintained at a height of at least 3.5 m and allowed to grow wide providing maximum benefits for biodiversity					
#EC-57	Chapter 8: Ecology [EN010152/APP/6.1], Section 8.13.		Loss of native scrub areas	Native scrub areas will be incorporated into the Scheme to enhance biodiversity and create a diverse mosaic of scrub and grassland habitat, which includes providing shelter and food resources for birds and other wildlife. The scrub areas have been designed to have no single dominant species; however, the composition will favour dense, shrubby growth which is typical of bushes and small tree species. This will create a scrub-like environment which better caters for local biodiversity. Indicative	N/A	Additional	Construction Operation and maintenance	Requirement 6. LEMP. Requirement 11. CEMP. Requirement 12. OEMP.	Construction/O peration, and maintenance – Applicant, Contractor

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
				species include field maple, hazel, hawthorn, blackthorn, holly, dog rose and white willow.					
#EC-58	Chapter 8: Ecology [EN010152/APP/6.1], Section 8.13.		Loss of grassland areas	New grassland will be established across the Scheme, throughout the Solar PV Site and in areas outside of the fenceline, such as along hedgerows and field margins. By establishing a diverse sward of grasses and herbs biodiversity will increase, enhancing value for wildlife. A large green corridor of species-rich neutral grassland will run through the centre of the Solar PV Site, providing a continuous seam of grassland. This will connect habitats in the north and the south of the Scheme, as well as providing valuable nesting opportunities for ground nesting birds. Neutral grassland features a diverse mix of grasses, herbs and wildflowers and is a valuable habitat for a wide range of wildlife, including birds, small mammals and insects. The mix of grass species found in each location will be dependent on soil composition, proximity to wetland areas, light levels and management techniques.	N/A	Additional	Construction Operation and maintenance	Requirement 6. LEMP. Requirement 11. CEMP. Requirement 12. OEMP.	Construction/O peration, and maintenance – Applicant, Contractor

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
				Where practicable, seed mixes will be obtained from local sources to ensure continuity and to create a species mix that is best suited to the local environment.  In areas where existing neutral grassland exists, which includes a number of fields within the northeast of the Solar PV Site, there will be minimal disruption to the existing grassland.					
#EC-59	Chapter 8: Ecology [EN010152/APP/6.1], Section 8.13.		Loss of riparian mammal habitat	The riparian corridor south of the River Went will be extended, with the creation of wet grassland to the north of the Solar PV Site, on areas of former arable land. Elsewhere the existing riparian mosaic will be maintained, including areas of Coastal and Floodplain Grazing Marsh. This will include the River Went LWS, which will be incorporated into the wider management of the River Went corridor and riparian habitats, with an appropriate cutting and/or grazing regime introduced. Wet grassland will be sown, using a wetland grassland seed mix to provide a diverse selection of native wildflowers and grasses with the ability to	N/A	Additional	Construction Operation_and maintenance	Requirement 6. LEMP. Requirement 11. CEMP. Requirement 12. OEMP.	Construction/O peration, and maintenance – Applicant, Contractor

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
				withstand seasonal flooding, providing environmental benefits to pollinator, ground nesting birds and other wildlife.					
#EC-60	Chapter 8: Ecology [EN010152/APP/6.1], Section 8.13.	-	Loss of bird habitat	A series of linear wetland scrapes will be delivered within the River Went riparian corridor. The exact location of these will be determined through additional site survey work. Where practicable, a network of scrapes of different sizes and depths will be provided. These will create suitable habitat for waders and wildfowl and will enhance biodiversity generally.	N/A	Additional	Construction Operation and maintenance	Requirement 6. LEMP. Requirement 11. CEMP. Requirement 12. OEMP.	Construction/O peration, and maintenance – Applicant, Contractor
#EC-61	Chapter 8: Ecology [EN010152/APP/6.1], Section 8.13.		Loss of nesting bird and bat features	Habitat boxes will be installed on suitable features (buildings and trees) within the Order limits to provided additional nesting and roosting opportunities for bats and a range of bird species, including barn owl. Information on the types of boxes that will be installed is provided in the Framework LEMP [EN010152/APP/7.14]. The provision of a detailed LEMP and implementation the prescriptions it contains will be secured through a DCO Requirement.	N/A	Additional	Construction Operation and maintenance	Requirement 6. LEMP. Requirement 11. CEMP. Requirement 12. OEMP.	Construction/O peration <del>,</del> and maintenance – Applicant, Contractor
#EC-62	Chapter 8: Ecology [EN010152/APP/6.1], Section 8.13.	-	Loss of amphibian hibernacula/refugia	A number of reptile and amphibian hibernacula/refugia will	N/A	Additional	Construction Operation and maintenance	Requirement 6. LEMP.	Construction/O peration,

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				be provided utilising logs created during the removal of trees, through small bunds over logs/inert rubble, or brash piles, as detailed in the Framework LEMP [EN010152/APP/7.14].				Requirement 11. CEMP. Requirement 12. OEMP.	and maintenance – Applicant, Contractor
#EC-63	Chapter 8: Ecology [EN010152/APP/6.1], Section 8.10.	-	habitat.	The solar panels will be installed upon neutral grassland without clearing the habitat where practicable, in order to minimise loss of neutral grassland habitat. This habitat will be managed with a sheep grazing regime as detailed within the Framework LEMP [EN010152/APP/7.14].	N/A	Embedded	Construction Operation_and maintenance	Requirement 6. LEMP. Requirement 11. CEMP. Requirement 12. OEMP.	Construction/O peration, and maintenance – Applicant, Contractor
#EC-64	Chapter 8: Ecology [EN010152/APP/6.1], Section 8.10.			An Ecology Mitigation Area will be created provided in Fields NE4, NE12, SE1, SE4 and SE5 which will provide compensation for habitat loss including neutral grassland and will also provide mitigation in the form of habitat creation for faunal species. This includes a network of wader scrapes' or pools being created to maintain shallow water levels and maximise edge habitat, as described within ES Volume I Chapter 2: The Scheme [EN010152/APP/6.1]. These will benefit birds by creating habitat for invertebrate	The habitats within the Ecology Mitigation Area will also be monitored to ensure that they are continuing to meet the needs of the species that they have been created to support. Management prescriptions will be reviewed and potentially updated should monitoring indicate that the target conditions are not being achieved.	Embedded	Construction	Requirement 7. BNG. Requirement 11. CEMP.	Construction,Applicant, Contractor

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
				assemblages that create food sources. Within this Ecology Mitigation Area, all areas of neutral grassland will be enhanced to 'good' condition to meet BNG targets, as detailed within the BNG Assessment [EN010152/APP/7.11].					
#WE-01	Chapter 9: Water Environment [EN010152/APP/6.1], Section 9.8.		Impacts to watercourses.	A Framework CEMP [EN010152/APP/7.7] has been provided as part of the DCO Application. The Framework CEMP [EN010152/APP/7.7] details the measures that would be undertaken during construction to mitigate temporary effects on the water environment. It also sets out the structure and content for the detailed CEMP, which will be completed once a contractor is appointed, following submission of the DCO Application. Production of the detailed CEMP in a form which is substantially in accordance with the Framework CEMP, is secured through Requirement 11, within Schedule 2 of the Draft DCO [EN010152/APP/3.1]. The Framework CEMP [EN010152/APP/7.7] sets out the standard procedure for the Scheme and describes the principles for the	will include details of pre, during and post-construction water quality monitoring. The specification of which will be determined at a later stage but is likely to include a combination of visual observations and onsite monitoring to establish a baseline, which can rapidly be compared with during construction monitoring to establish there are no deleterious effects evident in the	Embedded	Construction	Requirement 4. Detailed Design Approval. Requirement 11. CEMP. Requirement 18. DEMP.	

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				protection of the water environment during construction. The final detailed CEMP will be supported by a Water Management Plan (WMP) that will provide greater detail regarding the mitigation to be implemented to protect the water environment from adverse effects during construction. The potential for adverse impacts will be minimised by the adoption of the general mitigation measures outlined below, which will be described and secured in the WMP and CEMP.					
#WE-02	Chapter 9: Water Environment [EN010152/APP/6.1], Section 9.8.	-	Potential impacts as a result of Solar PV Site Cables crossing watercourses.	There will be a requirement to cross water features for On Site cabling connections between the Fields and Substation of the PV Site. The On-Site cabling will be incorporated into existing bridge crossings of the IDB south tributary to Fleet Drain (Field NW7 to NW8), Fenwick Common Drain (Field SW1 to SW3) and Ell Wood and Fenwick Grange Drain (southwest of Field SW8). This would avoid the need for disturbance of the channel.	N/A	Embedded	Construction	Requirement 4. Detailed Design Approval. Requirement 11. CEMP.	
#WE-03	Chapter 9: Water Environment -	-	Potential impacts as a result of Solar PV Site	There may be minor ephemeral drainage channels which are	It will be a requirement that the watercourses are reinstated as found and	Embedded	Construction	Requirement 11. CEMP.	Construction, Applicant, Contractor

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	[EN010152/APP/6.1], Section 9.8.		Cables crossing watercourses.	within the Order limits which may not have been identified during the site visits (See Assumptions Section 9.4). These would be crossed intrusively. In such cases, if there is a water flow this will be maintained (e.g. by over-pumping or fluming around the works.	to, during, and following on from construction activity.				
#WE-04	Chapter 9: Water Environment [EN010152/APP/6.1], Section 9.8.	Chapter 8: Ecology [EN010152/APP/6.1].	Potential impacts as a result of Grid Connection Corridor crossing watercourses.	The high voltage Grid Connection Cables will be below ground, requiring trenching typically at a depth of around 1.4 m below ground level, but will need to vary and go deeper depending on crossings and detailed design. Horizontal Directional Drilling (HDD) or other non-intrusive methods will be used to install Grid Connection Cables beneath certain watercourses. Installation would be a minimum of 1.5 m below the bed of the watercourse, except for Thorpe Marsh Drain and Engine Dike where the minimum installation depth would be 5.0 m below the lowest surveyed point of the riverbed within the route corridor (due to the connectivity of these watercourses to the River Don).	N/A	Embedded	Construction	Requirement 4. Detailed Design Approval.  Requirement 11. CEMP.	Detailed Design, Design – Applicant

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#WE-05	Chapter 9: Water Environment [EN010152/APP/6.1], Section 9.8.	Chapter 8: Ecology [EN010152/APP/6.1].	Potential impacts as a result of Grid Connection Corridor crossing watercourses.	Smaller channels which are not to be crossed using HDD, crossings would be installed using an open-cut technique. In such cases water flow will be maintained (e.g. by over-pumping or fluming around the works).	It will be a requirement that the watercourses are reinstated as found and water quality monitoring will be undertaken prior to, during, and following on from construction activity.	Embedded	Construction	Requirement 11. CEMP.	Construction,Applicant, Contractor
#WE-06	Chapter 9: Water Environment [EN010152/APP/6.1], Section 9.8.		Potential impacts as a result of Grid Connection Corridor crossing watercourses.	Integrity of flood defences along the River Don and Thorpe Marsh Drain would be maintained with works undertaken in accordance with Environment Agency access requirements for future works to, and maintenance of, the flood defences. No works would be undertaken within 16 m of the landward toe of the flood defences, as set out in the Framework CEMP [EN010152/APP/7.7]. As stated within Framework CEMP [EN010152/APP/7.7] the depth of construction will be identified through consultation with the Environment Agency to ensure sufficient depth of construction to avoid detrimental effects on the flood defences.  A pre-works survey of the condition of any flood defences that will be crossed by HDD will be undertaken prior to construction. The pre-		Embedded	Construction	Requirement 11. CEMP.	Detailed Design/Constru ction,Applicant, Contractor

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
				works survey is to ensure that there is a formal record of the condition of the flood defences prior to commencement of works.					
	Chapter 9: Water Environment [EN010152/APP/6.1], Framework CEMP [EN010152/APP/7.7] Table 3-4.	Chapter 11: Noise & Vibration [EN010152/APP/6.1].	Impact to flood defences from HDD works.	A pre-works survey and post-works survey of the condition of any flood defences will be undertaken prior to and after the following works:  a. HDD drilling within 10 m of flood defences;  b. Driven piling of PV structures within 25 m of a flood defence; and  Vibratory rollers for any reinstatement works within 15 m of flood defences.	N/A	Embedded	Construction	Requirement 11. CEMP.	Pre-Construction,Applicant, Contractor
	Chapter 9: Water Environment [EN010152/APP/6.1], Framework CEMP [EN010152/APP/7.7] Table 3-4.		abstractions) and potentially the baseflow to watercours-es from temporary de-watering of	A site-specific Hydraulic Fracture Risk Assessment would be developed prior to construction following further investigation of specific ground conditions at the crossing locations, and appropriate mitigation developed in line with best construction practice. There is also a need to manage drilling muds and wastewater so that this will not be spilt into the channel when working close to the banks of a watercourse.	N/A	Embedded	Construction	Requirement 11. CEMP.	Pre-Construction,Applicant, Contractor
	Chapter 9: Water Environment	Chapter 8: Ecology [EN010152/APP/6.1].	Temporary impacts on the hydromorphology of	Directional drilling, or other trenchless	For any open cut crossing installations,	Embedded	Construction	Requirement 11. CEMP.	Procurement,

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	[EN010152/APP/6.1], Section 9.8.		watercourses from HDD drilling. Potential impacts on groundwater resources and local water supplies (licenced and unlicenced abstractions) and potentially the baseflow to watercourses from temporary de-watering of excavations or changes in hydrology.	techniques, would be undertaken by a specialist contractor and the water column above the drill path would be continuously monitored during drilling. It is acknowledged that drill fluid leakage into a watercourse is not a common problem, particularly given the proposed depths. However, where there is an increased perceived risk (i.e. lack of drilling mud returns) the drilling/boring operation would be suspended, remediation action implemented, and subsequently the methodology for that crossing reevaluated. The drill fluids used within the drilling machine would be water based, such as naturally occurring bentonite clay. The fluid component of the drilling mud would be mains water supply at the Solar PV Site. There would be some recycling of drilling muds by the drilling plant used. The bentonite within the drilling fluid enables the fluid to have sufficient viscosity to carry the cutting chips back to the surface machine whilst lubricating and cooling the drilling bit. The drilling fluid that returns to the					_Applicant, Contractor

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				drilling rig would be recycled within that drilling rig. Any wastewater/drilling products that are not recycled will be stored and removed from the Order limits by a suitable waste management contractor and disposed of at a licenced wastewater facility.					
#WE-10	Environment [EN010152/APP/6.1], Section 9.8.		Temporary impacts on the hydromorphology of watercourses from HDD drilling. Potential impacts on groundwater resources and local water supplies (licenced and unlicenced abstractions) and potentially the baseflow to watercourses from temporary dewatering of excavations or changes in hydrology.	The sections of the cables that will be installed via trenchless approaches will require launch and receive pits to be installed at each crossing point. The launch and receive pit excavations for drilling/boring will be located at least 10 m from the top of bank. Where there are flood defences, the launch and receive pit excavations for drilling/boring will need to be a minimum of 16 m from the landward toe of flood defences. This may require survey work (prior to construction) in some locations to adequately define and agree the top of bank position.	N/A	Embedded	Construction	Requirement 11. CEMP.	Detailed Design/Pre- Construction;Applicant, Contractor
#WE-11	Chapter 9: Water Environment [EN010152/APP/6.1], Section 9.8.	-	Temporary impacts on the hydromorphology of watercourses from HDD drilling. Potential impacts on groundwater resources and local water supplies	The exact dimensions of the launch and receive pits would be determined by site and ground conditions but will be kept to a safe minimum in terms of length, width	N/A	Embedded	Construction	Requirement 11. CEMP.	Detailed Design/Pre- Construction, Applicant, Contractor

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			abstractions) and potentially the baseflow to watercourses from	and depth. Maximum parameters considered here as a worst case are dimensions of 8 m length x 3 m width x 2.4 m depth. A shoring system appropriate to the ground conditions will be used as appropriate to minimise water ingress into the pits. To be chosen based on suitability for the site conditions by the specialist contractor. The ingress of any groundwater will be carefully managed through design of the launch or receive pit, shoring method, and a pumping and treatment system. Excessive ingress of water would make the pit unsafe and thus it is important that ingress is minimised and that a suitable system of managing that water is implemented.					
#WE-12	Chapter 9: Water Environment [EN010152/APP/6.1], Section 9.8.		drilling. Potential impacts on groundwater resources and local water supplies	Once the cable is installed beneath the watercourse the pits and any cable trenches will be backfilled to the original ground level and seeded to reduce the risk of runoff and fine sediments entering the watercourse.	N/A	Embedded	Construction	Requirement 11. CEMP.	Construction <del>,</del> Applicant, Contractor

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
#WE13	Chapter 9: Water Environment [EN010152/APP/6.1], Framework CEMP [EN010152/APP/7.7] Table 3-4.	Chapter 8: Ecology [EN010152/APP/6.1].	Temporary impacts on the hydromorphology of watercourses from HDD drilling.  Potential impacts on groundwater resources and local water supplies (licenced and unlicenced abstractions) and potentially the baseflow to watercourses from temporary dewatering of excavations or changes in hydrology.	Open-cut would be used to install cables in trenching up to 1.4 m in depth. Mitigation measures would include:  a. Where underground techniques are not feasible, crossings will be installed using open-cut, or intrusive, techniques. In such cases, water flow would be maintained (e.g. by over-pumping or fluming around the works);  b. A pre-works morphology survey of the channel of each watercourse to be crossed will be undertaken prior to construction. The pre-works survey is to ensure that there is a formal record of the condition of each watercourse prior to commencement of works to install cables beneath the channel;  c. At this stage it is assumed that where open-cut crossings are required that water flow would be maintained by damming and over pumping or fluming. Works will be carried out in the drier months where practicable as this would reduce the risk of pollution		Embedded	Construction	Requirement 11. CEMP.	Construction,Applicant, Contractor

