Light Valley Solar

Environmental Statement Volume 1

Chapter 6: Biodiversity

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Light Valley Solar

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Chapter 6: Biodiversity

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6 Biodiversity

6.1 Introduction

6.1.1 This chapter presents the findings of the Environmental Impact Assessment (EIA), focusing on an assessment of the likely significant effects arising from the construction, operation and decommissioning of the Proposed Development in respect of terrestrial and aquatic biodiversity, excluding ornithology, which is covered in Chapter 12: Ornithology (ES Volume 1) **[EN0110012/APS/LVS/06.01.12].**

6.1.2 This chapter and associated ecological survey work has been completed by Tyler Grange Ltd. The aquatic ecology surveys and assessment have been completed by Arup, which is also presented within this chapter. Ornithological surveys and assessment have been completed by Avian Ecology, presented in Chapter 12: Ornithology (ES Volume 1) **[EN0110012/APS/LVS/06.01.12]**.

6.1.3 This chapter sets out the relevant legislation, policy, standards and guidance applied to the assessment process, consultation undertaken to inform the assessment, assessment methodology, the relevant baseline conditions upon which the assessment is based, embedded mitigation considered in place before the assessment is undertaken, the likely significant effects that may arise as a result of the Proposed Development considering embedded mitigation, further mitigation requirements to reduce or remove any identified likely significant effects, the remaining residual effects following further mitigation, and any monitoring required for remaining significant effects.

6.1.4 The conclusions of the following topic assessments are considered relevant to the receptors considered within this assessment, and as such are taken into account in the overall assessment for biodiversity:

1) Chapter 11: Noise and Vibration (ES Volume 1) **[EN0110012/APS/LVS/06.01.11]**;
2) Chapter 12: Ornithology (ES Volume 1) **[EN0110012/APS/LVS/06.01.12]**;
3) Chapter 15: Water Resources and Flood Risk (ES Volume 1) **[EN0110012/APS/LVS/06.01.15]**; and
4) Chapter 16: Other Environmental Matters (ES Volume 1) - in particular the Construction Dust Assessment **[EN0110012/APS/LVS/06.01.16]**.

6.1.5 This chapter is supported by the following figures (ES Volume 2):

1) Figure 6.1: Statutory Designated Sites - International Designations 20 km **[EN0110012/APS/LVS/06.02.06.01]**;
2) Figure 6.2: Statutory Designated Sites - National Designations 2 km **[EN0110012/APS/LVS/06.02.06.02]**;
3) Figure 6.3 : SSSI Impact Risk Zones 2 km [**EN0110012/APS/LVS/06.02.06.03**];

4) Figure 6.4: Non-Statutory Designated Sites 2 km – Technical Assessment **[EN0110012/APS/LVS/06.02.06.04];**
5) Figure 6.5: Priority Habitats 2 km **[EN0110012/APS/LVS/06.02.06.05];**
6) Figure 6.6: UK Habitat Classification Results V2 **[EN0110012/APS/LVS/06.02.06.06]**;
7) Figure 6.7: Otter Survey Results V2 **[EN0110012/APS/LVS/06.02.06.07];**
8) Figure 6.8: Badger Survey Results V2 *(Confidential, only available on request to those who have a legitimate need to view this information)* (ES Volume 2) **[EN0110012/APS/LVS/06.02.06.08]**;
9) Figure 6.9: Bat Activity Transects and Static Locations V2 **[EN0110012/APS/LVS/06.02.06.09]**;
10) Figure 6.10: GCN eDNA Results V2 **[EN0110012/APS/LVS/06.02.06.10]**;
11) Figure 6.11: Water Vole Results V2 **[EN0110012/APS/LVS/06.02.06.11]**; and
12) Figure 6.12 Fish Habitat Assessment, EA Monitoring Locations and eDNA Survey Locations **[EN0110012/APS/LVS/06.02.06.12]**.

6.1.6 This chapter is supported by the following appendices (ES Volume 3):

1) Appendix 6.1: Habitats Report V2 **[EN0110012/APS/LVS/06.03.06.01]**;
2) Appendix 6.2: Otter Report V2 **[EN0110012/APS/LVS/06.03.06.02]**;
3) Appendix 6.3: Badger Report V2 **[EN0110012/APS/LVS/06.03.06.03]** (Confidential, only available on request to those who have a legitimate need to view this information);
4) Appendix 6.4: Bat Report V3 **[EN0110012/APS/LVS/06.03.06.04]**;
5) Appendix 6.5: Fish Habitat Assessment and eDNA Survey (Aquatics Report) **[EN0110012/APS/LVS/06.03.06.05]**;
6) Appendix 6.6 GCN Report V2 **[EN0110012/APS/LVS/06.03.06.06]**; and
7) Appendix 6.7 Water Vole Report V2 **[EN0110012/APS/LVS/06.03.06.07]**.

6.1.7 This chapter is also supported by the Biodiversity Net Gain (BNG) Report V2 **[EN0110012/APP/LVS/05.09]** and **Statutory Biodiversity Metric V2** for the Proposed Development [**EN0110012/APP/LVS/05.09.01]**.

6.2 Scope of the assessment

Study Area

6.2.1 The Proposed Development's boundary, herein referred to as the 'Order Limits' (1,270 hectares (ha)), is made up of four broad areas, the Solar Development Sites (900 ha), Cable Route Corridor (328.5 ha), Highways Improvements Areas (17.1 ha), and Solar Development Site 8 Access (24.1 ha).

6.2.2 The main element of the Proposed Development comprises seven Solar Development Sites (Solar Development Sites 1-4 and 6-8), as presented in Figure 1.1: Site Location Plan and Order Limits (ES Volume 2) [**EN0110012/APP/LVS/06.02.01.01]**, that will accommodate the Solar PV Panels. A BESS Compound will be located within Solar Development Site 2.

6.2.3 The Cable Route Corridor is the area within which the export connection cables (hereafter referred to as the 'Grid Connection Cables') would be located to connect the Solar PV Sites to the National Grid at the existing Monk Fryston Substation (hereafter referred to as the 'Existing National Grid Monk Fryston Substation') and the area within which cables connecting the Solar Development Sites would be located (hereafter referred to as 'Interconnecting Cables') (refer to Figure 2.1: Illustrative Site Layout Plan (ES Volume 2) [**EN0110012/APP/LVS/06.02.02.01**].

6.2.4 The Highways Improvement Areas are sections of the highway network that will contain localised improvements to allow movement of construction vehicles on narrower sections of the local highway network, such as improvements to the road edge, traffic management, and provision of temporary passing places or visibility splays. The Solar Development Site 8 Access area will provide optionality to access Solar Development Site 8 from the north. The entirety of the Order Limits is within the administrative area of North Yorkshire Council (NYC) and falls within what was Selby district.

6.2.5 Within this chapter, the Cable Route Corridor, Highways Improvements Areas, and Solar Development Site 8 Access are collectively referred to as "Order Limits Outside of the Solar Development Sites".

6.2.6 The Study Area for ecological surveys includes land within the Solar Development Sites 1-4 and 6-8, the Order Limits Outside of the Solar Development Sites, and an appropriate buffer zone from the Order Limits as suitable for each of the ecological receptors, as described below.

6.2.7 The boundaries and radii established for the ecological Study Area align with commonly accepted industry practices and the distances that regulatory authorities typically expect to be considered when identifying potential impacts beyond the Order Limits. This approach is based on the published guidelines and professional expertise as set out in Table 6-2 below.

6.2.8 Ecologically important features that may be directly or indirectly impacted by the Proposed Development within the Order Limits will be assessed within this chapter. The size and scope of the Study Area varies depending on the specific

ecological feature at risk. The following has been applied from the boundaries of the Order Limits:

1) Figure 6.1: Statutory Designated Sites - International Designations 20 km (ES Volume 2) **[EN0110012/APS/LVS/06.02.06.01]**;
2) Figure 6.2: Statutory Designated Sites – National Designations 2 km (ES Volume 2) **[EN0110012/APS/LVS/06.02.06.02]**;
3) Figure 6.3: SSSI Impact Risk Zones (ES Volume 2) **[EN0110012/APS/LVS/06.02.06.03]**;
4) Figure 6.4: Non-Statutory Designated Sites 2 km – Technical Assessment (ES Volume 2) **[EN0110012/APS/LVS/06.02.06.04]**;
5) Figure 6.5: Priority Habitats 2 km (ES Volume 2) **[EN0110012/APS/LVS/06.02.06.05]**;
6) Notable and protected species – 2 km radius;
7) Figure 6.6: UK Habitat Classification Results V2 (ES Volume 2) **[EN0110012/APS/LVS/06.02.06.06]** – the Order Limits;
8) Figure 6.9: Bat Activity Transects and Static Locations V3 (ES Volume 2) **[EN0110012/APS/LVS/06.02.06.09]** – the Solar Development Sites;
9) Ground Level Tree Assessment (GLTA) and emergence surveys for bats- the Order Limits. The GLTA results are also shown on Figure 6.9: Bat Activity Transects and Static Locations V3 (ES Volume 2) **[EN0110012/APS/LVS/06.02.06.09]**;
10) Figure 6.7: Otter Survey V2 (ES Volume 2) **[EN0110012/APS/LVS/06.02.06.07]** – the Order Limits and suitable habitat within 200 m of proposals;
11) Figure 6.10: GCN eDNA Results V2 (ES Volume 2) **[EN0110012/APS/LVS/06.02.06.10]** – of ponds within the Solar Development Sites and 250 m radius;
12) Great Crested Newt - Habitat Suitability Index (HSI) Assessment for ponds within the Solar Development Sites and 250 m radius;
13) Figure 6.11: Water Vole Survey V2 (ES Volume 2) **[EN0110012/APS/LVS/06.02.06.11]** – the Order Limits;
14) Figure 6.8: Badger Survey V2 (ES Volume 2) **[EN0110012/APS/LVS/06.02.06.08]** - the Order Limits and 30 m radius where appropriate;
15) Figure 6.12: Fish Habitat Assessment, EA Monitoring Locations and eDNA Survey Locations (ES Volume 2) **[EN0110012/APS/LVS/06.02.06.12]** – the Order Limits; and
16) Figure 6.12: Fish Habitat Assessment, EA Monitoring Locations and eDNA Survey Locations (ES Volume 2) **[EN0110012/APS/LVS/06.02.06.12]** - White-clawed crayfish eDNA survey – the Order Limits;

6.2.9 The above list has been informed by subsequent and ongoing consultation with NYC, the Environment Agency, and Natural England (NE), as detailed in Table 6-5.

Scoping

6.2.10 The EIA Scoping Report (see Appendix 1.1 (ES Volume 3) **[EN0110012/APP/LVS/06.03.01.01]**) sets out the proposed scope for the assessment of biodiversity and was submitted to the Planning Inspectorate (PINS) on 11 November 2024.

6.2.11 The EIA Scoping Opinion was issued by PINS on 19 December 2024 (Appendix 1.2 (ES Volume 3) **[EN0110012/APP/LVS/06.03.01.02]**).

6.2.12 The scope of the biodiversity assessment, associated scoping comments, and how these have been addressed is presented in Table 6-1 below.

6.2.13 Additional general scoping comments and how these have been addressed are included in Table 6-1 below.

Table 6-1 Biodiversity assessment scope

Feature	Scope of Surveys	Relevant Scoping Opinion Comments and I.D.	Scoped in / out	Summary Comments (how scoping comment has been addressed or justification for scoping in/out, where applicable)
Skipwith Common Special Area of Conservation (SAC) and Site of Specific Scientific Interest (SSSI) (115 m south-east of the Highways Improvement Areas and 710 m south of the Cable Route Corridor)	Desk based review	PINS [I.D. 3.3.1] With regards to Skipwith Common SAC and SSSI, PINS stated that a full assessment of the direct and indirect effects on any national and international designated sites, such as SSSIs and any mitigation measures to avoid, minimise or reduce any adverse significant effects should be set out in the ES.	Scoped in for all phases	Assessment of the potential impacts on the qualifying features of the SAC and SSSI as a result of the Proposed Development is included in Environmental Statement (ES) and the Shadow Habitats Regulations Assessment (HRA) Report **[EN0110012/APP/LVS/05.11]**.

Feature	Scope of Surveys	Relevant Scoping Opinion Comments and I.D.	Scoped in / out	Summary Comments (how scoping comment has been addressed or justification for scoping in/out, where applicable)
Lower Derwent Valley SAC and Ramsar site (2.8 km east of Solar Development Site 1) including the various underlying SSSIs (Derwent Ings SSSI 2.8 km east of Solar Development Site 1, Melbourne and Thorn Ings SSSI 6.5 km north-east of Solar Development Site 1, Breighton Meadows SSSI 6.1 km south-east of the Cable Route Corridor, and Newton Mask SSSI 7.7 km north-east of Solar Development Site 1)	Desk based review	PINS [I.D. 3.3.2] With regards to Lower Derwent Valley SAC, PINS noted that the EIA Scoping Report states that potential impacts to qualifying features such as otter arising from indirect effects of construction if runoff were to result in pollution of Pallion Dike will be mitigated by following the standard pollution prevention measures outlined in the Outline Construction Environmental Management Plan (oCEMP) [**EN0110012/APP/LVS/07.02**] and Outline Landscape and Ecological Management Plan (oLEMP) [**EN0110012/APP/LVS/07.05**]. PINS did not agree that this matter can be scoped out at this stage, without evidence demonstrating that no significant effects from the Proposed Development are likely and clear agreement with relevant statutory bodies where possible should be submitted with the ES.	Scoped in for all phases	Assessment of the potential impacts on the qualifying features of the SAC, Ramsar and underlying SSSIs as a result of the Proposed Development included in ES and the HRA Report **[EN0110012/APP/LVS/05.11]**.

Feature	Scope of Surveys	Relevant Scoping Opinion Comments and I.D.	Scoped in / out	Summary Comments (how scoping comment has been addressed or justification for scoping in/out, where applicable)
River Derwent SAC (3 km east of Solar Development Site1)	Desk based review	PINS [I.D. 3.3.3] With regards to River Derwent SAC, PINS noted that the EIA Scoping Report states that potential impacts to qualifying features such as river lamprey arising from indirect effects of construction if runoff were to result in pollution of Pallion Dike (which eventually connects to the River Derwent via Common Drain and Old Derwent) will be mitigated by following the standard pollution prevention measures outlined in the oCEMP [**EN0110012/APP/LVS/07.02**]/ oLEMP [**EN0110012/APP/LVS/07.05**]. PINS did not agree that this matter can be scoped out at this stage, without evidence demonstrating that no significant effects from the Proposed Development are likely and clear agreement with relevant statutory bodies where possible should be submitted with the ES.	Scoped in for all phases	Assessment of the potential impacts on the qualifying features of the SAC as a result of the Proposed Development included in ES. However, it should be noted that upon further analysis (and contrary to the understanding of flow paths at the time the EIA Scoping Report was published) there is considered to be no hydrological connection to the River Derwent SAC via any watercourses affected by construction or operation of the Proposed Development. This is discussed further in section 6.9 and the Shadow HRA Report **[EN0110012/APP/LVS/05.11]** .

Feature	Scope of Surveys	Relevant Scoping Opinion Comments and I.D.	Scoped in / out	Summary Comments (how scoping comment has been addressed or justification for scoping in/out, where applicable)
Humber Estuary SAC and Ramsar site (13.7 km south-east of the Highways Improvement Areas and 15.1 km south-east of the Cable Route Corridor)	Desk based review	EIA Scoping Opinion agreed with scoping in SAC as the Order Limits cross the River Ouse.	Scoped in for all phases	The Cable Route Corridor crosses the River Ouse, which flows into the Humber Estuary SAC and Ramsar, and is noted to support migrating lamprey *Lampetra spp*. It is anticipated that this river will be crossed using a trenchless techniques and therefore consideration of the design and depth of drilling have been taken into consideration within the ES to ensure no impacts on this species occurs.
Thorne Moor SAC (17.8 km south-east of Highways Improvement Areas and 19 km south-east of the Cable Route Corridor)	Desk based review	PINS [I.D. 3.3.5] With regards to Thorne Moor SAC, PINS noted that the EIA Scoping Report states that potential impacts to the qualifying features of this designation are considered unlikely due to distance and lack of potential impact pathways with the potential to affect designated features during the construction, operation, and decommissioning phase.	Scoped out for all phases	During consultation, scoping out Thorne Moor SAC has been agreed with NE and NYC, reasons for and evidence of this agreement is provided in Table 6-7.

Feature	Scope of Surveys	Relevant Scoping Opinion Comments and I.D.	Scoped in / out	Summary Comments (how scoping comment has been addressed or justification for scoping in/out, where applicable)
		PINS agreed that this matter can be scoped out, provided information demonstrating that significant effects from the Proposed Development are not likely and evidence of agreement with relevant statutory bodies where possible is submitted with the ES.		
Strensall Common SAC (15.4 km north of Solar Development Site 1)	Desk based review	PINS [I.D. 3.3.6] With regards to Strensall Common SAC, PINS noted that the EIA Scoping Report states that potential impacts to the qualifying features of this designation are considered unlikely due to distance and lack of potential impact pathways with the potential to affect designated features during the construction, operation, and decommissioning phase. PINS agreed that this matter can be scoped out, provided information demonstrating that significant effects from the Proposed Development are not	Scoped out for all phases	During consultation, scoping out Strensall Common SAC has been agreed with NE and NYC, reasons for and evidence of this agreement is provided in Table 6-7.

Feature	Scope of Surveys	Relevant Scoping Opinion Comments and I.D.	Scoped in / out	Summary Comments (how scoping comment has been addressed or justification for scoping in/out, where applicable)
		likely and evidence of agreement with relevant statutory bodies where possible is submitted with the ES.		
Hatfield Moor SAC (24 km south-east of Solar Development Site 4)	Desk based review	PINS [I.D. 3.3.7] With regards to Hatfield Moor SAC, PINS noted that the EIA Scoping Report states that potential impacts to the qualifying features of this designation are considered unlikely due to distance and lack of potential impact pathways with the potential to affect designated features during the construction, operation, and decommissioning phase. PINS agreed that this matter can be scoped out on this basis, provided information demonstrating that significant effects from the Proposed Development are not likely and evidence of agreement with relevant statutory bodies where possible is submitted with the ES.	Scoped out for all phases	During consultation, scoping out Hatfield Moor SAC has been agreed with NE and NYC, reasons for and evidence of this agreement is provided in Table 6-7.

Feature	Scope of Surveys	Relevant Scoping Opinion Comments and I.D.	Scoped in / out	Summary Comments (how scoping comment has been addressed or justification for scoping in/out, where applicable)
Burr Closes, Selby SSSI (83 m south-east of the Cable Route Corridor)	Desk based review	EIA Scoping Opinion agreed with scoping in SSSI due to proximity to the Order Limits.	Scoped in for all phases	Due to construction close to the boundary of the SSSI, potential loss or disturbance of habitats and associated species has been considered, with recommendations included in the Chapter as to how best to avoid/mitigate these potential impacts if required.
Fairburn and Newton Ings SSSI (1.7 km west of the Highways Improvements Areas and 1.9 km west of the Cable Route Corridor)	Desk based review	EIA Scoping Opinion agreed with scoping in SSSI due to the Order Limits falling with the zone of influence of the SSSI.	Scoped in for all phases	The Cable Route Corridor is within the zone of influence of this SSSI. As such, potential loss or disturbance of habitats and associated species at the SSSI has been considered, with recommendations included in the Chapter as to how best to avoid/mitigate these potential impacts if required.
Sherburn Willows SSSI (1.8 km west of Solar Development Site 7)	Desk based review	EIA Scoping Opinion agreed with scoping in SSSI due to the Order Limits falling with the zone of influence of the SSSI.	Scoped in for all phases	Solar Development Site 7 is within the zone of influence of the SSSI. As such, potential loss or disturbance of habitats and associated species at the SSSI has been considered, with recommendations included in the Chapter as to how best to avoid/mitigate these potential impacts if required.

Feature	Scope of Surveys	Relevant Scoping Opinion Comments and I.D.	Scoped in / out	Summary Comments (how scoping comment has been addressed or justification for scoping in/out, where applicable)
Site of Importance for Nature Conservation (SINC) located partially within the Cable Route Corridor and Highways Improvement Areas: ▪ Ouse Bank-Westfield-Riccall Ings ▪ Nightingale Wood ▪ Scarrow Green Pond-Little Skipwith	Desk based review	EIA Scoping Opinion agreed with scoping in SINCS due to inclusion within the Order Limits.	Scoped in for all phases	Due to works associated with the Proposed Development close to the boundary of these SINCs, potential loss or disturbance of habitats and associated species has been considered, with recommendations included in the Chapter as to how best to avoid/mitigate these potential impacts if required.

Feature	Scope of Surveys	Relevant Scoping Opinion Comments and I.D.	Scoped in / out	Summary Comments (how scoping comment has been addressed or justification for scoping in/out, where applicable)
SINCs adjacent to the Order Limits Outside of the Solar Development Sites, or the Construction Traffic Routes (up to 250 m): • Common Wood • Bywater Wood • Small Lakes-Riccall Ings • Mulberry Farm Ponds • Far Carr Meadow-Wistow Deleted SINC (same boundary as Burr Closes SSSI) • Bishop Wood • Hollicarrs Wood • Barber Rein • Moss Hagg • Crook Moor • Swamp on Selby Dam Near Low Rest Park Farm (deleted SINC) • Brayton Barff • Gashouse Plantation	Desk based review	EIA Scoping Opinion agreed with scoping in SINCs due to proximity to the Order Limits.	Scoped in for all phases	Due to works associated with the Proposed Development close to the boundary of these SINCs, potential loss or disturbance of habitats and associated species has been considered, with recommendations included in the Chapter as to how best to avoid/mitigate these potential impacts if required.

Feature	Scope of Surveys	Relevant Scoping Opinion Comments and I.D.	Scoped in / out	Summary Comments (how scoping comment has been addressed or justification for scoping in/out, where applicable)
Gilbertsons Plantation-Wheldrake Site 65 SINC (north-eastern boundary of Solar Development Site 1)	Desk based review	PINS [I.D. 3.3.8] With regards to Gilbertsons Plantation - Wheldrake Site 65 Sites of Importance for Nature Conservation (SINC), PINS noted that the EIA Scoping Report states that there is potential for direct damage to habitats in the adjacent SINC. However, a 15 m buffer from this SINC is proposed (as it is an ancient woodland) and this buffer, as well as the measures in the oCEMP [**EN0110012/APP/LVS/07.02**]/ oLEMP [**EN0110012/APP/LVS/07.05**] should suffice to prevent direct impacts during construction, operation, and decommissioning phase. Works close to the boundary of the SINC could also lead to indirect disturbance of habitats and associated species. However following the Design Principles, the proposed 15 m buffer discussed above should	Scoped in for all phases	During consultation, whilst NYC agreed in principle to scoping out Gilbertsons Plantation - Wheldrake Site 65 SINC due to the 15 m buffer proposed adjacent to the SINC, the SINC is a York Council SINC and therefore NYC could not definitively agree to scoping in/out of the SINC. As such, the SINC is included within the chapter.

Feature	Scope of Surveys	Relevant Scoping Opinion Comments and I.D.	Scoped in / out	Summary Comments (how scoping comment has been addressed or justification for scoping in/out, where applicable)
		suffice to prevent indirect impacts during the construction, operation and decommissioning phase. PINS agreed that this matter can be scoped out on this basis, provided information demonstrating that significant effects from the Proposed Development are not likely and evidence of agreement with relevant statutory bodies where possible is submitted with the ES.		

Feature	Scope of Surveys	Relevant Scoping Opinion Comments and I.D.	Scoped in / out	Summary Comments (how scoping comment has been addressed or justification for scoping in/out, where applicable)
SINCs adjacent to the Solar Development Sites (up to 250 m) ▪ Borrow Pit East of Birkin ▪ Willow Scrub, Birkin Holme (deleted SINC)	Desk based review	EIA Scoping Opinion agreed with scoping in SINCs due to proximity to the Order Limits.	Scoped in for all phases	Due to construction close to the boundary of these SINCs, potential loss or disturbance of habitats and associated species has been considered, with recommendations included in the Chapter as to how best to avoid/mitigate these potential impacts if required.
All other SINCs (21 within 2 km of the Order Limits Outside of the Solar Development Sites)	Desk based review	PINS [I.D. 3.3.9] With regards to All other SINCs within 2km of Solar Development Sites and Cable Route Corridor, PINS noted that the EIA Scoping Report states that potential impacts to the qualifying features of these designation are considered unlikely due to distance and lack of impact pathways with the potential to affect designated features during the construction, operation, and decommissioning phase. PINS agreed that this matter can be scoped out on this basis, provided that information demonstrating that significant	Scoped out for all phases	During consultation, scoping out all other SINCs within 2 km of Order Limits has been agreed with NYC, reasons for and evidence of this agreement is provided in Table 6-7.

Feature	Scope of Surveys	Relevant Scoping Opinion Comments and I.D.	Scoped in / out	Summary Comments (how scoping comment has been addressed or justification for scoping in/out, where applicable)
		effects from the Proposed Development are not likely and evidence of agreement with relevant statutory bodies where possible is submitted with the ES.		
Arable land	Habitat surveys completed for Solar Development Sites 1-4 in 2024 and Solar Development Sites 6-8 and Order Limits Outside of the Solar Development Sites in 2025	PINS [I.D. 3.3.10] With regards to arable land, PINS noted that the loss of extensive areas of arable habitat is anticipated and considered to be a habitat of negligible ecological importance. For those species of which this habitat has value (such as breeding birds), these species are scoped into the assessment, and the value of this habitat is assessed within that feature. PINS was content for this matter to be scoped out on this basis provided that there is evidence demonstrating that no significant effects from the Proposed Development are likely, and clear agreement with relevant	Scoped out for all phases	During consultation, scoping out arable land has been agreed with NYC, reasons for and evidence of this agreement is provided in Table 6-7.

Feature	Scope of Surveys	Relevant Scoping Opinion Comments and I.D.	Scoped in / out	Summary Comments (how scoping comment has been addressed or justification for scoping in/out, where applicable)
		statutory bodies where possible should be submitted with the ES.		

Feature	Scope of Surveys	Relevant Scoping Opinion Comments and I.D.	Scoped in / out	Summary Comments (how scoping comment has been addressed or justification for scoping in/out, where applicable)
Ancient Woodland	No ancient woodland in Order Limits. Potential habitats adjacent to ancient woodland assessed in 2024 for Solar Development Sites 1-4 and in 2025 for Solar Development Sites 6-8 and Order Limits Outside of the Solar Development Sites	EIA Scoping Opinion agreed with scoping in habitat due to inclusion within the Order Limits.	Scoped in for all phases	Scoped in to consider potential direct and indirect impacts to condition and extent of ancient woodland adjacent to the Order Limits.
Grassland	Habitat surveys completed for Solar Development Sites 1-4 in 2024 and Solar Development Sites 6-8 and Order Limits Outside of the Solar Development Sites in 2025	EIA Scoping Opinion agreed with scoping in habitat due to inclusion within the Order Limits.	Scoped in for all phases	Scoped to consider potential direct and indirect impacts to condition and extent of grassland within the Order Limits.

Feature	Scope of Surveys	Relevant Scoping Opinion Comments and I.D.	Scoped in / out	Summary Comments (how scoping comment has been addressed or justification for scoping in/out, where applicable)
Waterbodies	Habitat surveys completed for Solar Development Sites 1-4 in 2024 and Solar Development Sites 6-8 and Order Limits Outside of the Solar Development Sites in 2025	EIA Scoping Opinion agreed with scoping in habitat due to inclusion within the Order Limits.	Scoped in for all phases	Scoped in to consider potential direct and indirect impacts to condition and extent of ponds within the Order Limits.

Feature	Scope of Surveys	Relevant Scoping Opinion Comments and I.D.	Scoped in / out	Summary Comments (how scoping comment has been addressed or justification for scoping in/out, where applicable)
Ditches	Habitat surveys completed for Solar Development Sites 1-4 in 2024 and Solar Development Sites 6-8 Order Limits Outside of the Solar Development Sites in 2025	EIA Scoping Opinion agreed with scoping in habitat due to inclusion within the Order Limits.	Scoped in for all phases	Scoped in to consider potential direct and indirect impacts to condition and extent of ditches within and adjacent to the Order Limits.

Feature	Scope of Surveys	Relevant Scoping Opinion Comments and I.D.	Scoped in / out	Summary Comments (how scoping comment has been addressed or justification for scoping in/out, where applicable)
Watercourses	Habitat surveys completed for Solar Development Sites 1-4 in 2024 and Solar Development Sites 6-8 Order Limits Outside of the Solar Development Sites in 2025	EIA Scoping Opinion agreed with scoping in habitat due to inclusion within the Order Limits.	Scoped in for all phases	Scoped in to consider potential direct and indirect impacts to condition and extent of watercourses within and adjacent to the Order Limits.

Feature	Scope of Surveys	Relevant Scoping Opinion Comments and I.D.	Scoped in / out	Summary Comments (how scoping comment has been addressed or justification for scoping in/out, where applicable)
Hedgerow	Habitat surveys completed for Solar Development Sites 1-4 in 2024 and Solar Development Sites 6-8 Order Limits Outside of the Solar Development Sites in 2025	EIA Scoping Opinion agreed with scoping in habitat due to inclusion within the Order Limits.	Scoped in for all phases	Scoped in to consider potential direct and indirect impacts to condition and extent of hedgerows within and adjacent to the Order Limits.

Feature	Scope of Surveys	Relevant Scoping Opinion Comments and I.D.	Scoped in / out	Summary Comments (how scoping comment has been addressed or justification for scoping in/out, where applicable)
Trees	Habitat surveys completed for Solar Development Sites 1-4 in 2024 and Solar Development Sites 6-8 Order Limits Outside of the Solar Development Sites in 2025	EIA Scoping Opinion agreed with scoping in habitat due to inclusion within the Order Limits.	Scoped in for all phases	Scoped in to consider potential direct and indirect impacts to condition and extent of trees within and adjacent to the Order Limits.

Feature	Scope of Surveys	Relevant Scoping Opinion Comments and I.D.	Scoped in / out	Summary Comments (how scoping comment has been addressed or justification for scoping in/out, where applicable)
Broad-leaved Woodland	Habitat surveys completed for Solar Development Sites 1-4 in 2024 and Solar Development Sites 6-8 and Order Limits Outside of the Solar Development Sites in 2025	EIA Scoping Opinion agreed with scoping in habitat due to inclusion within the Order Limits.	Scoped in for all phases	Scoped in to consider potential direct and indirect impacts to condition and extent of woodland within and adjacent to the Order Limits.

Feature	Scope of Surveys	Relevant Scoping Opinion Comments and I.D.	Scoped in / out	Summary Comments (how scoping comment has been addressed or justification for scoping in/out, where applicable)
Degradation of retained habitats	Habitat surveys completed for Solar Development Sites 1-4 in 2024 and Solar Development Sites 6-8 and Order Limits Outside of the Solar Development Sites in 2025	PINS [I.D. 3.3.12] PINS noted that the EIA Scoping Report states that potential for damage to retained habitats will be avoided by following the Design Principles set out in the EIA Scoping Report and oCEMP [**EN0110012/APP/LVS/07.02**]/oLEMP [**EN0110012/APP/LVS/07.05**]. PINS did not agree that this matter can be scoped out at this stage, without evidence demonstrating that no significant effects from the Proposed Development are likely and clear agreement with relevant statutory bodies where possible should be submitted with the ES.	Scoped in for all phases	Scoped in to consider potential direct and indirect impacts to condition of retained habitats within the Order Limits.

Feature	Scope of Surveys	Relevant Scoping Opinion Comments and I.D.	Scoped in / out	Summary Comments (how scoping comment has been addressed or justification for scoping in/out, where applicable)
Invasive non-native flora	Habitat surveys completed for Solar Development Sites 1-4 in 2024 and Solar Development Sites 6-8 and Order Limits Outside of the Solar Development Sites in 2025	EIA Scoping Opinion agreed with scoping in invasive non-native species.	Scoped in for all phases	Potential for spread if they occur in areas affected by the Proposed Development. Measures to control invasive species where present is outlined in Invasive Species Management Plan **EN0110012/APP/LVS/07.22** within the oLEMP [**EN0110012/APP/LVS/07.05**].
Amphibians	Great crested newt (GCN) eDNA surveys completed of ponds in 2025, where access was possible. Ponds inaccessible in 2025 will be surveyed in April 2026 to confirm presence/likely absence where possible. Desk study data also utilised.	EIA Scoping Opinion agreed with scoping in amphibians due to potential presence with the Order Limits. PINS [I.D.3.3.16] PINS noted that the EIA Scoping Report states that further surveys may reveal the requirement for licences with bespoke mitigation solutions for protected species such as great crested newts.	Scoped in for all phases	Assessment of potential impacts on loss / fragmentation of habitat, disturbance, killing / injury and how these impacts will be mitigated has been included in the ES. GCN EDNA surveys have been completed (and will be completed in April 2026 for the remaining ponds requiring survey, where possible). This will confirm whether any on-site newt mitigation is needed, or the requirement for DLL.

Feature	Scope of Surveys	Relevant Scoping Opinion Comments and I.D.	Scoped in / out	Summary Comments (how scoping comment has been addressed or justification for scoping in/out, where applicable)
		The Applicant's attention is drawn to the consultation response from NE on this matter (see Appendix 2 of this EIA Scoping Opinion) and the use of the District Level Licensing (DLL) scheme for great crested newts (GCN).		It is not confirmed that DLL will be required, however in response to the scoping comment, Appendix 2 has been reviewed and it is confirmed that should DLL be required, evidence will be provided to the Examining Authority (ExA) on how and where the DLL approach has been used in relation to the proposal, which will include a counter-signed Impact Assessment and Conservation Payment Certificate (IACPC) from NE, or a similar approval from an alternative DLL provider.

Feature	Scope of Surveys	Relevant Scoping Opinion Comments and I.D.	Scoped in / out	Summary Comments (how scoping comment has been addressed or justification for scoping in/out, where applicable)
Fish	Habitat based assessment and eDNA metabarcoding undertaken in 2025. Desk study data also utilised.	PINS [I.D.3.3.14] PINS noted that surveys should be undertaken to understand the baseline environment for fish species. Impacts on fish from noise and vibration associated with horizontal directional drilling (HDD) and other construction operations that could create noise during the construction and decommissioning phases should be assessed in the ES and any mitigation measures should be explained in the ES. The impact of electromagnetic fields (EMF) on fish species during construction and operation phases should also be assessed to understand the baseline and any mitigation measures, if necessary, should be set out in the ES. Potential water quality impacts on fish species through surface water run-off from the Proposed Development site and	Scoped in for all phases	Assessment of potential impacts on loss / temporary fragmentation of habitat, including areas for spawning fish, disturbance, killing / injury and how these impacts will be mitigated. Impacts to fish within watercourses during construction and decommissioning, including changes to water quality, and noise and vibration effects is assessed within this ES (see Section 6.9). A fish habitat assessment to assess habitat for species of conservation value has been undertaken. In addition, eDNA metabarcoding has been undertaken concurrently with the above assessment to determine a species list for fish at representative locations across the Cable Route Corridor. The findings from these surveys have been used to inform the ES and will guide species specific mitigation. An assessment of the operations phase risk to fish from Electromagnetic Fields (EMF) resulting from buried cables have

Feature	Scope of Surveys	Relevant Scoping Opinion Comments and I.D.	Scoped in / out	Summary Comments (how scoping comment has been addressed or justification for scoping in/out, where applicable)
		discharges from the Proposed Development should be assessed in the ES.		been included within the ES in line with the Environment Agency's (EA) recent EMF Position Statement, and where needed, EMF effects will be mitigated. Further details on mitigation for trenchless techniques has been included in the oCEMP [**EN0110012/APP/LVS/07.02**]. Post consent, a CEMP will be developed for approval prior to construction, which will be in substantial accordance with the oCEMP [**EN0110012/APP/LVS/07.02**], thus ensuring mitigation measures for these impacts are secured.

Feature	Scope of Surveys	Relevant Scoping Opinion Comments and I.D.	Scoped in / out	Summary Comments (how scoping comment has been addressed or justification for scoping in/out, where applicable)
		Canal and River Trust (CRT) CRT highlighted that directional drilling can still cause sediment discharges and problems arising from mud toxicity due to vibration below the watercourse. CRT believe the impact should be included within the Environmental Report and scoped in, with considerations given to the provision of field studies into invertebrates and fish species found in the water to assess the sensitivity of these species to potential sediment movement.		Assessment of impacts to fish within watercourses during construction and decommissioning is included within the ES, including from risks associated with directional drilling (Section 6.9). Further examination has included a field survey of the River Ouse to assess habitat for fish species of conservation value. The findings from these surveys have been used to inform the ES and guide species specific mitigation.

Feature	Scope of Surveys	Relevant Scoping Opinion Comments and I.D.	Scoped in / out	Summary Comments (how scoping comment has been addressed or justification for scoping in/out, where applicable)
		Environment Agency In regard to fisheries matters, the EA stated that the following matters need to be scoped in: impact on fish from noise and vibration associated with HDD (and other noisy construction activities) for the construction and decommissioning phases including undertaking fish surveys to understand the baseline and therefore design mitigation The impact of EMF on fish species during construction and operation phases including undertaking fish surveys to understand the baseline and therefore design mitigation		Assessment of impacts to fish within watercourses during construction and decommissioning, including from noise and vibration is included within the ES. Further examination has included a fish habitat assessment for species of conservation value. In addition, eDNA analysis has been undertaken to determine a species list for fish (using metabarcoding techniques). The findings from these surveys have been used to inform the ES and guide species specific mitigation. An assessment of the operations phase risk to fish from EMF resulting from buried cables has been included in Section 6.9 in line with the EA's recent EMF Position Statement, where needed EMF effects will be mitigated.

Feature	Scope of Surveys	Relevant Scoping Opinion Comments and I.D.	Scoped in / out	Summary Comments (how scoping comment has been addressed or justification for scoping in/out, where applicable)
		Environment Agency The EA noted that any impacts on fish species should be screened at stage 1 of an HRA.		Comments noted. The Shadow HRA Report **[EN0110012/APP/LVS/05.11]** has considered impacts to the River Derwent SAC and Humber Estuary SAC which are both designated for fish species.

Feature	Scope of Surveys	Relevant Scoping Opinion Comments and I.D.	Scoped in / out	Summary Comments (how scoping comment has been addressed or justification for scoping in/out, where applicable)
		Environment Agency The EA outlined that fish surveys should be scoped in to understand the baseline and therefore design mitigation. This is particularly important, where open trench crossing of waterbodies for cable laying, and/or to control pollutants and fine sediment leaching into waterbodies during construction and decommissioning activities.		A fish habitat assessment for species of conservation value has been undertaken to inform the ES. In addition, eDNA analysis has been undertaken to determine a species list for fish (using metabarcoding techniques). The findings from these surveys have been used to inform the ES and guide species specific mitigation. The baseline for aquatic ecology has been determined by eDNA methods and a habitat assessment with no requirement for fish surveys (via methods of electric fishing). The approach outlined above has been agreed by the EA (see Table 6-7).

Feature	Scope of Surveys	Relevant Scoping Opinion Comments and I.D.	Scoped in / out	Summary Comments (how scoping comment has been addressed or justification for scoping in/out, where applicable)
White-clawed crayfish	eDNA surveys completed 2025. Desk study data also utilised.	PINS [I.D.3.3.13] PINS noted that in the absence of information such as evidence demonstrating that there is no suitable habitat for white-clawed crayfish and clear agreement with relevant statutory bodies, PINS is not in a position to agree to scope this matter from the assessment.	Scoped in for all phases	Assessment of potential impacts on white-clawed crayfish i.e. loss / temporary fragmentation of habitat, disturbance, killing / injury and how these impacts will be mitigated has been included in this chapter at Section 6.9. In addition, eDNA analysis has been undertaken to inform the ES and has guided mitigation proposals in relation to white-clawed crayfish.
Badger (*Meles meles)*	Surveys completed for Order Limits 2025. Desk study data also utilised.	EIA Scoping Opinion agreed with scoping in badger due to potential presence with the Order Limits.	Scoped in for all phases	Assessment of potential impacts on loss / fragmentation of habitat, disturbance, killing / injury and how these impacts will be mitigated included in this chapter at Section 6.9.

Feature	Scope of Surveys	Relevant Scoping Opinion Comments and I.D.	Scoped in / out	Summary Comments (how scoping comment has been addressed or justification for scoping in/out, where applicable)
Bats	Bat activity and static surveys completed for Solar Development Sites 1-4 in 2024 and Solar Development Sites 6-8 in 2025. Ground Level Tree Assessment (GLTA) of trees to be removed within Order Limits completed in 2025. Desk study data also utilised.	EIA Scoping Opinion agreed with scoping in bats due to potential presence with the Order Limits	Scoped in for all phases	Assessment of potential impacts on loss / fragmentation of habitat, disturbance and potential loss of roost opportunities in trees and how these impacts will be mitigated has been included in this chapter at Section 6.9.
Brown hare (*Lepus europaeus*)	Habitat based assessment undertaken. Desk study data also utilised.	EIA Scoping Opinion agreed with scoping in brown hare due to potential presence with the Order Limits	Scoped in for all phases	Assessment of potential impacts on loss / fragmentation of habitat, disturbance, killing / injury and how these impacts will be mitigated has been included in this chapter at Section 6.9.
Hedgehog (*Erinaceus europaeus)*	Habitat based assessment undertaken. Desk study data also utilised.	EIA Scoping Opinion agreed with scoping in hedgehog due to potential presence with the Order Limits	Scoped in for all phases	Assessment of potential impacts on loss / fragmentation of habitat, disturbance, killing / injury and how these impacts will be mitigated has been included in this chapter at Section 6.9.

Feature	Scope of Surveys	Relevant Scoping Opinion Comments and I.D.	Scoped in / out	Summary Comments (how scoping comment has been addressed or justification for scoping in/out, where applicable)
Invertebrates	Habitat based assessment undertaken. Desk study data also utilised.	EIA Scoping Opinion agreed with scoping in invertebrates due to potential presence with the Order Limits	Scoped in for all phases	Loss / fragmentation of habitat is unlikely to be of sufficient magnitude to affect populations locally based on the dominance of monoculture agricultural habitats present, and retention of the vast majority of the aquatic features, however an assessment will need to be undertaken in this chapter at Section 6.9.
Otter (*Lutra lutra)*	Surveys completed for Order Limits in 2025. Desk study data also utilised.	EIA Scoping Opinion agreed with scoping in otter due to potential presence with the Order Limits	Scoped in for all phases	Assessment of potential impacts on loss / fragmentation of habitat, potentially including breeding habitat disturbance, killing / injury and how these impacts will be mitigated has been included in this chapter Section 6.9.
Reptiles	Habitat based assessment undertaken. Desk study data also utilised.	EIA Scoping Opinion agreed with scoping in reptiles due to potential presence with the Order Limits	Scoped in for all phases	Assessment of potential impacts on loss / fragmentation of habitat, disturbance, killing / injury and how these impacts will be mitigated has been included in this chapter at Section 6.9.
Water vole (*Arvicola amphibius)*	Surveys completed for Order Limits in 2025. Desk study data also utilised.	EIA Scoping Opinion agreed with scoping in water vole due to potential presence with the Order Limits	Scoped in for all phases	Assessment of potential impacts on loss / fragmentation of habitat, potentially including breeding habitat disturbance, killing / injury and how these impacts will be mitigated has been included in this chapter at Section 6.9.

Table 6-2 General Scoping Comments

Scoping opinion I.D	Scoping opinion comment	How is this addressed
PINS [I.D.3.3.15]	PINS noted that the EIA Scoping Report sets study areas for statutory and non-statutory designated sites based on fixed distances. The ES should consider the potential for effects to occur beyond these fixed distances, particularly where sites are designated for mobile species such as birds and bats, or where there is hydrological connectivity. Effort should be made to agree the Study Area with relevant consultation bodies.	During consultation, the Study Area used at scoping, particularly where sites are designated for mobile species such as birds and bats, or where there is hydrological connectivity, has been agreed with NE and NYC, evidence of this agreement is provided in Table 6-5.
PINS [I.D.3.3.17]	PINS stated that the ES Biodiversity chapter should consider all potential impact pathways and assess any impacts arising from the Proposed Development which are likely to result in significant effects on ecological receptors. Justification for scoping out any ecological impact should be provided. For ecological receptors sensitive to air pollution, the ES should demonstrate how this matter has been assessed to demonstrate that no likely significant effects will occur.	Assessment of all potential impact pathways (including air pollution) has been included in this chapter at Section 6.9.
Canal and River Trust (CRT)	CRT stated that there is potential for artificial lighting to be utilised on site, especially during the construction phases. CRT request that the impact of this on waterbodies and species that utilise waterway habitats (including bats) should be considered in the ES.	An assessment of the impact of artificial lighting has been included in this chapter. Embedded mitigation measures are set out in the oCEMP **[EN0110012/APP/LVS/07.02]** to reduce the risk of artificial lighting on species. Post consent, a CEMP will be developed for approval prior to construction, which will be in substantial accordance with the oCEMP [**EN0110012/APP/LVS/07.02**], thus ensuring mitigation measures for these impacts are secured.

Scoping opinion I.D	Scoping opinion comment	How is this addressed
Environment Agency	The EA noted that The Salmon and Freshwater Fisheries Act 1975, and Eels Regulations 2009 should be listed as relevant in the biodiversity chapter of the ES and submitted as part of the DCO Application.	The list of relevant legislation in this report has been updated accordingly.
Environment Agency	The EA requested that the following legislation, policy and guidance is included within the assessment: • Biodiversity Gain Requirements (Irreplaceable Habitat) Regulations 2024 • The Invasive Alien Species (Amendment (EU Exit)) Regulations 2019 is another piece of legislation controlling the spread of Invasive Non-Native Species (INNS)	Legislation included in Table 6-2 to Table 6-4.
NE - EIA / Biodiversity	NE stated that the ES should thoroughly assess the potential for the proposal to affect internationally designated sites of nature conservation importance / European sites, including marine sites where relevant.	Assessment of designated sites has been included within the ES and the Shadow HRA Report [**EN0110012/APP/LVS/05.11**]. Those designated sites that are specifically related to birds, i.e. Special Protection Areas (SPAs) have been assessed separately in Chapter 12: Ornithology (ES Volume 1) **[EN0110012/APP/LVS/06.01.12]**.
NE – Biodiversity / Guidance	NE advised that the ES should include a full assessment of the direct and indirect effects of the development on the features of special interest within SSSI sites and identify appropriate mitigation measures to avoid, minimise or reduce any adverse significant effects.	Assessment of SSSIs has been included within the ES at Section 6.9 that includes these matters.
NYC	NYC stated that the cumulative impact assessment will be very important, in relation to impacts upon sites of international importance and impacts resulting from loss of agricultural land such as those upon ground nesting birds	A cumulative assessment has been completed for the ES that includes these matters (Section 6.4), and a cumulative assessment has been completed within the Shadow HRA Report **[EN0110012/APP/LVS/05.11]**.

6.3 Relevant legislation, policy, standards and guidance

6.3.1 The following section identifies the relevant legislation, planning policy, standards and guidelines which underpin the assessment methodology for biodiversity and have informed the assessment, including the identification of mitigation.

Legislation

Table 6-2 Biodiversity - Legislation

Legislation	Relevance to assessment
The Environment Act, 2021 (Ref 1)	The Environment Act (November 2021) makes it mandatory for the vast majority of development projects to deliver a 10% biodiversity net gain (BNG). Further secondary legislation is required to apply the BNG requirement to Nationally Significant Infrastructure Projects (NSIP) developments and is expected in May 2026 (although will likely not be retrospectively applied statutorily to the Proposed Development). Government consultation on the regime has indicated that the requirement will be for a 10% net gain. A BNG assessment V2 **[EN0110012/APP/LVS/05.09]** has been completed for the Proposed Development to describe the expected biodiversity change post development.
The Wildlife and Countryside Act (WCA), 1981 (Ref 2) (as amended)	In Britain, the WCA 1981 (as amended) is the primary legislation protecting habitats and species. SSSIs, representing the best examples of our natural heritage, are notified under the WCA 1981 (as amended) by reason of their flora, fauna, geology or other features. All breeding birds, their nests, eggs and young are protected under the Act, which makes it illegal to knowingly destroy or disturb the nest site during nesting season. Schedules 1, 5 and 8 afford protection to individual birds, other animals and plants.
The Conservation of Habitats and Species Regulations 2017 (as amended by the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations, 2019) (Ref 3)	The European Council Directive on the Conservation of Natural Habitats and of Wild Flora and Fauna, 1992, often referred to as the 'Habitats Directive', provides for the protection of key habitats and species considered of European importance. Annexes II and IV of the Directive list all species considered of community interest. The legal framework to protect the species covered by the Habitats Directive has been enacted under UK law through The Conservation of Habitats and Species Regulations 2017 (as amended).
The Countryside and Rights of Way (CRoW) Act, 2000 (Ref 4)	The CRoW Act 2000 strengthens the species enforcement provisions of the WCA 1981 (as amended) and makes it an offence to 'recklessly' disturb a protected animal whilst it is using a place of rest or shelter or breeding/nest site.
The Natural Environment and Rural Communities Act (NERC) 2006 (Ref 5)	Provides a list of habitats and species of principal importance for the purpose of conserving or enhancing biodiversity.

Legislation	Relevance to assessment
The Hedgerows Regulations, 1997 (Ref 6)	The Hedgerows Regulations 1997 were introduced in England and Wales to protect important hedgerows. They require landowners to notify (where they have not otherwise obtained planning permission) the local planning authority before removing or damaging any hedgerow that meets certain criteria. If the local planning authority determines that the hedgerow is important, they can issue a retention notice, prohibiting its removal. The regulations apply to most countryside hedgerows, but do not affect hedges in domestic gardens. They aim to preserve hedgerows for their ecological benefits, such as providing habitat for wildlife and helping to prevent soil erosion.
The Protection of Badgers Act, 1992 (Ref 7)	The Protection of Badgers Act 1992 was introduced in the UK to protect badgers and their setts. It makes it illegal to intentionally kill, injure, or capture a badger, or to damage or destroy a badger sett. The Act also prohibits the disturbance of badgers while they are in their setts. The Act aims to conserve badger populations and protect their habitats. It is a criminal offense to violate the provisions of the Act, and offenders can face fines or imprisonment.
Biodiversity Gain Requirements (Irreplicable Habitat) Regulations 2024 (Ref 8)	The Biodiversity Gain Requirements (Irreplicable Habitat) Regulations 2024 set out modifications for irreplaceable habitat with regards to BNG. These Regulations define “irreplaceable habitat” as habitats which take significant time to restore, recreate or replace once they are destroyed, often as a result of their age, diversity or uniqueness, such as Ancient and Veteran trees.
Invasive Alien Species (Amendment (EU Exit)) Regulations 2019 (Ref 9)	This Invasive Alien Species (Amendment (EU Exit)) Regulations 2019, apply the EU’s Invasive Alien Species Regulation on the prevention and management of the introduction and spread of invasive alien species to the UK, accounting for Brexit.
The Salmon and Freshwater Fisheries Act 1975 (Ref 10)	The Salmon and Freshwater Fisheries Act 1975 (SAFFA) is legislation that aims to protect freshwater fish, with a particularly strong focus on salmon *Salmo salar*, and trout *Salmo trutta*. The legislation covers a broad range of topics, but of particular relevance to development are those sections covering water pollution, habitat disturbance and fish migration routes. Under Section 2 (4) it is an offence to wilfully disturb spawn, spawning fish or spawning areas. Under Section 4 (1) it is an offence to knowingly permit the flow of poisonous matter and polluting effluents into watercourses that are poisonous or injurious to fish or the spawning grounds, spawn or food of fish. Sections 9 to 15 are concerned with fish passage and migration routes. It is the duty of the waterway owner to provide and maintain a facilitating fish pass for migrating salmon or trout when constructing dams, screens or sluices. Section 9 allows the regulator to serve notice on the owner or occupier of a dam or obstruction, to install a fish pass where necessary. This section applies to dams which are either new or have been altered to

Legislation	Relevance to assessment
	create an increased obstacle to the passage of migratory salmonids. It is also applicable where dams in a state of disrepair are rebuilt over at least one half of their length.
Eels Regulations (England and Wales) 2009 (Ref 11)	EU Council Regulation (EC) No 1100/2007 establishing measures for the recovery of the stock of European eel *Anguilla anguilla*, was enacted across Europe in response to the global decline of this species. The Eels (England and Wales) Regulations 2009 implement Council Regulation (EC) No 1100/2007 in England and Wales. The Regulations are focussed on the management of commercial eel fisheries (licences, catch returns and restocking) and the passage/migration of eels. The regulations afford powers to the regulators (EA and Natural Resources Wales) to implement recovery measures in all freshwater and estuarine waters in England and Wales.
The Infrastructure Planning (Decisions) Regulations 2010 (Ref 12)	When deciding an application for development consent the Panel or Council must have regard to the United Nations Environmental Programme Convention on Biological Diversity of 1992(1) and where the application is for development in Scotland the decision-maker must also have regard to any strategy designated under Section 2(1) of the Nature Conservation (Scotland) Act 2004(2).