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment		Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
				propagating downstream, particularly in the case of ephemeral watercourses;  d. Once the watercourses are reinstated, silt fences, geotextile matting or straw bales should be used initially to capture mobilised sediments until the watercourse has returned to a settled state;  e. Watercourses will be reinstated as found and water quality monitoring will be undertaken prior to, during, and following on from the construction activity; and  Regular observations of the watercourses will be undertaken post-works during vegetation reestablishment of the banks, especially following wet weather, to ensure that no adverse impacts have occurred.					
#WE14	Chapter 9: Water Environment [EN010152/APP/6.1], Section 9.8.	[EN010152/APP/6.1].	or groundwater (and any	Relevant Good Practice Guidance (GPPs) and Pollution Prevention Guidance (PPGs) will be followed, as well as additional good practice guidance for the water environment including key CIRIA documents and British Standards for	N/A	Embedded	Construction Decommissioning	Requirement 11. CEMP. Requirement 18. DEMP.	Construction/D ecommissionin $g_{\tau}$ Applicant, Contractor

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
			site run-off including dewatering of excavations or piling.	flood risk, drainage, and the water environment during construction and decommissioning.					
#WE-15	Chapter 9: Water Environment [EN010152/APP/6.1], Section 9.8.	Chapter 8: Ecology [EN010152/APP/6.1].	Impacts to watercourses from Construction Runoff.	All reasonably practicable measures will be taken to prevent the deposition of fine sediment or other material in, and the pollution by sediment of, any existing watercourse, arising from construction activities. The measures will accord with the principles set out in industry guidelines including the CIRIA report 'C532: Control of water pollution from construction sites' and CIRIA report 'C648 Control of water pollution from linear construction sites'. Measures may include use and maintenance of temporary lagoons, tanks, bunds and fabric silt fences or silt screens, as well as consideration of the type of plant used. This also may include the use of silt matts on the bed of watercourses, and baffles on any discharges to watercourses to avoid bed and bank erosion.		Embedded	Construction Decommissioning	Requirement 11. CEMP. Requirement 18. DEMP.	Construction/D ecommissionin g,Applicant, Contractor
#WE-16	Chapter 9: Water Environment [EN010152/APP/6.1], Section 9.8.	Chapter 8: Ecology [EN010152/APP/6.1].	Impacts to watercourses from Construction Runoff.	A temporary drainage system will be developed to prevent runoff contaminated with fine particulates from entering surface water drains	N/A	Embedded	Construction Decommissioning	Requirement 11. CEMP. Requirement 18. DEMP.	Detailed Design/Constru ction,Applicant, Contractor

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
				without treatment. This will include identifying all land drains and water features on and near the Order limits and ensuring that they are adequately protected using drain covers, sand or pea gravel bags (the latter being more appropriate in or near watercourses), earth bunds, geotextile silt fences, straw bales etc. or proprietary treatment (e.g. lamella clarifiers).					
#WE-17	Chapter 9: Water Environment [EN010152/APP/6.1], Section 9.8.	Chapter 8: Ecology [EN010152/APP/6.1].	Impacts to watercourses from Construction Runoff.	Mitigation measures (see below) will be implemented to control fine sediment laden runoff during wet weather. Water may also be required to dampen earthworks during dry weather to reduce dust impacts, and any runoff generated will need to be appropriately managed by the Contractor in accordance with the pollution prevention principles described in this chapter.	N/A	Embedded	Construction Decommissioning	Requirement 11. CEMP. Requirement 18. DEMP.	Construction/D ecommissionin g <sub>7</sub> Applicant, Contractor
#WE-18	Chapter 9: Water Environment [EN010152/APP/6.1], Section 9.8.	Chapter 8: Ecology [EN010152/APP/6.1].	Impacts to watercourses from Construction Runoff.	To protect watercourses from fine sediment runoff, topsoil/subsoil will be stored a minimum of 20 m from watercourses on flat lying land. Where this is not practicable measures (such as silt fencing) to prevent sediment laden runoff draining to the	N/A	Embedded	Construction Decommissioning	Requirement 11. CEMP. Requirement 18. DEMP.	Construction/D ecommissionin g,Applicant, Contractor

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
				watercourse without prior treatment will be provided as necessary. Furthermore, if it is to be stockpiled for longer than a two-week period, the material will either be covered with geotextile mats, seeded to promote vegetation growth, or other measures employed to prevent runoff containing excess fine sediment or particulates draining to a watercourse untreated.					
#WE-19	Chapter 9: Water Environment [EN010152/APP/6.1], Section 9.8.	Chapter 8: Ecology [EN010152/APP/6.1].	Impacts to watercourses from Construction Runoff.	Appropriately sized runoff storage areas for the settlement of excessive fine particulates in runoff will be provided.	N/A	Embedded	Construction Decommissioning	Requirement 11. CEMP. Requirement 18. DEMP.	Construction/D ecommissionin g, Applicant, Contractor
#WE-20	Chapter 9: Water Environment [EN010152/APP/6.1], Section 9.8.	-	Impacts to watercourses from Construction Runoff.	Construction Site runoff will either be treated on Site and discharged (potentially also including infiltration to ground) or to the nearest public sewer with sufficient capacity for treatment following discussions with Yorkshire Water, or else removed from Site for disposal at an appropriately licensed Waste Management Facility.	N/A	Embedded	Construction Decommissioning	Requirement 11. CEMP. Requirement 18. DEMP.	Construction/D ecommissionin g, Applicant, Contractor
#WE-21	Chapter 9: Water Environment [EN010152/APP/6.1], Section 9.8.	l .	Impacts to watercourses from Construction Runoff.	Equipment and plant are to be washed out and cleaned in designated areas within the Scheme compound only, where runoff can be isolated for treatment before disposal as outlined above.	N/A	Embedded	Construction Decommissioning	Requirement 11. CEMP. Requirement 18. DEMP.	Construction/D ecommissionin g, Applicant, Contractor

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
#WE-22	Chapter 9: Water Environment [EN010152/APP/6.1], Section 9.8.	-	Impacts to watercourses from Construction Runoff.	Mud deposits will be controlled at entry and exit points to the Order limits using wheel washing facilities and/or road sweepers operating during earthworks activities or other times as required.	N/A	Embedded	Construction Decommissioning	Requirement 11. CEMP. Requirement 18. DEMP.	Construction/D ecommissionin $g_{\bar{\tau}}$ Applicant, Contractor
#WE-23	Chapter 9: Water Environment [EN010152/APP/6.1], Section 9.8.	-	Impacts to watercourses from Construction Runoff.	Debris and other material will be prevented from entering surface water drainage, through maintenance of a clean and tidy site, provision of clearly labelled waste receptacles, grid covers and the presence of site security fencing.	N/A	Embedded	Construction Decommissioning	Requirement 11. CEMP. Requirement 18. DEMP.	Construction/D ecommissionin $g_{\tau}$ Applicant, Contractor
#WE-24	Chapter 9: Water Environment [EN010152/APP/6.1], Section 9.8.	[EN010152/APP/6.1].	Pollution of surface water or groundwater (and any designated ecology sites that are water dependent) due to deposition or spillage of soils, sediments, oils, fuels, or other construction chemicals, or through uncontrolled site run-off including dewatering of excavations or piling.	The location of the construction compounds for the Solar PV Site have been located for operational reasons, but also avoid being located close to the water features which have a higher importance. The temporary compounds within Fields NW7 and SE2 are adjacent to a receptor of medium importance (southern tributary to Fleet Drain) and the main compound within SW10 is north of Ell Wood and Fenwick Grange Drain, a receptor of medium importance. The locating of the compounds will ensure there is a buffer of 10 m to watercourses.	N/A	Embedded	Construction Decommissioning	Requirement 11. CEMP. Requirement 18. DEMP.	Detailed Design,Applicant

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
				The two construction compounds for the Grid Connection Corridor are not located near to surface watercourses.					
#WE-25	Chapter 9: Water Environment [EN010152/APP/6.1], Section 9.8.	Chapter 8: Ecology [EN010152/APP/6.1].	Pollution of surface water or groundwater (and any designated ecology sites that are water dependent) due to deposition or spillage of soils, sediments, oils, fuels, or other construction chemicals, or through uncontrolled site run-off including dewatering of excavations or piling.	The following measures will be adopted to manage the risk of accidental spillages within the Order Limits during construction:  a. Fuel will be stored and used in accordance with the Control of Substances Hazardous to Health Regulations 2002, and the Control of Pollution (Oil Storage) (England) Regulations 2001 (Ref. 9-13). Particular care will be taken with the delivery and use of concrete and cementitious substances as it is highly corrosive and alkaline;  b. Fuel and other potentially polluting chemicals will either be in self-bunded leak proof containers or stored in a secure impermeable and bunded area (minimum capacity of 110% of the capacity of the containers, which includes 10% more capacity than is needed);		Embedded	Construction Decommissioning	Requirement 11. CEMP. Requirement 18. DEMP.	Construction/D ecommissionin g,Applicant, Contractor

condary Topic and cation in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
		c. Any plant, machinery or vehicles will be inspected before every use and maintained to ensure they are in good working order and clean for use in a sensitive environment. This maintenance is to take place off-Site if possible or, if on-Site, only at designated areas within the Order limits. Only construction equipment and vehicles free of all oil/fuel leaks will be permitted on the Order limits. Drip trays will be placed below static mechanical plant; d. All washing down of vehicles and equipment will take place in designated areas and wash water will be prevented from passing untreated into watercourses; e. All refuelling, oiling and greasing of plant will take place above drip trays or on an impermeable surface which provides protection to underground strata and watercourses, and away from drains as far as reasonably practicable. A					

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				minimum distance of 20 m from watercourses for refuelling will be observed to minimise risk to watercourses (greater distances should be considered on very uneven land). Vehicles will not be left unattended during refuelling;  f. As far as reasonably practicable, only biodegradable hydraulic oils will be used in equipment working in or over watercourses. Oil booms to be deployed in watercourses where equipment is working in, over or adjacent of a watercourses and there is a risk of oil spillages occurring;  g. All fixed plant used on the Order limits will be self-bunded;  h. Mobile plant is to be in good working order, kept clean, fitted with absorbent plant 'nappies' at all times and are to carry spill kits;  i. The WMP (which will be produced post consent) will include details for pollution prevention and will be prepared and included alongside					

ID Primary Topic at Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
			the final CEMP. Spill kits and oil absorbent material will be carried by mobile plant and located at high risk locations across the Order limits and regularly topped up. All construction workers will receive spill response training and tool box talks;  j. The Order limits will be secure to prevent any vandalism that could lead to a pollution incident;  k. Construction waste/debris are to be prevented from entering any surface water drainage or water feature;  l. Surface water drains on public roads trafficked by plant or within the construction compound will be identified and, where there is a risk that fine particulates or spillages could enter them, the drains will be protected (e.g. using covers or sand bags) or the road regularly cleaned by road sweeper;  m. Suitable facilities for concrete wash water (e.g. geotextile wrapped sealed skip,					

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				container or earth bunded area) will be adequately contained, prevented from entering any drain, and removed from the Order limits for appropriate disposal at a suitably licenced Waste Management Facility and Water quality monitoring of potentially impacted watercourses will be undertaken to ensure that pollution events can be detected against					
				baseline conditions and can be dealt with effectively.					
#WE-26	Chapter 9: Water Environment [EN010152/APP/6.1], Section 9.8.	Chapter 8: Ecology [EN010152/APP/6.1]. Chapter 14: OET, Materials & Waste [EN010152/APP/6.1].	Pollution of surface water or groundwater (and any designated ecology sites that are water dependent) due to deposition or spillage of soils, sediments, oils, fuels, or other construction chemicals, or through uncontrolled site run-off including dewatering of excavations or piling.	Any Site welfare facilities will be appropriately managed, and all foul waste disposed of by an appropriate contractor to a suitably licensed Waste Management Facility and treated off site.	N/A	Embedded	Construction Decommissioning	Requirement 11. CEMP. Requirement 18. DEMP.	Construction/D ecommissionin g,Applicant, Contractor
#WE-27	Chapter 9: Water Environment [EN010152/APP/6.1], Section 9.8.	Chapter 6: Climate Change [EN010152/APP/6.1]. Chapter 8: Ecology [EN010152/APP/6.1].	flows during any potential culvert construction works) and ex-acerbation	The Framework CEMP [EN010152/APP/7.7] and Framework DEMP [EN010152/APP/7.9] incorporate measures to prevent an increase in flood risk or pollution during the construction works, in addition to the provision of temporary settlement and drainage	Monitoring of weather forecasts.	Embedded	Construction Decommissioning	Requirement 11. CEMP. Requirement 18. DEMP.	Construction/D ecommissionin g,Applicant, Contractor

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
				measures as detailed above.  Construction works undertaken adjacent to, beneath and within watercourses will comply with relevant guidance, including Environment Agency and Defra guidance (e.g. GPP 5: Works and maintenance in or near water).  Examples of measures that could be implemented include:  a. Topsoil and other construction materials will be stored outside of the 1 in 100 year floodplain extent where feasible. If areas located within Flood Zone 2/3 are to be utilised for the storage of construction materials, this would be done in accordance with the applicable flood risk activity regulations, if required;  b. Connectivity will be maintained between the floodplain and the adjacent watercourses, with no changes in ground levels within the floodplain as far as practicable;  c. During the					
				construction phase, the SHE Manager or					

Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
			ECoW, will monitor weather forecasts on a monthly, weekly and daily basis, and plan works accordingly. For example, works in the channel of any watercourse will be avoided or halted were there to be a significant risk of high flows or flooding.  d. The construction laydown area site office and supervisor will be notified of any potential flood occurring by use of the Floodline Warnings Direct or equivalent service;  e. The Main Temporary Construction Compound, located south of Haggs Lane and west of the BESS Area, along with the northern most temporary satellite Construction Compound will be located outside of areas of fluvial Flood Zones 2 and 3. The eastern most temporary Construction Compound is located in Flood Zones 2 and 3. However, the River Went 2024 hydraulic modelling shows that it is located outside of the 1% AEP plus					

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				climate change flood extent. Therefore, it is not considered that any temporary floodplain compensatory storage is required; and Some of the Grid Connection Corridor temporary Construction Compounds are located within areas of Flood Zones 2 and 3 associated with the River Don. Mitigation measures are included within the CEMP as mentioned above and an Emergency Response Plan will be produced as detailed below.					
#WE-28	Chapter 9: Water Environment [EN010152/APP/6.1], Section 9.8.		Watercourses.	The watercourses within the Grid Connection Corridor are proposed to be crossed using non intrusive, or trenchless, techniques as has been agreed during consultation with relevant statutory stakeholders. In total, there are nine watercourses which will be crossed within the Grid Connection Corridor from north to south: a. Ell Wood and Fenwick Grange Drain; b. Moss Road and London Hill Drain; c. Moss Little Common Drain;	N/A	Embedded	Construction	Requirement 11. CEMP.	Detailed Design,Applicant

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				d. Hawkehouse Green Dike (also known as Bramwith Drain); e. Mill Dike; f. Wrancarr Drain; g. Engine Dike; h. Thorpe Marsh Drain; and A parallel unnamed IDB drain.					
#WE-29	Chapter 9: Water Environment [EN010152/APP/6.1], Section 9.8.		Risk to Morphology of Watercourses.	Ten potential HDD, or other non-intrusive method, crossing locations have been identified, of which eight will cross watercourses. One HDD crossing will be for an existing high pressure fuel pipeline and one for a private field and public right of way and will not cross watercourses. The precise locations of the HDD, or other non-intrusive method, crossing points within the Order limits will be determined at detailed design stage post-consent.	N/A	Embedded	Construction	Requirement 11. CEMP.	Detailed Design,Applicant
#WE-30	Chapter 9: Water Environment [EN010152/APP/6.1], Section 9.8.		Grid Connection Corridor: Management of Risk to Morphology of Watercourses.	During the construction of the Grid Connection Cables, the non-intrusive (HDD) techniques would not disturb the bed of the watercourses. All cables will be installed a minimum of 1.5m below the bed level of the watercourses, except for Thorpe Marsh Drain, and Engine Dike, Wrancarr	N/A	Embedded	Construction	Requirement 11. CEMP.	Detailed Design/Constru ction <del>,</del> Applicant, Contractor

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				Drain, and Mill Dike due to connectivity to the River Don where the minimum installation depth would be 5.0m below the riverbed within the Grid Connection Corridor. A maximum depth would be finalised based on site specific risk assessment at each crossing location in order to minimise groundwater interactions where practicable.					
#WE-31	Chapter 9: Water Environment [EN010152/APP/6.1], Section 9.8.		Grid Connection Corridor: Management of Risk to Morphology of Watercourses.	A pre-works morphology survey of the channel of each watercourse to be crossed will be undertaken prior to construction. This requirement has been included within the Framework CEMP [EN010152/APP/7.7]. The pre-works survey is to ensure that there is a formal record of the condition of each watercourse prior to commencement of works to install Grid Connection Cables. The survey is a precautionary measure so that if there are any unforeseen adverse impacts there is a record against which any remedial action can be determined. This would take place for an agreed distance up and downstream of the crossing location.		Embedded	Construction	Requirement 11. CEMP.	Pre-Construction,Applicant, Contractor

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#WE-32	Chapter 9: Water Environment [EN010152/APP/6.1], Section 9.8.	-	Risk to Morphology of Watercourses.	Where intrusive crossings are required water flow will be maintained by damming and over pumping or fluming. Works will be carried out in the drier months where practicable as this would reduce the risk of pollution propagating downstream, particularly in the case of ephemeral watercourses.	N/A	Embedded	Construction	Requirement 11. CEMP.	Construction, Applicant, Contractor
#WE-33	Chapter 9: Water Environment [EN010152/APP/6.1], Section 9.8.	-	Risk to Morphology of Watercourses.	Once the watercourses are reinstated, silt fences, geotextile matting or straw bales will be used initially to capture mobilised sediments until the watercourse has returned to a settled state – the method chosen according to what is appropriate in that location. Watercourses will be reinstated as found and water quality monitoring will be undertaken prior to, during, and following on from the construction activity.	will be undertaken prior to, during, and following on from the construction activity.	Embedded	Construction	Requirement 11. CEMP.	Pre-Construction,Applicant, Contractor
#WE-34	Chapter 9: Water Environment [EN010152/APP/6.1], Section 9.8.	-	Grid Connection Corridor: Management of Risk to Morphology of Watercourses.	Regular observations of the watercourses will be undertaken post-works during vegetation reestablishment of the banks, especially following wet weather, to ensure that no adverse impacts have occurred. These requirements will be described in the WMP.	As stated.	Embedded	Construction Decommissioning	Requirement 11. CEMP. Requirement 18. DEMP.	Construction/D ecommissionin g,Applicant, Contractor