Policy

Table 6-3 Biodiversity - Policy

Policy	Relevance to assessment
Overarching National Policy Statement for Energy (EN-1), 2025 (Ref 13)	Sets broad national policy approach. Section 5.4 Biodiversity and Geological Conservation addresses biodiversity, outlining approach to assessment of impacts and determining requirement for mitigation (if required), including the following paragraphs of relevance: Paragraph 3.3.63 states: *"Subject to any legal requirements, the urgent need for critical national priority (CNP) Infrastructure to achieving our energy objectives, together with the national security, economic, commercial, and net zero benefits, will in general outweigh any other residual impacts not capable of being addressed by application of the mitigation hierarchy. Government strongly supports the delivery of CNP Infrastructure, and it should be progressed as quickly as possible*." Paragraph 5.4.18 states: "*Where the development is subject to EIA, the applicant should ensure that the ES clearly sets out any effects on internationally, nationally, and locally designated sites of ecological or geological conservation importance (including those outside England), on protected species and on habitats and other species identified as being of principal importance for the conservation of biodiversity, including irreplaceable habitats."* In respect of mitigation, paragraphs 5.4.35 – 5.4.40 outlines appropriate mitigation measures to minimise any adverse impact

Policy	Relevance to assessment
National Policy Statement for Renewable Energy Infrastructure (EN-3), 2025 (Ref 14)	Establishes policy specific to renewable energy schemes, including solar in Section 2.10. Paragraphs 2.10.67 to 2.10.84 outline the ecological and environmental considerations for solar farm developments. The paragraphs emphasise the importance of conducting thorough ecological assessments, minimizing negative impacts, and maximising biodiversity benefits in solar farm developments. It also provides guidance on various aspects of the development process to ensure environmental sustainability.
National Policy Statement for Electricity Networks Infrastructure (EN-5), 2025 (Ref 15)	NPS EN-5 addresses policy for energy transmission, including the routing of overhead lines and undergrounding cables, and general requirements for 'good design' in accordance with the Horlock Rules (paragraphs 2.9.18 – 2.9.19). It also outlines the potential risks posed by electricity networks infrastructure to birds and outlines that particular consideration should be given to functionally linked land (paragraphs 2.9.3 – 2.9.6).
National Planning Policy Framework (NPPF), 2024 (Ref 16)	National Planning Policy Framework (NPPF), December 2024 The NPPF was published in December 2024 and sets out the Government's planning policies for England and how these should be applied. It replaces the previous NPPF originally published in March 2012 and most recently in December 2023. Paragraph 11 states that: "*Plans and decisions should apply a presumption in favour of sustainable development.*" Section 11 of the NPPF, paragraph 125, sub-section a) states that planning policies and decisions should: "*encourage multiple benefits from both urban and rural land, including through mixed use schemes and taking opportunities to achieve net environmental gains - such as developments that would enable new habitat creation or improve public access to the countryside*; *recognise that some undeveloped land can perform many functions, such as for wildlife, recreation, flood risk mitigation, cooling/shading, carbon storage or food production*" Section 13 refers to development in the Green Belt and introduces 'Golden Rules' that, at paragraph 159, state how such development should "*support nature's recovery*" and "*where land has been identified as having particular potential for habitat creation or nature recovery within Local Nature Recovery Strategies, proposals should contribute towards these outcomes*". Section 15 of the NPPF (paragraphs 187 to 195) considers the conservation and enhancement of the natural environment. Paragraph 187 states that planning and decisions should contribute to and enhance the natural and local environment by:

Policy	Relevance to assessment
	"*protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);* *recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;* *maintaining the character of the undeveloped coast, while improving public access to it where appropriate; and* *minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures and incorporating features which support priority or threatened species such as swifts, bats and hedgehogs"* Paragraph 188 states that plans should: distinguish between the hierarchy of international, national and locally designated sites; allocate land with the least environmental or amenity value, where consistent with other policies in this Framework; take a strategic approach to maintaining and enhancing networks of habitats and green infrastructure; and plan for the enhancement of natural capital at a catchment or landscape scale across local authority boundaries. Paragraph 192 states that in order to protect and enhance biodiversity and geodiversity, plans should: "*Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity[1]; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation[2]; and* *promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity."* When determining planning applications, Paragraph 193 states that local planning authorities should apply the following principles: *"if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;* *development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not*

[1] Circular 06/2005 provides further guidance in respect of statutory obligations for biodiversity and geological conservation and their impact within the planning system.

[2] Where areas that are part of the Nature Recovery Network are identified in plans, it may be appropriate to specify the types of development that may be suitable within them.

Policy	Relevance to assessment
	normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest; *development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons[3] and a suitable compensation strategy exists; and* *development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate."* As stated in paragraph 194 the following should be given the same protection as habitats sites: "*potential Special Protection Areas and possible Special Areas of Conservation;* *listed or proposed Ramsar sites[4]; and* *sites identified, or required, as compensatory measures for adverse effects on habitats sites, potential Special Protection Areas, possible Special Areas of Conservation, and listed or proposed Ramsar sites."* Paragraph 195 states that "*The presumption in favour of sustainable development does not apply where the plan or project is likely to have a significant effect on a habitats site (either alone or in combination with other plans or projects), unless an appropriate assessment has concluded that the plan or project will not adversely affect the integrity of the habitats site".*
Environmental Improvement Plan (EIP), 2023 (Ref 20)	The EIP 2023 outlines ambitious goals to protect and improve England's environment. Key targets include halting the decline of species abundance and restoring wildlife habitats, reducing water pollution, promoting sustainable agriculture, and preventing the spread of invasive species. To achieve these goals, the EIP sets out a series of interim targets and actions that will be implemented over the coming years.
Selby District Core Strategy Local Plan, adopted 2013 (Ref 17)	The Selby District Core Strategy Local Plan is the adopted planning document created by the former Selby District Council. Key polices include:

[3] For example, infrastructure projects (including nationally significant infrastructure projects, orders under the Transport and Works Act and hybrid bills), where the public benefit would clearly outweigh the loss or deterioration of habitat.

[4] Potential Special Protection Areas, possible Special Areas of Conservation and proposed Ramsar sites are sites on which Government has initiated public consultation on the scientific case for designation as a Special Protection Area, candidate Special Area of Conservation or Ramsar site.

Policy	Relevance to assessment
	• Policy SP15 Sustainable Development and Climate Change • Policy SP18 Protecting and Enhancing the Environment
Selby District Local Plan, adopted 2005 (Ref 18)	The Selby District Local Plan 2005 is a key planning document that outlines the strategic vision for development and land use within the former Selby District. Key saved polices include: • ENV9 Sites of Importance for Nature Conservation • ENV11 Ancient Woodland • ENV12 River and Stream Corridors • ENV13 Development Affecting Ponds
The Selby Biodiversity Action Plan, 2004 (Ref 19)	The Selby District Biodiversity Action Plan 2004 is a strategic document that outlines the former Selby District Council's approach to conserving and enhancing biodiversity within the district.

Standards and guidance

Table 6-4 Biodiversity - Standards and Guidance

Standards and guidance	Relevance to assessment
Ecological Impact Assessment • Guidelines for Preliminary Ecological Appraisal, 2nd Edition (2017) (Ref 21) • Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine (Ref 22)	The guidelines provide a structured approach for identifying and assessing potential ecological impacts of development projects.
Habitat Regulations Assessment • Habitats Regulations Assessments: Protecting a European site (2021) (Ref 23) • Nationally Significant Infrastructure Projects: Advice on Habitats Regulations Assessments (2024) (Ref 24)	Provides guidance on how to conduct HRAs for NSIPs in the United Kingdom.
Air Quality • A guide to the assessment of air quality impacts on designated nature conservation sites (2019) (Ref 25) • Advisory Note: Ecological Assessment of Air Quality Impacts (2023) (Ref 26)	Provides guidance on how to assess the potential impacts of air pollution on designated nature conservation sites and ecosystems.
• Habitats (2010). Handbook for Phase 1 habitat survey - a technique for environmental audit. JNCC, Peterborough (Ref 27) • The UK Habitat Classification (2023) (Ref 28)	These guidelines provide a resource for conducting ecological assessments and environmental audits. It provides a standardised methodology for identifying and classifying habitats in the UK.
Biodiversity Net Gain • The Statutory Biodiversity Metric User Guide (2024) (Ref 29)	Guidance regarding the use of the Statutory Metric in the assessment of BNG.

Standards and guidance	Relevance to assessment
Amphibians • Great Crested Newt Mitigation Guidelines (2001) (Ref 30) • Evaluating the suitability of habitat for the Great Crested Newt (Triturus cristatus) (2000) (Ref 31) • ARG UK Advice Note 5, Great Crested Newt Habitat Suitability (2010) (Ref 32) • SureScreen Scientifics GCN eDNA testing • Analytical and methodological development for improved surveillance of the Great Crested Newt. Appendix 5. Technical advice notes for field and laboratory sampling of great crested newt (Triturus cristatus) environmental DNA (Ref 33)	These resources provide guidance for developers and landowners on how to minimise the impact of their projects on Great Crested Newt populations. The provide a standardized methodology for amphibian surveys and provide advice on best practices for Great Crested Newt conservation, including habitat management and monitoring.
Badger • Surveying Badgers (1989) (Ref 34) • The history, distribution, status and habitat requirements of the badger in Britain (1990) (Ref 35) • Badgers: surveys and mitigation for development projects, Natural England standing advice (2022) (Ref 36) • The Classification of Badger (Meles meles) Setts in the UK: A Review and Guidance for Surveyors. (2013) (Ref 37)	These resources provide a comprehensive overview of badger surveying and mitigation practices in the UK, including legal requirements and best practices for badger surveys in the context of development projects.
Bats • UK Bat Mitigation Guidelines: a guide to impact assessment, mitigation and compensation for developments affecting bats. (2023) (Ref 38) • 3rd Edition Bat Workers' Manual (2004) (Ref 39) • Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th Edition) (2023) (Ref 40) • Bat Roosts in Trees: a guide for identification and assessment for tree-care and ecology professionals (2018) (Ref 41)	These guidelines provide comprehensive information on bat surveys, mitigation, and habitat assessment in the UK.
Otter • Otters: advice for making planning decisions (Ref 42) • Monitoring the Otter Lutra. Conserving Natura 2000 Rivers Monitoring Series No. 10, (2003) (Ref 43) • Non-intrusive monitoring of otters (Lutra lutra) using infrared technology (Ref 44)	These resources offer a range of information on otter ecology, survey methods, and conservation practices in the UK.
Reptiles • Froglife (1999) Reptile Survey: an introduction to planning, conducting and interpreting surveys for snake and lizard conservation. Froglife Advice sheet 10. Froglife, Halesworth (Ref 45)	These resources provide information on conducting reptile surveys and making planning decisions related to reptiles in the UK.

Standards and guidance	Relevance to assessment
• Reptiles: advice for making planning decisions (2022) (Ref 46)	
Water vole • The Water Vole Mitigation Handbook (Mammal Society Mitigation Guidance Series) (2016) (Ref 47) • Water Vole Field Signs and Habitat Assessment a Practical Guide to Water Vole Surveys (2021) (Ref 48) • Water Vole Conservation Handbook. (Ref 49)	These resources provide information on water vole surveys, mitigation, and conservation in the UK.
Fish • Restoration of Riverine Salmon Habitats (1997) (Ref 50). • Monitoring the Bullhead*, Cottus gobio* (2003) (Ref 51) • Monitoring the River, Brook and Sea Lamprey, *Lampetra fluviatilis*, *L. planeri* and *Petromyzon marinus* (2003) (Ref 52).	These resources provide information on survey for fish species of conservation value, mitigation, and conservation in the UK.
White-clawed crayfish • Monitoring the White-clawed Crayfish *Austropotamobius p. pallipes* (2003) (Ref 53) • Common Standards Monitoring Guidance for Freshwater Fauna (2015) (Ref 54)	This resource provides information on white-clawed crayfish species surveys, mitigation, and conservation in the UK.

6.4 Stakeholder engagement and consultation

Statutory consultation

6.4.1 A period of statutory consultation took place between 26 June to 7 August 2025 wherein consultees were able to respond to preliminary environmental information set out in the Preliminary Environmental Information Report (PEIR). Responses to the Statutory Consultation are outlined in the Consultation Report **[EN0110012/APP/LVS/05.01].**

6.4.2 Table 6-5 outlines the statutory consultation responses relating to biodiversity and how these have been addressed through the ES.

Table 6-5 Statutory consultation comments

Consultee	Comments/matters raised	How has this comment been addressed
NYC	The current assessment lacks species-specific data and does not quantify habitat loss or fragmentation. This limits the ability to assess the scale and significance of cumulative impacts. The significance of biodiversity impacts is not determined at this stage. While this is understandable for a PEIR, it is essential that the ES provides a clear and evidence-based conclusion on cumulative effects. There is no spatial modelling of how multiple developments may disrupt ecological corridors or affect species movement across the landscape. To strengthen the biodiversity cumulative assessment in the forthcoming Environmental Statement, we recommend the following: Use of spatial tools to assess habitat fragmentation and identify opportunities for corridor enhancement. Development of a coordinated biodiversity mitigation and enhancement plan across all solar sites and associated infrastructure.	Fencing has been considered through the Proposed Development to ensure commuting corridors, such as ditches and hedgerows, are free of fencing to allow continued use as commuting corridors through the wider landscape. Spatial tools have been used to assess habitat fragmentation and identify the ideal locations for these corridors. This is shown on the Outline Environmental Masterplan (oEM) [**EN0110012/APP/LVS/02.12**], which also shows the biodiversity mitigation and enhancement across the Proposed Development, as is secured through the oLEMP [**EN0110012/APP/LVS/07.05**]. This will be used to feed into the cumulative assessment, which is presented in Section 6.14.

Consultee	Comments/matters raised	How has this comment been addressed
Thorpe Willoughby Parish Council	The scale of the development will mean that a significant amount of habitat is lost or significantly altered. The wildlife in the area such as hares and deer will be impacted by the development and the environmental reports produced by the developers does not seem to accurately reflect the impact on our wildlife.	Impact of the Proposed Development on protected and notable species and habitats is fully considered in ES Volume 1 Chapter 6: Biodiversity [**EN0110012/APP/LVS/06.01.06**]. The majority of important habitats will be retained and protected, any arable land will be replaced with grassland which is of higher ecological importance. Brown hare have been considered in the assessment, and commuting routes through the site for deer, e.g. ditches, hedgerows and their surrounding buffers, have been included throughout the Proposed Development and fencing has been designed to work around these commuting routes.
Environment Agency	PEIR Volume 1, Chapters 1 to 4, Section 2.5.2 Issue: Underground cables will be installed using open-cut trenching. Impact: Cable Construction Compounds and trenches associated with cable installation present a risk of entrapment of mammals such as otter. Solution: Cover trenches whilst work is paused and securely fence any Cable Construction Compounds to prevent accidental entrapment of wildlife, especially near watercourses where otter may be present. Place ramps in open trenches to enable wildlife to escape	Provision for Precautionary Working Method Statements (PWMS), such as those detailed in the comment, to reduce the risk of mammal entrapment in open excavations is included in the oCEMP **[EN0110012/APP/LVS/07.02**]. Post consent, a CEMP will be developed for approval prior to construction, which will be in substantial accordance with the oCEMP [**EN0110012/APP/LVS/07.02**], thus ensuring provision of such statements is secured.
Environment Agency	PEIR Volume 1, Chapter 6: Biodiversity, Table 6-1 Issue: Inadequate biosecurity planning. Impact: Risk of accidental spread of Invasive Non-Native Species (INNS). Without an INNS Management Plan, INNS	Biosecurity measures are incorporated within the Outline Invasive Species Management Plan (oISMP) [**EN0110012/APP/LVS/07.22**].To avoid accidental introduction of invasive species. Post consent, a ISMP will be developed for approval prior to construction, which will be in substantial accordance

Consultee	Comments/matters raised	How has this comment been addressed
	may not be appropriately managed if discovered during construction. Solution: A strict and robust Biosecurity Plan must be submitted within the Environmental Statement (ES), or alternatively, biosecurity measures could be incorporated within the Invasive Species Management Plan. A pathway specific risk assessment should be considered identifying any pathways for spread during construction, operation and decommissioning. The commitment to perform biosecurity measures should also be included within the Commitments Register. Additional narrative/explanation: Although an Invasive Species Management Plan is to be produced, there is no mention of biosecurity measures to avoid accidental introduction. Accidental spread of INNS is an offence under the Wildlife and Countryside Act 1981.	with the oISMP [**EN0110012/APP/LVS/07.22**], thus ensuring provision of such statements is secured. A pathway specific risk assessment has been completed identifying any pathways for spread during construction, operation and decommissioning. The commitment to perform biosecurity measures is also included within the Commitments Register (Appendix 1.3 (ES Volume 3)) **[EN0110012/APP/LVS/06.03.01.03]**.
Environment Agency	PEIR Volume 3, Appendix 1.3: Commitments Register, Table 1-2 Issue: The Commitments Register does not include a commitment to cease construction should a protected species be discovered, or to apply for a protected species licence. Impact: Risk of disturbing protected species, and/or damaging their resting places, as a result of the contractor not understanding when a licence is required, or not knowing to halt construction whilst the licence application is underway. Both are offences under the Conservation of Habitats and Species Regulations 2017 and the Wildlife and Countryside Act 1981. Solution: Amend Table 1-2 to require the contractor to halt construction following the potential discovery of a protected	Table 1-1 of the Commitments Register [**EN0110012/APP/LVS/06.03.01.03**] has been amended to require the contractor to halt construction following the potential discovery of a protected species or evidence of a protected species (e.g. burrows) and consult the Ecological Clerk of Works (ECoW), and specifies that construction will only re-commence following successful application for a species mitigation licence, and the production of a species mitigation plan.

Consultee	Comments/matters raised	How has this comment been addressed
	species or evidence of a protected species (e.g. burrows) and consult the Ecological Clerk of Works (ECoW). Specify that construction will only re-commence following successful application for a species mitigation licence, and the production of a species mitigation plan.	

Targeted consultation

6.4.3 A period of targeted consultation took place between 16 October 2025 and 20 November 2025, during which feedback was encouraged to comment on minor changes to the development boundary area, in relation to access points during construction and operation, visibility splays to ensure safe sightlines for vehicles entering and exiting the Proposed Development, passing places on narrow roads, access requirements for abnormal indivisible loads (less frequent but large delivery vehicles that have wider turner circles), cable route adjustments to avoid environmental and engineering constraints, and permissive paths to enable increased public access routes within the Solar Development Sites. Table 6-6 outlines the statutory consultation responses relating to biodiversity and how these have been addressed through the ES.

6.4.4 Full responses to the targeted consultation are outlined in the Consultation Report [**EN0110012/APP/LVS/05.01**].

Table 6-6 Targeted consultation comments

Consultee	Comment	Applicant response
Thorpe Willoughby Parish Council	Hedgerows provide support for biodiversity, therefore cannot support the removal of large sections of hedgerow, as it will cause irreversible damage to local wildlife.	The effects of the Proposed Development on ecology and habitat, including specific species and habitats, are assessed in Chapter 6: Biodiversity (ES Volume 1) **[EN0110012/APP/LVS/06.01.06]**. With regard to hedgerows, these features will largely be retained and protected through development, and replaced where retention is not possible to increase total hedgerow length within the Order Limits as a result of the Proposed Development.
Thorganby Parish Council	North Yorkshire contains highly sensitive, internationally recognised wildlife sanctuaries. The Lower Derwent Valley NNR (SSSI/Ramsar site) is internationally recognised for importance of migrating wildfowl, and the Skipwith Common NNR.	The HRA [**EN0110012/APP/LVS/05.11**] has been completed to assess the impact of the development on international sites. Effects on national and local sites are assessed within Chapter 6: Biodiversity (ES Volume 1) [**EN0110012/APP/LVS/06.01.06**].
Thorganby Parish Council	Skipwith Common is one of the last remaining lowland heath in England, supporting diverse wildlife and highly sensitive to any changes in surrounding watercourses or drainage.	The HRA has been completed to assess the impact of the development on international sites [**EN0110012/APP/LVS/05.11**].

Consultee	Comment	Applicant response
		Effects on national and local sites and assessed within ES Chapter 6: Biodiversity (ES Volume 1) [**EN0110012/APP/LVS/06.01.06**]. The HRA finds no pathway for adverse effects to be caused to Skipwith Common SAC, and ES Chapter 6: Biodiversity (ES Volume 1) [**EN0110012/APP/LVS/06.01.06**] confirms that negligible effects on Skipwith Common SAC and SSSI are anticipated during construction, which are not significant.
Thorganby Parish Council	The proposed road and junction changes planned to accommodate heavy and large construction vehicles are going to entail loss of hedgerows and mature trees, with subsequent impact both on wildlife and the nature of the countryside around the sites.	Surveys have and will continue to be undertaken to establish whether trees and hedgerows are overgrown at the time of construction and if they need to be cut back to facilitate any of the localised changes. Where it has been determined that trees or hedgerows do need to be cut back, further surveys and visual inspections would be undertaken to ensure we are not disturbing existing habitats. Worst-case scenario tree and hedge loss has been calculated for the cable route in the AIA; the results of the AIA are presented in Appendix 16.2 (ES Volume 3) [**EN0110012/APP/LVS/06.03.16.02**]. The report also sets out the approach to avoiding tree loss for visibility accesses and visibility splays along the cable route. The applicant will replant trees and hedges lost along the cable route within the cable route corridor, subject to detailed design works, as set out in the oCEMP [**EN0110012/APP/LVS/07.02]**.
Thorganby Parish Council	Loss of habitat would significantly diminish local wildlife and could lead to long-term degradation of the landscape, including a desertification effect beneath the solar arrays and associated infrastructure.	The effects of the Proposed Development on ecology and habitat are assessed in Chapter 6: Biodiversity (ES Volume 1) [**EN0110012/APP/LVS/06.01.06**]. It is anticipated that the Proposed Development will have a gain of at least 70% Habitat BNG units. Full details of the gain are set out in the BNG assessment [**EN011012/APP/LVS/05.09**].

Consultee	Comment	Applicant response
		The Defra Statutory BNG Metric has been used to demonstrate net gain. The proposals are also supported by an oLEMP [**EN0110012/APP/LVS/07.05**].
Yorkshire Wildlife Trust	Yorkshire Wildlife Trust thanks the Applicant for continued engagement, and expects ongoing dialogue to address concerns previously outlined in the response of 5 August 2025.	The Applicant notes this comment.
Yorkshire Wildlife Trust	No further comments at this stage due to lack of detailed ecological reporting included in consultation materials.	The Applicant notes this comment. The effects of the Proposed Development on ecology and habitat are assessed in Chapter 6: Biodiversity (ES Volume 1) **[EN0110012/APP/LVS/06.01.06]**.
Monk Fryston Parish Council	The Parish Council requests that vegetation management avoids harming local flora and fauna, and that any vegetation removed is reinstated as quickly as possible.	The oLEMP [**EN0110012/APP/LVS/07.05]** provides details of how the proposed habitats will be maintained to protect flora and fauna, and secures the provision for the reinstatement of removed vegetation.
South Milford Parish Council	In general the changes appear to involve the cutting back and removal of a significant number of trees and hedges that are not easy to replace once construction complete.	The requirements for tree work and removal are set out in the AIA (Appendix 16.2 (ES Volume 3) [**EN0110012/APP/LVS/06.03.16.02]**). The majority of the trees identified for potential removal relate to the Cable Route Corridor, where a worst-case scenario assessment has been applied. The AIA sets out an approach to how such losses might be minimised during construction. The majority of trees that would be removed are of low quality and value (Category C). The CEMP makes provision for the replacement of trees and hedges in mitigation for those lost. Pruning to facilitate the development will mainly be in the form of minor crown raising to afford construction access. Such specifications will have a minimal impact on the health and viability of trees.

Stakeholder engagement

6.4.5 The following stakeholders have been engaged with regards to biodiversity as part of the assessment process:

1) NE;
2) NYC; and
3) Environment Agency.

6.4.6 The outputs of the engagement undertaken are presented in Table 6-7.

Table 6-7 Biodiversity - engagement undertaken

Stakeholder	Date engaged	Matters raised	Response
NYC	1 October 2024	• NYC would like to know how bats are using the site to begin with and how they use it post-development in the short, medium and long-term – keen to see that monitoring is undertaken • NYC would like to see an assessment of what is influencing bat species post-development. Solar is relatively new so very little is known about their impacts post development • NYC expressed the need for a habitat led assessment in relation to invertebrate assemblage – are there any unusual habitats present that would support inverts in the wider arable landscape (unusual in the character of the landscape) • NYC expects enhancement measures to be substantial but should be designed to provide a positive impact on a range of species such as invertebrates, reptiles, bats etc. by providing a mosaic of habitats.	Bat surveys completed have been presented in the ES within Appendix 6.4: Bat Report V3 (ES Volume 3) **[EN0110012/APS/LVS/06.03.06.04]**. Due to the large areas of suitable habitat for bats to be created post development, monitoring surveys for commuting and foraging bats are not currently committed to, however, post development bat monitoring could be completed if requested. With regards to roosting bat mitigation, monitoring will be completed in association with any NE licences required to facilitate development. An assessment of what will influence bat species post-development is

Stakeholder	Date engaged	Matters raised	Response
			provided in Section 6.9, as well as an assessment of the habitats within the Order Limits that may support invertebrates including their prevalence in the surrounding landscape. Habitat led assessment for invertebrates has been completed and in later meeting with NYC it was agreed that further invertebrate surveys are not required. Substantial enhancement measures have been built into the Proposed Development as per the Design Parameters and Commitments Document [**EN0110012/APP/LVS/05.06**] to provide a beneficial impact on a range of species.
NE	17 October 2024	• NE highlighted some designations may have larger impact risk zones outside of the current 2 km search area – e.g. 5-10 km • NE mentioned the presence of lamprey in the River Ouse	Assessment scope for designated sites agreed in subsequent NE meeting (16 April 2025) and NYC meeting (20 March 2025) Lamprey assessed in ES in Section 6.9.
NYC	20 March 2025	• The approach to fish survey and assessment was discussed and agreed, including the assessment of potential EMF effects. It was agreed that a combination of eDNA and habitat assessment would be used to define the fish baseline and inform the	Survey and assessment scope for fish/lamprey and for EMF effects agreed for ES, including HRA **[EN0110012/APP/LVS/05.11]**.

Stakeholder	Date engaged	Matters raised	Response
		assessment in the ES, and that fish surveys (e.g. netting or electric fishing) would not be required based on the currently proposed design and construction methodology. • Confirmation that an Arboricultural Impact Assessment (AIA) will be completed for the Proposed Development (Appendix 16.2 (ES Volume 3) [**EN0110012/APP/LVS/06.03.16.02**]) • Agreed that Strensall Common SAC, Thorne and Hatfield Moors SPA, Thorne Moor SAC, Hatfield Moor SAC and all other SINCs (21 within 2 km of the Order Limits Outside of the Solar Development Sites) can be scoped out of assessment due to distance from the Order Limits and lack of impact pathways. • Discussion on scope of Study Area and potential inclusion of designated sites beyond the fixed distances of assessment for mobile species and hydrological connections. It was agreed that the SSSI designations underlying the Lower Derwent Valley SAC/Ramsar would be scoped into assessment (Derwent Ings SSSI, Melbourne and Thorn Ings SSSI, Breighton Meadows SSSI and Newton Mask SSSI). No other designated sites beyond the fixed distances required scoping in. • Agreement that arable land can be scoped out of further assessment due to low species diversity and negligible ecological importance. • Agreed approach for species surveys within the Solar Development Sites as follows: - Water vole-Targeted surveys where impacts to watercourses unavoidable. - Commuting and foraging bats- seasonal surveys 6-8 - Roosting bats- Targeted to tree loss	Assessment scope for designated sites agreed and included in ES where requested. Scope of ecological surveys agreed has been presented in the ES and Appendices 6.1 to 6.8 (ES Volume 3). The BNG Report V2 **[EN0110012/APP/LVS/05.09]** incorporates agreed approach.