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#WE-35	Chapter 9: Water Environment [EN010152/APP/6.1], Section 9.8.	Chapter 6: Climate Change [EN010152/APP/6.1].	flood risk from changes in surface water runoff (e.g. disruption of stream flows during any potential culvert construction works) and ex-acerbation of localised flooding, due to deposition of silt, sediment in drains, ditches.	and On-Site Substation), with the remaining areas within Flood Zone 2, with	N/A	Embedded	Construction	Requirement 11. CEMP.	Detailed Design,Applicant
#WE-36	Chapter 9: Water Environment [EN010152/APP/6.1], Section 9.8.	-	flood risk from changes in surface water runoff (e.g. disruption of stream flows during any potential culvert construction works) and ex-acerbation of localised flooding, due to deposition of silt,	extent apart from the Field Station in Field NE9. The flood depths	N/A	Embedded	Construction	Requirement 11. CEMP.	Detailed Design,Applicant
#WE-37	Chapter 9: Water Environment	-		The Solar PV Site is shown to be at risk of tidal/fluvial flooding	N/A	Embedded	Construction Operation and maintenance	Requirement 11. CEMP.	Detailed Design/Constru ction,

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	[EN010152/APP/6.1], Section 9.8.		works) and ex-acerbation of localised flooding, due to deposition of silt, sediment in drains, ditches.	The Operator will be required to develop an Emergency Response				Requirement 12. OEMP.	Applicant, Contractor
#WE-38	Chapter 9: Water Environment [EN010152/APP/6.1], Section 9.8.				N/A	Embedded	Construction Operation and maintenance	Requirement 11. CEMP. Requirement 12. OEMP.	Detailed Design/Constru ction,

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			,	further from watercourses. The buffer of 10 m is to account for site specific position of the bank top along IDB watercourses noting that the IDB require only a 9 m buffer from that point (bank top location is variable). This may require survey work (prior to construction) in some locations to adequately define and agree the top of bank position.					_Applicant, Contractor
#WE-39	Chapter 9: Water Environment [EN010152/APP/6.1], Section 9.8.	-	Potential impacts on groundwater resources and local water supplies (licenced and unlicenced abstractions) and potentially the baseflow to watercourses from temporary dewatering of excavations or changes in hydrology.	Indicative foundation depths associated with the development include maximum depths of up to a maximum of 3 m for piling and erection of the Solar PV Mounting Structures, typical trench depth of up to 1.4 m for On-Site Cables, and up to 1.495 m for the Grid Connection Cables, but will need to vary and go deeper depending on crossings.	N/A	Embedded	Construction	Requirement 11. CEMP.	Detailed Design,Applicant
#WE-40	Chapter 9: Water Environment [EN010152/APP/6.1], Section 9.8.	Chapter 7: Cultural Heritage [EN010152/APP/6.1].	Potential impacts on groundwater resources and local water supplies (licenced and unlicenced abstractions) and potentially the baseflow to watercourses from temporary dewatering of excavations or changes in hydrology.	In areas of archaeological mitigation (as defined within the Framework Archaeological Mitigation Strategy [EN010152/APP/7.19RE P2-054]) where required – the Solar PV Mounting Structures will be mounted on pre-cast concrete blocks avoiding disturbance of any below ground features with	N/A	Embedded	Construction	Requirement 10. Archaeology. Requirement 11. CEMP.	Detailed Design,Applicant

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
				impacts to the ground no deeper than 0.1m (see ES Volume I Chapter 2: The Scheme [EN010152/APP/6.1]). For the purposes of the groundwater assessment, a 'worst case' estimate of 4,000 1-tonne blocks measuring approximately 4 m by 0.5 m in plan footprint each have been assumed, although the number of blocks, and their size and weight will only be determined upon final detailed design.					
#WE-41	Chapter 9: Water Environment [EN010152/APP/6.1], Section 9.8.		flood risk from changes in surface water runoff (e.g. disruption of stream flows during any potential culvert construction works) and ex-acerbation of localised flooding, due to deposition of silt, sediment in drains, ditches.	4: Framework Drainage Strategy [EN010152/APP/6.3].	N/A	Embedded	Construction Operation and maintenance Decommissioning	Requirement 4. Detailed Design Approval. Requirement 9. Surface and foul water drainage. Requirement 11. CEMP. Requirement 12. OEMP. Requirement 18. DEMP.	

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				Strategy as a Requirement of the DCO.					
#WE-42	Chapter 9: Water Environment [EN010152/APP/6.1], Section 9.8.		flows during any potential culvert construction works) and ex-acerbation	Individual Solar PV Panels will be held above the ground surface on the Solar PV Mounting Structures (see ES Volume I Chapter 2: The Scheme	N/A	Embedded	Construction	Requirement 11. CEMP.	Detailed Design;Applicant

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
#WE-43	Chapter 9: Water Environment [EN010152/APP/6.1], Section 9.8.		1, 0			Embedded	Construction	Requirement 11. CEMP.	Detailed Design;Applicant
#WE-44	Chapter 9: Water Environment [EN010152/APP/6.1], Section 9.8.		Temporary impacts on the hydromorphology of watercourses from drainage outlets/foul drainage.	Where practicable, surface water will drain from the Scheme's drainage system to local receiving watercourses via new engineered outlets. Appropriate micro-siting of the outlets will minimise loss of bank habitat, the need for bed scour or hard bank protection, and localised flow disturbance or disruption to sediment transport processes. It will also avoid the creation of 'dead' spaces with sedimentation and vegetation blockage risks and to that effect it is not proposed that outlets are recessed into the bank. It is assumed that the site survey and micro-siting	N/A	Embedded	Construction	Requirement 11. CEMP.	Detailed Design;Applicant

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				of outlets would occur following grant of the DCO.  If headwalls are required, appropriate micro-siting of the outfalls will minimise loss of bank habitat, the need for bed scour or hard bank protection, and localised flow disturbance or disruption to sediment transport processes.					
#WE-45	Environment		Temporary impacts on the hydromorphology of watercourses from drainage outlets/foul drainage.	During the operation and maintenance phase of the Scheme it is expected that there would be only a low volume of foul drainage generated (related to an anticipated one to two full time operational staff members and four days part time per month). This would be self-contained in a nonmains, cess pit sealed tank, or portable welfare units, with no discharge to ground. These would be regularly emptied under contract with a registered recycling and waste management contractor.  As there would be no discharge of foul water to a watercourse, no discharge to foul sewer is proposed. Thus, no further assessment of foul waste from the Scheme is undertaken.		Embedded	Operation_and maintenance	Requirement 12. OEMP.	Operation; and maintenance – Applicant, Contractor

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
#WE-46	Chapter 9: Water Environment [EN010152/APP/6.1], Section 9.8.	Chapter 13: Transport & Access [EN010152/APP/6.1].	watercourses from	Access tracks will be constructed across the Solar PV Site. These are to access the Field Stations, the BESS Area, the On-Site Substation and the Operations and Maintenance Hub for the duration of the operation of the Scheme. These will typically be 4 m wide compacted stone tracks with 1:2 gradient slopes on either side where required, with fire service access tracks being up to 8 m wide. The internal road layout has been designed to avoid drainage ditch and watercourse crossings wherever possible. As stated in ES Volume I Chapter 2: The Scheme [EN010152/APP/6.1], the design life is 40 years. After this time infrastructure would be removed but is likely that access track crossings may be retained by the landowner.	N/A	Embedded	Construction Decommissioning	Requirement 11. CEMP. Requirement 18. DEMP.	Pre-Construction/D ecommissionin g,Applicant, Contractor
#WE-47	Chapter 9: Water Environment [EN010152/APP/6.1], Section 9.8.	-	watercourses from open- cut watercourse crossings or temporary	Existing watercourse crossing locations have been utilised to avoid the need for new crossing locations where practicable. Where a new ditch crossing is required an open span bridge will be provided with abutments set back from the top of the bank, to ensure continuity of watercourse adjacent	N/A	Embedded	Construction	Requirement 11. CEMP.	Detailed Design <del>,</del> Applicant

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
				habitat, with the type of crossing selected based on site-specific factors and in consultation with the relevant authority (generally the IDB/lead local flood authority). There are four areas labelled as Bridge Options where the access track will cross watercourses. Two Bridge Options are proposed for Fenwick Common Drain (one northwest of Field SW3, and one southeast of Field SW5 in the area of the confluence with Fleet Drain), one Bridge Option is proposed on south tributary to Fleet Drain, west of Riddings Farm, northwest of Field NW8, and one southwest of Field SW8 over Ell Wood and Fenwick Grange Drain.					
#WE-48	Chapter 9: Water Environment [EN010152/APP/6.1], Section 9.8.		watercourses from open- cut watercourse crossings or temporary vehicle access as may be required.	No new culverts are proposed, however, the access track design round the Solar PV Site utilises an existing culvert over the north tributary to Fleet Drain to cross from Field NE7 to NE8. The existing culvert may be extended by up to 2 m with length-for-length equivalent watercourse enhancements required or this may be a new bridge as per the paragraph above. A further culvert extension		Embedded	Construction	Requirement 11. CEMP.	Detailed Design/Pre- Construction,Applicant, Contractor

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
				may be required for the access track crossing an existing culvert between Field NW8 and SW1/SW2. Extensions to the existing culverts will be designed to maintain connectivity along the watercourse for aquatic species and riparian mammals. All culverts to convey watercourses will be set 150 mm below bed level to allow sedimentation and a naturalised bed to form, which will maintain longitudinal connectivity for aquatic fauna.  As part of the Scheme a section of culverted Fleet Drain will have the culvert removed. This current culvert is located on Fleet Drain east of Fenwick Hall, and west of Field SE3.					
#WE-49	Chapter 9: Water Environment [EN010152/APP/6.1], Section 9.8.		Impacts on surrounding habitat from operational cleaning.	It is assumed that the Solar PV Panels will be cleaned around once every two years, using clean water with no added chemical cleaning agents.  The operator of the Scheme will be required to obtain water from a mains water connection for ongoing requirements for panel cleaning. However, panel cleaning is not a frequent operation and is	N/A	Embedded	Operation and maintenance	Requirement 12. OEMP.	Operation, and maintenance – Applicant, Scheme Operator

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
				assumed to be every two years.					
#WE-50	Chapter 9: Water Environment [EN010152/APP/6.1], Section 9.8.	Chapter 8: Ecology [EN010152/APP/6.1].	or groundwater (and any	The operation of the On-Site Substation will include a backup generator in order to provide power in the event of an electrical failure for a restart if required. This will be a diesel generator and it is assumed to be required for a maximum of eight hours in any one year. The Framework OEMP [EN010152/APP/7.8] includes methodology for maintenance and refuelling operations for the backup generator to ensure the prevention of spills, and leaks are prevented.	N/A	Embedded	Operation and maintenance	Requirement 12. OEMP.	Operation, and maintenance – Applicant, Scheme Operator
#WE-51	Chapter 9: Water Environment [EN010152/APP/6.1], Section 9.8.	Chapter 8: Ecology [EN010152/APP/6.1].	flows during any potential culvert construction works) and ex-acerbation of localised flooding, due	of the response to an impending flood event,		Embedded	Construction Operation and maintenance Decommissioning	Requirement 11. CEMP. Requirement 12. OEMP. Requirement 18. DEMP.	All Phases,Applicant, Contractor

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
				there is a forecast risk that the Order limits may be flooded;  c. Details of the evacuation and site closedown procedures;  d. Arrangements for removing any potentially hazardous material and implement more stringent protection measures;  e. The contractor will sign up to Environment Agency flood warning alerts and describe in the Emergency Response Plan the actions it will take in the event of a flood event occurring. These actions will be hierarchical meaning that as the risk increases the contractor will implement more stringent protection measures;  f. If water is encountered during below ground construction, suitable de-watering methods would be used. Any groundwater dewatering required in ex-cess of the exemption thresholds would be under-taken in line with the					

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
				requirements of the Environment Agency (under the Water Resources Act 1991 as amended and the Environmental Permitting Regulations (2016)); and Safe egress and exits are to be maintained at all times when working in excavations. When working in excavations a banksman is to be present at all times.					
#WE-52	Chapter 9: Water Environment [EN010152/APP/6.1], Framework CEMP [EN010152/APP/7.7] Table 3-4.	Chapter 8: Ecology [EN010152/APP/6.1].	, ,	'	N/A	Embedded	Construction Decommissioning	Requirement 11. CEMP. Requirement 18. DEMP.	Construction/D ecommissionin g,Applicant, Contractor
#WE-53	Chapter 9: Water Environment [EN010152/APP/6.1], Section 9.8.	Chapter 8: Ecology [EN010152/APP/6.1].	Pollution of surface water or groundwater (and any designated ecology sites that are water dependent) due to deposition or spillage of soils, sediments, oils, fuels, or other construction chemicals, or through uncontrolled site run-off including	The operation of the Solar PV Site will be covered by procedures to be contained within the Framework OEMP [EN010152/APP/7.8]. The final OEMP (to be produced post-construction and prior to operation, as secured by Requirement 12,	The OEMP for the Scheme will be finalised prior to operation and would include a regular schedule for visual inspection and cleaning of the Solar PV Panels.	Embedded	Operation and maintenance	Requirement 12. OEMP.	Operation, and maintenance – Applicant, Scheme Operator

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
			dewatering of excavations or piling.	Schedule 2 of the Draft DCO [EN010152/APP/3.1]) will include measures to regulate the environmental effects of the operation and maintenance phase of the Scheme, and to ensure any maintenance activities take place in a way to avoid and minimise any potential environmental impacts. This would include measures to manage the risk of pollution from proposed infrastructure spillages and maintenance activities, such as correct storage in appropriately bunded areas of any hazardous materials, and appropriate, regular inspection and maintenance of all equipment on site. A Framework OEMP [EN010152/APP/7.8] contains measures to regulate the operation and maintenance phase of the Scheme. This includes measures for maintenance of watercourse buffers, maintenance of swales, and a regular schedule of inspection of any equipment on site.					
#WE-54	Chapter 9: Water Environment [EN010152/APP/6.1], Section 9.8.	Chapter 14: OET, Major Accidents & Disasters [EN010152/APP/6.1].	Risk of fire.	The BESS Area requires fire water tanks for the emergency services to utilise to supress a fire, if	N/A	Embedded	Operation_and maintenance	Requirement 12. OEMP.	Detailed Design, /Operation,

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
				one broke out. In the unlikely event of a malfunction to one of the BESS Containers, there is a range of integrated controls that will activate depending on the extent and severity of the event. In case the malfunction progresses to a catastrophic fire event and so long as there are no lives under threat, the fire brigade would ensure surrounding elements and structures (intact BESS Containers nearby, other electrical equipment, trees etc.) are kept adequately wet and cool to prevent the fire from expanding any further but the battery infrastructure would be allowed to burn within the controlled area.					and maintenance – Applicant, Scheme Operator
#WE-55	Chapter 9: Water Environment [EN010152/APP/6.1], Section 9.8.	Major Accidents &	Risk of fire.	It is proposed to contain the fire water runoff within the lined gravel filled attenuation basins surrounding the containers within the BESS Area. The water can be held and tested before either being released into the surrounding watercourses or taken off site by a tanker for treatment elsewhere. The basin will then be cleaned of all contaminants.  The gravel filled attenuation basins will be	N/A	Embedded	Operation_and maintenance	Requirement 12. OEMP.	Detailed Design, /Operation, and maintenance – Applicant, Scheme Operator

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
				underlain with an impermeable liner to prevent any contaminants entering the ground.  Discharge from the gravel filled attenuation basins will be controlled by a penstock valve that can be closed before fire suppression is carried out.					
#WE-56	Chapter 9: Water Environment [EN010152/APP/6.1], Section 9.8.	Chapter 14: OET, Major Accidents & Disasters [EN010152/APP/6.1].	Risk of fire.	The Applicant has already been engaging with South Yorkshire Fire and Rescue Service to gain their input on the BESS Container design. Further details regarding management of fire water are outlined in ES Volume III Appendix 9-4: Framework Drainage Strategy [EN010152/APP/6.3]. Details on battery safety management are provided within the Framework Battery Safety Management Plan (BSMP) [EN010152/APP/7.16]. Engagement with South Yorkshire Fire and Rescue Service will be ongoing, and consultation with other emergency services will be undertaken as part of the Applicant's postapplication work.	N/A	Embedded	Operation_and maintenance	Requirement 9. Surface and foul water drainage. Requirement 12. OEMP.	Detailed Design; /Operation; and maintenance – Applicant, Scheme Operator
#WE-57	Chapter 9: Water Environment	-	Pollution of surface water or groundwater (and any designated ecology sites	permissions may be	N/A	Embedded	Construction Decommissioning	Requirement 11. CEMP.	Construction/D ecommissionin

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	[EN010152/APP/6.1], Section 9.8.		that are water dependent) due to deposition or spillage of soils, sediments, oils, fuels, or other construction chemicals, or through uncontrolled site run-off including dewatering of excavations or piling. Potential impacts on groundwater resources and local water supplies (licenced and unlicenced abstractions) and potentially the baseflow to watercourses from temporary de-watering of excavations or changes in hydrology.	agreed with the relevant regulating authority to disapply them through the DCO. These permissions may include:  a. Land drainage consent(s) under section 23 of the Land Drainage Act 1991 for works affecting the flow in Ordinary Watercourses and for works within 9 metres of a watercourse including existing culvert modifications and cable crossings. As stated in the Consents and Agreements Position Statement [EN010152/APP/3.3] these consents are proposed to be included for in the draft DCO [EN010152/APP/3.1] subject to consent of the relevant body;  b. Flood risk activity permit(s) from the Environment Agency under the Environmental Permitting Regulations (England and Wales) 2016 in connection with drainage outfall installation. As stated in the Consents and Agreements Position Statement [EN010152/APP/3.3]				Requirement 18. DEMP.	_Applicant, Contractor

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
				these permits are proposed to be included for in the draft DCO [EN010152/APP/3.1] subject to consent of the Environment Agency;  c. Water activity permit(s) from the Environment Agency under the Environmental Permitting Regulations (England and Wales) 2016 for temporary construction discharges;  d. Trade effluent consent under the Water Industry Act 1991 for the purposes of discharging trade effluent from welfare facilities during construction. As stated in the Consents and Agreements Position Statement [EN010152/APP/3.3] these consents are proposed to be included for in the draft DCO [EN010152/APP/3.1] subject to consent of the Environment Agency;  e. Full or temporary water abstraction licence(s) under section 24 of the Water Resources Act					

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				1991 (if more than 20 m3/d is to be dewatered/over-pumped and exemptions do not apply) – see further detail below; and Temporary water impoundment licence under section 25 of the Water Resources Act 1991 in connection with the laying of cables.					
#WE-58	Chapter 9: Water Environment [EN010152/APP/6.1], Section 9.8.		(licenced and unlicenced abstractions) and potentially the baseflow to watercourses from temporary de-watering of excavations or changes in hydrology.	There is the potential for the need for either full or temporary water abstraction licence(s) from the Environment Agency for the abstraction of water from the entry and exit pits associated with the underground watercourse crossings or other excavations where groundwater may be encountered, other than where exemptions apply. A full licence is required when more than 20 m³ per day of water may need to be abstracted for more than 28 days. A temporary licence is applicable where the abstraction is less than 28 days. Where less than 20 m³ per day of water needs to be abstracted, no licence is required. However, in all circumstances it may be necessary to obtain a water activity permit(s) from the Environment	N/A	Embedded	Construction	Requirement 11. CEMP.	Construction,Applicant, Contractor

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
				Agency to discharge the water to ground or a watercourse if the water is considered to be 'unclean'.					
#WE-59	Chapter 9: Water Environment [EN010152/APP/6.1], Framework OEMP [EN010152/APP/7.8] Table 3-4.	-	Potential impacts on groundwater resources and local water supplies (licenced and unlicenced abstractions) and potentially the baseflow to watercourses from temporary de-watering of excavations or changes in hydrology.	To mitigate against rising groundwater levels in the groundwater, the cable and cable ducting will be designed to prevent water ingress.	N/A	Embedded	Construction	Requirement 4. Detailed Design Approval. Requirement 11. CEMP.	Detailed Design <del>,</del> Applicant
#WE-60	Chapter 9: Water Environment [EN010152/APP/6.1], Framework OEMP [EN010152/APP/7.8] Table 3-4.	Chapter 6: Climate Change [EN010152/APP/6.1].	flows during any potential culvert construction works) and ex-acerbation	The swales will be sized to accommodate the attenuation required for the 1% AEP + 40% climate change rainfall event. Due to current understanding of ground conditions within the Solar PV Site, it is unlikely that runoff will be able to discharge via infiltration. Therefore, surface water from the swales is proposed to be discharged to local watercourses. The discharge to these watercourses will be maintained at existing greenfield runoff rates by restricting rates using a flow control. The flow control will use a restriction on the outlet of the swale which will hold water back within the swale and release it at a controlled rate.	N/A	Embedded	Construction Operation and maintenance	Requirement 4. Detailed Design Approval. Requirement 11. CEMP. Requirement 12. OEMP.	Detailed Design;Applicant

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
#WE-61	Chapter 9: Water Environment [EN010152/APP/6.1], Framework OEMP [EN010152/APP/7.8] Table 3-4.		new permanent hardstanding and maintenance activities. Potential impacts on hydrology as a result of the Scheme. This may also have a subsequent	Regular maintenance and monitoring, in accordance with industry good practice, e.g. CIRIA SuDS Manual, is paramount for ensuring effective water treatment benefits of the proposed SuDS drain. A bespoke maintenance plan will be developed during detailed design. It is proposed that monthly inspections would be undertaken to remove any litter from the surface of the gravel-filled detention basins and ensure that this system is not blocked or damaged. Geotextiles will be replaced following manufacturer guidance and overlying filter material should be cleaned, as required and at a frequency determine during detailed design. If there is any evidence of excessive erosion or sedimentation associated with new structures further actions will be considered to remedy that impact in as sustainable a way as possible.		Embedded	Operation and maintenance	Requirement 12. OEMP.	Operation, and maintenance – Applicant, Scheme Operator
#WE-62	Chapter 9: Water Environment [EN010152/APP/6.1], Framework OEMP [EN010152/APP/7.8] Table 3-4.	-	Impacts from herbicide usage.	Should any herbicide or other spray chemical be needed in small volumes, a method statement, operating procedure or similar will be prepared prior to the work commencing. This will	N/A	Embedded	Operation and maintenance Decommissioning	Requirement 12. OEMP. Requirement 15. SMP.	Operation, and maintenance – Applicant, Contractor

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
				include measures to protect ground and surface water, including working in dry weather and not in high winds, and maintaining appropriate buffers from watercourses. Application of chemicals would only be carried out by suitably competent personnel using products approved for UK use with adherence to manufacturer's instructions.					
#WE-63	Chapter 9: Water Environment [EN010152/APP/6.1], Framework OEMP [EN010152/APP/7.8] Table 3-4.	-	Potential impact of spills and leaks from backup generator.	The Framework OEMP [EN010152/APP/7.8] includes methodology for maintenance and refuelling operations for the backup generator to ensure the prevention of spills, and leaks are prevented. The following measures will be adopted during operation and maintenance:	N/A	Embedded	Operation and maintenance	Requirement 12. OEMP.	Operation, and maintenance – Applicant, Contractor
				a. Fuel will be stored and used in accordance with the Control of Substances Hazardous to Health Regulations 2002, and the Control of Pollution (Oil Storage) (England) Regulations 2001;					
				b. Fuel and other potentially polluting chemicals will either be in self-bunded leak proof containers or					

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ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
				stored in a secure impermeable and bunded area (minimum capacity of 110% of the capacity of the containers, which includes 10% more capacity than is needed); and The Order limits will be secure to prevent any vandalism that could lead to a pollution incident.					
#WE-64	Chapter 9: Water Environment [EN010152/APP/6.1], Section 9.10		Temporary impacts on the hydromorphology of watercourses from drainage outlets/foul drainage.	Soft green ditch connections between swales and outfalls to watercourses will be implemented, where practicable. This will be secured within the detailed drainage strategy.	N/A	Additional	Construction	Requirement 4. Detailed Design Approval. Requirement 9. Surface and foul water drainage. Requirement 11. CEMP.	
#LV-01	Chapter 10: Land- scape and Visual [EN010152/APP/6.1], Section 10.7.		Loss of existing land- scape features, e.g. vegetation.	<ul> <li>a. Careful siting in the landscape;</li> <li>a. All Solar PV Panels have been sited within the existing field pattern, protecting existing vegetation, and maximising the natural screening provided by field boundary vegetation.</li> <li>b. Larger infrastructure, such as the On-Site Substation and BESS Area, have been located away from residential receptors, which are identified as being amongst the most sensitive</li> </ul>		Embedded	Procurement	Requirement 4. Detailed Design for Approval.	

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
				receptors, in order to minimise potential visual effects.  c. The Solar PV Site mostly avoids land abutting settlement boundaries, such as fields immediately adjacent to Fenwick. Where this has not been possible, offsets (measuring a minimum of 50 m) and new planting has been incorporated to retain a sense of openness whilst screening the Solar PV Panels.  d. The Solar PV Site mostly avoids land adjacent to the local road network to minimise the visual impact on people travelling. Where this has not been possible, bespoke offsets and mitigation planting to provide screening has been incorporated.  The siting of Solar PV Panels and associated infrastructure seeks to minimise instances of development on both sides of PRoW. Where development is proposed on one side of a PRoW, an offset of 15 m from the centre line has been incorporated. Where development is proposed on both sides of a PRoW, an offset of 15 m from the centre line has been incorporated. Where development is proposed on both sides of a PRoW, an offset of 15 m from the centre line has been incorporated. Where development is proposed on both sides of a PRoW,					

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				a minimum offset of 20 m either side of the centre line has been integrated (creating a 40m wide corridor between the fencelines), as well as areas of wider offsets to vary the extent of views experienced across the Solar PV Site where practicable. There would be a further 5 m from the perimeter fence to the Solar PV Panels. Where practicable new planting or the gapping up of existing planting is proposed to reduce instances where Solar PV Panels would be on both sides of PRoW.					
#LV-02	Chapter 10: Landscape and Visual [EN010152/APP/6.1], Section 10.7.	Chapter 8: Ecology [EN010152/APP/6.1]. Chapter 9: Water Environment [EN010152/APP/6.1].	Loss of existing land- scape features, e.g. vegetation.	Conserving existing vegetation patterns: Offsets from trees and woodlands have been incorporated to ensure the health and longevity of vegetation, retaining the existing structure of the landscape. This includes minimum offsets of:  a. 15 m from individual trees (or greater if required by the root protection area); b. 15 m from woodland; c. 5 m from hedgerows; d. 20 m from standing water; and e. 10 m from watercourses.	N/A	Embedded	Construction Operation and maintenance Decommissioning	Requirement 11. CEMP. Requirement 13. OEMP. Requirement 18. DEMP.	All Phases,Applicant, Contractor

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
				Where practicable, the layout of the Scheme will use existing farm tracks and field openings as the preferred routes for construction access, minimising loss of hedgerows, where practicable.					
#LV-03	Chapter 10: Land-scape and Visual [EN010152/APP/6.1], Section 10.7.		Loss of existing land-scape features, e.g. vegetation.	<ul> <li>b. Creating new green infrastructure;</li> <li>a. A substantial offset has been integrated along the eastern side of Fleet Drain, forming a green corridor to retain and enhance the green infrastructure network across the Solar PV Site.</li> <li>b. The introduction of neutral and modified grassland beneath the Solar PV Panels, and across the extent of the wider Solar PV Site, will enhance biodiversity compared to the current agricultural landscape.</li> <li>c. A substantial offset has been integrated along the southern side of the River Went, protecting the character of the river corridor through retaining a sense of openness. Mitigation planting would be located along the northern boundary of the Solar PV Panels,</li> </ul>	N/A	Embedded	Procurement	Requirement 4. Detailed Design for Approval.	Detailed Design,Applicant

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				allowing for an open mosaic of habitats to be retained along the river corridor, in keeping with local character and enhancing the green infrastructure network.					
				Hedgerows would generally be improved through 'gapping up' where they are currently fragmented, improving landscape structure and ecological connectivity.					
#LV-04	Chapter 10: Landscape and Visual [EN010152/APP/6.1], Section 10.7/Framework CEMP [EN010152/APP/7.7] Table 3-5 Landscape & Visual.		Visibility of construction activities.	Sensitive Design in Relation to Form, Colour, and Materials:  a. Details outlining the design principles for the Scheme includes indicative materials, colours and finishes;  b. The maximum height of the Solar PV Panels would be 3.5 m. The minimum AGL would be 0.8 m; and The proposed solar farm perimeter fencing has been designed to minimise its visual prominence. The fence will be a stock proof mesh-type with wooden posts up to approximately 2.2 m in height.	N/A	Embedded	Procurement	Requirement 4. Detailed Design for Approval. Requirement 6. LEMP. Requirement 11. CEMP.	Detailed Design,Applicant

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
#LV-05	Chapter 10: Landscape and Visual [EN010152/APP/6.1], Section 10.7.	Chapter 8: Ecology [EN010152/APP/6.1].	Visual impact on receptors.	The proposed lighting has been designed to avoid and minimise the potential for adverse landscape and visual effects:  a. Lighting would be directional with care to minimise potential for light spillage beyond the Solar PV Site particularly towards neighbouring properties, habitats, highways or waterways;  b. Lights installed would be of the minimum brightness and/or power rating capable of performing the desired function;  c. Light fittings would be used that reduce the amount of light emitted above the horizontal (reduce upward lighting);  d. Light fittings would be positioned correctly, inward facing and directed downwards;  e. Lights would be directed into the Solar PV Site;  f. Use of Passive Infra-Red (PIR) controlled lights (motion sensors) except where temporary focussed task specific lighting is required;  g. No visible lighting would be utilised at		Embedded	Construction Operation_and maintenance Decommissioning	Requirement 4. Detailed Design for Approval. Requirement 6. LEMP. Requirement 11. CEMP. Requirement 13. OEMP. Requirement 18. DEMP.	Detailed Design, _Applicant

the Solar PV Site perimeter fence Infrared (IR) lighting will be provided by the CCTV/security system to provide night vision functionality for CCTV.  h. As far as is practicable, construction works would be limited to daylight hours only, with focussed task specific lighting provided where this is not practicable, for example at the drill entry/drill exit pit. Within construction compounds and at welfare areas, etc, motion activated security lighting will be employed outside of core hours. Task specifie and fixed gighting may be required in Winter periods (early species).	ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
mornings and up to 7 pm) to meet safety requirements;  i. During operation, areas of the Solar PV Site would not require artificial lighting other than during temporary periods of maintenance/repair. Focussed task specific lighting should only be required in the event					perimeter fence. Infrared (IR) lighting will be provided by the CCTV/security system to provide night vision functionality for CCTV; h. As far as is practicable, construction works would be limited to daylight hours only, with focussed task specific lighting provided where this is not practicable, for example at the drill entry/drill exit pit. Within construction compounds and at welfare areas, etc, motion activated security lighting will be employed outside of core hours. Task specific and fixed 'general' lighting may be required in Winter periods (early mornings and up to 7 pm) to meet safety requirements; i. During operation, areas of the Solar PV Site would not require artificial lighting other than during temporary periods of maintenance/repair. Focussed task specific lighting should only be					

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
				of emergency works/equipment failure requiring night- time working (which will be avoided as far as practicable) or panel cleaning operations; j. As they are containerised units, the Field Station Units and BESS Containers may contain internal artificial lighting (to be manually activated when needed), but light spillage would be minimal (through doorway when open); and Lighting at the On-Site Substation would be inward facing PIR operated which is calibrated to detect vehicles and personnel. Outside task specific and fixed 'general' lighting may be required in Winter periods (early mornings and evenings) to meet safety requirements. The buildings within the On- Site Substation would be fitted with internal lighting but light spillage would be minimal (through open					
#LV-06	Chapter 10: Land- scape and Visual [EN010152/APP/6.1], Framework CEMP [EN010152/APP/7.7]	Chapter 8: Ecology [EN010152/APP/6.1].	Loss of existing landscape features, e.g. vegetation.	doorway only).  The grassland and new planting that has been embedded into the Scheme to provide landscape and visual	N/A	Embedded	Construction	Requirement 6. LEMP. Requirement 11. CEMP.	Pre- Construction,Applicant, Contractor

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
	Table 3-5 Landscape & Visual.			mitigation will require management and maintenance in order to provide the intended effect.  The Framework LEMP [EN010152/APP/7.14] includes proposed measures to mitigate the potential impacts and effects on landscape (and biodiversity) features, and to enhance the landscape and biodiversity value of the Order limits (i.e. the green infrastructure),					
#LV-07	Chapter 10: Land-scape and Visual [EN010152/APP/6.1], Framework CEMP [EN010152/APP/7.7] Table 3-5 Landscape & Visual.	Chapter 8: Ecology [EN010152/APP/6.1].	Loss of existing landscape features, e.g. vegetation.	which will be adhered to.  A detailed LEMP will be submitted to and approved by the relevant planning authority including measures to:  a. Protect and retain existing trees and vegetation;  b. Manage and enhance landscape and biodiversity;  c. Ensure compliance through management and monitoring; and Ensure maintenance and management, including a landscaping maintenance plan.	ADD	Embedded	Construction	Requirement 6. LEMP. Requirement 11. CEMP.	Pre-Construction,Applicant, Contractor
#LV-08	Chapter 10: Land- scape and Visual [EN010152/APP/6.1], Framework CEMP [EN010152/APP/7.7] Table 3-5 Landscape & Visual.	ES Volume III Appendix 10-7: AIA [EN010152/APP/6.3].	Loss of existing land- scape features, e.g. vegetation.	Tree Works:  a. The findings of the pre-construction tree survey and Arboricultural Report, accompanied by an Arboricultural Method	Monitoring and supervision will be detailed in the arboriculture method statement.	Embedded	Construction, Decommissioning	Requirement 4. Detailed Design for Approval. Requirement 6. LEMP. Requirement 11. CEMP.	Pre- Construction, Applicant, Contractor

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
	Location in ES	Location in ES		Statements, where construction works are likely to affect trees, will be taken into account by the appointed Contractor; b. Where works in close proximity to retained trees cannot be practically avoided, these works will be undertaken in accordance with current good practice, defined in British Standard (BS) 5837: 2012 Trees in relation to design, demolition and construction – Recommendations; c. All necessary protective fencing will be installed prior to the commencement of any site clearance or construction works; d. Where access over		Additional			Responsibility
				the Root Protection Area (RPA) of a retained tree is unavoidable this will be achieved using existing hard surfacing or ground protection (which will be sufficient to protect roots and the structure of the soil in which they grow); e. Trees will be protected with a fenced exclusion zone (installed in advance of					

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
#LV-09	Chapter 10: Landscape and Visual [EN010152/APP/6.1], Framework CEMP/DEMP [EN010152/APP/7.7 & 7.9] Table 3-5.	Chapter 8: Ecology [EN010152/APP/6.1]. Appendix 10-7: AIA [EN010152/APP/6.3]).	Tree Loss, or Direct or indirect damage to retained trees	commencement of works in that location) where feasible. Where works are unavoidable within the RPA of retained trees, the final working methodology will be detailed in the arboriculture method statement as part of the detailed CEMP; and Where HDDs are routed beneath trees, the depth of drill will be a minimum of 2 m to avoid impacts to roots, as most roots do not typically develop deeper than this.  An assessment of arboricultural impacts, tree protection measures and the methodology for sensitive works near retained trees will be developed as part of an arboricultural Method Statement and final Tree Protection Plan (TPP). Existing trees and vegetation will be retained to aid screening of views, where practiable and protected during construction. Tree protection measures and the methodology for sensitive works near retained trees will be developed as part of an arboriculture method statement and final TPP.	Further arboricultural survey in line with BS5837:2012 will be undertaken to identify where trees are likely to be affected by the construction works and to inform the development of the detailed design. Monitoring is likely to include regular site visits by an arboriculturist to check on the implementation of tree protection measures (e.g. fencing and ground protection) as well as an arboricultural watching brief for any pruning and careful works within RPAs.	Embedded	Construction Operation—and maintenance Decommissioning ——	Requirement 4. Detailed Design for Approval. Requirement 6. LEMP. Requirement 11. CEMP. Requirement 18. DEMP	