Stakeholder	Date engaged	Matters raised	Response
		- Reptiles- No surveys proposed, Precautionary Working Methods (PWM) to be employed - GCN-DLL (approach at the time of consultation, prior to survey results) -Invertebrates- No surveys proposed • Agreed approach for habitat and species surveys within the Cable Route Corridor as follows: - Water vole-Targeted surveys where impacts to watercourses are unavoidable. One survey sufficient to confirm absence rather than two detailed in best practice guidance. - Commuting and foraging bats- No surveys recommended at this stage (TBC with feature loss) - Roosting bats- Targeted to tree loss - Badgers-Whole corridor to be surveyed when area is refined - Otter- Targeted surveys where impacts to watercourses are unavoidable. - GCN-PWMs - Reptiles- No surveys proposed, PWMs to be employed - Invertebrates- No surveys proposed - UK habitat survey of the Cable Route Corridor • With regards to BNG the habitat along within the Cable Route Corridor will be reinstated within two years of the start of works, so the habitat will be added to the metric as a retention, except any areas where habitat will change permanently. • A River MoRPh Survey will be required where any watercourse (excluding ditches) is located within the Order Limits or within 10 m of the Order Limits.	

Stakeholder	Date engaged	Matters raised	Response
Environment Agency (EA)	25 March 2025	• The EA's previous request to scope in fish was noted and the approach to fish survey and assessment was discussed and agreed, including the assessment of potential EMF effects. • It was agreed that a combination of eDNA and habitat assessment would be used to define the baseline and inform the assessment in the ES, and that fish surveys (e.g. netting or electric fishing) would not be required based on the currently proposed design and construction methodology. • It was agreed that an eDNA sample would not be collected from the proposed River Ouse cable crossing location given the trenchless techniques proposed. It was agreed that the River Ouse is a known migratory route for anadromous fish, European eel and lamprey (demonstrated by desk study data) and the assessment would consider this fact, negating the need for an eDNA sample from this location.	Assessment scope for designated sites agreed in respect of fish species and included in this chapter and the HRA **[EN0110012/APP/LVS/05.11]** where requested. Potential impacts on fish and lamprey have been assessed in ES (see Section 6.9 and Appendix 6.5: Fish Habitat Assessment and eDNA Survey (Aquatics Report) [**EN0110012/APP/LVS/06.03.06.05**]).
NE	16 April 2025	• The approach to fish survey and assessment was discussed and agreed, including the assessment of potential EMF effects. • It was agreed that a combination of eDNA and habitat assessment would be used to define the baseline and inform the assessment in the ES, and that fish surveys (e.g. netting or electric fishing) would not be required based on the currently proposed design and construction methodology. • It was agreed that an eDNA sample would not be collected from the proposed River Ouse cable crossing location given the trenchless techniques proposed. It was agreed that the River Ouse is a known migratory route for anadromous fish, European eel and lamprey (demonstrated by desk study data) and the assessment would consider this fact, negating the need for an eDNA sample from this location.	Survey and assessment scope for fish/lamprey and for EMF effects agreed for ES and HRA **[EN0110012/APP/LVS/05.11]**. The designated sites that have been agreed to scope into assessment have been included in the ES.

Stakeholder	Date engaged	Matters raised	Response
		• Confirmed that Humber Estuary SPA, SAC and Ramsar, Lower Derwent Valley SPA and Ramsar, Burr Closes SSSI, and Fairburn and Newton Ings SSSI have been scoped in. • Confirmed that local sites have been assessed in the PEIR • Agreed that Strensall Common SAC, Thorne and Hatfield Moors SAC, Thorne Moor SAC, and Hatfield Moor SAC can be scoped out of assessment due to distance from the Order Limits and lack of impact pathways. • Discussion on scope of Study Area and potential inclusion of designated sites beyond the fixed distances of assessment for mobile species and hydrological connections. It was agreed that the SSSI designations underlying the Lower Derwent Valley SAC/Ramsar would be scoped into assessment (Derwent Ings SSSI, Melbourne and Thorn Ings SSSI, Breighton Meadows SSSI and Newton Mask SSSI). No other designated sites beyond the fixed distances required scoping in.	
Environment Agency	23 June 2025	Meeting held to provide a summary of the risks and mitigation relating to Water Environment Regulations (WER), fisheries and biodiversity. Biodiversity summary • Summary of the biodiversity assessment within the PEIR provided. • Noted that GCN mitigation may be provided on-site as an alternative to or in conjunction with district level licensing. • EA questioned if invasive non-native species have been surveyed • EA questioned if BNG would be completed?	Confirmed that UK Habitat surveys recorded invasive species, with small areas of Himalayan balsam *Impatiens glandulifera* and one stand of Japanese knotweed *Fallopia japonica* found within the Order Limits. Relevant mitigation has been included in the ES with American mink control also detailed (Section 6.9). Confirmed BNG assessment will be completed, as outlined in the BNG report V2 [**EN0110012/APP/LVS/05.09**].

Stakeholder	Date engaged	Matters raised	Response
NYC	15 July 2025	Meeting completed to provide an update post PEIR submission and answer any additional questions. Questions posed by NYC: • Will the project follow the traditional licencing route for GCN? • Will the HRA be submitted with the ES? • NYC would like to see monitoring included for the scheme and how this links to the cumulative assessment	Use of GCN licencing will be determined following eDNA survey of 32 ponds where possible in April 2026 (approach outlined in 2 October 2025 notes below). The HRA has been submitted as part of the DCO Application. **[EN0110012/APP/LVS/05.11]** Post consent, a LEMP and OEMP will be developed for approval prior to construction, which will set out the details of the proposed monitoring regime.
Yorkshire Wildlife Trust	31 July 2025	Matters covered included: • Survey scope and Baseline • Design Mitigation Measures • Birds and Habitat Mitigation • Habitat Creation and Section 106 • Cumulative Impact Assessment • YWT queried about the use of DLL and whether the Applicant would be interested in using YWT's in-house delivery for GCN, including consulting with YWT on GCN matters. YWT asked about pre-commencement surveys. • YWT asked about mitigation and location for breeding and non-breeding birds. • YWT reiterated their position that S106-secured habitat creation must be delivered in perpetuity. YWT stated this position will be	Agreement on the ecological surveys and survey scope, noting it aligned with their expectations. Confirmation of the buffer zones applied within the Design Commitments. Applicant confirmed that surveys for badgers, otter and brown hare would be undertaken pre-commencement. Other species would be covered under PWMs or NE licencing. Use of DLL will be determined following eDNA survey of 32 ponds where possible in April 2026 (approach outlined in 2 October 2025 notes below).

Stakeholder	Date engaged	Matters raised	Response
		reiterated in their written comments and that they would not move on this requirement.	Agreement that ground nesting birds had been appropriately considered. Confirmation all matters appear to be covered from YWT perspective and expressed interest in Cumulative Impact Assessment (CIA).
Environment Agency	1 September 2025	Meeting held to provide responses to and discuss the EAs S42 consultation comments Questions posed by EA: • Asked whether terrestrial and aquatic species have been considered. • Surveys should be repeated prior to construction and commencement of works and securing via CEMP, commitments register, or requirement. • Need to consider risk of mammal entrapment. • Invasive Species Management Plan required.	Both terrestrial and aquatic species included in the ES, see Section 6.9 Agreed to re-survey before works start – this is set out in the oCEMP [**EN0110012/APP/LVS/07.02]** Measures to reduce risk of mammal entrapment have been included in PWMs within the oCEMP [**EN0110012/APP/LVS/07.02]** oISMP [**EN0110012/APP/LVS/07.22**] completed.
NYC	2 October 2025	• It was agreed that the 32 ponds that could not be accessed this year will be surveyed for GCN EDNA in April 2026 where possible as this may rule out many more presumed positive ponds. This is considered especially likely for Sites 2-8 where there are no existing GCN records within 2 km. • Should it still not be possible to survey some ponds (this number should however be greatly reduced from the current 32), then works within suitable habitat in 250 m of a presumed positive pond would be completed under PWMs. Should any cropland be present in 250 m of a presumed positive pond, due to its sub-	This agreed approach for GCN has been discussed in this chapter (Section 6.9) and Appendix 6.6 [EN0110012/APS/LVS/06.03.06.06]. All existing ponds within the Order Limits will be retained, and a number of large scrapes are proposed in the south of Solar Development Site 1, increasing aquatic habitat post development.

Stakeholder	Date engaged	Matters raised	Response
		optimal suitability for GCN, no further mitigation would be required prior to clearance. • Should any ponds return a positive result for GCN, either traditional licensing or DLL would be utilised at this point. • With regards to the Order Limits Outside of the Solar Development Sites, as the works are temporary, on a small scale, and will avoid suitable GCN habitat where possible, no GCN EDNA surveys are proposed. A similar approach with regards to PWMs will be employed to that outlined above. • NYC agreed with approach and noted that if it is possible to include additional aquatic habitat for GCN within the development that would be a positive.	
NYC	11th December 2025	It was agreed over email that the GLTA for trees to be lost to the Proposed Development would be completed in January 2026, with any further bat surveys required following the results of the GLTA to be completed in the appropriate surveying window (May-September) 2026. Thereafter, the final mitigation for roosting bats (if any) to facilitate the Proposed Development could be confirmed. It is proposed that these surveys will also be completed again prior to the start of works, due to the potential 2028 start date, to ensure any changes in bat roosting has been recorded and appropriately mitigated. NYC agreed to the above approach and requested all surveys and mitigation follow the latest Bat Conservation Trust (BCT) guidelines, particularly regarding seasonal timing, survey effort, and mitigation hierarchy. NYC also agreed with the intention to repeat surveys prior to	The GLTA surveys completed in January 2026 is discussed in this chapter (Section 6.9) and in Appendix 6.4 **[EN0110012/APS/LVS/06.03.06.04]** The surveys completed follow the latest BCT guidelines, particularly regarding seasonal timing, survey effort, and mitigation hierarchy.

Stakeholder	Date engaged	Matters raised	Response
		the commencement of works to capture any changes in roosting activity and ensure mitigation remains suitable.	

6.5 Methodology

Overview

6.5.1 The assessment methodology is set out below with relevance to the following receptors:

1) Internationally, nationally and locally designated sites;
2) Priority and non-priority habitats; and
3) Protected and notable species.

6.5.2 Please note, ornithology has been dealt with separately in Chapter 12: Ornithology (ES Volume 1) **[EN0110012/APP/LVS/06.01.12]**.

Baseline methodology

Data sources

6.5.3 The following data sources have been used to inform the existing baseline conditions of the Study Area:

1) Multi-Agency Geographic Information for the countryside (MAGIC) website;
2) North & East Yorkshire Ecological Data Centre;
3) NYC website;
4) Joint Nature Conservation Committee (JNCC) website;
5) NE designated sites website;
6) Ordnance Survey mapping;
7) Ecology and Fish Data Explorer (Environment Agency);
8) Google Maps, including aerial photography; and
9) Data regarding the historic cropping regime of the Study Area.

Survey

6.5.4 The following surveys have been undertaken and used to inform the existing baseline conditions assessed in this ES, all of which have been undertaken by Tyler Grange, excluding the fish habitat and white-clawed crayfish eDNA surveys which have been completed by Arup:

1) UK Habitat survey of Solar Development Sites 1-4 (2024), Solar Development Sites 6-8 (2025), and the Order Limits Outside of the Solar Development Sites (2025 and 2026);
2) Habitat condition assessment (to inform BNG) of Solar Development Sites 1-4 (2024), Solar Development Sites 6-8 (2025), and the Order Limits Outside of the Solar Development Sites (2025 and 2026);

3) River MoRPh survey where watercourses (excluding ditches) are located within 10 m of the Order Limits Outside of the Solar Development Sites (2025);
4) Biodiversity Net Gain assessment (2025 and 2026) [**EN0110012/APP/LVS/05.09**];
5) Daytime Bat Walkovers (DBW) and Nighttime bat Walkovers (NBW) of Solar Development Sites 1-4 (2024) and Solar Development Sites 6-8 (2025);
6) Automated static bat detector deployment within Solar Development Sites 1-4 (2024) and Solar Development Sites 6-8 (2025);
7) Ground Level Tree Assessment (GLTA) of trees within the Order Limits to be removed/pruned to facilitate the Proposed Development as per the Arboriculture Impact Assessment (Appendix 16.2 (ES Volume 3) [**EN0110012/APP/LVS/06.03.16.02**]) (2026);
8) Bat emergence surveys of PRF-M trees (having roosting suitability for multiple bats) within the Order Limits that may be removed to facilitate the Proposed Development as per the Arboriculture Impact Assessment (Appendix 16.2 (ES Volume 3) [**EN0110012/APP/LVS/06.03.16.02**]) (2026);
9) Badger survey of Solar Development Sites 1-4 (2024), Solar Development Sites 6-8 (2025), and the Order Limits Outside of the Solar Development Sites (2025 and 2026);
10) Otter survey of all watercourses within the Solar Development Sites (2025), and targeted otter surveys where impacts are expected within the Order Limits Outside of the Solar Development Sites (2025 and 2026);
11) Great crested newt HSI assessment for all on-site ponds and ponds in 250 m of the Solar Development Sites (where access allowed) (2025 and 2026);
12) Great crested newt eDNA survey of all on-site ponds and ponds in 250 m of the Solar Development Sites (where access allowed) (2025 and 2026);
13) Targeted water vole surveys where impacts are expected within the Order Limits in alignment with approach agreed with stakeholders (2025 and 2026);
14) Fish Habitat Assessment at watercourses within the Solar Development Sites and Cable Route Corridor (2025);
15) Fish eDNA sampling at representative watercourse locations agreed with stakeholders within the Cable Route Corridor (2025); and
16) White-clawed crayfish eDNA sampling at representative watercourse locations within the Cable Route Corridor (2025).

Sensitive receptors

6.5.5 The sensitive receptors identified for inclusion in the biodiversity assessment are:

1) Internationally, nationally and locally designated sites;
2) Priority and non-priority habitats; and
3) Protected and notable species.

6.5.6 See Section 6.7 for specific receptors and scope of the Study Area.

Assessment methodology

Assigning receptor sensitivity / value / importance

Geographical scope

6.5.7 A desk-based study and/or initial site survey were used to identify important ecological features (sites, habitats and species) which may be affected by the Proposed Development, to determine the potential Zone of Influence (ZOI), and to inform the scope of further survey work required.

6.5.8 The Study Area extends beyond the Order Limits to include the geographical scopes listed within Paragraph 6.5.4.

Temporal scope

6.5.9 This ES considers the construction, operational and decommissioning phases of the Proposed Development.

Sensitivity of receptors

6.5.10 The results of the initial desk study, site surveys and data gathered during detailed surveys has been used to evaluate the importance of ecological resources within the ZOI in accordance with the CIEEM Ecological Impact Assessment (EcIA) guidance (Ref 21).

6.5.11 The guidance provides a framework for the evaluation of features that considers the direct biodiversity importance of habitats and species, the indirect importance of features which help support the ecological integrity of key features, legal protection for both sites and species, and evaluation against national and local planning guidance and objectives. It uses a geographic frame of reference for identifying important ecological features in accordance with the scale in Table 6-8.

Table 6-8 Importance of ecological features

Designation	Receptors
International	An ecological feature (species, designated site or habitat) which is important at an international level. A population that would meet the published selection criteria as a qualifying feature for designation of a SAC. An internationally designated site or candidate site, i.e. a SPA, proposed SPA (pSPA), SAC, candidate SAC (cSAC), Ramsar site, or an area which would meet the published selection criteria for such designation. Other significant areas of Annex 1 priority habitats listed in

Designation	Receptors
	the Habitats Directive, the loss of which would significantly change the overall range and area of the national site network.
National (England)	Nationally significant populations of species identified in the NPPF as being of principal importance for the conservation of biodiversity in England, or otherwise formally deemed to be nationally rare and threatened (e.g. 'red-listed'), the loss would significantly change the species' overall conservation status (i.e. range, abundance, population trend) at the national scale. A population that would meet the published selection criteria as a qualifying feature of a SSSI. A nationally designated site, i.e. SSSI, National Nature Reserve (NNR) or discrete area which would meet the published selection criteria for national designation. A significant area of a non-designated habitat type identified in the NPPF as being of principal importance for the conservation of biodiversity in England, the loss of which would significantly change the overall range and area should be a major component of areas that are at near-equivalence to SSSIs, meeting most of the published SSSI selection criteria.
Regional (North-east)	Regionally significant populations of species identified in the NERC Act Part 1 as being of principal importance for the conservation and enhancement of biodiversity of England, or otherwise formally deemed to be nationally rare and threatened (e.g. 'red-listed'), the loss of which would significantly change the species' overall conversation status (i.e. range, abundance, population trend) at the regional scale. A significant area of non-designated habitat type identified in the NERC Act, as being of principal importance for the conservation of biodiversity in England, the loss of which would significantly change the overall range and area of that habitat at the regional level in the long-term. Significant areas of semi-natural ancient woodland that do not meet the national value criteria (above) should be considered at this scale due to the irreplaceable nature of such habitat.
County (Selby District)	Significant populations of species identified in the NERC Act as being of principal importance for the conservation and enhancement of biodiversity in England, or otherwise formally deemed to be nationally rare and threatened (e.g. 'red-list'), or priority species in the County Biodiversity Action Plan (BAP) the loss of which would significantly change the species' overall conservation status (i.e. range, abundance, population trend) at the County scale. Sites formally recognised by local authorities, e.g. Sites of Biological Importance (SBI), or considered to meet published ecological selection criteria for such designation. A significant area of a non-designated habitat type identified in the NERC Act for the conservation of biodiversity in England, the loss of which would significantly change the overall range and area of that habitat at the county scale in the long-term. A significant area of key habitat identified in the County BAP.

Designation	Receptors
Local (Escrick/Monk Fryston)	Species listed on any of the above-mentioned priority lists, that appreciably enrich District/Borough biodiversity, but which are not in themselves of District/Borough importance of greater. Semi-natural habitats, listed on any of the above-mentioned priority lists, that appreciably enrich local biodiversity, but which are not in themselves of District/Borough importance or greater.

Assigning the magnitude of impact

6.5.12 The assessment considered impacts including direct loss of habitats, fragmentation and isolation of habitats, disturbance or killing/injury of species, changes to key ecological features, and changes to the local hydrology or water quality.

6.5.13 The following factors have been considered when describing ecological impacts:

1) Positive (beneficial) or negative (adverse) – an impact can improve or reduce the quality of the environment, evaluated against nature conservation objectives and policy;
2) Extent – this is the area over which an effect occurs;
3) Magnitude – the size or amount of an effect, determined on a quantitative basis where practicable (see Table 6-9 below);
4) Duration – the time for which an effect is expected to last prior to recovery or replacement of the resource or feature, e.g. short-term or long-term effects. Short-term effects refer to effects that are temporary in duration, typically up to a period of two years, with long-term effects comprising any effect that is permanent, or typically beyond two years;
5) Timing and frequency – some effects are only likely if they happen to coincide with a critical life-stage or seasons. Others may occur if the frequency of an activity is sufficiently high;
6) Reversibility - an irreversible (permanent) effect is defined as one from which recovery is not possible within a reasonable timescale or for which there is no reasonable chance of action being taken to reverse it. A reversible (temporary) effect is one from which spontaneous recovery is possible or for which effective mitigation is both possible and enforceable; and
7) Cumulative effects – where consideration is given to any other developments within the ZOI, together with the Proposed Development, may result in significant effects.

Table 6-9 Magnitude of effects

Magnitude	Environmental impact
Major	The impact is likely to have an adverse / beneficial effect on the integrity of a site or the conservation status of a species or species assemblage.

Magnitude	Environmental impact
Moderate	The impact affects a site or the conservation status of a species or species assemblage, but the adverse impact would not affect integrity of that site or the conservation status of a species or species assemblage. A moderate beneficial impact would benefit conservation status of a site / species / species assemblage.
Minor	The impact is likely to have an adverse / beneficial effect an ecological feature but would not affect integrity or conservation status.
Negligible	An effect beneficial or adverse would be minimal.
Neutral	No detectable change from the baseline condition.

6.5.14 Impact Prediction Confidence - It is also of value to attribute a level of confidence by which the predicted impact has been assessed. The criteria for these definitions are set out in Table 6-10 below.

Table 6-10 Impact prediction confidence

Confidence level	Description
High	The predicted impact is either certain i.e. a direct impact, or believed to be very likely to occur, based on reliable information or previous experience.
Low	The predicted impact and its levels are best estimates, generally derived from first principles of relevant theory and experience of the assessor. More information may be needed to improve confidence levels.

Significance criteria

6.5.15 The significance of an effect is the product of the magnitude of the impact and the importance or sensitivity of the ecological feature affected. The CIEEM EcIA Guidance provides a complex framework for the consideration of impacts to ecological features and the reader is referred to the guidance for full details (Ref 17). However, in summary, greater levels of significance are generally ascribed to large impacts on features of higher ecological importance and lesser levels of significance are generally ascribed to small impacts on features of higher ecological importance, or larger impacts on features of lower ecological importance.

6.5.16 In accordance with professional guidance and terminology; a significant effect, in ecological terms, is defined as an effect (beneficial or adverse) on the integrity of a designated site or ecosystem(s) and/or the conservation status of habitats or species within a given geographical area, including cumulative effects. Insignificant effects are those that would not result in such changes.

6.5.17 The importance of any features that would be significantly affected is then used to identify geographical scales at which the effect is significant. This value relates directly to the consequences, in terms of legislation, policy and/or development control at the appropriate level. So, a significant negative effect on a feature of importance at one level would be likely to trigger the need for control mechanisms as described in those policies.

6.5.18 Significant effects on features of ecological importance should be mitigated (or compensated for) in accordance with the guidance derived from policies applied at the scale relevant to the feature or resource.

6.5.19 Effects are unlikely to be significant where features of local importance or sensitivity are subject to small scale or short-term effects. However, where there are a number of small-scale effects that are not significant alone, it may be that, cumulatively, these may result in an overall significant effect.

6.5.20 The assessment of effects has used the terminology described above. However, to provide consistency with the terminology throughout the ES, potential and residual effects (beneficial or adverse) have also been described using the terms set out in Table 6-9.

6.6 Assumptions and limitations

6.6.1 Where necessary, where information is not available or where survey results are inconclusive, assumptions may be made (with justification) to assess potential impacts on ecological receptors and any mitigation solutions proposed. In such instances, in accordance with CIEEM guidelines (Ref 21), the precautionary principle has been applied which states that: *"In cases of reasonable doubt, where it is not possible to robustly justify a conclusion of no significant effects, mitigation/compensation measures should be applied in accordance with the precautionary principle".*

6.6.2 Any limitations experienced during the various protected species and habitat surveys are detailed within the associated Appendices (Appendix 6.1 to Appendix 6.8 (ES Volume 3) **[EN0110012/APP/LVS/06.03.06]**).

6.7 Baseline conditions

6.7.1 The Proposed Development's boundary is made up of four broad areas, the Solar Development Sites (900 ha), Cable Route Corridor (328.5 ha), Highways Improvements Areas (17.1 ha), and Solar Development Site 8 Access (24.1 ha). The Solar Development Sites are split across a total of seven separate land parcels, referred to herein as 'Solar Development Sites 1-4 and 6-8' or individually as may be required. The locations and extents of the seven Solar Development Sites, as well as the Cable Route Corridor, Highways Improvements Areas, and Solar Development Site 8 Access are shown in Figure 1.1: Site Location and Order Limits (ES Volume 2) **[EN0110012/APP/LVS/06.02.01.01]**. A description of Order Limits is provided in Chapter 2: The Proposed Development (ES Volume 1) **[EN0110012/AP/LVS/06.01.02]**.

Existing baseline conditions

Designated sites

6.7.2 The Study Area for the identification of designated sites follows best practice guidelines and confirmation from relevant consultees (see Table 6-7). Sites of International importance were assessed at 20 km from the Order Limits (Figure 6.1: Statutory Designated Sites – International Designations 20 km (ES Volume 2) **[EN0110012/APP/LVS/06.02.06.01]**), with National, County and Locally designated sites being assessed at 2 km from the Order Limits (Figures 6.2, 6.3 and 6.4 (ES Volume 2) **[EN0110012/APP/LVS/06.02.06.02-04]**).

Statutory designated nature conservation sites

6.7.3 A number of sites of international importance are present within 20 km of Order Limits (Figure 6.1: Statutory Designated Sites – International Designations 20 km (ES Volume 2) [**EN0110012/APP/LVS/06.02.06.01]);** these are listed below alongside their closest approximate distance to the Order Limits. Those scoped out of further assessment are indicated:

1) Skipwith Common SAC (115 m south of the Highways Improvements Areas and 710 m south of the Cable Route Corridor 1-4);
2) Lower Derwent Valley SAC & Ramsar (2.8 km east of Solar Development Site 1) including the various underlying SSSIs: Derwent Ings SSSI 2.8 km east of Solar Development Site 1, Melbourne and Thorn Ings SSSI 6.5 km north-east of Solar Development Site 1, Breighton Meadows SSSI 6.1 km south-east of the Cable Route Corridor 1-4 and Newton Mask SSSI 7.7 km north-east of Solar Development Site 1;
3) River Derwent SAC (3 km east of Solar Development Site 1);
4) Humber Estuary SAC & Ramsar (13.7 km south-east of the Highways Improvements Areas and 15.1 km south-east of the Cable Route Corridor 1-4);

5) Strensall Common SAC (15.4 km north of north of Solar Development Site 1). Scoped out of further assessment;

6) Thorne Moor SAC (17.8 km south-east of the Highways Improvements Areas and 19 km south-east of the Cable Route Corridor 1-4). Scoped out of further assessment; and

7) Hatfield Moor SAC (24 km south-east of Solar Development Site 4). Scoped out of further assessment.

6.7.4 The SSSIs which underpin the above international designations have also been considered in the assessment. No proposed or candidate SACs were identified within the data search.

6.7.5 There is one site of national importance within 2 km of the Solar Development Sites (Figure 6.2: Statutory Designated Sites – National Designations 2 km (ES Volume 2) **[EN0110012/APP/LVS/06.02.06.02]**), which listed below alongside its distance to the Solar Development Sites:

1) Sherburn Willows SSSI (1.8 km west of Solar Development Site 7).

6.7.6 There are three sites of national importance within 2 km of the Order Limits Outside of the Solar Development Sites, these are listed below alongside their closest distance to the Order Limits Outside of the Solar Development Sites:

1) Burr Closes-Selby SSSI (83 m south-east of Cable Route Corridor 1-4);

2) Skipwith Common SSSI & NNR (115 m north of the Highways Improvements Areas and 710 m south of the Cable Route Corridor 1-4); and

3) Fairburn and Newton Ings SSSI (1.7 km west of the Highways Improvements Areas and 1.9 km west of the Cable Route Corridor 4-POC).

6.7.7 SSSI Impact Risk Zones (IRZs) are used as a rapid initial assessment tool by Local Planning Authorities to determine if a Proposed Development is likely to affect a terrestrial SSSI and highlight when NE should be consulted. The Order Limits have been identified within the SSSI Impact Risk Zone (Figure 6.3: SSSI Impact Risk Zones 2 km (ES Volume 2) **[EN0110012/APP/LVS/06.02.06.03]**) of several SSSIs for the type and scale of development proposed (Solar schemes with footprint > 0.5 ha, all wind turbines). These Impact Risk Zones are related to the SSSI designations outlined above and have been considered in the assessment.

6.7.8 No other statutory sites such as Local Nature Reserves (LNR) have been identified within 2 km of the Order Limits. The nearest site is Barlow Common LNR, 2.9 km from the nearest Solar Development Site boundary.