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
				Where tree loss is unavoidable it will be mitigated with a scheme of new tree planting set out in the detailed LEMP (based on the Framework LEMP [EN010152/APP/7.14]). New planting including trees and hedgerows will be managed and maintained.					
#LV-10	Chapter 10: Landscape and Visual [EN010152/APP/6.1], Section 10.10.		Visual impact on residential receptors.	Specimen tree and shrub planting, or the planting of 'ready hedges' at an approximate height of 1.5m at time of planting in sensitive locations. This would reduce the time between planting during the construction stage and establishment when the planting would provide an effective screen, usually Year 15. These locations include, as set out within the Framework LEMP [EN010152/APP/7.14]:  a. Along the southern edge of Fields NW3 and NW4 to help provide early screening for properties along the northern side of Lawn Lane in Fenwick;  b. Along the southern edge of Field SE3 to help provide early screening for properties at West	N/A	Additional	Construction Operation— and maintenance	Requirement 4. Detailed Design for Approval. Requirement 6. LEMP. Requirement 11. CEMP. Requirement 13. OEMP.	Construction,Applicant, Contractor

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
				Along the southern and western edge of Field SW12 to provide early screening for properties along London Lane and Fenwick Common Lane.					
#LV-11	Chapter 10: Landscape and Visual [EN010152/APP/6.1], Framework CEMP [EN010152/APP/7.7] Table 3-6.	-	Tree Loss, or Direct or indirect damage to retained trees.	No ancient or veteran trees will be removed.	N/A	Embedded	Construction	Requirement 4. Detailed Design for Approval. Requirement 6. LEMP. Requirement 11. CEMP.	Detailed Design <del>,</del> Applicant
#LV-12	Chapter 10: Landscape and Visual [EN010152/APP/6.1], Framework CEMP/DEMP [EN010152/APP/7.7 & 7.9] Table 3-6.	-	Tree Loss, or Direct or indirect damage to retained trees.	Where trees require pruning, the extent of pruning will be the minimum feasible to achieve the objective and works will be carried out in accordance with the principles of BS3998: 2010 Treework – Recommendations. The final extent of any pruning will be determined by the arboriculture method statement submitted as part of the detailed CEMP and DEMP.	N/A	Embedded	Construction Decommissioning	Requirement 6. LEMP. Requirement 11. CEMP. Requirement 18. DEMP.	Construction/D ecommissionin $g_{\bar{\tau}}$ Applicant, Contractor
#LV-13	Chapter 10: Landscape and Visual [EN010152/APP/6.1], Framework CEMP/DEMP [EN010152/APP/7.7 & 7.9] Table 3-6.	-	Tree Loss, or Direct or indirect damage to retained trees.	The storage of materials and any washing, mixing or refuelling must take place in agreed allocated areas at least 5 m from the edge of the RPA of retained trees. Any slope effect must be taken into account and where there is a potential for run off, heavy duty polythene sheeting and sandbags must be in place as		Embedded	Construction Decommissioning	Requirement 6. LEMP. Requirement 11. CEMP. Requirement 18. DEMP.	Construction/D ecommissionin $g_{\bar{\tau}}$ Applicant, Contractor

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
				bunding to prevent toxic materials reaching RPAs.					
#LV-14	Chapter 10: Landscape and Visual [EN010152/APP/6.1], Framework CEMP/DEMP [EN010152/APP/7.7 & 7.9] Table 3-6.	-	Tree Loss, or Direct or indirect damage to retained trees.	Biosecurity measures will be applied as recommended in the Arboricultural Association (2018) Guidance Note 2 Application of Biosecurity in Arboriculture. A Biosecurity Plan will be included in the detailed CEMP and DEMP.		Embedded	Construction Decommissioning	Requirement 6. LEMP. Requirement 11. CEMP. Requirement 18. DEMP.	Pre-Construction/D ecommissionin g <sub>7</sub> Applicant, Contractor
#LV-15	Chapter 10: Landscape and Visual [EN010152/APP/6.1], Framework CEMP/OEMP/DEMP [EN010152/APP/7.7-7.9] Table 3-5.	Chapter 8: Ecology [EN010152/APP/6.1].	Potential to impact on residential and road receptors	New and existing hedgerows will be managed and maintained to a range of heights between 2.5 m and 3.5 m.	Monitoring of planting is provided in Framework LEMP [EN010152/APP/7.14].	Embedded	Construction Operation and maintenance Decommissioning	Requirement 11. CEMP. Requirement 6. LEMP. Requirement 13. OEMP. Requirement 18. DEMP.	All Phases, Applicant, Contractor
#LV-16	Chapter 10: Landscape and Visual [EN010152/APP/6.1], Framework DEMP [EN010152/APP/7.9] Table 3-5.	Chapter 8: Ecology [EN010152/APP/6.1].	Visual impact on receptors.	The Order limits will be restored in accordance with the Framework LEMP [EN010152/APP/7.14].	Monitoring of screening is detailed in the Framework LEMP [EN010152/APP/7.14].	Embedded	Decommissioning	Requirement 6. LEMP. Requirement 18. DEMP.	Decommissioni ng,Applicant, Contractor
#NV-01	Chapter 11: Noise & Vibration [EN010152/APP/6.1], Section 11.7.		Noise due to construction/decommissi oning activities causing annoyance at Noise Sensitive Receptors (NSR) and damage to building structures.	Best practicable means would be implemented during construction and decommissioning to minimise the effects on noise and vibration:  a. Ensuring that all appropriate processes, procedures and measures are in place to minimise noise before works begin and throughout	A construction noise monitoring scheme shall be developed and agreed with the relevant local authorities following appointment of a Contractor and prior to commencement of construction works.  Further details are to be confirmed in the detailed CEMP/DEMP.	Embedded	Construction, Decommissioning	Requirement 11. CEMP. Requirement 13. CTMP. Requirement 18. DEMP.	Construction/D ecommissionin $g_{\bar{\tau}}$ Applicant, Contractor

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
				the construction programme.  b. All contractors to be made familiar with current legislation and the guidance in BS 5228 (Parts 1 and 2) which should form a prerequisite of their appointment.  c. Ensuring that, where reasonably practicable, noise and vibration is controlled at source (e.g. the selection of inherently quiet plant and low vibration equipment), review of the construction programme and methodology to consider quieter methods, consideration of the location of equipment on-site and control of working hours.  d. Use of modern plant, complying with applicable UK noise emission requirements.  e. Hydraulic techniques for breaking to be used in preference to percussive techniques, where reasonably practicable.  f. When piling, use of lower noise piling where reasonably practicable.					

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
				<ul> <li>g. Off-site prefabrication where reasonably practicable.</li> <li>h. Regular and effective maintenance by trained personnel will be undertaken to keep plant and equipment working to manufacturer's specifications.</li> <li>i. All construction plant and equipment to be properly maintained, silenced where appropriate, operated to prevent excessive noise and switched off when not in use.</li> <li>j. Loading and unloading of vehicles, dismantling of site equipment or moving equipment or materials around the Order limits to be conducted in such a manner as to minimise noise generation, as far as reasonably practicable.</li> <li>k. All vehicles used onsite shall incorporate broadband reversing warning devices as opposed to the typical tonal reversing alarms to minimise noise disturbance where reasonably practicable.</li> </ul>					

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment		Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
				I. Provision of information to local authorities and local residents to advise of potential noisy works that are due to take place.  m. Unnecessary revving of engines will be avoided, and equipment will be switched off when not in use.  n. Drop heights of materials will be minimised.  o. Plant and vehicles will be sequentially started up rather than all together.  Plant will always be used in accordance with manufacturers' instructions. Care will be taken to site equipment away from noise-					
				sensitive areas. Where practicable, loading and unloading will also be carried out away from such areas.					
#NV-02	Chapter 11: Noise & Vibration [EN010152/APP/6.1], Section 11.7.		Noise due to construction/decommissi oning activities causing annoyance at Noise Sensitive Receptors (NSR) and damage to building structures.	A communication strategy will be developed as part of the detailed CEMP. Prior to construction works being under-taken, liaison would be undertaken with occupiers of sensitive receptors that may be adversely affected by construction noise and vibration.	The detailed CEMP would set out a scheme for the provision of monthly reporting information to local residents to advise of potential noisy works that are due to take place and for monitoring of noise complaints and reporting to the Applicant for immediate investigation and action.	Embedded	Construction, Decommissioning	Requirement 11. CEMP. Requirement 13. CTMP. Requirement 18. DEMP.	Construction/D ecommissionin g <sub>7</sub> Applicant, Contractor

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
				The communication strategy and complaint system to be developed and will include:	Further details are to be confirmed in the detailed CEMP.				
				a. Noise complaints will be monitored and reported to the Applicant for immediate investigation and action;					
				b. A <u>Multiple</u> display boardboards at different locations around the Order					
				limits will be installed on-site, and a web-site will be set up. These will include contact					
				details for the Community Liaison Officer or alternative with whom nuisances					
				or complaints can be lodged; and  c. A logbook of complaints will be					
				prepared and managed by the Site Manager. d.c. Noise complaints					
				will be monitored and reported to the Applicant for immediate investigation and					
				action. A dis-play board will be installed on-site, and a website will be set up. These					
				will include contact details for the Community Liaison Officer or alternative					
				with whom nuisance					

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
				or complaints can be lodged. A logbook of complaints will be prepared and managed by the Site Manager. This will include details regarding the resolution and outcome to each complaint.					
#NV-03	Chapter 11: Noise & Vibration [EN010152/APP/6.1], Framework CEMP [EN010152/APP/7.7], Section 3.7.		Impacts to nearby residents	Noise generating activities near residential properties, such as use of power tools or piling, would be limited to the hours between 08:00 and 18:00 from Monday to Friday and between 08:00 and 13:00 on Saturday.	N/A	Embedded	Construction, Decommissioning	Requirement 11. CEMP. Requirement 18. DEMP.	Construction/D ecommissionin g,Applicant, Contractor
#NV-04	Chapter 11: Noise & Vibration [EN010152/APP/6.1], Section 11.7.		Impacts to nearby residents	For all works outside of core work periods the Section 61 application will set out the specific method of working, calculations of noise levels at nearby receptors, the actual working hours required, noise monitoring locations, details of communication measures and the mitigation measures implemented to minimise noise and vibration impacts.	The Section 61 application will set out the specific method of working, calculations of noise levels at nearby receptors, the actual working hours required, noise monitoring locations, details of communication measures and the mitigation measures implemented to minimise noise and vibration impacts.	Embedded	Construction, Decommissioning	Requirement 11. CEMP. Requirement 18. DEMP.	Construction/D ecommissionin g, Applicant, Contractor
#NV-05	Chapter 11: Noise & Vibration [EN010152/APP/6.1], Framework CEMP [EN010152/APP/7.7], Section 3.7.		Impacts to nearby residents	Core working hours onsite will be 07:00 to19:00 Monday to Friday and 07:00 to 13:00 on Saturday but will be shortened if working	N/A	Embedded	Construction, Decommissioning	Requirement 11. CEMP. Requirement 18. DEMP.	Construction/D ecommissionin g <sub>7</sub> Applicant, Contractor

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
				would necessitate artificial lighting and therefore the working day may be shorter in the winter months (with the exception of activities such as HDD which require continuous working). There will be no work on a Sunday or Bank Holiday unless crucial to construction (e.g. HDD which must be a continuous activity etc.) or in an emergency.					
#NV-06	Chapter 11: Noise & Vibration [EN010152/APP/6.1], Section 11.7.		Noise disturbance at night due to continuous HDD activities.	As requirements and locations for HDD activities will not be finalised until a principal contractor is appointed, a hierarchy of mitigation measures is outlined to ensure that significant noise effects do not occur due to potential night-time works:  a. Where practicable, avoid HDD works within 200 m (the distance at which significant effects are predicted at night) of residential receptors (although this will depend on the results of the ground investigation survey);  b. Where HDD activities may occur within 200 m of sensitive receptors, the option for open cut cable laying would be	N/A	Embedded	Construction	Requirement 11. CEMP.	Detailed Design,Applicant

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
				explored as an alternative to HDD;  c. The potential for the use of quieter equipment than listed in ES Volume III Appendix 11-4: Construction and Operation and Maintenance Noise Modelling [EN010152/APP/6.3] will be explored by the Contractor; and Depending on the location, plant and timing of works, temporary acoustic fencing will be installed around the HDD site boundary to screen receptors from noise emission if HDD works are required within 200 m of a sensitive receptor. This mitigation could provide up to 10 dB of attenuation when the noise screen completely screens the sources from the receiver.					
#NV-07	Vibration	Chapter 13: Traffic & Transport [EN010152/APP/6.1].	Construction traffic, on the local road network.	Consideration has been given to traffic routing, timing, and access points to the Scheme to minimise noise impacts at existing receptors as detailed in ES Volume I Chapter 13: Transport and Access [EN010152/APP/6.1]. Management of Heavy Goods Vehicles (HGV) on the highway network would be managed	Monitoring included in the Framework CTMP [EN010152/APP/7.17] including monitoring data relating to HGV routes, staff movements, car park usage, and construction vehi vehicles.		Construction, Decommissioning	Requirement 11. CEMP.  Requirement 13. CTMP.  Requirement 18. DEMP.	Construction/D ecommissionin $g_{\tau}$ Applicant, Contractor

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
				through the Framework CTMP [EN010152/APP/7.17] secured as part of the DCO. Appropriate routing of construction and decommissioning traffic on public roads and along access tracks would be pursuant to the Framework CTMP [EN010152/APP/7.17].					
#NV-08	Chapter 11: Noise & Vibration [EN010152/APP/6.1], Section 11.7.		Noise and vibration from operational equipment.	A commitment that noise at sensitive receptors will be no higher than the levels presented in section 11.10 of ES Volume I Chapter 11: Noise and Vibration [EN010152/APP/6.1]. This will be achieved by the implementation of the embedded mitigation measures summarised as follows:  a. Plant selection; and b. Design layout to minimise noise at receptors, including locating the Field Stations and BESS Area in areas away from large concentrations of receptors, such that noise emissions are less impactful.  If there is a decision in the future to increase the number of Field Stations from the 28 that have been modelled based on the illustrative layout or move noise generating	Noise monitoring will be undertaken during commissioning. The OEMP(s) will detail the frequency.	Embedded	Operation and maintenance	Requirement 1312. OEMP. Requirement 14. Operational Noise.	Detailed Design/Operati on, and maintenance – Applicant, Contractor

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
				infrastructure closer to sensitive receptors, the Applicant commits that noise at sensitive receptors will be no higher than the levels presented in Table 11-7, ES Volume I Chapter 11: Noise and Vibration [EN010152/APP/6.1].					
				Plant that will be used for the Scheme has not yet been finalised. Where practicable quieter plant than that considered in EIA will be incorporated into the final design. Quieter plant would be the most effective way of controlling noise emissions.					
#NV-09	Chapter 11: Noise & Vibration [EN010152/APP/6.1], Section 11.7.			Field Stations will be placed as far as practicable from sensitive receptors where the highest levels of noise were predicted. This will be a minimum distance of 250 m.	Noise monitoring will be undertaken during commissioning. The OEMP(s) will detail the frequency.	Embedded	Operation and maintenance	Requirement 1312. OEMP. Requirement 14. Operational Noise.	Detailed Design,Applicant
#NV-10	Chapter 11: Noise & Vibration [EN010152/APP/6.1], Framework OEMP [EN010152/APP/7.8], Section 3.6.		Noise and vibration from operational equipment.	Low frequency noise can be very difficult to predict with a high level of certainty and similarly hard to identify and resolve if present. This is because it can be generated by the unexpected interactions between system components and can be amplified by the geometry of the site and receptor buildings. The issue of low frequency	Noise monitoring will be undertaken during commissioning. The OEMP(s) will detail the frequency.	Embedded	Operation and maintenance	Requirement 1312. OEMP. Requirement 14. Operational Noise.	Detailed Design,Applicant

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
				noise will be considered during the detailed design post consent for the On-Site Substation and eliminated through design, or appropriately mitigated (isolation and attenuation measures).					
#NV-11	Chapter 11: Noise & Vibration [EN010152/APP/6.1], Framework OEMP [EN010152/APP/7.8], Section 3.6.		Noise and vibration from operational equipment.	Plant will be inspected regularly and any faults that result in increased levels of noise emissions will be logged and repaired as soon as practicable.	Noise monitoring will be undertaken during commissioning. The OEMP(s) will detail the frequency.	Embedded	Operation and maintenance	Requirement 1312. OEMP. Requirement 14. Operational Noise.	Operation, and maintenance – Applicant, Contractor
#NV-12	Chapter 11: Noise & Vibration [EN010152/APP/6.1], Section 11.9.		Noise and vibration from HDD activities.	When finalising the locations of HDD pits, the distance to sensitive receptors will be considered and kept as large as reasonably practicable with a minimum distance of 85 m between HDD work sites and sensitive receptors.	N/A	Additional	Construction	Requirement 11. CEMP.	Detailed Design <del>,</del> Applicant
#SO-01	Chapter 12: Socio- economics & Land Use [EN010152/APP/6.1], Section 12.6.	-	Impacts to agricultural land.	A Framework SMP [EN010152/APP/7.10] has been submitted as part of the DCO Application setting out how agricultural soils would be managed, preserved, retained and reinstated. The Framework SMP measures are detailed below in IDs #SA-01 -11.	N/A	Embedded	Construction Operation and maintenance Decommissioning	Requirement 15. SMP.	All Phases, Applicant, Contractor
#SO-02	Chapter 12: Socio- economics & Land Use [EN010152/APP/6.1], Section 12.6.	Chapter 13: Traffic and Transport [EN010152/APP/6.1].	Disruption to users of Public Rights of Way (changes to journey times, local travel	A Framework Public Rights of Way Management Plan [EN010152/APP/7.13] has been submitted as part of the DCO	N/A	Embedded	Construction Operation and maintenance Decommissioning	Requirement 11. CEMP. Requirement 12. OEMP.	All Phases, Applicant, Contractor

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
			patterns and certainty of routes).	Application which sets out how PRoW would be managed during the Scheme construction phase to ensure the safety of users and Site staff.				Requirement 17. PROW. Requirement 18. DEMP.	
#SO-03	Chapter 12: Socio-economics & Land Use [EN010152/APP/6.1], Section 12.6.	Chapter 13: Traffic and Transport [EN010152/APP/6.1].	Disruption to users of Public Rights of Way (changes to journey times, local travel patterns and certainty of routes).	<ul> <li>Mitigation includes:</li> <li>a. Maintaining access to/along PRoW during construction, including any minimum legal widths for PRoW users;</li> <li>b. Providing temporary PRoW diversion routes where necessary to avoid any PRoW closures. Each diversion will be clearly marked out, along with appropriate signage at either end of the diversion. The diversion routes will be agreed with the City of Doncaster Council prior to the commencement of construction;</li> <li>c. Providing sufficient protection/separation between existing PRoW and the Scheme infrastructure (solar PV panels, BESS Area and the On-Site Substation) where necessary using perimeter fencing installed at a minimum distance of 20 m on either side of</li> </ul>		Embedded	Construction Decommissioning	Requirement 11. CEMP. Requirement 17. PROW. Requirement 18. DEMP.	Detailed Design/Pre- construction,Applicant Contractor