Non-statutory designated nature conservation sites

6.7.9 A number of SINCs and Candidate SINCs, of county/local importance are located both within and within 2 km of the Order Limits or the Construction Traffic Routes (Figure 6.4: Non-Statutory Designated Sites 2 km – Technical Assessment (ES

Volume 2) **[EN0110012/APP/LVS/06.02.06.04]**); these are listed below alongside their distance to the closest boundary of the Order Limits/Construction Traffic Routes. The Construction Traffic Routes are shown within Appendix 14.1: Transport Assessment (ES Volume 3) **[EN0110012/APP/LVS/06.03.14.01**] and comprise the proposed vehicle access routes to the Order Limits during the construction, operation and maintenance phases of the Proposed Development.

6.7.10 Only the SINCs scoped into further assessment are listed below. There are a further 21 SINCs and seven deleted SINCs within 2 km of the Order Limits, all of which have been scoped out of further assessment with the agreement of NYC and NE (Table 6-7).

6.7.11 For information, deleted SINCs comprise North Yorkshire SINCs that have been deleted by the North Yorkshire and York SINC Panel as they have been found not to qualify against the SINC selection guidelines following a survey and assessment. In many cases just because a site has not met the high criteria for designation as a SINC it does not mean that it has no added value for wildlife. The SINC assessment is usually based on a botanical survey of the habitat and rarely includes surveys for other taxa, including protected species, which the site may support. It may also be important for connectivity or as part of a wider habitat network. As such, deleted SINCs are also considered in the assessment.

Solar Development Site 1

1) Gilbertsons Plantation - Wheldrake Site 65 (adjoining the north-eastern boundary).

Solar Development Site 2

N/A

Solar Development Site 3

N/A

Solar Development Site 4

1) Willow Scrub, Birkin Holme (deleted SINC) (60 m south); and
2) Borrow Pit East of Birkin (100 m south).

Solar Development Site 6

N/A

Solar Development Site 7

N/A

Solar Development Site 8

N/A

Order Limits Outside of the Solar Development Sites

1) Ouse Bank-Westfield-Riccall Ings (partially within Cable Route Corridor 1-4);
2) Nightingale Wood (partially within Cable Route Corridor 1-4);
3) Scarrow Green Pond-Little Skipwith (partially within Highways Improvements Areas, and 115 m south of Cable Route Corridor 1-4);
4) Common Wood (adjacent to Cable Route Corridor 1-4);
5) Bywater Wood (adjacent to Highways Improvement Areas and 45 m south of Cable Route Corridor 4-POC);
6) Mulberry Farm Ponds (20 m west of Cable Route Corridor 1-4);
7) Small Lakes-Riccall Ings (35 m east of Cable Route Corridor 1-4);
8) Far Carr Meadow-Wistow Deleted SINC (83 m south-east of the Cable Route Corridor 1-4);
9) Bishop Wood (110 m east of Solar Development Site 8 Access, and 620 m east of Solar Development Site 8);
10) Crook Moor (130 m east of Highways Improvement Areas, and 400 m east of Cable Route Corridor 1-4);
11) Swamp on Selby Dam Near Low Rest Park Farm (deleted SINC) (190 m east of Solar Development Site 8 Access, and 235 m north-east of Solar Development Site 8);
12) Hollicarrs Wood (235 m north of Cable Route Corridor 1-4);
13) Barber Rein (235 m south of Cable Route Corridor 1-4);
14) Moss Hagg (240 m north Cable Route Corridor 1-4).

Construction Traffic Routes

1) Gashouse Plantation (adjacent to the construction traffic routes on Skipwith Road, and 345 m north-west of Solar Development Site 1); and
2) Brayton Barff (adjacent to the construction traffic routes on A63, and 905 m south of Cable Route Corridor 1-4).

6.7.12 The Cable Route Corridor also passes through the Yorkshire Rivers Important Invertebrate Area, which is 3.1 km south-west of the nearest Solar Development Site, however is still scoped in for further assessment.

Habitats

6.7.13 The following area habitats were recorded across the Order Limits during the 2024, 2025 and 2026 surveys and are shown in Figure 6.6: UK Habitat Classification Results V2 (ES Volume 2) **[EN0110012/APP/LVS/06.02.06.06]**. The habitat codes included below are as included within UK Habitat Classification surveying methodology (Ref 28):

1) c1 – cropland;
2) c1c-cereal crops;
3) c1d - non-cereal crops;
4) c1c6- arable field -wild bird mix;
5) c1b -temporary grass and clover leys;
6) c1a5- arable field margins tussocky;
7) c1a6 -arable field margins pollen and nectar;
8) c1a8 -arable field margins wild bird mix;
9) g3c-other neutral grassland;
10) g4- modified grassland;
11) h3h-mixed scrub;
12) h3j-willow scrub;
13) h3d-bramble scrub;
14) w1g-other broadleaved woodland;
15) w2-coniferous woodland;
16) 42-ponds;
17) u1c-developed land; unsealed surface;
18) u1b- developed land; sealed surface;
19) u1 828 vegetated garden; and
20) u1f Sparsely vegetated land.

6.7.14 The following linear/point habitats were recorded across the Order Limits during the 2024, 2025 and 2026 surveys and are shown in Figure 6.6: UK Habitat Classification Results V2 (ES Volume 2) **[EN0110012/APP/LVS/06.02.06.06]**:

1) h2a5-species-rich native hedgerow (some with trees);
2) h2a6-other native hedgerow (some with trees);
3) h2b-non-native ornamental hedgerow;
4) r2-50-ditches;
5) r2b-other rivers and streams;
6) w-200- rural trees;
7) w-203-mature tree;
8) w1 33-line of trees; and
9) w1 34-ecologically valuable line of trees.

6.7.15 Habitats identified within the specific Solar Development Sites are summarised in the section below. In addition, habitats of principal importance (HoPI) listed

under the NERC Act 2006, UK BAP Priority Habitats, and woodland listed on the National Forest Inventory 2020 (Ref 57) that have been identified within proximity to the Order Limits and are also described below and can be viewed in Figure 6.5: Priority Habitats 2 km (ES Volume 2) **[EN0110012/APP/LVS/06.02.06.05]**. It is noted in the below descriptions which habitats are within/outside of the Order Limits.

6.7.16 An Arboricultural Impact Assessment (AIA) has been undertaken and identifies any potential ancient woodland and veteran trees (no ancient woodland within the Order Limits). The results of the AIA are presented in Appendix 16.2: Arboricultural Impact Assessment (ES Volume 3) **[EN0110012/APP/LVS/06.03.16.02]**.

Solar Development Site 1

6.7.17 During the site survey, Solar Development Site 1 largely comprised arable fields, dissected and bound by wet ditches and hedgerows, with arable field margins present, some of which comprised neutral grassland and some were managed specifically for the benefit of wildlife. Smaller areas of neutral grassland, scrub, and modified grassland were present within Solar Development Site 1. In addition, there were five ponds, one treeline, 12 wet ditches and 70 hedgerows present[5], as well as occasional scattered trees at boundaries, and bare ground/hardcore tracks that extend through the Solar Development Site.

6.7.18 Himalayan balsam, an invasive non-native species, was located on the southern boundary of Field F1.7, as shown on Figure 6.6: UK Habitat Classification Results V2 (ES Volume 2) **[EN0110012/APP/LVS/06.02.06.06]**. The field reference numbers are shown on Figure 2.3: Field Numbering Plan (ES Volume 2) **[EN0110012/APP/LVS/06.02.02.03].**

6.7.19 Habitats of county level importance recorded at Solar Development Site 1 included:

1) h2a5-species-rich native hedgerow (some with trees);
2) h2a6-other native hedgerow (some with trees);
3) w1 33-line of trees; and
4) r2-50-ditches.

6.7.20 Habitats of local importance recorded at Solar Development Site 1 included:

1) c1a5- arable field margins tussocky;
2) c1a6 -arable field margins pollen and nectar;
3) c1a8 -arable field margins wild bird mix;
4) g3c-other neutral grassland;

[5] This chapter presents what was observed at the time of the various survey visits. Due to the ongoing management of hedges, such as coppicing and laying, comprising management techniques used to extent life of hedges and improve quality over time, the dimensions and characteristics presented may differ to what is current present on site.

5) h3h-mixed scrub;
6) w-200- rural trees;
7) w-203-mature tree; and
8) 42-ponds.

6.7.21 From the data search, one small parcel of deciduous woodland listed on the National Forest Inventory 2020 was located on the boundary of Solar Development Site 1 in the south-east. The parcel was however not identified as Ancient Woodland in the NE ancient woodland database.

6.7.22 Further agricultural fields surround Solar Development Site 1 on all aspects, as well as a number of woodland copses including Gilbertsons Plantation-Wheldrake Site 65 SINC. This SINC comprises ancient woodland, listed on the NE Ancient Woodland database, and is located on the north-eastern boundary of Solar Development Site 1. This SINC and the other neighbouring woodland copses have potential to support protected species, such as great crested newt, badger, roosting and foraging bats, nesting birds and hedgehog.

6.7.23 HoPI found adjacent to Solar Development Site 1 include good quality semi-improved grassland and traditional orchard. Lowland fen and pond habitats are found in the wider landscape (within 2 km of Solar Development Site 1).

Solar Development Site 2

6.7.24 During the site survey, Solar Development Site 2 comprised primarily of arable fields, with a small number of grassland margins, some of which were managed specifically for the benefit of wildlife. Solar Development Site 2 was crossed by a central bare ground track from north to south, and a flowing wet ditch running east to west, Ditch 2.1 (D2.1), which was bordered by a wide strip of neutral grassland. Some of the fields were bound by hedgerows, Hedgerow 2.1-Hedwrow 2.5 (H2.1-H2.5) of varying structure and composition, as well as scattered trees, and small amounts of scrub.

6.7.25 Habitats of county level importance recorded at Solar Development Site 2 included:

1) h2a5-species-rich native hedgerow (some with trees);
2) h2a6-other native hedgerow (some with trees); and
3) r2-50-ditches.

6.7.26 Habitats of local importance recorded at Solar Development Site 2 included:

1) c1a5- arable field margins tussocky;
2) c1a6 -arable field margins pollen and nectar;
3) g3c-other neutral grassland; and
4) w-200- rural trees.

6.7.27 Further agricultural fields surround Solar Development Site 2 on all aspects, with the A63 forming the southern boundary. A small woodland copse containing a pond was noted on the eastern boundary, and was listed as deciduous woodland on the National Forest Inventory 2020. The woodland has the potential to support protected species, such as great crested newt, badger, roosting and foraging bats, nesting birds and hedgehog.

6.7.28 HoPI found within 2 km of Solar Development Site 2 include coastal and floodplain grazing marsh, lowland fens and traditional orchard.

Solar Development Site 3

6.7.29 During the site survey, Solar Development Site 3 largely comprised two agricultural fields. The fields were bound by wet ditches Ditch 3.1-Ditch 3.2 (D3.1-D3.2) in combination with hedgerows Hedgerow 3.1-Hedgerow 3.5 (H3.1-H3.5), Treeline 3.1 (TL3.1), scattered mature trees and scrub.

6.7.30 Habitats of county level importance recorded at Solar Development Site 3 included:

1) h2a5-species-rich native hedgerow (some with trees);
2) h2a6-other native hedgerow (some with trees);
3) w1 34-ecologically valuable line of trees; and
4) r2-50-ditches.

6.7.31 Habitats of local importance recorded at Solar Development Site 3 included:

1) c1a5- arable field margins tussocky;
2) g3c-other neutral grassland; and
3) w-200- rural trees.

6.7.32 Solar Development Site 3 is approximately 615 m east of the village of Hillam and is surround by further agricultural land on all aspects, with Hillam Common Lane forming the northern boundary. No HoPI were identified within or adjacent to Solar Development Site 3 and no habitats were identified as Ancient Woodland in the NE Ancient Woodland database.

6.7.33 HoPI found within 2 km of Solar Development Site 3 include coastal and floodplain grazing marsh, lowland fens and traditional orchard. None of the woodland habitats within 2 km were identified as Ancient Woodland in the NE Ancient Woodland database.

Solar Development Site 4

6.7.34 During the site survey, Solar Development Site 4 largely comprised arable fields bound by wet drainage ditches, with neutral grassland margins, some of which were managed specifically for the benefit of wildlife, and sporadic hedgerows and treelines. There were occasional scattered trees at boundaries and bare ground and hardcore tracks extended through Solar Development Site 4.

6.7.35 Himalayan balsam, an invasive non-native species, was recorded within Ditch 4.1, Hedgerow 4.13, and in the arable field margin north of field F4.14, as shown on Figure 6.6: UK Habitat Classification Results V2 (ES Volume 2) **[EN0110012/APP/LVS/06.02.06.06]**.

6.7.36 Habitats of county level importance recorded at Solar Development Site 4 included:

1) h2a5-species-rich native hedgerow (some with trees);
2) h2a6-other native hedgerow (some with trees);
3) w1 33-line of trees;
4) w1 34-ecologically valuable line of trees; and
5) r2-50-ditches.

6.7.37 Habitats of local importance recorded at Solar Development Site 4 included:

1) c1a8 -arable field margins wild bird mix;
2) g3c-other neutral grassland;
3) w-200- rural trees; and
4) w-203-mature tree.

6.7.38 The surrounding landscape is one of further agricultural fields and includes a number of ponds in proximity to the boundary of Solar Development Site 4, that may support breeding great crested newt and other amphibians. A number of woodland copses also border Solar Development Site 4, that may provide suitable habitat for a range of fauna including badger, roosting and foraging bats, nesting birds and hedgehog. The River Aire is also located approximately 460 m south of Solar Development Site 4. The river is anticipated to form an important commuting and foraging feature for fauna within the local area.

6.7.39 Other habitats of principal importance found within 2 km of Solar Development Site 4 include lowland fens and traditional orchard.

Solar Development Site 6

6.7.40 During the survey, Solar Development Site 6 largely comprised arable fields bound by wet drainage ditches and associated modified grassland margins, as well as sporadic hedgerows and treelines. There were also occasional scattered trees at boundaries, with a small woodland copse in the west of Solar Development Site 6. Some discrete areas of neutral and modified grassland were also present.

6.7.41 Habitats of county level importance recorded at Solar Development Site 6 included:

1) h2a5-species-rich native hedgerow (some with trees);
2) h2a6-other native hedgerow (some with trees);
3) w1 33-line of trees;

4) w1 34-ecologically valuable line of trees; and
5) r2-50-ditches.

6.7.42 Habitats of local importance recorded at Solar Development Site 6 included:

1) g3c-other neutral grassland;
2) w1g-other broadleaved woodland;
3) w-200- rural trees; and
4) w-203-mature tree.

6.7.43 The surrounding landscape is one of further agricultural fields and includes a number of ponds in proximity to the boundary of Solar Development Site 6, that may support breeding great crested newt and other amphibians. However, the association of some of these ponds to Gascoigne Wood Fishery, to the north of the Solar Development Site, may reduce the likelihood of GCN being present in these ponds due to fish predation of young GCN (further discussed in Section 6.9).

6.7.44 Turpin Lane and Common Lane divide some fields forming part of Solar Development Site 6, and the Solar Development Site 6 is also bound to the west by a railway line, which may form a commuting feature for species such as badger or bats. An area of woodland flanks Solar Development Site 6 to the north, which may provide suitable habitat for a range of fauna including badger, roosting and foraging bats, nesting birds and hedgehog.

6.7.45 No HoPI or BAP Priority Habitat were identified within or adjacent to Solar Development Site 6 and no habitats were identified as Ancient Woodland in the NE Ancient Woodland database.

6.7.46 HoPI within 2 km of Solar Development Site 6 include coastal and floodplain grazing marsh, lowland calcareous grassland, lowland fens and traditional orchard. None of the woodland habitats were identified as Ancient Woodland in the NE Ancient Woodland database.

Solar Development Site 7

6.7.47 During the survey, Solar Development Site 7 comprised one small agricultural field. The field was bound by one wet ditch, Ditch 7.1 (D7.1), as well as three hedgerows Hedgerow 7.1-Hedgerow 7.3 (H7.1-H7.3), and one scattered tree.

6.7.48 Habitats of county level importance recorded at Solar Development Site 7 included:

1) h2a5-species-rich native hedgerow (some with trees);
2) h2a6-other native hedgerow (some with trees); and
3) r2-50-ditches.

6.7.49 Habitats of local importance recorded at Solar Development Site 7 included:

1) w-200- rural trees.

6.7.50 Common Lane forms the southern boundary of Solar Development Site 7, with railway tracks present on the western and northern boundary. Further agricultural land forms the vast majority of the surrounding landscape.

6.7.51 No HoPI or BAP Priority Habitat were identified within or adjacent to Solar Development Site 7 and no habitats were identified as Ancient Woodland in the NE Ancient Woodland database.

6.7.52 HoPI within 2 km of Solar Development Site 7 include coastal and floodplain grazing marsh, lowland calcareous grassland lowland fens and traditional orchard. None of the woodland habitats were identified as ancient woodland in the NE Ancient Woodland database.

Solar Development Site 8

6.7.53 During the survey, Solar Development Site 8 largely comprised three arable fields bound by one wet drainage ditch, Ditch 8.1 (D8.1), with a modified grassland margin, and sporadic hedgerows and treelines comprising Hedgerow 8.1 (H8.1), Hedgerow 8.2 (H8.2), and Treeline 8.1 (TL8.1). There were four scattered trees located at the boundary of Solar Development Site 8, with an area of modified grassland in the east and an area of sparsely vegetated land in the centre of Solar Development Site 8.

6.7.54 Japanese knotweed, an invasive non-native species, was recorded in the centre of Solar Development Site 8, adjacent to the area of sparsely vegetated land, as shown on Figure 6.6: UK Habitat Classification Results V2 (ES Volume 2) **[EN0110012/APP/LVS/06.02.06.06]**.

6.7.55 Habitats of county level importance recorded at Solar Development Site 8 included:

1) h2a6-other native hedgerow;
2) w1 34-ecologically valuable line of trees; and
3) r2-50-ditches.

6.7.56 Habitats of local importance recorded at Solar Development Site 8 included:

1) w-200- rural trees; and
2) w-203-mature tree.

6.7.57 Phillip Lane forms the eastern boundary, with Hagg Lane forming the western boundary beyond D8.1, and a railway line present immediately south of Solar Development Site 8. Further agricultural land is present to the east, north and south, with an area of woodland present past Hagg Lane to the west. Selby Dam is located approximately 380 m east of Solar Development Site 8, with Bishop Wood SINC located approximately 600 m north-east.

6.7.58 No HoPI or BAP Priority Habitat were identified within Solar Development Site 8 in the data search. One parcel of deciduous woodland listed in the National Forest Inventory 2020 was identified immediately adjacent to the Solar Development Site 8 boundary (as well as within the wider landscape). One of these woodlands

was identified as Ancient Woodland in the NE Ancient Woodland database, comprising Bishop Wood SINC approximately 600 m north-east of Solar Development Site 8.

6.7.59 HoPI within 2 km of Solar Development Site 8 included lowland fens and traditional orchard.

Order Limits Outside of the Solar Development Sites

6.7.60 The Order Limits Outside of the Solar Development Sites, comprises the Cable Route Corridor, Highways Improvements Areas, and Solar Development Site 8 Access. The Cable Route Corridor extends approximately 30 km largely through cropland, and passes through the River Ouse, Sely Dam, roads and railways. The Highways Improvements Areas, and Solar Development Site 8 Access largely comprise hardstanding roads and adjacent habitats, with Solar Development Site 8 Access also passing through Selby Dam.

6.7.61 No access was permitted to the western terminus of Cable Route Corridor 4-POC (as described in Chapter 2: The Proposed Development (ES Volume 1) [**EN0110012/APP/LVS/06.01.02**]) where it meets Monk Fryston substation due to the active construction site present in this location for the approved Yorkshire Green development (EN020024). Instead, the proposed site plans submitted for the Yorkshire Green development (5.4.3 ES Chapter 3: Description of the Project, Figure 3.12 Outline Landscape Mitigation Strategy (Monk Fryston)) have been used to confirm the baseline habitats present within this area.

6.7.62 The Cable Route Corridor passes through small sections of Ouse Bank-Westfield- Riccall Ings SINC, adjacent to the River Ouse, and Nightingale Wood SINC, approximately 980 m south of Solar Development Site 1. In addition, the Highways Improvements Areas overlaps approximately 3.5 m of Scarrow Green Pond, Little Skipwith SINC adjacent to Glade Road.

6.7.63 Himalayan balsam, an invasive non-native species, was recorded in seven locations within the Order Limits Outside of the Solar Development Sites, all of which were located within Cable Route Corridor 1-4, along ditches, hedgerows, treelines, and roads, as shown on Figure 6.6: UK Habitat Classification Results V2 (ES Volume 2) **[EN0110012/APP/LVS/06.02.06.06]**.

6.7.64 Habitats of county level importance recorded within the Order Limits Outside of the Solar Development Sites included:

3) h2a5-species-rich native hedgerow (some with trees);
4) h2a6-other native hedgerow (some with trees);
5) w1 33-line of trees;
6) w1 34-ecologically valuable line of trees;
7) r2-50-ditches; and
8) r2b-other rivers and steams.

6.7.65 Habitats of local importance recorded within the Order Limits Outside of the Solar Development Sites included:

9) c1a8 -arable field margins wild bird mix;
10) g3c-other neutral grassland;
11) h3h-mixed scrub;
12) h3j-willow scrub;
13) h3d-bramble scrub;
14) w1g-other broadleaved woodland;
15) w2-coniferous woodland;
16) w-200- rural trees; and
17) w-203-mature tree.

6.7.66 One area of Ancient Woodland identified in the NE Ancient Woodland is present immediately adjacent to the Cable Route Corridor, located within Common Wood SINC.

6.7.67 Excluding the areas of the Order Limits Outside of the Solar Development Sites comprising Ouse Bank-Westfield- Riccall Ings SINC, Nightingale Wood SINC, and Scarrow Green Pond, Little Skipwith SINC there was only one small area of BAP priority habitat within the Order Limits Outside of the Solar Development Sites, comprising an area of deciduous woodland adjacent to the A63.

Fauna

6.7.68 Based on the species surveys completed and data search results / habitats recorded within the Order Limits, the Order Limits has the potential to support the following species/species groups, the survey results of which are outlined in the figures listed in paragraph 6.1.5, and the appendices listed in paragraph 6.1.6:

Otter

6.7.69 The data search did not return any records of otter within the Order Limits. In addition, no records of otter were returned in 2 km of the Solar Development Sites. There were however two records of otter located within 2 km of the Highways Improvements Areas, where Dam Lane crossed Selby Dam. The records were located approximately 100 m east and 615 m east of this point, associated with Selby Dam.

6.7.70 During the otter surveys, presence of otter was confirmed in a singular ditch (Ditch 2.1) within Solar Development Site 2 (spraint) and a singular ditch (Ditch 4.1) within Solar Development Sites 4 (prints). Prints, slides, and a possible couch were also recorded approximately 465 m south of Solar Development Site 4, associated with the River Aire.

6.7.71 The River Aire, located outside the Order Limits, approximately 465 m south of Solar Development Site 4, offers high value habitat for otter, including resting

places and foraging opportunities. The numerous field signs of otter recorded along the river, indicate frequent use by the species.

6.7.72 High value habitat for otter is also anticipated to be provided within the River Ouse and Selby Dam, which the Cable Route Corridor passes through. However, as these have been identified as Avoidance Areas where trenchless techniques will be used to cross these watercourses, the watercourse and their surrounding habitat be retained through the Proposed Development, and therefore these watercourses were not surveyed for otter at this stage as impacts to the species in these locations are anticipated to be reduced (with entry and exit pits located a minimum of 50 m from the bank top of the River Ouse, and 10 m from the bank top of all other watercourses), as agreed with NYC (see Table 6-7). These watercourses will however have a pre commencement check for otter completed prior to the start of works to confirm otter holts/resting places are absent, with appropriate mitigation, such as supervision by an ECoW, implemented as necessary to prevent impacts. The Avoidance Areas where trenchless techniques will be employed, including the associated entry and exit pits, are shown on Figure 2.5: Avoidance Areas (ES Volume 2) **[EN0110012/APP/LVS/06.02.02.03]**.

6.7.73 Solar Development Site 4 has been assessed as offering medium value for otter due to its relative proximity to the River Aire, and it is likely otter utilise the drainage ditch network within Solar Development Site 4 for commuting. The woodland copse outside the Order Limits adjacent to Solar Development Site 4 also provide potential resting place opportunities, however no laying up locations were identified within Solar Development Site 4 during the survey.

6.7.74 Solar Development Sites 1, 2, 3, 6, 7 and 8, as well as D9.16, D9.18, and D9.28 within the Cable Route Corridor, and D8.1a within the Solar Development Site 8 Access have been assessed as being of low value for otter, with the majority of watercourses comprising heavily modified drainage ditches, with limited foraging opportunities and only occasional suitable cover for resting. These watercourses and surrounding habitat will however likely be utilised by commuting otter, which has been confirmed in Solar Development Site 2 by the recorded spraint in within D2.1. No other evidence of otter was returned within the habitat assessed as being low value to otter.

6.7.75 In addition to the two sections of river discussed above in the Cable Route Corridor, a third and final section of river is included within the Solar Development Site 8 Access, comprising an existing crossing over Selby Dam. In this location, if this access option into Solar Development Site 8 is utilised, it is likely the existing crossing will be used, and the footprint of the culvert will be maintained. However, as a worst-case scenario assessment, the existing culvert may need replacing with a new crossing structure. As such, an otter survey of this location was completed. No otter field signs or potential holt locations were recorded at this survey point, however the river was assessed as providing high value habitat for otter due to its connectivity and foraging opportunities. Otter may therefore use this section of river in a commuting/foraging context.

6.7.76 The remaining watercourses surveyed for otter within the Order Limits Outside of the Solar Development Sites were found to be of negligible value for otter as they were either dry, or had no suitable surrounding vegetation, with no evidence of otter recorded.

Badger

6.7.77 The data search did not return any records of badger within the Order Limits. One badger record was however returned within 2 km of Solar Development Site 1. There were no other records of badger from the past 10 years in 2 km of any of the other Solar Development Sites. A final five records of badger were located within 2 km of the Order Limits Outside of the Solar Development Sites.

6.7.78 During the badger survey, the habitats present within the Order Limits were found to be suitable for foraging and commuting badger, and for sett building. Badger field signs were recorded within all the Solar Development Sites and the Order Limits Outside of the Solar Development Sites, and the species therefore use all the survey area to commute and forage. However, badger setts were only recorded within the Cable Route Corridor, Solar Development Sites 1, and 4, and immediately adjacent to Solar Development Sites 2 and 3. Further details of the badger setts within the Solar Development Sites are detailed within Appendix 6.3: Badger Report V2 (ES Volume 3) **[EN0110012/APP/LVS/06.03.06.03]**.

6.7.79 As the completed badger survey comprised a single walkover only, the classifications of the setts (specifically main and subsidiary) have been assigned on a provisional basis using the number of entrances and distance from other recorded main setts. Further long-term monitoring of the setts would be required to confirm their exact classification. However, as a 30 m buffer from construction activity is proposed around all sett classifications within the Solar Development Sites, and as only outlier setts (comprising one or two entrances) within the Order Limits Outside of the Solar Development Sites will have a 20 m buffer observed, the classification of the setts will not have an impact on the Proposed Development currently. The classification of the setts will only need further assessment should any setts require closure, which is not currently required to facilitate the Proposed Development for the known sett locations. However, should any new sett locations be identified prior to the start of works, it is possible these may require closure if they cannot be retained.