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
				the centre of the					
				PRoW where solar					
				infrastructure lies to					
				both sides or 15 m if					
				solar infrastructure is					
				to one side only (30					
				m for the BESS					
				Area). There will be a					
				further 5 m from the					
				perimeter fence to the					
				Solar PV panels.					
				Fencing will be					
				erected from inside of					
				the Solar PV Site and					
				as the first stage of					
				constriction to ensure					
				PRoW are preserved					
				during construction;					
				d. Managing areas					
				where internal					
				construction traffic					
				routes cross any					
				existing PRoW					
				(where these are not					
				be diverted), by					
				maximising visibility					
				between construction					
				vehicles and other					
				users (i.e.					
				pedestrians, cyclists,					
				equestrians),					
				implementing traffic					
				management (e.g.					
				advanced signage to					
				advise other users of					
				the works), as well as					
				manned controls at					
				each crossing point					
				(i.e. marshals or					
				banksmen), with a					
				default priority that					
				construction traffic will					
				give-way to other					
				users;					

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
				e. Developing of a communications strategy including regular meetings with contractors to review and address any issues associated with walking, cycling, or equestrian activity to/from/within the Order limits, as well as to relay information including any restrictions and requirements which should be followed; and  Ensuring any hazards (e.g. overhanging branches, cables etc) have a suitable clearance above any affected PRoW.					
#SO-04	Chapter 12: Socio- economics & Land Use [EN010152/APP/6.1], Section 12.6.	Chapter 13: Traffic and Transport [EN010152/APP/6.1].	Disruption to active travel users.	Although it is considered unlikely that construction staff will access the Scheme on foot or bike, all pedestrian, cycle and equestrian routes will be maintained and remain unobstructed when in use, to ensure the continued safe passage of the public including when using the PRoW through the Order Limits and at crossing points.	N/A	Embedded	Construction Decommissioning	Requirement 11. CEMP. Requirement 17. PROW. Requirement 18. DEMP.	Detailed Design/Pre- construction/Co nstruction, Applicant , Contractor
#SO-05	Chapter 12: Socio- economics & Land Use [EN010152/APP/6.1], Section 12.6.	Chapter 13: Traffic and Transport [EN010152/APP/6.1].	Disruption to users of Public Rights of Way (changes to journey times, local travel pat- terns and certainty of routes).	Three PRoW within the Solar PV Site would be temporarily diverted during the construction phase.  a. PRoW Fenwick 16 footpath, which runs	N/A	Embedded	Construction	Requirement 11. CEMP. Requirement 17. PROW.	Detailed Design/Constru ction,Applicant, Contractor

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
				along the length of					
				Haggs Lane, would					
				be temporarily					
				diverted to allow					
				access to a					
				construction					
				compound during the					
				construction phase.					
				The Applicant has					
				confirmed that the					
				temporary diversion					
				will simply involve the					
				PRoW being routed					
				alongside the hedge					
				on the south side of					
				Haggs Lane, up till					
				the point where the					
				inbound construction					
				LGV traffic turns into					
				the construction					
				compound. PRoW					
				users will be					
				separated from the					
				construction traffic by					
				a temporary barrier.					
				This would increase					
				the journey length by					
				a few metres only.					
				b. Moss 6 will be					
				diverted temporarily					
				from the construction					
				access road,					
				approximately 250 m					
				north of Moss Road					
				where the PRoW					
				dog-legs, so that the					
				route is located to the					
				west of (i.e. parallel					
				to) the construction					
				access road for					
				approximately 220m.					
				This would reduce					
				journey length for					
				users by					
				approximately 20 m.					

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
				Fenwick 14 will be diverted as it leads north from Moss 6 so that it follows the construction access route, with temporary fencing separating it from the new access track. This would reduce the journey length by approximately 5 m.					
#SO-06	Chapter 12: Socio- economics & Land Use [EN010152/APP/6.1], Section 12.6.	Chapter 13: Traffic and Transport [EN010152/APP/6.1].	Disruption to users of Public Rights of Way (changes to journey times, local travel patterns and certainty of routes).	Three PRoW would be permanently diverted during construction:  a. PRoW Sykehouse 29 footpath, which runs south of Bunfold Shaw (the area of ancient woodland in the southeast) eastwards to West Lane, would be permanently diverted. The permanent diversion would follow the path residents typically use, according to consultation with the PRoW lead at the City of Doncaster Council and feedback from local residents at the non-statutory consultation events held by the Scheme. The route would be permanently diverted to travel southbound from a point of intersection at the Order limits with Fenwick 10 and Fenwick 12, travelling along the drain and		Embedded	Construction	Requirement 11. CEMP. Requirement 17. PROW.	Detailed Design/Constru ction,Applicant Contractor

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
				east along Bunfold					
				Shaw Lane towards					
				West Cottage, then					
				rejoining the existing					
				PRoW route heading					
				southeast to Flashey					
				Carr Lane. This					
				diversion would					
				increase the journey					
				length by					
				approximately 40 m.					
				As noted above, in					
				May 2024 City of					
				Doncaster Council received an					
				application for a					
				Definitive Map					
				Modification Order to					
				upgrade Sykehouse					
				29 from a footpath to					
				a bridleway. If the					
				application is					
				accepted and the					
				upgrade is confirmed,					
				the Applicant will					
				ensure that the					
				diverted Sykehouse					
				29 route meets the					
				requirements for a					
				bridleway.					
				b. Moss 6 would be					
				permanently diverted					
				to follow the path of					
				the construction					
				access route. This is					
				also the currently					
				used route of the					
				PRoW, as noted by					
				City of Doncaster					
				Council. This will					
				reduce journey length					
				by approximately 30 m.					
				Fenwick 14 would be					
				permanently diverted					

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
				running northbound from Moss 6, following the construction access route after construction has finished until the track turns west. This will reduce journey length by approximately 10 m.					
#SO-07	Chapter 12: Socio- economics & Land Use [EN010152/APP/6.1], Section 12.6.	-	Impacts to landowners.	Any direct impacts to land use would be managed and mitigated through negotiations with stakeholders including landowners and owners of businesses.	N/A	Embedded	Construction Operation and maintenance Decommissioning	Requirement 11. CEMP. Requirement 12. OEMP. Requirement 18. DEMP.	All Phases, Applicant Contractor
#SO-08	Chapter 12: Socio- economics & Land Use [EN010152/APP/6.1], Section 12.6.	Chapter 10: Landscape & Visual, Chapter 11: Noise & Vibration, Chapter 13: Traffic and Transport, and Chapter 14: Other Environmental Topics (OET) (Air Quality) [EN010152/APP/6.1].	Disruption to local residents, businesses and community facilities	Primary mitigation measures are embedded within the Scheme to reduce adverse construction effects (such as noise, air quality, transport, and landscape and visual) which in turn will mitigate the effects on the local community and existing facilities from a socio-economic and land use perspective.	N/A	Embedded	Construction Operation_and maintenance Decommissioning	Requirement 11. CEMP. Operation 12. OEMP. Requirement 18. DEMP.	All Phases, Applicant Contractor
#SO-09	Chapter 12: Socio- economics & Land Use [EN010152/APP/6.1], Framework OEMP [EN010152/APP/7.8], Table 3.8.	[EN010152/APP/6.1].	Disruption to users of Public Rights of Way (changes to journey times, local travel pat- terns and certainty of routes).	The existing PRoW which pass through or run adjacent to the Order Limits are expected to be unaffected during the operation and maintenance phase, apart from the permanent diversion of three PRoW (Sykehouse 29, Moss 6 and Fenwick 14) as noted above.		Embedded	Operation_and maintenance	Requirement 12. OEMP. Requirement 17. PROW.	Detailed Design/Operati on; and maintenance – Applicant Contractor

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
#SO-10	Chapter 12: Socio-economics & Land Use [EN010152/APP/6.1], Framework OEMP [EN010152/APP/7.8], Table 3.8	Chapter 13: Traffic and Transport [EN010152/APP/6.1].	Disruption to users of Public Rights of Way (changes to journey times, local travel patterns and certainty of routes).	The operation and maintenance phase of the Scheme will include the following mitigation measures:  a. Maintaining access to all existing PRoW within the Order limits; and  b. Controlling areas where the internal maintenance route crosses any existing PRoW (such as by providing gates), permitting only operational traffic to utilise these internal routes within the Solar PV Site.  Operational traffic would give-way to other users when utilising the crossing points. Visibility will be maximised between operational vehicles and other users, with warning signage provided if required.  A minimum width has been incorporated into the Scheme design for PRoW within or directly adjacent to the Solar PV Site. The PRoW will also be buffered from the perimeter fencing, with fencing being installed a minimum distance of 20	N/A	Mitigation Embedded	Operation_and maintenance	Requirement 12. OEMP. Requirement 17. PROW.	Detailed Design/Operation; and maintenance – Applicant, Contractor
				m either side of the centre of the PRoW where solar infrastructure lies to both sides					

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
				(creating a 40 m wide corridor between the fence lines), or 15 m if solar infrastructure is to one side only. There will be a further 5 m from the perimeter fence to the Solar PV Panels. This will avoid the perception of being channelled into narrow passages between solar PV panels.					
#SO-11	Chapter 12: Socio- economics & Land Use [EN010152/APP/6.1], Framework DEMP [EN010152/APP/7.9], Table 3.8	Chapter 13: Traffic and Transport [EN010152/APP/6.1].	Disruption to users of Public Rights of Way (changes to journey times, local travel patterns and certainty of routes).	Removal of the Solar PV Site Perimeter fencing is the last stage of demobilisation in each Solar PV Site, decommissioning activities within the Solar PV Site can therefore operate without impacts to PRoW. Elsewhere within the Order limits, access to all existing PRoW will be retained during the decommissioning phase, with no PRoW closures proposed. There will be a limited number of temporary PRoW diversions around the Scheme as set out in the Framework PROW MP [EN010152/APP/7.13] submitted as part of this DCO Application.	N/A	Embedded	Decommissioning	Requirement 17. PROW. Requirement 18. DEMP.	Decommissioni ng, Applicant, Contractor
#SO-12	Chapter 12: Socio- economics & Land Use [EN010152/APP/6.1], Section 12.6.	Chapter 13: Traffic and Transport [EN010152/APP/6.1].	Disruption to users of Public Rights of Way (changes to journey times, local travel patterns and certainty of routes).	Additionally, several PRoW will require management to ensure user safety and accessibility. The management measures and the PRoW to which	N/A	Embedded	Decommissioning	Requirement 17. PROW. Requirement 18. DEMP.	Decommissioni ng,Applicant, Contractor

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
				they apply are fully described in the Framework PRoW MP [EN010152/APP/7.13]. Management measures include, but are not limited to:  a. Maximising visibility between decommissioning vehicles and other users (i.e. pedestrians, cyclists, equestrian);  b. Implementing traffic management (e.g. advanced signage to advise other users of the works); and  Use of manned controls where the Scheme crosses PRoW (i.e. marshals or banksmen), with a default priority that decommissioning traffic will give-way to other users.					
#SA-01	Chapter 12: Socio- economics & Land Use [EN010152/APP/6.1], Framework CEMP/OEMP/DEMP [EN010152/APP/7.7 - 7.9], Section 3.9.		Land take, loss of Best Most Versatile (BMV) resource and degradation to soils.	Prior to start of construction, a Soil Management Plan (SMP) will be prepared (secured through DCO requirement) following the guidance in the Defra (2009) Construction Code of Practice for the Sustainable Use of Soils on Construction Sites and other relevant documents such as The Institute of Quarrying's Good Practice Guide for Handling Soils in Mineral Workings and the British	to ensure soils are suitable for reuse within	Embedded	Construction Operation_and maintenance  Decommissioning	Requirement 11. CEMP Requirement 12. OEMP Requirement 15. SMP Requirement 18. DEMP	Pre-Construction/C onstruction/Ope ration and maintenance/D ecommissionin g <sub>7</sub> _Applicant, Contractor

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
				Society of Soil Science Guidance Note - Benefiting from Soil Management in Development and Construction. This will be based upon the Framework SMP [EN010152/APP/7.10] submitted with the DCO Application. The SMP will be informed by soil and ALC surveys. Targeted pre- commencement soil and ALC surveys on agricultural land that will be subject to direct disturbance will be undertaken to inform the detailed SMP, as well as providing baseline land quality data for the success of reinstatement within the cable working corridor to be measured against. The loss of soil resource is considered as the main cause of disease and pathogen transfer, due to the transfer of soil (and incorporated seed/spore bank) from infected to uninfected areas. The SMP will set out appropriate measures to minimise soil loss and hence biosecurity risk. This will also be covered				Wechanism	
				This will also be covered in the Biosecurity Plan (secured through the CEMP and delivered prior to construction). This may include					

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
				measures such as appropriate cleaning and/or disinfection of machinery and equipment in areas considered to be at high risk before moving into uninfected areas.					
#SA-02	Chapter 12: Socio- economics & Land Use [EN010152/APP/6.1], Framework CEMP/OEMP/DEMP [EN010152/APP/7.7 - 7.9], Section 3.9.	, Section 4.	Land take, loss of BMV resource and degradation to soils.	Damage to the structure, function and resilience of soil resources (and consequent impacts to its ability to support agriculture) will be mitigated by the use of industry standard good practice measures for the stripping, handling and storage of soil materials, in line with the SMP. The following main rules will be observed during all soil handling tasks:  a. No trafficking/driving of vehicles/plant or materials storage to occur outside designated areas;  b. No trafficking/driving of vehicles/plant on reinstated soil (topsoil or subsoil);  c. Only direct movement of soil from donor to receptor areas (no triple handling and/or ad hoc storage);  d. Soils should only be moved under the driest practicable conditions, and this must take account of prevailing weather conditions;		Embedded	Construction Operation and maintenance Decommissioning	Requirement 11. CEMP Requirement 12. OEMP Requirement 15. SMP Requirement 18. DEMP	All Phases,  _Applicant, Contractor

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
				e. Soil handling should not be undertaken during or immediately after rainfall events. Where the 'wetworking' of soils cannot be avoided specific methodologies will be followed. These will be set out in the detailed SMP;  f. No mixing of topsoil with subsoil, or of soil with subsoil, or of soil with other materials;  g. Soil only to be stored in designated soil storage areas, away from watercourses to avoid sediment in runoff;  h. Soils of different types to be stored separately. Clear records of the stockpiles (including annotated plans) will be maintained;  i. All plant and machinery must always be maintained in a safe and efficient working condition;  j. Daily records of operations undertaken, and site and soil conditions should be maintained;  k. Low ground pressure (LGP models) or tracked vehicles should be used where practicable;		Mitigation			
				Soil handling operations will be					

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
				appropriately					
				monitored to ensure					
				compliance with the					
				SMP to ensure soils					
				are suitable for reuse					
				within the Scheme.					
				The appropriate					
				management of soil					
				resources will maintain					
				soil volumes and					
				quality to prevent					
				loss/lowering of					
				Agricultural Land					
				Classification (ALC)					
				grade between pre-					
				and post-construction					
				and thus potential loss					
				of BMV status; and					
				m. Application of					
				measures set out in					
				Defra's 'Code of					
				practice for the					
				sustainable use of					
				soils on construction					
				sites' would ensure					
				that the restored soils					
				are appropriately					
				managed allowing					
				their quality and					
				function to be retained					
				upon reinstatement					
				and that any					
				agricultural land is					
				restored to the same					
				quality (ALC grade) as					
				prior to construction.					
				The appropriate					
				management of soil					
				resources will maintain					
				soil volumes and quality					
				to prevent loss/lowering					
				of Agricultural Land					
				Classification (ALC)					
				grade between pre- and					
				post-construction and					

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
				thus potential loss of BMV status.					
#SA-03	Chapter 12: Socio- economics & Land Use [EN010152/APP/6.1], Framework CEMP/DEMP [EN010152/APP/7.7 &7.9], Section 3.9.	Framework SMP [EN010152/APP/7.10] , Section 4.	Land take, loss of BMV resource and degradation to soils.	Topsoil stripping will be undertaken outside of the (wetter) winter period (October to March inclusive) where practicable and will not be undertaken during or immediately after rainfall events. Where soils are worked 'wet' specific methodologies (to be set out in the detailed SMP) will be followed.  Where topsoil is stripped to form access roads and foundations/hardstanding areas within the Solar PV Site and Grid Connection Corridor, it will be stored within designated storage areas as close as reasonably practicable to the area of origin and seeded to reduce erosion risk. Soils of different types will be stored separately. Clear records of the stockpiles (including annotated plans) will be maintained.		Embedded	Decommissioning	Requirement 11. CEMP Requirement 15. SMP Requirement 18. DEMP	Construction/D ecommissionin g <sub>7</sub> Applicant, Contractor
#SA-04	Chapter 12: Socio- economics & Land Use [EN010152/APP/6.1], Framework CEMP/DEMP [EN010152/APP/7.7 &7.9], Section 3.9.	Framework SMP [EN010152/APP/7.10] , Section 4.	Land take, loss of BMV resource and degradation to soils.	For the Grid Connection Corridor, access to agricultural land and water supplies will be maintained throughout the construction process, as far as is practicable, for example by preventing severance of fields. The construction of the Solar PV Site will be sequential, with land	N/A	Embedded	Construction  Decommissioning  ———	Requirement 11. CEMP Requirement 15. SMP Requirement 18. DEMP	Pre-Construction,  -Applicant, Contractor