Bats

6.7.80 Species of bat returned in the data search included brown long-eared bat *Plecotus auritus*, common pipistrelle *Pipistrellus pipistrellus*, Leisler's bat *Nyctalus leisleri*, myotis species *Myotis sp*., Nathusius's pipistrelle *Pipistrellus nathusii*, Natterer's bat *Myotis nattereri*, noctule *Nyctalus noctula*, soprano pipistrelle *Pipistrellus pygmaeus*, pipistrelle species *Pipistellus sp.* and whiskered bat *Myotis mystacinus*. No records of bats were returned within the Order Limits.

6.7.81 A common pipistrelle day roost of one individual in 2018 was recorded within a farm building approximately 95 m south of Solar Development Site 6.

6.7.82 A soprano pipistrelle day roost of two individuals in 2018 was recorded within a farm building approximately 310 m west of Solar Development Site 4.

6.7.83 A brown long eared and common pipistrelle summer roost of multiple individuals in 2022 was recorded within a farm building adjacent to the Highways Improvements Areas and approximately 330 m north of Solar Development Site 4.

6.7.84 Overall, the habitats present within the Order Limits were found to be sub-optimal for foraging and commuting bats as they largely comprised intensively managed cropland. Some habitat features of greater importance for commuting and foraging bats were however present at field boundaries, such as watercourses, ponds, neutral grassland, woodland and hedgerows. The only features present with the Order Limits that could support roosting bats were scattered trees.

6.7.85 The level of bat activity recorded during the static detector deployments was similar across all the Solar Development Sites and was typical for the type of habitat present in its locality, largely comprising common and widespread species, with no significant bat assemblage identified. The main species recorded included common pipistrelle, soprano pipistrelle, *Myotis sp*., and noctule, with less frequent Nathusius' pipistrelle, brown long-eared, and leislers.

6.7.86 During the Nighttime Bat Walkovers (NBWs) within the Solar Development Sites, Solar Development Site 1 had the highest level of bat activity recorded however, activity levels were still typical for the habitat type present in this locality, with no significant bat assemblage identified. Species recorded comprised common pipistrelle, *Myotis sp.,* and *Nyctalus sp*. The majority of passes were of common pipistrelle, comprising 97.8%, 96% and 84% of the passes recorded in the spring, summer and autumn surveys respectively. In comparison, Solar Development Site 8 had the lowest level of bat activity recorded during the NBWs, with only eight bat passes recorded on all NBWs combined. Species recorded comprised common pipistrelle and Myotis sp.

6.7.87 For Solar Development Site 1, during the NBWs, bat passes were recorded on two of the three surveys along the treeline on the western boundary of Field 1.18, along the treelined track leading to Mount Pleasant Farm from the west, and along Ditch 1.7 in the south. In addition, during the static surveys within Solar Development Site 1, Location 5 (located on the boundary of a woodland copse adjacent to Solar Development Site 1) had the highest number of passes per night.

6.7.88 For Solar Development Site 2, during the NBWs, bat passes were recorded on all surveys in the south-west adjacent to the to the woodland belt outside of the Order Limits, and for Solar Development Site 3, bat passes were recorded on two out of three surveys along the treeline on the western boundary.

6.7.89 For Solar Development Site 4, during the NBWs, bat passes were recorded on all surveys to the south of Field 4.10 adjacent to the woodland belt outside of the Order Limits, and during the static surveys Location 12 had the highest number of passes per night.

6.7.90 For Solar Development Site 6, during the NBWs, bat passes were recorded on two surveys each at field boundary features, such as D6.1, D6.3, TL6.1 and TL6.2. The static surveys within Solar Development Site 6 recorded the highest average number of passes per night at Location 17.

6.7.91 For Solar Development Site 7, during the NBWs, bat passes were recorded on two surveys along the railway lines, and associated vegetation, on the northern and western boundaries.

6.7.92 Finally, for Solar Development Site 8, during the NBWs, bat passes were recorded on every survey along D8.1 forming the western boundary. The static surveys within Solar Development Site 8 recorded the highest number of passes per night at Location 22.

6.7.93 No buildings are located within the Order Limits that could support roosting bats, and the Design Principles have aimed to retain and buffer all trees within the Order Limits where practicable. However, as detailed in Appendix 16.2: Arboriculture Impact Assessment (ES Volume 3) [**EN0110012/APP/LVS/06.03.16.02**]), 88 individual trees and two treelines are proposed for removal/pruning within the Order Limits as a worst-case assessment. This figure includes the 11 individual trees and two treelines added for removal/pruning as a result of the Change Application submitted during Examination.

6.7.94 A GLTA completed on these trees found 71 individual trees and two treelines were determined to have no potential suitability for roosting bats 'None', 10 trees were assessed as PRF-I, having suitability for individual/low numbers of bats, and two trees were assessed as PRF-M[6], having suitability for multiple bats. In addition, five trees were assessed as Further Assessment Required (FAR), outlining that further surveys are required to determine if there are any PRFs present within the tree, and the roosting potential of any PRFs present. These trees are shown on Figure 6.9: Bat Activity Transects and Static Locations V2 (ES Volume 2) [**EN0110012/APP/LVS/06.02.06.09**].

6.7.95 Appendix 16.2: Arboriculture Impact Assessment (ES Volume 3) [**EN0110012/APP/LVS/06.03.16.02**] has been completed as a worst-case scenario and as such in reality, tree loss may be less than currently anticipated. However, when assessing this worst-case scenario, the Proposed Development would result in the removal of two PRF-M trees, one FAR tree, and six PRF-I trees, as well as the pruning of four PRF-I trees and four FAR trees.

6.7.96 The required works to the PRF-I trees can be completed under the supervision of an ecologist (further discussed within Section 6.9).

6.7.97 As the two PRF-M trees scheduled for potential removal were identified during the January 2026 GLTA (and were not added as a result of the Change Application during Examination), nocturnal emergence surveys were able to be

[6] PRF-I, PRF-M and FAR described in further detail in Appendix 6.4: Bat Report V3 (ES Volume 3) **[EN0110012/APS/LVS/06.03.06.04]**

completed on the two PRF-M trees in 2026 (Tree 505 and Tree 1961) to confirm presence/likely absence of roosting bats.

6.7.98 The nocturnal emergence surveys concluded that bats do not currently roost within Tree 1961 or Tree 505. In addition, very low levels of bat commuting and foraging activity were recorded during the emergence surveys, by common and widespread species only.

6.7.99 Of the 11 trees added as potentially requiring removal/pruning as a result of the Change Application, one PRF-I tree requires pruning, four FAR trees require pruning, and one FAR tree requires removal. However, due to seasonal constraints, the further surveys required on the FAR trees could not be completed before the end of the Examination period. The further bat surveys on the FAR trees will be undertaken in a suitable surveying season prior to the start of works to determine the potential roosting suitability of the tree, and whether bats are currently roosting within the tree.

Water vole

6.7.100 One record of water vole was returned within a wet ditch (Ditch 1.9 shown on Figure 6.6: UK Habitat Classification Results V2 (ES Volume 2) **[EN0110012/APP/LVS/06.02.06.06]**) located on the western boundary of Solar Development Site 1 in 2021. One other record of the species was retuned within the 2 km search area, which was located approximately 1.4 km north-west of the Cable Route Corridor specifically CRC 1-4 that extends from Solar Development Site 1 to Solar Development Site 4, near Barlby.

6.7.101 In summary, the majority of ditch survey points within the Order Limits were found to be unsuitable for water vole as they were highly managed drainage ditches or were found to be dry. Although some suitability for the species was present in places, and high value habitat for water vole is provided within the River Ouse and Selby Dam, which pass through the Cable Route Corridor and Solar Development Site 8 Access. In addition, five ditch survey points recorded evidence of water vole (D2.1 within Solar Development Site 2, D3.2 within Solar Development Site 3, D4.8b within Solar Development Site 4, D6.3c within Solar Development Site 6, and D9.16 within the Cable Route Corridor).

6.7.102 However, the only location where confirmed water vole field signs were recorded as well as a confirmed water vole burrow was within D2.1. The only other record of a burrow was within D9.16, where a probable water vole burrow and feeding remains were recorded. As such, water vole are known to be present within D2.1 and may be present in four other locations within the Order Limits, however this is not confirmed.

6.7.103 A more detailed summary of the results is provided in Table 11 of Appendix 6.7: Water Vole Report V2 (ES Volume 3) **[EN0110012/APP/LVS/06.03.06.07]**.

Amphibians

6.7.104 A total of 28 records of GCN have been returned with 2 km of the Order Limits within the last 10 years.

6.7.105 The closest GCN record to the Order Limits was located within Scarrow Green Pond SINC where juveniles were observed in the pond in 2020. The Highways Improvements Areas overlaps approximately 3.5 m of Scarrow Green Pond, Little Skipwith SINC before joining Glade Road, with this 3.5 m comprising a hardstanding road. The GCN record is associated with the pond immediately west of this road.

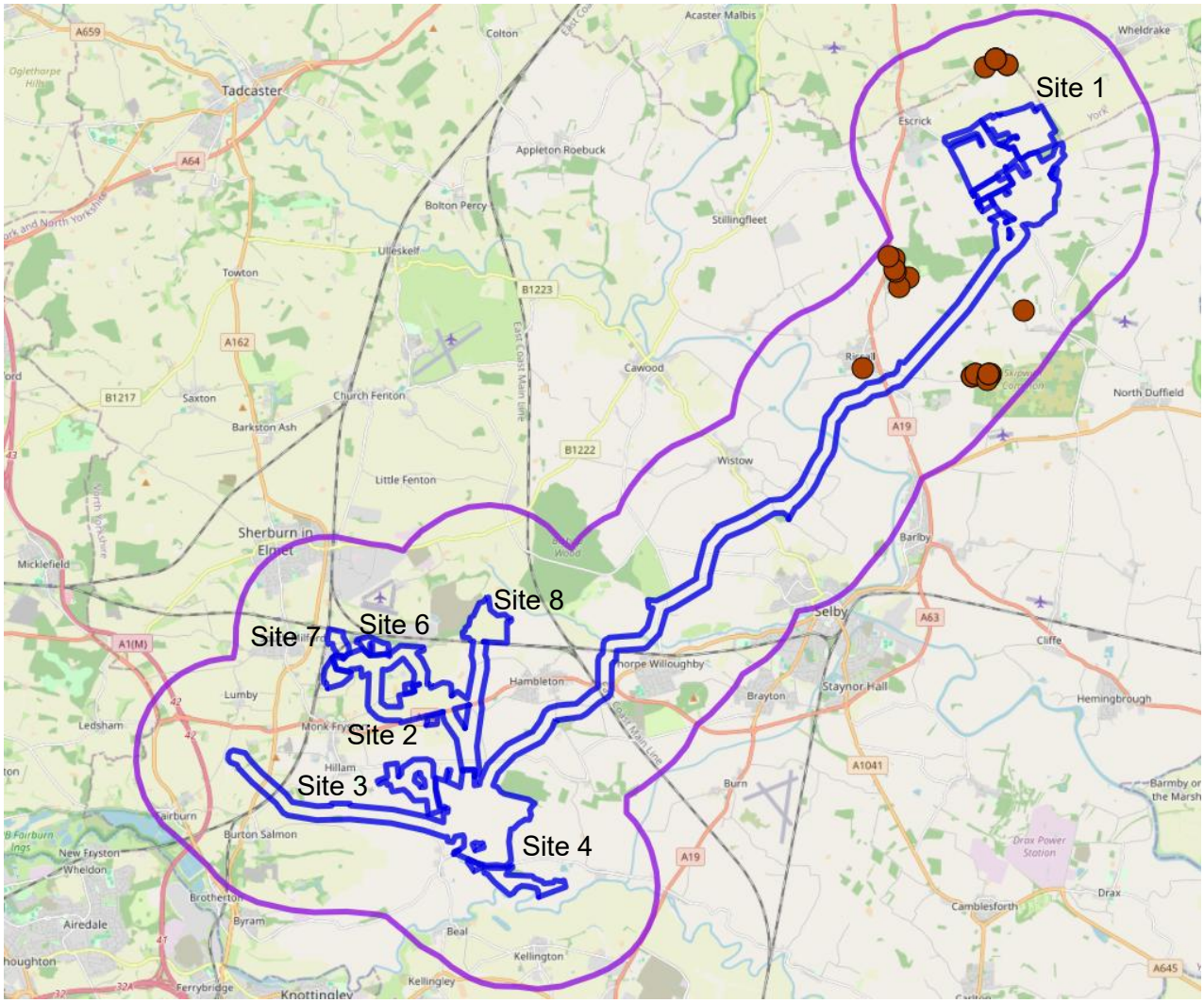
6.7.106 The road adjacent to the pond will be utilised for construction traffic for part of the Cable Route Corridor, and as such will only be used for a limited time during the construction phase in this section.

6.7.107 With regards to the remainder of the Order Limits Outside of the Solar Development Sites, the only other GCN records in 2 km were located within Skipwith Common Special Area of Conservation (SAC) (closest record located approximately 1.1 km east of the Cable Route Corridor), within Holliscarrs Wood SINC (closest record located approximately 1.1 km north-west of the Cable Route Corridor), and within a pond in Riccall located approximately 310 m west of the Highways Improvements Areas, which is beyond the accepted dispersal limit for GCN. All these records are associated with the northern extent of the Cable Route Corridor, referenced as CRC 1-4, as shown on Plate 1 below.

6.7.108 With regards to the Solar Development Sites, the only Solar Development Site with GCN records within 2 km is Solar Development Site 1. These records are all associated with North Selby Mine SINC and adjacent disused mining works, with the closest GCN record located approximately 1 km north of Solar Development Site 1.

6.7.109 All other Solar Development Sites do not have any GCN records within 2 km, as shown on Plate 1 below.

Plate 1 GCN Data Search Results*



*GCN records shown in red, Order Limits shown in blue, 2 km buffer shown in purple

6.7.110 Additionally, following consultation with MAGIC, there are three granted European Protected Species Licences (EPSL) permitting the damage and destruction of a GCN resting place approximately 1.1 km north of Solar Development Site 1 associated with the North Selby Mine disused works from 2021-2023 (2014-5853-EPS-MIT, 2014-5853-EPS-MIT-1 and 2014-5853-EPS-MIT-2). There are also seven positive GCN class licence returns in this location also.

6.7.111 There are no other GCN ESPLs or class licences with 2 km of all other Solar Development Sites, or within 250 m of the Order Limits Outside of the Solar Development Sites.

6.7.112 The vast majority of the habitat within the Order Limits is sub-optimal habitat for amphibians, namely the cropland. However, there are some habitat features of importance for amphibians that form boundary features of the cropland within the Order Limits, namely watercourses, ponds, grassland, woodland and hedgerows.

6.7.113 Of the 46 ponds to be surveyed (five ponds in Solar Development Site 1 and 41 in 250 m of the Solar Development Sites), 10 ponds could not be accessed to complete the eDNA surveys in 2025 or 2026. As a precautionary approach, these ponds are therefore assumed to be positive for GCN.

6.7.114 Of the 36 ponds successfully eDNA surveyed, 13 were dry or not present and therefore unsuitable for breeding GCN. In addition, 22 ponds received negative GCN eDNA survey results, and it can therefore be concluded that GCN are likely absent from these 22 ponds.

6.7.115 One pond, Pond 1.14, located approximately 50 m west of Site 1 was the only pond to return a positive eDNA result for GCN. The pond is located within an off-site woodland copse, separated from Site 1 by Skipwith Road. There are no other records of GCN located within 2 km of this pond. The area of Site 1 present within the 250 m buffer zone of Pond 1.14 comprises approximately 4.23 ha of arable field, 0.153 ha of arable field margin, and 105 m of ditch.

6.7.116 The results of the GCN eDNA surveys are shown on Figure 6.10: GCN eDNA Results V2 [**EN0110012/APS/LVS/06.02.06.10**].

6.7.117 As the works to the Order Limits Outside of the Solar Development Sites will largely be temporary, small scale, extend over sub-optimal GCN habitat (cropland and hardstanding), and avoid all ponds and their 250 m buffers where practicable, no eDNA surveys were deemed proportionate for ponds within 250 m of the Order Limits Outside of the Solar Development Sites. Instead, the limited impacts to GCN that may be experienced during the works within the Order Limits Outside of the Solar Development Sites will be suitably mitigated through the implementation of Precautionary Working Methods (PWM) for the species as detailed within oCEMP [**EN0110012/APP/LVS/07.02].** This approach was agreed with NYC (see Table 6-8).

Reptiles

6.7.118 As the vast majority of the habitats within the developable area of the Order Limits are sub-optimal habitat for reptiles, namely the cropland, and habitat features of importance for reptiles, i.e. watercourses, ponds and grassland will be largely retained and appropriately buffered where practicable, no reptiles surveys have been undertaken and instead the species group will be assessed through a data search and habitat assessment. This was agreed with NYC (Table 6-5).

6.7.119 The data search retuned no records of reptiles within the Order Limits. There was however a record of grass snake *Natrix helvetica* approximately 60 m north of the Cable Route Corridor 1-4 associated with Selby Dam. Eight other records of grass snake were also recorded within the 2 km search area, the vast majority of which were associated with Skipwith Common SAC/SSSI or Hollicarrs Wood SINC. Other reptiles recorded in lower numbers within the search area include common lizard *Zootoca vivipara* (four records) and adder *Vipera berus* (four records), similarly all of which were associated with Skipwith Common SAC/SSSI or Hollicarrs Wood SINC.

Brown hare

6.7.120 One record of brown hare was retuned in Solar Development Site 1, within an arable field. No other records of the species were returned within the Order Limits, however, there were some incidental sightings of the species within the Cable Route Corridor and other Solar Development Sites during the other species and habitats surveys completed, and brown hare are therefore known to be present within the Order Limits. Suitable habitat for brown hare within the Order Limits includes the arable field margins, neutral grassland and woodland edges.

Hedgehog

6.7.121 A record of hedgehog was returned within Solar Development Site 6. The Order Limits comprises some habitat features of importance for hedgehog, i.e. hedgerows, woodland, scrub and grassland. There have also been some incidental sightings of the species within the Solar Development Sites during the other species surveys completed and hedgehog are therefore known to be present within the Order Limits, and are largely anticipated to utilise the boundary features.

Fish

6.7.122 Comprehensive details of the ecological baseline for fish are presented in the Fish Habitat Assessment and eDNA Survey Report (ES Volume 3) (Appendix 6.5: Fish Habitat Assessment and eDNA Survey (Aquatics Report) [**EN0110012/APP/LVS/06.03.06.05**]) where survey data, desk study information and the results for fish habitat relating to species of conservation value, as well as species presence recorded at representative sampling locations through eDNA metabarcoding, are described in full.

6.7.123 Based on the findings of the fish habitat assessment, the majority of watercourses within the Solar Development Sites and within the Cable Route Corridor were assessed as unlikely to support fish species of conservation value. This was later confirmed by eDNA results, with only minor fish species; three-spined stickleback *Gasterosteus aculeatus* and nine-spined stickleback *Pungitius pungitius* recorded at representative eDNA survey locations along the Cable Route Corridor (Figure 6.12: Fish Habitat Assessment, EA Monitoring Locations and eDNA Survey Locations (ES Volume 2) [**EN0110012/APP/LVS/06.02.06.12**]). However, the River Ouse and Selby Dam were identified as exceptions with habitat features suitable for supporting migratory species such as salmonids, lamprey species, and European eel.

6.7.124 For the purposes of baseline definition, the River Ouse in the vicinity of the Proposed Development is a known migration route for European eel, sea-going salmonids (Atlantic salmon and sea trout) and sea-going lamprey species (river lamprey *Lampetra fluviatilis* and sea lamprey). This includes both adult lamprey and salmonids returning from the marine environment to spawn in the upper catchment, and seaward migrating salmonid smolts and lamprey transformers. The River Ouse is also considered to support a coarse fish assemblage, Allis

shad *Alosa alosa*, and twaite shad *Alosa fallax*. However, the JNCC (Ref 59) identifies that there is no established population of shad in the River Ouse. As such, shad are likely a vagrant species with the Study Area, if present.

6.7.125 It should be noted that the River Ouse in the vicinity of the Cable Route Corridor is tidally influenced with significant water level variation in response to the tide. However, the site has no saline influence; the daily changes in river level occur as a result of freshwater being impounded during/approaching high tide. The Cable Route Corridor is considered to be upstream of the saline intrusion zone, which is understood to occur near the M62 crossing, situated c. 24 km downstream. Notwithstanding the proximity to the estuary and daily fluctuation in river levels, which may affect suitability, it is considered that deep marginal fine sediments within the Cable Route Corridor could support larval (ammocoete) stage lamprey species.

6.7.126 Whilst no amplifiable eDNA was recorded from the eDNA survey of Selby Dam (see Section 6.6), EA monitoring locations (surveys completed in 2016, 2022 and 2024) on Selby Dam, located 3.6 km upstream and 1.5 km downstream of the Cable Route Corridor crossing point of Selby Dam, recorded the presence of European eel and the following common coarse fish species: perch *Perca fluviatilis*, pike *Esox lucius*, roach *Rutilus rutilus*, rudd *Scardinius erythrophthalmus*, stone loach *Barbatula barbatula*, 10-spined stickleback and 3-spined stickleback.

6.7.127 Suitable habitat features for salmonid and lamprey species were identified within Selby Dam, although based on the absence of salmonid or lamprey species during EA monitoring (2016, 2022 and 2024) these species are considered absent. The fish community of Selby Dam, particularly species migrating to and from the estuary, are also likely to be adversely affected by a pumping station, present downstream of the Cable Route Corridor crossing point of Selby Dam, near the confluence with the River Ouse (NGR: SE 61478 32599). This asset has the potential to entrain/damage/kill fish and act as partial barrier to fish migration.

6.7.128 In summary, based on the results of this study which entailed desk study, habitat assessment and eDNA monitoring, the River Ouse in the vicinity of the Proposed Development is a known migration route for European eel, sea-going salmonids (Atlantic salmon and sea trout) and sea-going lamprey species (river lamprey and sea lamprey). Marginal silts may also support larval (ammocoete) stage lamprey species.

6.7.129 Selby Dam is considered to support a common coarse fish assemblage and European eel. The watercourse is considered suboptimal for salmonid and lamprey species and based on desk study data they are considered absent.

6.7.130 All other watercourses surveyed are considered unsuitable for fish or only support minor species (i.e. stickleback).

White-clawed crayfish

6.7.131 Comprehensive details of the ecological baseline for white-clawed crayfish are provided in the Fish Habitat Assessment and eDNA Survey Report (ES Volume 3) (Appendix 6.5: Fish Habitat Assessment and eDNA Survey (Aquatics Report) [**EN0110012/APP/LVS/06.03.06.05**]). The report presents full descriptions of survey data, desk-based study findings, and eDNA analysis results indicating presence or absence at representative sampling locations.

6.7.132 In summary, no white-clawed crayfish records were returned from North and East Yorkshire Ecological Data Centre (NEYEDC) during the desk study. A single commercially available (undated) record of white-clawed crayfish was recorded approximately 3.5 km east of Solar Development Site 1, within Wheldrake Ings Nature Reserve. This location lies within the River Derwent catchment, which is hydrologically separate (with different habitat characteristics and a known, but declining white-clawed crayfish population) from the River Ouse catchment in which the Proposed Development is situated. Additionally, five eDNA samples were collected during the Fish Habitat Assessment at representative locations along the Cable Route Corridor. All five samples returned negative results for white-clawed crayfish. Habitats were considered suboptimal for white-clawed crayfish throughout the Cable Route Corridor and Solar Development Sites. Based on these findings, white-clawed crayfish are considered likely absent from watercourses within the Order Limits.

Invertebrates

6.7.133 Due to the sub-optimal habitats present within the Order Limits for invertebrates, no surveys have been completed, as agreed with NYC (Table 6-5). Instead, the species group will be assessed through a data search and habitat assessment.

6.7.134 The data search did not return any notable terrestrial invertebrates within the Order Limits. There were some invertebrate records returned within the 2 km search area, the majority of which were associated with designated sites. Some insect species recorded included catsear nomad bee *Andrena humilis*, buff ermine moth *Spilosoma lutea*, white letter hairstreak butterfly *Satyrium w-album*, dingy skipper butterfly *Erynnis tages*.

6.7.135 The data search did not return any notable aquatic invertebrates within the Order Limits. However, there were some records of notable invertebrate species recorded within the 2 km search area. Species include mud pond snail *Omphiscola glabra* (NERC S.41, species), *Stagnicola palustris*, spattered diver *Agabus conspersus*, and *Limnephilus hirsutus.*

Ecological Importance summary

6.7.136 Table 6-11 summarises the ecological importance of features that have been assessed via the data search and ecological surveys.

Table 6-11 Ecological features scoped into further assessment

Ecological feature	Importance
Designated Sites	
Skipwith Common SAC	International
Lower Derwent Valley SAC & Ramsar including the various underlying SSSIs: Derwent Ings SSSI Melbourne and Thorn Ings SSSI Breighton Meadows SSSI Newton Mask SSSI	International (SAC)/National (SSSI)
River Derwent SAC	International
Humber Estuary SAC & Ramsar	International
Burr Closes SSSI	National
Sherburn Willows SSSI	National
Fairburn and Newton Ings SSSI	National
SINCs partially within the Cable Route Corridor or Highways Improvements Areas: Ouse Bank-Westfield-Riccall Ings Nightingale Wood Scarrow Green Pond-Little Skipwith	County
SINCs adjacent to the Order Limits Outside of the Solar Development Sites, or the Construction Traffic Routes (up to 250 m): Common Wood Bywater Wood Small Lakes-Riccall Ings Mulberry Farm Ponds Far Carr Meadow-Wistow Deleted SINC (same boundary as Burr Closes SSSI) Bishop Wood Hollicarrs Wood Barber Rein Moss Hagg Crook Moor Swamp on Selby Dam Near Low Rest Park Farm (deleted SINC) Brayton Barff Gashouse Plantation	County
SINCs adjacent to the Solar Development Sites (up to 250 m) Gilbertsons Plantation Borrow Pit East of Birkin Willow Scrub-Birkin Holme (deleted SINC)	County

Ecological feature	Importance
Habitats	
Arable field margins (tussocky, pollen and nectar, and wild bird mix)	Local
Other neutral grassland	Local
Scrub (mixed and willow scrub)	Local
Woodland (other broadleaved woodland, and other coniferous woodland)	Local
Ponds	Local
Scattered trees	Local
Hedgerows (species-rich native hedgerow, and other native hedgerow, with/without trees/ditches)	County (when ditches, hedgerows and treelines across Order Limits are considered as a singular network)
Line of trees	County (when ditches, hedgerows and treelines across Order Limits are considered as a singular network)
Ditches	County (when ditches, hedgerows and treelines across Order Limits are considered as a singular network)
Other rivers and streams	County
Invasive non-native flora	Negligible (included in Impact Assessment for legal reasons)
Species	
Otter	Local
Badger	Negligible (included in Impact Assessment for legal reasons)
Bats	Local
Water vole	Local
Amphibians	Local
Reptiles	Local
Brown hare	Local
Hedgehog	Local
Common coarse fish assemblage	Local
Atlantic salmon	County
Sea/brown trout	County
European eel	County
River lamprey	National
Sea lamprey	National
Alis shad	County
Twaite shad	County

Ecological feature	Importance
White-clawed crayfish	County
Invertebrates	Local

Future baseline

6.7.137 Construction of the Proposed Development is not due to commence until 2028. It is anticipated that current agricultural practices and management will be continued until this date. As such, it is anticipated that the baseline will generally remain consistent.