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
				continuing its pre- development agricultural use for as long as practicable before the start of construction. Wherever practicable the Grid Connection Corridor will be routed along roads and in roadside verges to avoid impacts to agricultural land.					
#SA-05	Chapter 12: Socio- economics & Land Use [EN010152/APP/6.1], Framework DEMP [EN010152/APP/7.9], Section 3.9.	Chapter 10: Landscape & Visual [EN010152/APP/6.1]. Framework SMP [EN010152/APP/7.10] , Section 4.	Land take, loss of BMV resource and degradation to soils.	All land would be fully reinstated as near as practicable to its former condition. Topsoil would be prepared and, where required (for example for the establishment of permanent pasture in the Solar PV Site), sown using an appropriate seed mix.	N/A	Embedded	Decommissioning	Requirement 15. SMP Requirement 18. DEMP	Decommissioni ng, Applicant, Contractor
#SA-06	Chapter 12: Socio- economics & Land Use [EN010152/APP/6.1], Framework CEMP [EN010152/APP/7.7], Section 3.9.		Land take, loss of BMV resource and degradation to soils.	For the Grid Connection Corridor, to ensure that the maximum area of productive land remains in agricultural use during the construction period, cable routeing and access tracks will be directed to the edge of fields, in field boundaries, or through less productive areas of individual fields wherever practicable, taking into account other environmental, socio- economic and engineering constraints. Access to water supplies will be maintained throughout the construction period	N/A	Embedded	Construction	Requirement 11. CEMP Requirement 15. SMP	Detailed Design/Pre- Construction/C onstruction,Applicant, Contractor

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
				where reasonably practicable. For the Grid Connection Corridor, access to agricultural lands will be maintained throughout the construction process, as far as is practicable. The construction of the Solar PV Site will be phased, with land continuing with its predevelopment agricultural use for as long as is practicable before the start of construction.					
#SA-07	Chapter 12: Socio- economics & Land Use [EN010152/APP/6.1], Framework CEMP/OEMP/DEMP [EN010152/APP/7.7 - 7.9], Section 3.9.	Framework SMP [EN010152/APP/7.10] , Section 4. Chapter 14: OET, Major Accidents & Disasters [EN010152/APP/6.1].	Land take, loss of BMV resource and degradation to soils.	UK Government's website advertising current occurrences and imposed restrictions with regards to animal and plant diseases will be checked both preconstruction and at regular intervals throughout construction. The Contractor will also subscribe to the Animal Disease Alert Subscription Service. All restrictions will be adhered to and may include additional biosecurity measures being implemented such as restricted movements within prevention zones and additional measures around the disinfection of plant and equipment (including boots and manual tools).	N/A	Embedded	Construction Operation and maintenance Decommissioning	Requirement 11. CEMP Requirement 12. OEMP Requirement 15. SMP Requirement 18. DEMP	Pre-Construction/Construction/Decommissioning, Applicant, Contractor

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
#SA-08	Chapter 12: Socio- economics & Land Use [EN010152/APP/6.1], Framework CEMP/DEMP [EN010152/APP/7.7 &7.9], Section 3.9.		Land take, loss of BMV resource and degradation to soils.	Soil stockpiles anticipated to be in place for longer than six months will be seeded with appropriate seed mix. Along with protecting the soil against erosion and nutrient loss, this will also help prevent colonisation of the stockpile by nuisance weeds that could spread seed onto adjacent land.	Stockpiles will be monitored for the presence of undesirable weed species and the stockpile vegetation cover will be managed as appropriate.	Embedded	Construction  Decommissioning	Requirement 11. CEMP Requirement 15. SMP Requirement 18. DEMP	Construction/D ecommissionin g,Applicant, Contractor
#SA-09	Chapter 12: Socio- economics & Land Use [EN010152/APP/6.1], Framework CEMP [EN010152/APP/7.7], Section 3.9.	Framework SMP [EN010152/APP/7.10]	Land take, loss of BMV resource and degradation to soils.	Where the Grid Connection Cables are laid in agricultural land, they will be installed below typical plough depth at a minimum depth of cover at 0.9m, so as not to interfere with normal agricultural operations. Within the Solar PV Site installation depth/depth of cover of On-Site Cables may be shallower as no ploughing will occur, but a minimum depth of 0.9 m will be in place for the Grid Connection Cables.	N/A	Embedded	Construction	Requirement 11. CEMP Requirement 15. SMP	Detailed Design/Constru ction;Applicant, Contractor
#SA-10	Chapter 12: Socio- economics & Land Use [EN010152/APP/6.1], Framework OEMP [EN010152/APP/7.8], Section 3.9.		Land take, loss of BMV resource and degradation to soils.	Soil movement during operation is not expected, but where localised small scale maintenance operations require excavations, etc, these works would be managed through adherence to the detailed SMP, with a Risk Assessment Method Statement (RAMS), Operating Procedure or	Maintenance works would be audited against the RAMS/Operating Procedure.	Embedded	Operation and maintenance	Requirement 12. OEMP	Operation, and maintenance – Applicant, Contractor

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
				similar which would include measures for the sustainable management of soil resources.					
#SA-11	Chapter 12: Socio- economics & Land Use [EN010152/APP/6.1], Framework OEMP [EN010152/APP/7.8], Section 3.9.	Framework SMP [EN010152/APP/7.10]	Degradation of land from grazing.	Should grazing be undertaken it would be managed to ensure that potential negative impacts from overgrazing, or damage to soil structure do not occur. For example, the size of the flock would be suitable for the area being grazed, the flock would be rotated as required and moved out of areas if the land is too wet. These measures would be set out in the detailed OEMP if required.	N/A	Embedded	Operation and maintenance	Requirement 12. OEMP Requirement 15. SMP.	Operation, and maintenance – Applicant, Contractor
#TA-01	Chapter 13: Transport & Access [EN010152/APP/6.1], Section 13.6	12: Socio-economics & Land Use, and Chapter 14: OET, Air Quality [EN010152/APP/6.1].	Increased traffic flows, including HGVs on the roads leading to the Order limits.  Severance and intimidation associated with increased construction traffic and abnormal loads.	The following mitigation measures related to construction/decommissi oning Transport and Access:  a. Suitable access points to enable movement of vehicles into the Order limits, where appropriate;  b. All access points that require the creation of a junction bellmouth would be designed based on the relevant standard from the Design Manual for Roads and Bridges (DMRB) CD 123 Geometric Design of at Grade Priority and Signal-Controlled	The appointed contractor will undertake such monitoring as is necessary, with examples provided in the mitigation/enhancements column. Further details to be confirmed in the detailed/CTMP. Other responsibilities are to be confirmed in the detailed CTMP.	Embedded	Construction Operation and maintenance Decommissioning	Requirement 4. Detailed Design Approval Requirement 11. CEMP Requirement 12. OEMP Requirement 13. CTMP Requirement 18. DEMP	

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
				Junctions and in consultation with the local highway authority, thereby negating any potential safety impact associated with construction activity.  c. Minimum car parking levels will be met at each of the Construction Compounds as set out in ES Volume III Appendix 13-4: Transport Assessment [EN010152/APP/6.3];  d. Swept path analysis for AILs, HGVs, and tractor/trailers has been conducted to ensure there is knowledge of where routing is appropriate. This information has been compiled within the Framework CTMP [EN010152/APP/7.17]					
				e. Pre and post construction road condition surveys will be undertaken at identified locations in coordination with the Local Highway Authority f. HGVs and AILs will be routed in accordance with the findings of the routing review for large vehicles as set out in the Framework					

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				CTMP [EN010152/APP/7.17] . There are expected to be 10 two-way movements associated with the delivery of transformers to the On-Site Substation; g. Utilising internal routes within the Solar PV Site to avoid using the existing road network where practicable; h. Managing the areas where traffic may have to use the road network, by providing appropriate visibility splays between construction vehicles and other road users, implementing traffic management (e.g. advanced signage to advise other users of the works, as well as manned controls at each crossing point (marshals/banksmen)), with a default priority that construction traffic will give-way to other users. This will also apply where construction traffic and PRoW may intersect; i. Ensure temporary traffic signals are implemented where necessary across the road network to reflect demand;					

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				j. Restricting HGV movements to certain routes as follows: Moss Road – SRN, A19; k. Route a proportion of inbound staff vehicles via Fenwick Common Lane/Haggs Lane to reduce traffic through Moss during the morning peak; l. Restricting HGV movements to ensure arrivals/departures between 09:00 and 17:00 to avoid increasing traffic levels on the surrounding highway network during the typical weekday peak hours; m. Implementing a Delivery Management System to control the bookings of HGV deliveries from the start of the construction period. This will be used to regulate the arrival times of HGVs via timed delivery slots, as well as to monitor compliance with HGV routing. In addition, adequate space will be made available within the Solar PV Site to ensure no queuing back onto the surrounding road					
				network occurs;					

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
				n. Implementing a monitoring system to record the route of all HGVs travelling to and from the Scheme, to record any noncompliance with the agreed routing strategy/delivery hours and to communicate any issues to the relevant suppliers to ensure the correct routes and times are followed;  o. Construction staff (e.g. non-HGV vehicles) will be directed to take the most direct route to the Scheme using 'higher' order roads, such as A and B classified roads or the SRN;  p. Encouraging local construction workers to car share to reduce single occupancy car trips. This will promote the benefits of car sharing, such as reduced fuel costs. A car share system will be implemented to match potential sharers and to help staff identify any colleagues who could potentially be collected along their route to/from the Scheme;  q. Implementing a shuttle bus service to transfer non-local workers					
				to/from local worker					

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				accommodation or pick-up locations (assumed minibus capacity of 25), to reduce vehicle trips on the surrounding highway network;  r. Providing limited (but sufficient) on-site car and cycle parking to accommodate the expected parking demand of workers for the Scheme;  s. To mitigate impacts for cyclists and pedestrians a communications strategy including regular meetings with contractors to review and address any issues will be implemented;  t. A specialised haulage service will be employed to allow AlLs to transport components with the necessary escort, permits and traffic management, with the contractor consulting the relevant highways authorities to ensure the correct permits are obtained. The police will also be given advanced notification under the Road Vehicle Authorisation					
				of Special Types Order 2003;					

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				A Framework CTMP [EN010152/APP/7.17] has been produced in accordance with this DCO Application and will be developed further by the appointed contractor in consultation with the Local Planning Authority, National Highways (as necessary), South Yorkshire Police and other stakeholders following award of consent. The structure of these documents will expand upon the information included in the Framework CTMP.					
#TA-02		Chapter 11: Noise & Vibration, Chapter 12: Socio-economics & Land Use, and Chapter 14: OET, Air Quality [EN010152/APP/6.1].	Vehicle movements during operation.	During the operation and maintenance phase, the following embedded design mitigation measures are proposed:  a. Operation and maintenance staff will be encouraged to take the most direct route to the Scheme using 'higher' order roads, such as A and B classified roads or the SRN;  b. HGV movements are anticipated to be low across the 40-year operation and maintenance phase, but when required HGV movements will be restricted to certain times of day (between 09:00 and 17:00) and restricted to the SRN	N/A	Embedded	Operation_and maintenance	Requirement 12. OEMP Requirement 17. PRoW	Detailed Design/Operati on, and maintenance – Applicant, Contractor

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
				and other 'higher' order roads where applicable (M62, M18, M180, A19);					
				c. Ensuring operation and maintenance staff park within the Solar PV Site during operation and maintenance to limit impact on parking available within the local road network;					
				d. Providing sufficient protection/separation between existing PRoW and the Scheme infrastructure (solar PV panels, BESS Area and the On-Site Substation) where necessary					
				using perimeter fencing installed at a minimum distance of 20 m on either side of the centre of the PRoW where solar infrastructure lies to					
				both sides or 15 m if solar infrastructure is to one side only; e. Main operational access to the Solar PV Site will be via Lawn					
				Lane; and Emergency access to the BESS Area and the On- Site Substation will be provided via Fenwick Common Lane/Haggs Lane and from Moss Road.					

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#AQ-01	Chapter 14: OET, Air Quality [EN010152/APP/6.1], Section 14-1.		Increased nitrogen dioxide (NO2) and particulate matter (PM10) from on-site and off-site construction vehicle/plant emissions.  Increased particulates and deposited dust from Site activities, materials transportation, storage and handling, including use of haul roads.	as outlined within the Institute of Air Quality Management (IAQM) guidance, which are commensurate with the level of risk identified in the assessment and the construction phase activities for the Scheme. As decommissioning operations are predicted to be similar to construction, the same good practice measures are predicted to apply.  Preparing and maintaining the Order limits  a. Plan Site layout so that machinery and dust causing activities are located away from receptors, as far as is possible.  a. Avoid site runoff of water or mud.  b. Keep site fencing, barriers and scaffolding clean using wet methods.  c. Remove materials that have a potential to produce dust from site.	CEMP will include the implementation of:  a. Daily on-site and offsite inspection, where receptors (including roads) are nearby, to monitor dust, record inspection results, and make the log available to the Local Authority when asked. This should include regular dust soiling checks of surfaces such as street furniture, cars and window sills within 100 m of Order Limits, with cleaning to be provided if necessary;  b. Regular Site inspections to monitor compliance with the DMP: record inspection results, and make an inspection log available to the Local Authority when asked. Increase the frequency of Site inspections when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions:		Construction Operation_and maintenance Decommissioning	Requirement 11. CEMP. Requirement 12. OEMP. Requirement 18. DEMP	All Phases,Applicant, Contractor

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	_	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
				d. Cover, seed or fence stockpiles to prevent wind whipping. e. Operating vehicle/machinery and sustainable travel. f. Ensure all vehicles switch off engines when stationary – no idling vehicles. g. Avoid the use of diesel- or petrol-powered generators and use mains electricity or battery powered equipment where practicable. h. Impose and signpost a maximum-speed-limit of 15 mph on surfaced and 10 mph on unsurfaced work areas. i. Produce a Construction Logistics Plan to manage the sustainable delivery of goods and materials. j. Implement a Travel Plan (as part of the Framework CTMP [EN010152/APP/7.17] ) that supports and encourages sustainable travel (public transport, cycling, walking, and car-sharing). Operations a. Only use cutting, grinding or sawing equipment fitted or in conjunction with	Inspection and recording procedures relating to the level of traffic movements, use and condition of haul routes.	_			
				suitable dust					

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
				suppression techniques such as water sprays or local extraction, e.g. suitable local exhaust ventilation systems.  b. Ensure an adequate water supply on the Order limits for effective dust/particulate matter suppression/mitigation , using non-potable water where practicable and appropriate.  c. Use enclosed chutes and conveyors and covered skips.  d. Minimise drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment and use fine water sprays on such equipment wherever appropriate.  e. Ensure equipment is readily available on site to clean any dry spillages, and clean up spillages as soon				Mechanism	
				as reasonably practicable after the event using wet cleaning methods.					
				Waste management a. Avoid bonfires and burning of waste materials.					
				Earthworks a. Re-vegetate earthworks and					

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				exposed areas/soil stockpiles to stabilise surfaces as soon as practicable.  b. Use Hessian, mulches or trackifiers where it is not possible to revegetate or cover with topsoil, as soon as practicable.  c. Only remove the cover in small areas during work and not all at once  Construction  a. 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.  b. For smaller supplies of fine power materials ensure bags are sealed after use and stored appropriately to prevent dust.  Trackout  a. Use water-assisted dust sweeper(s) on the access and local roads, to remove, as necessary, any material tracked out of the Order limits. This may require the sweeper being		Mitigation			
				continuously in use.					

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				<ul> <li>b. Avoid dry sweeping of large areas.</li> <li>c. Ensure vehicles entering and leaving sites are covered to prevent escape of materials during transport</li> <li>d. Inspect on-site haul routes for integrity and instigate necessary repairs to the surface as soon as reasonably practicable.</li> <li>e. Record all inspections of haul routes and any subsequent action in a Site log book.</li> <li>f. Install hard surfaced haul routes, which are regularly damped down with fixed or mobile sprinkler systems, or mobile water bowsers and regularly cleaned.</li> <li>g. Access gates to be located at least 10 m from receptors where practicable.</li> </ul>					
#AQ-02	Chapter 14: OET, Air Quality [EN010152/APP/6.1], Section 14-1.	Chapter 14: OET, Ground Conditions [EN010152/APP/6.1].	Increased nitrogen dioxide (NO2) and particulate matter (PM10) from on-site and off-site construction vehicle/plant emissions. Increased particulates and deposited dust from Site activities, materials transportation, storage and handling, including use of haul roads.	(DMP), which may	As above.	Embedded	Construction Decommissioning	Requirement 11. CEMP. Requirement 18. DEMP.	Detailed Design/Pre- Construction/C onstruction;Applicant Contractor

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			Silt-laden run off, spillage of chemicals or oils and air borne dust emissions.	measures within the IAQM guidance. The desirable measures should be included as appropriate for the Order limits. The DMP may include monitoring of dust deposition, dust flux, real-time PM10 continuous monitoring and/or visual inspections;  b. 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;  c. Make the complaints log available to the Local Authority City of Doncaster Council when asked.  d. Record any exceptional incidents that cause dust and/or air emissions, either on- or off-site, and the action taken to resolve the situation in the log book; and Hold regular liaison meetings with other high		Mitigation			
				risk construction sites within 500 m of the Order limits, to ensure plans are co-ordinated and dust and particulate matter emissions are minimised. It is important					

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				to understand the interactions of the off-site transport/deliveries which might be using the same strategic road network routes.					
AQ-03	Chapter 14: OET, Air Quality [EN010152/APP/6.1], Section 14-1.	Chapter 12: Socio- economics & Land Use [EN010152/APP/6.1].	Increased exposure of receptors to air quality emissions due to lack of awareness	<ul> <li>a. Develop and implement a Stakeholder Communications Plan that includes community engagement before work commences onsite;</li> <li>b. Display the name and contact details of contact details for the Site Manager or alternative public interface with whom air quality and dust complaints/concerns can be lodged; and Display the head or regional office contact information.</li> </ul>	As above.	Embedded	Construction Decommissioning	Requirement 11. CEMP. Requirement 18. DEMP.	Detailed Design/Pre- Construction/C onstruction,Applicant, Contractor
#GG-01	Chapter 14: OET, Glint & Glare [EN010152/APP/6.1], Section 14-2.	Chapter 8: Ecology [EN010152/APP/6.1].	Potential to impact on residential receptors	Native hedgerows will be planted/infilled and maintained to a range of heights between 2.5 m and 3.5 m along the southern boundary of Field SE2, along the southwest boundary of Fields SW11 and SW12, and along the southern boundary of Field SW10.	Monitoring of hedgerows is described in the Framework LEMP [EN010152/APP/7.14].	Additional	Construction Operation and maintenance	Requirement 6. LEMP. Requirement 11. CEMP. Requirement 12. OEMP.	Construction/O peration; and maintenance – Applicant, Contractor
#GC-01	Chapter 14: OET, Ground Conditions [EN010152/APP/6.1], Framework CEMP & DEMP	Chapter 14: OET, Air Quality [EN010152/APP/6.1].		Ground investigation works will be undertaken prior to commencing construction. Results would be reviewed by the appointed Contractor,	To be included in the detailed CEMP. Temporary drainage will be monitored throughout construction.	Embedded	Construction Decommissioning	Requirement 11. CEMP Requirement 18. DEMP	Pre- Construction/C onstruction/Dec ommissioning,

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	[EN010152/APP/7.7 & 7.9], Table 3.13.		and groundwater contamination. The discovery of ground contamination during groundworks. Levelling of the Order limits including the possible introduction of new fill materials.	including any additional investigation or mitigation measures beyond the impact avoidance measures stated here. Good practice avoidance and mitigation measures proposed include:  a. All workers would be required to wear Personal Protective Equipment (PPE), such as dust masks, as applicable;  b. Containment measures would be implemented, including drip trays, bunding or double-skinned tanks of fuels and oils; all chemicals would be stored in accordance with their COSHH guidelines, whilst spill kits would be provided in areas of fuel/oil storage;  c. All plant and machinery would be kept away from surface water bodies wherever possible, checked regularly and, where necessary, the use of drip trays would be employed. Refuelling and delivery areas would be located away from surface water drains;  d. An Emergency Spillage Action Plan (or similar title) will be produced prior to					Applicant, Contractor

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				construction. This will be covered in the site induction or at separate ToolBox Talk ensuring that all staff are aware of and understand its content and the provisions made to contain any leak/spill;  e. Should any potentially contaminated ground, including isolated 'hotspots' of contamination and/or potential deposits of asbestos containing materials (ACM), be encountered, the Contractor would investigate the areas and assess the need for containment or disposal of the material. The Contractor would assess whether any additional health and safety measures are required;  f. To further seek to minimise the risks of contaminants being transferred and contaminating other soils or water, construction workers would be briefed as to the possibility of the presence of such materials;  g. In the event that contamination is identified, appropriate remediation measures					

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				would be taken to protect construction workers, future site users, water resources, structures and services; h. The Contractor would be required to place arisings and temporary stockpiles away from watercourses and drainage systems, whilst surface water would be directed away from stockpiles to prevent erosion; i. The risk to surface water and groundwater from runoff from any contaminated stockpiles during construction works would be reduced by implementing suitable measures to minimise rainwater infiltration and/or capture runoff and leachates, through use of bunding and/or temporary drainage systems. These mitigation measures would be designed in line with current good practice, follow appropriate guidelines and all relevant licences/permits; j. The Contractor will ensure that all material is suitable for its					
				proposed use and					

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				would not result in an increase in contamination-related risks on identified receptors, including any landscaped areas and underlying groundwater;  k. Any waters removed from excavations by dewatering would be discharged appropriately, subject to the relevant permits being obtained from the Environment Agency;  I. The Contractor will implement a dust suppression/managem ent system in order to control the potential risk from airborne contamination migrating off-site to adjacent sites; and m. Piling design and construction works will be completed following the preparation of a piling risk assessment.  Dust management measures are described in ES Volume I Chapter 14: Other Environmental Topics		Miligation			
#GC-02		[EN010152/APP/6.1].	Potential for risks to human health associated with waste generation, land contamination,	[EN010152/APP/6.1], Section 14-1 Air Quality.  Prior to work commencing, a health and safety risk assessment should be undertaken by the	To be included in the detailed CEMP.	Embedded	Construction Decommissioning	Requirement 11. CEMP Requirement 18. DEMP	Pre- Construction/D ecommissionin g <sub>7</sub>

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	[EN010152/APP/7.7 & 7.9], Table 3.13.		and groundwater contamination. The discovery of ground contamination during groundworks. Levelling of the Order limits including the possible introduction of new fill materials.	appointed principal contractor and developed in accordance with current health and safety regulations. This assessment should cover potential risks to construction staff, current site users/visitors and neighbouring users. Based on the findings of this health and safety risk assessment, appropriate mitigation measures should be implemented during the construction period.					Applicant, Contractor
#GC-03		Chapter 14: OET, Air Quality [EN010152/APP/6.1].	with waste generation, land contamination, airborne contamination and groundwater contamination.	Limited intrusive ground investigation and Generic Quantitative Risk Assessment (GQRA) is proposed to be undertaken prior to construction in the areas of potential contamination, as indicated in the Phase 1 PRA reports (ES Volume III Appendix 14-3: Phase 1 Preliminary Risk Assessment (PRA) – Solar PV Site [EN010152/APP/6.3] and ES Volume III Appendix 14-4: Phase 1 PRA – Grid Connection Corridor [EN010152/APP/6.3]).	To be included in the detailed CEMP.	Embedded	Construction Decommissioning	Requirement 11. CEMP Requirement 18. DEMP	Pre-Construction/D ecommissionin g,Applicant, Contractor
#GC-04		Chapter 14: OET, Air Quality [EN010152/APP/6.1].	Potential for risks to human health associated with waste generation, land contamination, airborne contamination	A Water Management Plan which includes details of pollution prevention will be prepared post-consent.	To be included in the detailed CEMP. Temporary drainage will be monitored throughout construction.	Embedded	Construction Decommissioning	Requirement 11. CEMP Requirement 18. DEMP	Detailed Design,Applicant

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	[EN010152/APP/7.7 & 7.9], Table 3.13.		and groundwater contamination. The discovery of ground contamination during groundworks. Levelling of the Order limits including the possible introduction of new fill materials.						
#GC-05	Chapter 14: OET, Ground Conditions [EN010152/APP/6.1], Framework CEMP & DEMP [EN010152/APP/7.7 & 7.9], Table 3.13.	Chapter 14: OET, Air Quality [EN010152/APP/6.1].	Potential for risks to human health associated with waste generation, land contamination, airborne contamination and groundwater contamination.  The discovery of ground contamination during groundworks.  Levelling of the Order limits including the possible introduction of new fill materials.	During construction, the Scheme will be undertaken in compliance with Construction Design and Management (CDM) 2015 Regulations.	To be included in the detailed CEMP.	Embedded	Construction Decommissioning	Requirement 11. CEMP Requirement 18. DEMP	Construction/D ecommissionin $g_{\bar{\tau}}$ Applicant, Contractor
#MD-01	Chapter 14: OET, Major Accidents & Disasters [EN010152/APP/6.1], Section 14-4.	Chapter 8: Ecology and Chapter 10: Landscape [EN010152/APP/6.1].	Plant or Animal Disease.	a. A Biosecurity Plan will be provided post consent. This will provide measures to prevent the spread of plant or animal diseases and the transfer of injurious weed species and invasive species.  Measures are likely to include appropriate cleaning and/or disinfection of machinery and equipment in areas considered to be at high risk.  The UK Government's website advertising	N/A	Embedded	Construction Decommissioning	Requirement 6. LEMP. Requirement 11. CEMP. Requirement 18. DEMP	Detailed Design/Pre- Construction/C onstruction/Dec ommissioning,Applicant, Contractor

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
	Chapter 14: OET, Major Accidents & Disasters [EN010152/APP/6.1], Framework CEMP & DEMP [EN010152/APP/7.7 & 7.9], Table 3.14.		Utilities Failure.	current occurrences and imposed restrictions with regards to animal and plant diseases will be checked both preconstruction and at regular intervals throughout construction The species mix described in the Framework LEMP [EN010152/APP/7.14] has been chosen to avoid the use of species for which there is a known increased risk of disease or pathogen and to introduce greater variety (and resilience) into the planting.  Electrical cables are required to connect generating components with electricity management infrastructure within the Solar PV Site before connecting to the On-Site Substation. These works are subject to Risk Assessment Method Statements (RAMS) which will be produced by the Contractor.  All works will be undertaken in accordance with relevant Health and Safety legislation and guidance. Details of fire, police, emergency services and hospitals will be publicised and included in the site induction.	N/A	Embedded	Construction Decommissioning	Requirement 11. CEMP. Requirement 18. DEMP.	Pre-Construction/D ecommissionin g,Applicant Contractor

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
				The relevant risk assessments for safety during construction will be required and produced by the contactor prior to construction, which will be implemented to minimise the risk of accidents and disasters on Site.					
#MD-03	Chapter 14: OET, Major Accidents & Disasters [EN010152/APP/6.1], Section 14-4.	-	Risk of fire from BESS Containers.	A Framework BSMP [EN010152/APP/7.16] has been produced and will be referred to during operation to safely reduce and manage the risk of fire during operation. A full version will be produced prior to commissioning.	N/A	Embedded	Operation <u>and</u> maintenance	Requirement 4. Battery Safety Management.	Operation, and maintenance – Applicant Contractor
#TTRU- 01	Chapter 14: OET, Telecommunication s, TV Reception & Utilities [EN010152/APP/6.1], Section 14-5.	Chapter 14: OET, Ground Conditions [EN010152/APP/6.1].	Potential to affect existing utility infrastructure above and below ground as a result of excavation and engineering operations.	Precautionary measures have been included as part of the embedded mitigation for the Scheme, including:  a. Locating the Scheme outside of utilities protected zones;  b. Reviewing available utilities data/mapping and the use of ground penetrating radar before excavation to identify any unknown utilities;  c. Agreement of construction/demobilis ation methods prior to works commencing. Engagement with relevant statutory undertakers is ongoing; and	N/A	Embedded	Construction Decommissioning	Requirement 11. CEMP. Requirement 18. DEMP.	Detailed Design/Pre- Construction/C onstruction/Dec ommissioning,Applicant, Contractor

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
				Consultation and agreement of decommissioning/demobilisation methods will be undertaken prior to works commencing (this would be covered by the protective provisions included in the DCO).					
#TTRU- 02	Chapter 14: OET, Telecommunication s, TV Reception & Utilities [EN010152/APP/6.1], Section 14-5.	Chapter 14: OET, Ground Conditions [EN010152/APP/6.1].	Potential to affect existing utility infrastructure above and below ground as a result of excavation and engineering operations.	Measures in relation to safe working beneath overhead lines will be in place at all stages of the Scheme, for example ensuring adequate clearances are in place when plant and equipment is being moved beneath the overhead lines.  Similarly, measures in relation to safe working near buried utilities, particularly gas pipelines, will be in place at all stages of the Scheme. For example, mitigation set out in National Grid and Northern Gas Networks guidance documents for third parties working in the vicinity of high pressure gas pipelines and associated installations. Precautionary measures have been included as part of the embedded mitigation for the Scheme, including:  Pre-Work Consultation and Planning  a. Contacting National Grid or Northern Gas	SHE Manager to conduct daily monitoring for signage and height barriers.	Embedded	Construction Operation and maintenance Decommissioning	Requirement 11. CEMP. Requirement 12. OEMP. Requirement 18. DEMP.	All Phases,Applicant, Contractor

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
				Networks early in the project planning stage to discuss the proximity to pipelines and associated risks;  b. Use of pipeline location services (such as 'Dial Before You Dig') to accurately locate high-pressure pipelines before any work begins; and  c. Implementation of Site-Specific Risk Assessments considering the presence of pipelines and installations, to develop appropriate safety controls.  Establish Safe Working Practices  a. Adhere to minimum safe working distances from pipelines, which may vary depending on the type of work and the equipment being used;  b. Hand digging is required when working directly over or near a pipeline to avoid accidental damage;  c. Restrictions apply to the use of powered mechanical tools. If allowed, these tools must not be used directly above the pipeline and should be operated at a safe distance; and					

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				d. Protective measures, such as using fencing or physical barriers, may be required to prevent accidental damage from construction equipment.  Permit and Supervision Requirements  a. In some cases, a permit-to-work system will be required, meaning no work can start until the appropriate permits have been obtained; and  b. National Grid or Northern Gas Networks may require on-site supervision by their representatives to monitor work and ensure safety measures are followed.					
				Pipeline Integrity and Monitoring					
				a. Regular monitoring during construction activity to ensure that pipelines remain stable and undisturbed;					
				b. Avoiding Heavy Loads Over Pipelines; and					
				c. Techniques such as sleeving, padding, or additional protective layers may be employed where necessary to protect					

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				the pipeline from physical impacts.  Emergency Procedures  a. Production of an Emergency Response Plan (ERP) including details on evacuation plans and immediate reporting of any damage or gas leaks; and  b. If a pipeline is struck or suspected of being damaged, all work must stop immediately, and the incident must be reported to the relevant authorities.  Post-Work Inspection  a. After work is completed, an inspection may be required to verify that the pipeline and surrounding area remain safe and undamaged; and  Accurate records of the work carried out near pipelines should be kept for future reference and					
#TTRU- 03	Chapter 14: OET, Telecommunication s, TV Reception & Utilities [EN010152/APP/6.1], Section 14-5.	Chapter 14: OET, Ground Conditions [EN010152/APP/6.1].	Potential to affect existing utility infrastructure above and below ground as a result of excavation and engineering operations.	compliance checks.  The draft DCO [EN010152/APP/3.1] includes protective provisions for the protection of electronic communication networks and utilities.	N/A	Embedded	Construction Operation and maintenance	Requirement 11. CEMP Requirement 12. OEMP	Construction/O peration; and maintenance – Applicant Contractor
#MW-01	Chapter 14: OET, Materials & Waste	-	Disposal of waste. Potential to impact on sensitive receptors	The Scheme will aim to prioritise waste prevention, followed by	A register of all waste loads leaving the Order limits would be	Embedded	Construction Operation and maintenance	Requirement 11. CEMP.	All Phases, Applicant _Contractor

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	[EN010152/APP/6.1], Section 14-6.		(humans, wildlife and controlled waters) if not stored and managed appropriately.	preparing for reuse, recycling and recovery and lastly disposal to landfill as per the waste hierarchy.  All management of waste will be in accordance with the relevant regulations and waste will be transported by licensed waste hauliers to waste management facilities which hold the necessary regulatory authorisation and/or permits for those wastes consigned to them.	maintained to provide a suitable audit trail for compliance purposes and to facilitate monitoring and reporting of waste types, quantities and management methods.		Decommissioning	Requirement 12. OEMP. Requirement 18. DEMP.	
#MW-02	Chapter 14: OET, Materials & Waste [EN010152/APP/6.1], Section 14-6.		Disposal of waste. Potential to impact on sensitive receptors (humans, wildlife and controlled waters) if not stored and managed appropriately.	The construction of the Scheme will be subject to measures and procedures which will include the implementation of industry standard practice and control measures for environmental impacts arising during construction, such as the control of dust and the approach to material and waste management onsite. A Framework SWMP  [EN010152/APP/7.18] accompanies the measures set out in this document, and is included alongside the ES, which sets out:  a. The waste streams that will be generated;  b. How the waste hierarchy will be	The types, quantities and final destination of waste generated during the construction phase would be identified, measured and recorded through the WMP.		Construction Operation_and maintenance Decommissioning	Requirement 11. CEMP. Requirement 12. OEMP. Requirement 18. DEMP.	All Phases, — Applicant , Contractor

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
				applied to these wastes; c. Good practice measures for managing waste; and d. Roles and responsibilities for waste management. The construction contractor will use these documents to produce their CEMP and detailed WMP prior to works commencing on-site.					
#MW-03	Chapter 14: OET, Materials & Waste [EN010152/APP/6.1], Framework CEMP & DEMP [EN010152/APP/7.7 & 7.9], Table 3.16.		Disposal of waste. Potential to impact on sensitive receptors (humans, wildlife and controlled waters) if not stored and managed appropriately.	To reduce the potential impacts from materials and waste, and to achieve high levels of sustainability in the Scheme as a whole, the Principal Contractor will apply the principles of the waste hierarchy and adopt best practice measures (BPM) which go beyond statutory compliance.  This may include BPMs set out in construction industry guidance for example, guidance from the Considerate Constructors Scheme (CCS), Waste & Resources Action Programme (WRAP) and CIRIA.  The following approaches will be implemented, where practicable, to minimise the quantity of waste arising and requiring disposal:	N/A	Embedded	Construction Decommissioning	Requirement 11. CEMP. Requirement 18. DEMP.	Construction/D ecommissionin g <sub>7</sub> Applicant, Contractor

Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
			<ul> <li>a. Agreements with material suppliers to reduce the amount of packaging or to participate in a packaging take-back scheme;</li> <li>b. Implementation of a 'just-in-time' material delivery system where practicable to avoid materials being stockpiled, which can increase the risk of damage and subsequent disposal as waste;</li> <li>c. Attention to material quantity requirements to avoid over-ordering and the generation of waste materials due to surplus;</li> <li>d. Reuse of materials onsite wherever feasible, e.g. reuse of excavated soil for landscaping;</li> <li>e. Off-site prefabrication, where practical, including the use of prefabricated structural elements;</li> <li>f. Segregation of waste at source, where practical, to facilitate a high proportion and high-quality recycling; and</li> <li>g. Off-site reuse, recycling and recovery of materials and waste where reuse on-site is not practical, e.g.</li> </ul>					

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
				Through use of an off- site waste segregation or treatment facility or for direct reuse or reprocessing off-site.					
#MW-03	Materials & Waste	Quality [EN010152/APP/6.1].	Disposal of waste. Potential to impact on sensitive receptors (humans, wildlife and controlled waters) if not stored and managed appropriately.	The Principal Contractor will implement the following waste management measures, where practicable, to minimise the likelihood of any localised impacts from pollution or nuisance from waste on the surrounding environment:  a. Damping down of surfaces during spells of dry weather and brushing/water spraying of heavily used hard surfaces/access points across the Order limits as required;  b. Burning of waste or unwanted materials will not be permitted on-site;  c. All hazardous materials including fuels, chemicals, cleaning agents, solvents and solvent containing products to be properly sealed in containers at the end of each day prior to storage in appropriately protected and bunded storage areas;  d. All construction workers will be	N/A	Embedded	Construction Decommissioning	Requirement 11. CEMP. Requirement 18. DEMP.	Construction/D ecommissionin g,Applicant, Contractor

ID	Primary Topic and Location in ES	Secondary Topic and Location in ES	Effect	Commitment	Monitoring	Embedded or Additional Mitigation	Phase	Commitment Securing Mechanism	Delivery and Responsibility
				required to use appropriate personal protective equipment whilst performing activities on-site; e. Any waste effluent will be tested and, where necessary, disposed of at a correctly licensed facility by a licensed specialist contractor/s; and Materials requiring removal from the Order limits will be transported using licensed carriers and records will be kept detailing the types and quantities of waste		Mitigation			
				moved, and the destinations of this waste, in accordance with the relevant regulations.					



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