6.7.138 This section considers changes to the baseline conditions, described above, that might occur in the absence of the Proposed Development and during the time period over which the Proposed Development would be in place. The future baseline scenarios are set out in Chapter 4: EIA Process and Methodology (ES Volume 1) **[EN0110012/APP/LVS/06.01.04]**.

6.7.139 In the absence of the Proposed Development, it is anticipated that the Order Limits would remain in arable production, with associated intensive management regimes. Such intensive systems are predicted to require continued additional soil inputs and fertilisers/pesticides, with potential negative implications for wildlife.

6.7.140 Additionally, climate change is set to pose new challenges for both farming and wildlife, with less predictable and more extreme weather, see Chapter 7: Climate Change Resilience (ES Volume 1) **[EN0110012/APP/LVS/06.01.07]** for predictions of changes.

6.7.141 Given these predicted future pressures, the valuation of importance of the ecological features present within the Order Limits is likely to remain the same or to decrease in future in the absence of the Proposed Development.

Designated sites

6.7.142 The future baseline conditions for designated sites would remain broadly unchanged, in the absence of the Proposed Development, as future development would be expected to adhere to relevant legislation and policy to ensure adverse impacts are avoided. Climate change may however impact the habitats and/or species for which the sites are designated.

Habitats

6.7.143 The future baseline conditions for habitats would remain broadly unchanged, in the absence of the Proposed Development, although continued use of intensive arable systems may further degrade the soil and thereby the quality of the habitats. Climate change may also have adverse impacts on habitats, especially with less regular weather and climate patterns; extremes of temperature, drought and flooding could all degrade habitat quality.

Species

6.7.144 The future baseline conditions for certain species may change, in the absence of the Proposed Development. Climate change may also have adverse impacts on various species, especially with less regular weather and climate patterns; extremes of temperature, drought and flooding could all impact food availability and breeding success.

6.8 Embedded and good practice mitigation, and enhancement measures

Embedded mitigation

6.8.1 Embedded measures are modifications to the design of a scheme, made during the pre-application phase, which are an inherent part of the design rather than acting as specific mitigation to avoid impacts on ecological receptors. Good practice measures are standard approaches and actions undertaken to avoid or reduce environmental impacts in line with best practice guidance and legislative requirements.

6.8.2 Measures for the Proposed Development relevant to Biodiversity already committed include:

Management plans

6.8.3 A suite of management plans have been created for the Proposed Development, relevant to biodiversity including:

1) Outline Construction and Environmental Management Plan (oCEMP **[EN0110012/APP/LVS/07.02];**
2) Outline Operational Environmental Management Plan (oOEMP) **[EN0110012/APP/LVS/07.03]**;
3) Outline Decommissioning Management Plan (oDEMP) **[EN0110012/APP/LVS/07.04]**;
4) Outline Landscape and Ecology Management Plan (oLEMP) **[EN0110012/APP/LVS/07.05]**;
5) Outline Battery Safety Management Plan (oBSMP) **[EN0110012/APP/LVS/07.06]**;
6) Outline Public Rights of Way Management Plan (oPRoWMP) **[EN0110012/APP/LVS/07.09]**;
7) Outline Construction Traffic Management Plan (oCTMP) **[EN0110012/APP/LVS/07.12]**;
8) Outline Soil Resources Management Plan (oSRMP) **[EN0110012/APP/LVS/07.14]**;
9) Outline Bird Mitigation Area Management Plan (oBMAMP) **EN0110012/APP/LVS/07.19**]; and
10) Outline Invasive Species Management Plan (oISMP) **[EN0110012/APP/LVS/07.22].**

6.8.4 These management plans incorporate embedded and good practice measures, as well as any further mitigation that arises out of the EIA process. Outline versions of these management plans are submitted alongside the ES as part of this DCO Application to secure the commitments within each assessment. A

Requirement is included in the draft DCO **[EN0110012/APP/LVS/03.01]** to ensure detailed management plans will be prepared to full versions by the appointed Contractor(s), substantially in accordance with the outline management plans, and will be submitted for approval by North Yorkshire Council in advance of starting the relevant phase of works.

Invasive non-native flora

6.8.5 Himalayan balsam and Japanese knotweed are invasive non-native species, which have been identified within the Order Limits.

6.8.6 Himalayan balsam, has been located within Solar Development Site 1 on the southern boundary of Field F1.7, within Solar Development Site 4 in Ditch 4.1, Hedgerow 4.13, and in the arable field margin north of field F4.14, and within Cable Route Corridor 1-4 in H9.2, H9.4, H9.53, D9.18, D9.26, D9.28, TL9.1, and TL9.4. Japanese knotweed has been recorded in the centre of Solar Development Site 8, adjacent to the area of sparsely vegetated land.

6.8.7 An oISMP [**EN0110012/APP/LVS/07.22**] covering invasive non-native flora, including but not limited to, Himalayan balsam and Japanese knotweed, for the lifespan of the Proposed Development has been created to ensure these invasive species are not spread within/outside of the Order Limits. Biosecurity measures have been incorporated into the oISMP [**EN0110012/APP/LVS/07.22**] to avoid accidental introduction of invasive species, including a pathway specific risk assessment identifying any pathways for spread during construction, operation and decommissioning.

6.8.8 The oISMP [**EN0110012/APP/LVS/07.22**] includes Precautionary Working Methods to be adhered to during construction, such as competing a Toolbox Talk for all construction staff on the issue to ensure vigilance for these species, as well as inspections of proposed working locations at watercourses and ditches by an ecologist prior to commencement.

6.8.9 Himalayan balsam and Japanese knotweed will be removed from the Order Limits where practicable prior to the start of work by a specialist invasive species contractor.

Construction phase embedded mitigation

6.8.10 Chapter 2: The Proposed Development (Volume 1) **[EN0110012/APP/LVS/06.01.02]** sets out the Design Parameters and Commitments which act as embedded mitigation within the Proposed Development, with those related to biodiversity listed below, with any exceptions to these noted. These are secured via the Design Parameters and Commitments Document [**EN0110012/APP/LVS/05.06**]:

1) Construction Compounds will be located on low ecological importance habitat where practicable and will be located as far as practicable from sensitive receptors. There will however be a construction compound located approximately 100 m north of Bywater Wood SINC (Cable

Construction Compound 5), 200 m north-east of Burr Closes SSSI (Cable Construction Compound 2), and 235 m south-east of Moss Hagg SINC (Cable Construction Compound 1). A description of the compounds are provided in Chapter 2: The Proposed Development (ES Volume 1) [**EN0110012/AP/LVS/06.01.02**].

2) A minimum 15 m buffer or the Root Protection Area (RPA), whichever is larger, will be provided to all ancient woodland. The only location where such a buffer may be breached is where the Cable Route Corridor passes approximately 20 m of Common Wood SINC to enable Cable Route Corridor construction traffic to utilise an existing culvert to cross an associated ditch in this location, as discussed in paragraph 6.9.67.
3) A buffer of 15 times the stem diameter as measured at 1.5 m will be put in place around ancient/veteran trees.
4) The Proposed Development has been designed to avoid loss of woodland and hedgerow wherever possible (as set out by the limits of deviation for physical infrastructure shown on the Works Plans (**EN0110012/APP/LVS/02.03**) and is largely only required to facilitate access points / cable routing / fencing, with reinstatement provided (access tracks and cable routing will be located to pass through existing field gates and gaps in hedgerows where feasible), as set out in the oCEMP [**EN0110012/APP/LVS/07.02]** and oLEMP [**EN0110012/APP/LVS/07.05].**
5) A minimum 10 m buffer or the RPA, whichever is larger, will be provided to non-ancient woodland (identified from the National Forestry Inventory and surveys) and a minimum 5 m buffer for the RPA will be provided where practicable for all non-ancient / non-veteran trees. Any exclusions to this are detailed within the AIA presented in Appendix 16.2: Arboricultural Impact Assessment (ES Volume 3) [**EN0110012/APP/LVS/06.03.16.02**].
6) A minimum offset of 10 m from the bank top for all watercourses (excluding the River Ouse, as a CRT waterbody, which will have a minimum offset of 50 m) from all infrastructure (including fencing) and construction works (including entry and exit pits where trenchless techniques are employed), except where watercourse crossings are required (for access tracks / cable routing /fencing) which will be located to pass across existing watercourse crossings where feasible. Silt fencing will be used strategically (i.e. within overland flow paths) where required to minimise sediment pollution to watercourses, as outlined in the oCEMP [**EN0110012/APP/LVS/07.02**].
7) Infrastructure and construction works will be located at suitable buffer distances from protected species (for example, 30 m or 20 m (depending on sett type-i.e. main/annex sett or outlier sett respectively) from known badger sett locations) where practicable and mitigation required where this is not practicable (see Section 6.9 below).
8) Fencing of the Solar Development Areas within the Solar Development Sites will be designed to let small mammals pass through where practicable. The layout of the fencing has also been specifically designed to retain numerous

commuting corridors around existing linear features (ditches and hedgerows) through the Proposed Development that will be free of obstacles to faunal movement.

9) The woodland and hedgerow network within the Solar Development Sites will be strengthened through the creation of new areas of habitat to increase habitat connectivity (as secured through the oLEMP **[EN0110012/APP/LVS/07.05].**

10) To minimise the risk of impacts to fish during construction works, a precautionary avoidance period will be observed for Atlantic salmon, brown trout and lamprey species. For river lamprey, peak avoidance periods for migration are between October and March. For sea lamprey, peak avoidance periods for migration are between April and May. For Atlantic salmon/brown trout, peak avoidance periods for migration are between October and February, noting that spawning/incubation habitat is absent. It is assumed that the core spring migrations and the core winter spawning migration will be avoided unless otherwise agreed with the EA.

6.8.11 In addition to the above commitments, as per the Design Parameters and Commitments Document [**EN0110012/APP/LVS/05.06**], the Proposed Development has been designed through avoidance to retain the most valuable habitats (those of local importance or above) and in the cases detailed above, protect these with undeveloped buffer zones, as ultimately secured via the limits of deviation shown on the Works Plans (**EN0110012/APP/LVS/02.03**).

6.8.12 Some specific areas within the Solar Development Sites, such as the Bird Mitigation Area within the south of Solar Development Site 1, will comprise habitat creation, to be managed specifically for the benefit of wildlife, as detailed in the (oBMAMP) [**EN0110012/APP/LVS/07.19**]. The habitat creation within the Bird Mitigation Area will also assist towards no net loss of biodiversity, and will create biodiversity net gain when considered in combination with other habitats created/enhanced within the Solar Development Sites, as outlined in the BNG assessment V2 [**EN0110012/APP/LVS/05.09**] and secured within the oLEMP [**EN0110012/APP/LVS/07.05**]. The provision of a detailed LEMP, to be prepared substantially in accordance with the oLEMP, is secured via DCO Requirement**.**

6.8.13 An oCEMP **[EN0110012/APP/LVS/07.02]** has been produced for the Proposed Development to detail measures and approaches to be adopted, such as standard pollution prevention methods and a sensitive lighting strategy, which will limit the likelihood of impacts upon retained habitats through damage, pollution and disturbance during the construction phase. The provision of a detailed CEMP, to be prepared substantially in accordance with the oCEMP [**EN0110012/APP/LVS/07.02**], is secured via DCO Requirement.

6.8.14 Vehicle access into and around the Solar Development Sites, and cable trenching through the Solar Development Sites, including where watercourse crossings (and temporary culverts) are required, will aim to use existing access points/crossings and field openings wherever possible to reduce impacts. With regards to vehicle crossings of watercourses, only one new temporary

watercourse crossing (and temporary culvert) is proposed over a wet ditch within Solar Development Site 1 (two additional new permanent vehicle ditch crossing points are also required on the southern boundary of Solar Development Site 4 and northern boundary of Solar Development Site 2, however these span currently dry ditches). Cable trenching through the Solar Development Sites, may also require some temporary short-term culverting to cross ditches. However, the watercourse will be returned to a minimum of baseline condition once the cable has been installed, and therefore impacts will be temporary and reversible.

6.8.15 Similarly, within the Cable Route Corridor, the final cable route will be microsited to pass through existing gaps in hedgerows/ditches wherever possible. The cable will also be microsited to best avoid impacts on important ecological features and fauna as identified during the UK Habitat surveys and species surveys, including the establishment of the buffer zones detailed above, as far as possible, which is included in the oCEMP [**EN0110012/APP/LVS/07.02**].

6.8.16 In addition, trenchless technologies will be used to cross some watercourses within the Order Limits. The final locations where trenchless technologies will be utilised will not be confirmed until the detailed design stage, however, the use of trenchless technologies for some locations has been committed to at this stage, known as Avoidance Areas, as shown in, Figure 3.1 (ES Volume 2) [**EN0110012/APP/LVS/06.02.02.04**]. These include the River Ouse (and Ouse Bank-Westfield-Riccall Ings SINC that flanks the river), main rivers, IDB watercourses, and WER water body line watercourses, as well as ditches that lead to the following designated sites: Nightingale Wood SINC, Burr Closes SSSI, and Barber Rain SINC. The entry and exit pits will be located a minimum of 50 m from the bank top of the River Ouse, and a minimum of 10 m from the bank top of all other watercourses (but at greater distances in some instances) and will always be located outside of the Avoidance Areas, as detailed in the oCEMP [**EN0110012/APP/LVS/07.02**]. This will leave the watercourses and surrounding habitats unaffected by the works in these locations.

6.8.17 Where trenchless technologies are not employed, and there are no existing crossing points to exploit, open cut crossings using temporary culverts will be installed to cross ditches within the Cable Route Corridor. The open cut trench will be up to approximately 7 m wide, with the working width for installation of the cable anticipated to be 25 m wide. As well as the open cut trench, the typical 25 m working width will include a haul road along which vehicles and plant will be located as well as an area for temporary storage of excavated spoil. This 25 m working width may be narrowed in certain places, for example to minimise removal of hedgerows or at open cut watercourse crossings, to reduce impacts on the habitats. Mitigation measures for such crossings, such as pollution control and sensitive vegetation clearance, is set out in the oCEMP **EN0110012/APP/LVS/07.02.** Typically, the temporary culverts should be in place six months or less, although they may be required across two seasons as a worst-case, however would not be in place for more than two years.

6.8.18 The only exclusion to the above has been introduced as a potential option within the Change Application submitted during Examination. Referred to as “CA2

Alternate Access Route via Access CA1" this option would involve construction access to the northern aspect of Cable Route Corridor 1-4 via a temporary open span crossing over Dam Dike (an IDB watercourse), that connects to Common Wood SINC. The use of a temporary open span crossing with no temporary culvert would reduce impacts on the watercourse, with the crossing designed cognisant of commuting mammals and aquatic fauna. Standard pollution control methods detailed in the oCEMP [**EN0110012/APP/LVS/07.02**] would protect the watercourse, the connected SINC and any fauna using the channel. Trenchless technologies will still be utilised in this location to allow the cable to pass under the watercourse.

Construction phase-good practice measures

6.8.19 The oCEMP **[EN0110012/APP/LVS/07.02]** contains details of good practice measures to be followed to control undesirable construction phase impacts. These good practice measures are listed below:

1) The temporary and permanent fencing of buffer zones;
2) Pollution prevention controls covering refuelling, dust generating activities, sediment run-off, and other polluting construction activities;
3) The appointment of an ECoW at the start of works, who will provide ecological supervision during any ecologically sensitive works;
4) Toolbox Talks to be completed by the appointed ECoW to construction personnel detailing the presence of sensitive ecological features, buffer zones and appropriate methods of working;
5) A sensitive lighting strategy during construction that will be considered in relation to ecology which will follow best practice methods to minimise potential for light spill within and outside the Order Limits, particularly towards valuable ecological features; and
6) The inclusion of ramps or mammal ladders should any excavations be left open overnight to reduce the likelihood of mammal entrapment.

Operational phase embedded mitigation

6.8.20 As per the oOEMP **[EN0110012/APP/LVS/07.02]**, during operation only demand responsive motion sense lights will be used to reduce the lighting impacts resulting from the Proposed Development. A sensitive lighting strategy will also be implemented during replacement campaigns. The provision of a detailed OEMP, to be prepared substantially in accordance with the oOEMP, is secured via DCO Requirement.

6.8.21 The buffer zones outlined above in construction phase embedded mitigation will aid in the protection of retained habitats during the operation of the Proposed Development and will be secured via the oOEMP **[EN0110012/APP/LVS/07.02]**.

6.8.22 To manage disturbance during replacement campaigns, standard protection measures will be detailed in the oOEMP **[EN0110012/APP/LVS/07.02]**. The

results of protected species surveys carried out before any large-scale replacements will inform any seasonal restriction to replacement works.

6.8.23 Landscape planting will be provided within green corridors, and within larger areas of habitat creation within the Proposed Development, to provide habitat managed sympathetically for ecology, and to provide the net gain in biodiversity (see BNG Report V2 [**EN0110012/APP/LVS/05.09]**). Such landscape planting will be considerate of potential climate change impacts, and the maintenance and management of these habitats is detailed in the oLEMP **[EN0110012/APP/LVS/07.05]** to ensure their long-term success. These proposed habitats will be managed in a way that is considerate of protected/priority species/habitats, as well as those of importance in the local area, and those known to be present within the Order Limits via the protected species surveys undertaken. The provision of a detailed LEMP, to be prepared substantially in accordance with the oLEMP, and which will set out the detail of these management regimes, is secured via DCO Requirement.

6.8.24 The management of grassland habitats beneath the solar panels will be considerate of ecology and either be managed via low density grazing or through traditional mowing regimes to encourage species diversity in the sward as detailed in the oLEMP **[EN0110012/APP/LVS/07.05]**. Use of machinery for mowing is considered to be the worst-case management scenario and is therefore used as the basis for this assessment.

6.8.25 Fencing of the Solar Development Areas within the Solar Development Sites will be designed to let small mammals pass through where practicable. The layout of the fencing has also been specifically designed to retain numerous wide commuting corridors around existing linear features (ditches and hedgerows), and through the centre of the Solar Development Sites, that will be free of obstacles to faunal movement.

6.8.26 Public Rights of Way (PROWs) adjacent to ecologically important features will be appropriately fenced/enclosed by boundary vegetation such as hedgerows, where practicable, to reduce anthropogenic disturbance, with measures to be detailed in the Public Rights of Way Management Plan, submitted in substantial accordance with the oPRoWMP **[EN0110012/APP/LVS/07.09],** as secured via DCO Requirement.

6.8.27 As discussed, trenchless technologies will be utilised to cross some watercourses within the Cable Route Corridor (currently committed to for the River Ouse, Selby Dam, main rivers, IDB watercourses, and WER water body line watercourses, as well as ditches that lead to the following designated sites: Nightingale Wood SINC, Burr Closes SSSI, and Barber Rain SINC).

6.8.28 At these watercourse crossings, cables will be buried at a minimum depth of 5 m below the bed, reducing the residual EMF emitted within the water column. The potential for residual EMF to affect aquatic receptors is assessed considering this embedded mitigation in Paragraph 6.9.324 onwards, which is underpinned by the calculation of residual EMFs presented in Appendix 16.6: Electromagnetic Field Report (ES Volume 3) **[EN0110012/APP/LVS/06.03.16.06]**.

6.8.29 As described in Appendix 16.6: Electromagnetic Field Report (ES Volume 3) **[EN0110012/APP/LVS/06.03.16.06]**, underground cables are designed such that they will not produce external (non-magnetic) electric fields. Underground cables required for the Proposed Development will be enclosed in a sheath (a protective layer within the cable) which has an embedded ability to reduce the potential for electric fields to be emitted. Therefore, electric fields have not been considered further in this assessment as none will result from this cabling.

Decommissioning phase embedded mitigation

6.8.30 During the decommissioning phase, the protective buffer zones established during construction and maintained during operation will be honoured to avoid adverse impacts on valuable habitats outside of the Solar Development Areas. This will be set out within, and implemented through, the approved Decommissioning Environmental Management Plan (with the commitment to do this set out in the oDEMP [**EN0110012/APP/LVS/07.04]).**

6.8.31 Where necessary, the timing of decommissioning works expected to significantly increase noise and vibration around watercourses with suitability to support aquatic species of conservation value will occur entirely out with periods of fish spawning or noise mitigation will be provided if this is not possible.

6.8.32 Other mitigation measures required at decommissioning will be dependent on the future baseline of the Proposed Development. As a result, pre-decommissioning surveys and assessments will be required to identify whether the embedded mitigation of the Proposed Development is fully appropriate for the future baseline of the Proposed Development at the time of the decommissioning phase, and to conform with all applicable biodiversity policies and legislation. This will be set out within, and implemented through, the approved Decommissioning Environmental Management Plan (with the commitment to do this set out in the oDEMP **[EN0110012/APP/LVS/07.04]**).

6.8.33 Depending on the ecological value of the habitats that develop over the lifespan of the Proposed Development (other than the grassland beneath the panel area), it is realistic that certain areas of the Solar Development Sites may be retained due to their value for wildlife on decommissioning. Additionally, application of the ecological mitigation hierarchy principles may be necessary.

6.8.34 With regards to the Cable Route Corridor, the mode of removing the Interconnecting Cables and Grid Connection Cables at decommissioning would be dependent upon government policy and good practice at that time. Currently, the most environmentally acceptable option is considered to be leaving the cables in situ, as this avoids disturbance to overlying land and habitats and to neighbouring communities. Alternatively, the cables can be removed by opening up the ground at regular intervals and pulling the cable through to the extraction point, leaving the ducting and jointing bays in place, avoiding the need to open up the entire length of the cable route. This will reduce the potential impacts arising from decommissioning within the Cable Route Corridor.

6.9 Assessment of likely impacts and effects

Potential sources of impact

6.9.1 Potential sources of impacts (beneficial or adverse) on ecological receptors during the construction, operation, and decommissioning phases of the Proposed Development in the absence of avoidance or mitigation measures are listed below, however, the lists provided are not exhaustive.

Construction phase

6.9.2 Construction phase impacts may include:

1) Habitat loss and habitat change as a result of the loss of arable habitats to facilitate the Proposed Development. This may also include beneficial impacts regarding loss of arable cropland to provide habitats of greater ecological importance, which may also be beneficial to a range of faunal species.
2) Temporary habitat loss of ditches / watercourses to facilitate laying of cables with the Order Limits, and temporary or permanent habitat loss to facilitate vehicle crossing points within the Solar Development Sites.
3) Killing and injury of protected or priority species due to habitat clearance and construction practices associated with the Proposed Development.
4) Fragmentation and isolation of habitats and species through habitat loss and the creation of physical barriers, such as fencing and excessive light/noise/vibration as a result of construction of the Proposed Development, blocking existing commuting routes.
5) Disturbance of protected or priority species present within the Proposed Development, or neighbouring designated sites, as a result of increased noise, light, vibration and anthropogenic disturbance during the construction phase.
6) Pollution and degradation of retained terrestrial habitats, or neighbouring designated sites, via the release of chemicals, sediment, dust or particulates as a result of the construction phase, including increased NOx deposition as a result of increased construction traffic, which may directly or indirectly harm species and retained habitats.
7) Pollution and degradation of aquatic habitats, associated water quality, and connected designated sites via the release of chemicals, sediment, dust or particulates as a result of the construction phase. Including frac-out and the accidental release of drilling fluids (e.g. bentonite) during trenchless techniques.
8) Habitat creation and enhancement via the creation of new habitats of importance to ecology, the maintenance and protection of retained habitats, the creation of commuting corridors through the Proposed Development, the cessation of herbicide/pesticide use on the removed cropland, and the

installation of habitat features such as bat/bird boxes would all provide a beneficial impact for biodiversity.

Operational phase

6.9.3 As the cable will be laid underground, comprising a temporary impact, there will be very few operational phase impacts for the Cable Route Corridor, which would only result from any required maintenance of the cable. Operational phase impacts for the Solar Development Sites may include the following:

1) Habitat loss and habitat change within the Order Limits and neighbouring designated sites during the operational phase of the Proposed Development due to maintenance (including replacement) works for the solar infrastructure or inappropriate management of habitats.
2) Killing and injury of species during the operational phase of the Proposed Development which is generally limited to on-site traffic from maintenance vehicles and during large-scale replacement activities.
3) Fragmentation and isolation of habitats and species through the creation of physical barriers, such as fencing and excessive light/noise/vibration as a result of operational phase of the Proposed Development.
4) Disturbance of species and habitats via anthropogenic disturbance during the operational phase should be limited to the maintenance (including replacement) of the solar infrastructure, and the possible increased use of the existing PROW within the Solar Development Sites by the local community.
5) As described under Embedded Mitigation, all electrical cables associated with the Proposed Development are expected to be buried underground; buried cables typically have their electric fields fully attenuated by cable sheathing and the substrate under which they are buried. However, EMFs and induced electric fields are not necessarily attenuated in this way, and there lies a risk of effects on receptive wildlife species, particularly on a number of fish species which are known to have evolved sensitivity to electric and/or magnetic fields. In terms of terrestrial species, it is important to note that there is no evidence to suggest that typical solar array infrastructure can cause impacts and, due to the burial, sheathing and relatively low voltage of cabling within generating stations, the overall risk of EMFs resulting in significant effects on terrestrial wildlife is considered highly unlikely. There is some risk of EMFs affecting fish in the vicinity of the 275 kV cables (i.e. where the cable is required to cross beneath watercourses), via changes in fish behaviour and migration, and via affects to the development of fish eggs and fish fry. Consequently, the potential EMF effects are assessed in Section 6.9.
6) Pollution and degradation of retained habitats within the Order Limits and neighbouring designated sites during the operational phase of development should be low, however potential sources of pollution and habitat

degradation still exist. Potential impacts relating to contaminated water will be addressed specifically in Chapter 10: Hydrology, Flood Risk and Drainage (ES Volume 1) **[EN0110012/APP/LVS/06.01.10]**, and Chapter 22: Ground Conditions and Contamination (ES Volume 1) **[EN0110012/APP/LVS/06.01.22]**.

7) Habitat creation and enhancement should the newly created/enhanced habitats be managed and monitored for the lifespan of the Proposed Development which would provide a beneficial impact for biodiversity.

Decommissioning phase

6.9.4 Considering the anticipated 60-year lifespan of the Proposed Development, the accurate prediction of decommissioning effects is challenging and can only be informed by the legal, policy and conservation constraints and priorities present at the time of application.

1) Habitat loss and habitat change resulting from Solar Development Sites being returned to agricultural use upon decommissioning, therefore this habitat change will need to be considered, including impacts on any newly created habitats.

2) Killing and injury of species due to habitat clearance and decommissioning practices associated with the Proposed Development.

3) Fragmentation and isolation of habitats and species may be reduced by the removal of the solar infrastructure, however the return to agricultural use may also impact the connectivity of habitats or species.

4) Disturbance of species present within the Proposed Development as a result of increased noise, light, vibration and anthropogenic disturbance during the decommissioning phase.

5) Pollution and degradation of habitats via the release of chemicals, sediment, dust or particulates as a result of the decommissioning phase, including increased NOx deposition as a result of increased site traffic, which may directly or indirectly harm species and habitats.

Likely impacts and effects with embedded mitigation

6.9.5 This section presents the results of the assessment of likely significant effects with the embedded and good practice mitigation measures, described in the previous section, in place.

6.9.6 Climate change has been considered as part of the future baseline to assess the significance of effects when considering the impact of the project in a future changed climate on ecology receptors in the surrounding environment. This considers a range of climatic hazards including rising temperatures, higher and lower rainfall, and the increased frequency and magnitude of extreme events such as heat waves and flooding. Climate resilient plants and habitats have been considered within landscaping design to ensure impacts discussed below are not exacerbated by the changing climate, and ensuring the proposed habitat are less vulnerable to climate change then existing habitats. As a result, a specific In-combination Climate Change Impacts (ICCI) assessment is not required as per the EIA Scoping Opinion **[EN0110012/APP/LVS/06.03.01.02].**

Construction phase impacts

Designated sites

6.9.7 With regards to all designated sites assessed within this chapter, a full air quality assessment has been scoped out, and only construction dust has been considered as part of the ES (see Appendix 16.1: Construction Dust Assessment (ES Volume 3) **[EN0110012/APP/LVS/06.03.16.01]**). This is because the construction traffic numbers as detailed in Appendix 14.1 Transport Assessment (ES Volume 3) [**EN0110012/APP/LVS/06.03.14.01**] fall below the screening thresholds outlined in Guidance Note NEA001 by NE (Ref 56) which details a threshold of changes in traffic flows of 1000AADT and for HDV 200AADT. As such, it can be concluded that there will be no air quality effects on the designated sites as a result of construction traffic. The various Construction Traffic Routes are shown within Appendix 14.1: Transport Assessment (ES Volume 3) [**EN0110012/APP/LVS/06.03.14.01**].

6.9.8 With regards to dust, the scope of assessment of ecological receptors is 50 m from the Order Limits and Construction Traffic Routes (Chapter 14 Traffic and Movement). Any designated sites located further than 50 m from the Order Limits/Construction Traffic Routes are therefore outside the scope of assessment for dust. Furthermore, IAQM guidance indicates that with the successful implementation of best practice embedded dust mitigation measures (as detailed in Appendix 16.1: Construction Dust Assessment (ES Volume 3) **[EN0110012/APP/LVS/06.03.16.01]** and secured via the oCEMP [**EN0110012/APP/LVS/07.02**]), there is likely to be **no significant adverse effects** on existing receptors from the dust-generating activities. Designated sites located within the 50 m assessment area (Ouse Bank-Westfield- Riccall Ings SINC, Nightingale Wood SINC, Common Wood SINC, Scarrow Green Pond-Little Skipwith SINC, Bywater Wood SINC, Mulberry Farm Ponds SINC, Gashouse

Plantation SINC, Brayton Barff SINC, and Small Lakes-Riccall Ings SINC) are discussed individually in their corresponding sections below.

6.9.9 The water resources and flood risk chapter (Chapter 15: Water Resources and Flood Risk (ES Volume 1) **[EN0110012/LVS/APP/06.01.15])** assesses designated sites within a 1 km radius from the Proposed Development only as there will be no anticipated water impacts on designated sites beyond this distance. A number of designated sites are outside of the 1 km scope of assessment and therefore deemed to have no potential water related impacts. For those inside the 1 km assessment radius, as outlined in Chapter 15, following the implementation of the embedded mitigation to reduce water related pollution (as detailed in Section 6.8 and the oCEMP **[EN0110012/APP/LVS/07.02])**, and due to the distance between the Proposed Development and a number of the designated sites, **no significant adverse effects** as a result of water quality impacts are anticipated during the construction phase of the Proposed Development on the qualifying habitats and species present at the designated sites.

6.9.10 Within the water resources and flood risk chapter (Chapter 15: Water Resources and Flood Risk (ES Volume 1) **[EN0110012/LVS/APP/06.01.15])** an assessment of potential floodwater displacement outside of the Order Limits (i.e. into designated sites) concludes that the proposed solar PV areas will have a negligible impact on flood risk outside the Order Limits in the credible maximum scenario. Predicted increases in flood depths, calculated on the basis of conservative assumptions, are minimal (< 1 mm – 4 mm) and are expected to be even lower in reality. Additional, embedded mitigation measures such as the proposed scrapes in the Bird Mitigation Area in the south of Solar Development Site 1 are also likely to further reduce any residual effects.

6.9.11 Further assessment of the designated sites during all phases of development is included in the HRA [**EN0110012/APP/LVS/05.11**].

Skipwith Common SAC and SSSI

6.9.12 The designated site supports Annex I habitats: Northern Atlantic wet heaths with *Erica tetralix* and European dry heaths. As it is located approximately 115 m south of the Highways Improvement Areas, 710 m south of the Cable Route Corridor 1-4, and 2.4 km south of Solar Development Site 1 no direct habitat loss at the SAC/SSSI is anticipated as a result of the construction phase of the Proposed Development.

6.9.13 Skipwith Common SAC is assessed individually within Chapter 15: Water Resources and Flood Risk (ES Volume 1) **[EN0110012/APP/LVS/06.01.15]**. It is noted that as the designated site is upgradient of the Cable Route Corridor, it is unlikely there will be any surface water or groundwater pathway for water contamination of the designated site as a result of the construction phase of the Proposed Development due to the distance between the Cable Route Corridor and the SAC/SSSI and the direction of water flow. It is noted however that the Highways Improvements Area at Little Skipwith, is located closer to the

SAC/SSSI, approximately 115 m north of the designated site. However, works within the Highways Improvement Areas will only comprise minor, temporary modifications at junctions and include the removal of street furniture, widening of junctions, and vegetation removal, with the designated site located upgradient of this Highways Improvements Area also. As such, this would cause no additional effects with regards to water feeding into the SAC/SSSI.

6.9.14 Furthermore, embedded mitigation measures (as detailed in Section 6.8 above) to minimise the likelihood and severity of pollution events, dust deposition and run-off arising during construction have been detailed in the oCEMP **[EN0110012/APP/LVS/07.02]**. The oCEMP **[EN0110012/APP/LVS/07.02]** includes how vehicles, plant and materials will be transported to and around the construction zone, as well as other standard environmental protection measures that will apply during construction.

6.9.15 In light of the above, negligible effects on the qualifying habitats of the designated site (international level) during the construction phase of the Proposed Development are anticipated, which is considered to be **not significant** in EIA terms.

Lower Derwent Valley SAC & Ramsar

Including the various underlying SSSIs: Derwent Ings SSSI, Melbourne and Thorn Ings SSSI, Breighton Meadows SSSI, and Newton Mask SSSI

6.9.16 The SAC is designated for Annex I habitats: Lowland hay meadows (*Alopecurus pratensis, Sanguisorba officinalis*) and Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae*) as well as Annex II species otter. The Ramsar is designated for its traditionally managed species-rich alluvial flood meadow habitat and assemblage of wetland invertebrates including 16 species of dragonfly and damselfly, 15 British Red Data Book wetland invertebrates, as well as a leafhopper, *Cicadula ornata* for which Lower Derwent Valley is the only known site in Great Britain. As the SAC/Ramsar is located approximately 2.8 km east of Solar Development Site 1 and 3.9 km east of the Cable Route Corridor, no direct habitat loss at the SAC/Ramsar is anticipated as a result of the construction phase of the Proposed Development.

6.9.17 The SAC is also designated for otter, and while unlikely, the population of otter within the SAC may commute through Solar Development Site 1. However, no fields signs of otter were identified within Solar Development Site 1 during the 2025 survey, and it was found to comprise low value habitat for otter, with the majority of watercourses within Solar Development Site 1 comprising heavily modified drainage ditches, with limited foraging opportunities and only occasional suitable cover for resting (all other Solar Development Sites are located too greater distance from the SAC/Ramsar to be utilised by the population of otter present within the designated site). As such, it is likely the population of otter

within the SAC will favour habitats within the SAC/Ramsar and will not be dependent on the Solar Development Site 1 to maintain their populations. Nevertheless, as per the Design Parameters and Commitments Document [**EN0110012/APP/LVS/05.06**], the features of importance for otter (as discussed in the otter section below) will be retained and buffered, where practicable, and protected from development via the oCEMP **[EN0110012/APP/LVS/07.02]**. Additional habitat enhancement/creation, such as the Bird Mitigation Area in the south of Solar Development Site 1, comprising neutral grassland and scrapes, as well as other habitat creation within Solar Development Site 1 which connects with retained commuting features such as ditches and hedgerows, will enhance green corridors through the Solar Development Site, as detailed in the oLEMP **[EN0110012/APP/LVS/07.05]**. This will act to improve the Solar Development Site for otter post development.

6.9.18 Embedded mitigation measures (as detailed in Section 6.8 above) to minimise the likelihood and severity of pollution events, dust deposition and run-off arising during construction have been detailed in the oCEMP [**EN0110012/APP/LVS/07.02]**. The oCEMP also includes how vehicles, plant and materials will be transported to and around the construction zone, as well as other standard environmental protection measures that will apply during construction. Examples include installation of mammal ladders into excavations, as well as the implementation of an environmentally sensitive lighting scheme to maintain dark areas within the Proposed Development during construction, which will help protected otter during construction.

6.9.19 In light of the above, negligible effects on the qualifying habitats or species of the designated site (international level) during the construction phase of the Proposed Development are anticipated, which is considered to be **not significant** in EIA terms.

Lower Derwent Valley SPA

6.9.20 The SPA designation, and birds that are also qualifying species of the Ramsar, for this designated site are assessed separately in Chapter 12: Ornithology (ES Volume 1) **[EN0110012/LVS/APP/06.01.12]**.

River Derwent SAC

6.9.21 The designated site supports Annex II species river lamprey as well as sea lamprey, bullhead, otter and also Annex I habitat water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation. As it is located approximately 3 km east of Solar Development Site 1 and 4 km east of the Cable Route Corridor, no direct habitat loss within the SAC will occur as a result of the construction phase of the Proposed Development.

6.9.22 The SAC is also designated for otter, and while unlikely, the population of otter within the SAC may commute through Solar Development Site 1. However, no fields signs of otter were identified within Solar Development Site 1 during the 2025 survey, and it was found to comprise low value habitat for otter, with the

majority of watercourses within Solar Development Site 1 comprising heavily modified drainage ditches, with limited foraging opportunities and only occasional suitable cover for resting (all other Solar Development Sites are located too greater distance from the SAC to be utilised by the population of otter present within the designated site). As such, it is likely the population of otter within the SAC will favour habitats within the SAC and will not be dependent on Solar Development Site 1 to maintain their populations. Nevertheless, as per the Design Parameters and Commitments Document [**EN0110012/APP/LVS/05.06**], the features of importance for otter (as discussed in the otter section below) will be retained and buffered, where practicable, and protected through development via the oCEMP **[EN0110012/APP/LVS/07.02]**. Additional habitat enhancement/creation, such as the Bird Mitigation Area in the south of Solar Development Site 1, comprising neutral grassland and scrapes, as well as other habitat creation within Solar Development Site 1 which connects with retained commuting features such as ditches and hedgerows, will enhance green corridors through the Solar Development Site, as detailed in the oLEMP **[EN0110012/APP/LVS/07.05]**. This will act to improve the Solar Development Site for otter post development.

6.9.23 Embedded mitigation measures (as detailed in Section 6.8 above) to minimise the likelihood and severity of pollution events, dust deposition and run-off arising during construction have been detailed in the oCEMP [**EN0110012/APP/LVS/07.02**]. The oCEMP also includes how vehicles, plant and materials will be transported to and around the construction zone, as well as other standard environmental protection measures that will apply during construction. Such as, installation of mammal ladders into excavations, as well as the implementation of an environmentally sensitive lighting scheme to maintain dark areas within the Proposed Development during construction, which will help protected otter during construction.

6.9.24 With regards to designated fish species within the SAC, upon further analysis (and contrary to the understanding of hydrological flow paths at the time the EIA Scoping Report was published) there is considered to be no hydrological connection to the River Derwent SAC via any watercourses affected by construction of the Proposed Development. This is discussed further in the Shadow HRA Report **[EN0110012/APP/LVS/05.11]** and detailed within the Fish Habitat Assessment and eDNA Survey Report (Appendix 6.5: Fish Habitat Assessment and eDNA Survey (Aquatics Report) (ES Volume 3) [**EN0110012/APP/LVS/06.03.06.05**]) which confirms that, due to topography, Common Drain flows towards Pallion Dyke, rather than towards the direction of the River Derwent SAC.

6.9.25 There are no impact pathways arising from the Proposed Development that could give rise to likely significant effects on the aquatic species or habitats of the River Derwent SAC. While both river lamprey and sea lamprey are qualifying features of the River Derwent SAC and are known to migrate from the Humber Estuary through the River Ouse to access spawning habitats in the Derwent, the location of the Proposed Development is hydrologically upstream of this branching point

(see confluence at NGR: SE 68057 28561). As such, lamprey migrating toward the River Derwent would not pass through or be influenced by the stretch of the River Ouse affected by the Proposed Development. There is no direct hydrological or ecological pathway by which the Proposed Development could affect lamprey populations utilising the River Derwent SAC.

6.9.26 It is important to note that lamprey populations associated with the Humber Estuary SAC utilise the River Ouse as a migratory corridor and are known to migrate upstream beyond the Cable Route Corridor. These populations are present in areas that are functionally linked to the Humber Estuary SAC and have been assessed accordingly within the Shadow HRA Report **[EN0110012/APP/LVS/05.11]** and Paragraph 6.9.35 below.

6.9.27 In light of the above, negligible effects on the qualifying habitats and species of the designated site (international level) during the construction phase of the Proposed Development are anticipated, which is considered to be **not significant** in EIA terms.

Humber Estuary SAC & Ramsar

6.9.28 The SAC is designated for Annex I habitat estuaries and mudflats and sandflats not covered by seawater at low tide and also Annex II species sea lamprey, river lamprey and grey seal *Halichoerus grypus*. The Ramsar is designated for its a near-natural estuary with the following component habitats: dune systems and humid dune slacks, estuarine waters, intertidal mud and sand flats, saltmarshes, and coastal brackish/saline lagoons, the dune slacks at Saltfleetby-Theddlethorpe on the southern extremity of the Ramsar also support breeding natterjack toad *Bufo calamita*. The Ramsar is also designated for grey seal and the Humber Estuary acts as an important migration route for both river lamprey and sea lamprey.

6.9.29 As it is located approximately 13.7 km south-east of the Highways Improvement Areas, 15.1 km south-east of the Cable Route Corridor 1-4, and 17.5 km east of Solar Development Site 4, no direct habitat loss at the SAC is anticipated as a result of the construction phase of the Proposed Development.

6.9.30 The dune slacks at Saltfleetby-Theddlethorpe at the southern extremity of the Humber Estuary Ramsar is designated for breeding natterjack toad. There are no habitats present within or immediately adjacent to the Order Limits that would support natterjack toad, and as outlined above, no significant adverse effects from air or water pollution are anticipated on the designated site as a result of the Proposed Development. As such, there will be no degradation of habitats that support the population of natterjack toad present at the designated site, and the population of natterjack toad will not be present within the Order Limits.

6.9.31 The Ramsar and SAC is also designated for grey seal, specifically where grey seal come ashore at the designated site in autumn to form breeding colonies on the sandy shores of the south bank at Donna Nook. This area is located approximately 85 km south-east of the Order Limits, with the designated site in general located approximately 13 km south-east of the Order Limits at its closest

point. Furthermore, and as outlined above, no significant adverse effects from air or water pollution are anticipated on the designated site as a result of the Proposed Development, and the Order Limits do not provide any suitable breeding habitat for grey seal. As such, there will be no degradation of habitats that support the breeding population of grey seal present at the designated site as a result of development and breeding grey seal will not be present within the Order Limits.

6.9.32 Grey seal will largely remain in coastal areas, as outlined above at Donna Nook, which is far removed from the Order Limits. However, the species may very occasionally use the River Ouse to commute, with the Cable Route Corridor crossing the River Ouse at one point. This crossing point is located approximately 24 km upstream of the westerly extent of the Humber Estuary SAC and Ramsar. At this location the River Ouse will be crossed via trenchless techniques (to be controlled via embedded mitigation included in the oCEMP [**EN0110012/APP/LVS/07.02**]), which will leave the river and surrounding habitat unaffected by the Proposed Development. More importantly however, as grey seal will largely remain at the coast, it is unlikely the species will be present at the cable crossing point (24 km upstream of Humber Estuary SAC and Ramsar and 110 m upstream of Donna Nook), and the feature designated at the SAC and Ramsar (breeding colony) will remain unaffected.

6.9.33 Embedded mitigation measures (as detailed in Section 6.8 above) to minimise the likelihood and severity of pollution events, dust deposition and run-off arising during construction have been detailed in the oCEMP **[EN0110012/APP/LVS/07.02]**. The oCEMP [**EN0110012/APP/LVS/07.02**] includes how vehicles, plant and materials will be transported to and around the construction zone, as well as other standard environmental protection measures that will apply during construction.

6.9.34 In light of the above, negligible effects are anticipated on natterjack toad, grey seal, and the habitats that form qualifying features of the SAC/Ramsar (international level) during the construction phase of the Proposed Development, which is considered to be **not significant** in EIA terms.

6.9.35 With regards to designated fish species, the River Ouse within the Cable Route Corridor is considered functionally linked to the Humber Estuary SAC. Furthermore, the River Ouse in the vicinity of the Proposed Development is a recognised migration route for sea-going lamprey species, including river lamprey and sea lamprey. This migratory activity has been confirmed through Environment Agency monitoring data, which recorded lamprey species upstream at Naburn Weir (15.7 km upstream). Notwithstanding the proximity to the estuary and daily fluctuation in river levels, which may affect suitability, it is considered that deep marginal fine sediments in areas within the Cable Route Corridor could also support larval (ammocoete) stage lamprey species.

6.9.36 Sea/river lamprey species utilising habitats within the Cable Route Corridor at the River Ouse, through migratory passage, may be subject to temporary disturbance during construction. While the use of trenchless techniques beneath the River

Ouse is specifically designed to avoid direct in-channel works, thereby substantially reducing the risk of physical habitat disruption, the procedure may still generate localised noise and vibration, particularly around entry and exit pits, which could affect lamprey species during critical life stages such as larval (juvenile) stages and migration. This effect would be temporary and localised and reduced further by avoiding utilising trenchless techniques during the core migratory periods. This has been provided for in the oCEMP [**EN0110012/APP/LVS/07.02**].

6.9.37 Adult river lamprey typically move out of estuaries into freshwater from October to December to travel upstream to spawning grounds (Ref 52). Upstream and downstream migration of river lamprey occurs at night under cover of darkness and at high tide. Adult sea lamprey typically move out of estuaries into freshwater from April and May to travel upstream to spawning grounds. Young adults also migrate the opposite direction from freshwater into the estuary during the autumn/winter (Ref 60).

6.9.38 For river lamprey, peak avoidance periods for migration are between October and March. For sea lamprey, peak avoidance periods for migration are between April and May. The timing of avoidance periods should be agreed in consultation with the EA. However, it is assumed that the core spring migrations (i.e. downstream movement of salmon smolts and upstream migration of sea lamprey) and the core winter spawning migration (upstream migration of salmonids and river lamprey) will be avoided unless otherwise agreed by the EA.

6.9.39 As set out in the oCEMP [**EN0110012/APP/LVS/07.02**], construction of the Cable Route Corridor within the River Ouse will also be limited to the breeding and passage season for ornithological receptors (April – October) (Chapter 12: Ornithology (ES Volume 1) **[EN0110012/LVS/APP/06.01.12])**.

6.9.40 In addition, construction best practices will be followed to minimise unnecessary noise and vibration, including the use of low-vibration drilling rigs and acoustic shielding where appropriate.

6.9.41 There is an increased risk of pollution entering the River Ouse during construction, particularly from accidental release of drilling fluids (e.g. bentonite), surface runoff, or mobilisation of pollution which could result in injury or mortality to lamprey species through gill clogging, behavioural disruption, or spawning failure.

6.9.42 Furthermore, trenchless techniques (in the absence of mitigation) could result in frac-out of bentonite drilling fluid into the watercourses. A frac-out is an unintentional release of drilling fluids to the surface that is possible during the use of trenchless techniques. This occurs when the pressure of the drilling fluid exceeds the surrounding ground pressure, causing the fluid to escape through cracks or weak points in the ground, this can cause sedimentation, chemical contamination and physical disruption. This in turn could affect migration, or prey availability for lamprey species.

6.9.43 As such, embedded mitigation includes standard environmental pollution measures (as set out in the Outline Pollution and Spillage Response Plan

(oPSRP) [**EN0110012/APP/LVS/07.08**]) and a Design Commitment to provide a 10 m buffer from bank top for all watercourses, excluding the River Ouse where a 50 m buffer will be observed. As set out in the oCEMP [**EN0110012/APP/LVS/07.02**], silt fencing will be used strategically (i.e. within overland flow paths) where required to minimise sediment pollution to watercourses.

6.9.44 Any works relating to trenchless techniques will be undertaken in line with a Method Statement, as set out in the oCEMP **[EN0110012/APP/LVS/07.02]**. Strict adherence to the Method Statement will be required when undertaking trenchless techniques with any changes requiring approval from the Contractor's Project Manager and documented risk assessments. The Method Statement will cover project details, equipment setup, drilling procedures, and the handling of drilling fluids, emphasizing adherence to safety measures and risk assessments. The document will also include details on emergency response procedures, environmental protection strategies, and the use of personal protective equipment. It will also stress the importance of training, supervision, and communication among all personnel involved to ensure the successful and safe completion of the works.

6.9.45 A frac-out contingency plan will be implemented as a mitigation measure which will include measures to prevent, contain and control the risk of frac-out including clean-up procedures as set out in the oCEMP **[EN0110012/APP/LVS/07.02]**.

6.9.46 It is expected that following the application of embedded mitigation, lamprey species supported by functionally linked habitats to the Humber Estuary SAC (International level) will experience a minor adverse effect of low magnitude, at most, arising from the Proposed Development construction. Impacts are therefore currently considered to be **not significant** in EIA terms.

Humber Estuary SPA

6.9.47 The SPA designation, and birds that are also qualifying species of the Ramsar, for this designated site are assessed separately in Chapter 12: Ornithology (ES Volume 1) **[EN0110012/LVS/APP/06.01.12]**.

Burr Closes SSSI

6.9.48 The SSSI is designated for unimproved species-rich damp alluvial meadow and is also noted for supporting the forester moth *Procris statices*.

6.9.49 The SSSI is located approximately 83 m south-east of Cable Route Corridor 1-4 and 5.5 km east of Solar Development Site 8, and as such, no direct habitat loss at the SSSI is anticipated as a result of the construction phase of the Proposed Development.

6.9.50 Five construction compounds are located within the Cable Route Corridor, one of which, Cable Construction Compound 2, is located approximately 200 m north-east of the SSSI. A description of the compound is provided in Chapter 2: The Proposed Development (ES Volume 1) [**EN0110012/AP/LVS/06.01.02**]. The

construction compound may experience more frequent activity for a longer duration than the adjacent section of the Cable Route Corridor, and be of greater risk from contamination releases. However, due to the embedded mitigation (as detailed in Section 6.8 above) to minimise the likelihood and severity of pollution events, dust deposition and run-off arising during construction (detailed in the oCEMP [**EN0110012/APP/LVS/07.02**]) **no significant** effects are anticipated on the SSSI during the construction phase due to the proximity of the construction compound. The oCEMP [**EN0110012/APP/LVS/07.02**] also includes how vehicles, plant and materials will be transported to and around the construction zone, as well as other standard environmental protection measures that will apply during construction.

6.9.51 The SSSI is also connected to a ditch that the Cable Route Corridor crosses. To reduce impacts on the ditch, and therefore the connected SSSI, existing ditch crossings will be used in the first instance, and where this is not possible, trenchless techniques will be used to cross the ditch in this location, with entry and exit pits located at least 10 m from the bank top.

6.9.52 Due to the use of existing crossings or trenchless techniques, and following the implementation of the embedded mitigation (as detailed in Section 6.8 above) included within the oCEMP **[EN0110012/APP/LVS/07.02]** to reduce water related pollution, **no significant** effects as a result of water quality impacts are anticipated during the construction phase of the Proposed Development on the SSSI.

6.9.53 In light of the above, negligible effects on the qualifying habitats or species of the SSSI (national level) during the construction phase of the Proposed Development are anticipated, which is considered to be **not significant** in EIA terms.

Sherburn Willows SSSI

6.9.54 The SSSI is designated for lowland calcareous grassland (CG3-5) and valley fen (lowland). As it is located approximately 1.8 km north-west of Solar Development Site 7 and 2.7 km north of the Cable Route Corridor, no direct habitat loss at the SSSI is anticipated as a result of the construction phase of the Proposed Development.

6.9.55 Embedded mitigation measures (as detailed in Section 6.8 above) to minimise the likelihood and severity of pollution events, dust deposition and run-off arising during construction have been detailed in the oCEMP **[EN0110012/APP/LVS/07.02]**. The oCEMP [**EN0110012/APP/LVS/07.02**] includes how vehicles, plant and materials will be transported to and around the construction zone, as well as other standard environmental protection measures that will apply during construction.

6.9.56 In light of the above, negligible effects on the qualifying habitats of the SSSI (national level) during the construction phase of the Proposed Development are anticipated, which is considered to be **not significant** in EIA terms.

Fairburn and Newton Ings SSSI

6.9.57 The SSSI is designated for diverse wetland flora which supports large numbers of birds particularly wintering wildfowl and a variety of migrants. As it is located approximately 1.7 km west of the Highways Improvements Areas, 1.9 km west of the Cable Route Corridor 4-POC, and 4.4 km west of Solar Development Site 3, no direct habitat loss at the SSSI is anticipated as a result of the construction phase of the Proposed Development.

6.9.58 Embedded mitigation measures (as detailed in Section 6.8 above) to minimise the likelihood and severity of pollution events, dust deposition and run-off arising during construction have been detailed in the oCEMP **[EN0110012/APP/LVS/07.02]**. The oCEMP [**EN0110012/APP/LVS/07.02**] includes how vehicles, plant and materials will be transported to and around the construction zone, as well as other standard environmental protection measures that will apply during construction.

6.9.59 In light of the above, negligible effects on the qualifying habitats of the SSSI (national level) during the construction phase of the Proposed Development are anticipated, which is considered to be **not significant** in EIA terms.

6.9.60 The bird designation for this SSSI is assessed separately in Chapter 12: Ornithology (ES Volume 1) **[EN0110012/LVS/APP/06.01.12]**.

SINCs partially within the Order Limits Outside of the Solar Development Sites:

6.9.61 The following SINCs are partially located within the Order Limits Outside of the Solar Development Sites:

1) Ouse Bank- Westfield-Riccall Ings (partially within Cable Route Corridor 1-4, and 5.7 km south-west of Solar Development Site 1);
2) Nightingale Wood (partially within Cable Route Corridor 1-4, and 970 m south of Solar Development Site 1); and
3) Scarrow Green Pond-Little Skipwith (partially within Highways Improvements Areas, and 115 m south of Cable Route Corridor 1-4).

6.9.62 With regards to Nightingale Wood SINC, only a very small portion of the north-west corner of the SINC is included in the Cable Route Corridor for optionality with regards to accessing the Cable Route Corridor working area. An existing track that extends approximately 60 m through the SINC may be utilised for construction traffic during the construction phase of the Cable Route Corridor at this section. The Arboricultural Impact Assessment presented in Appendix 16.2 (ES Volume 3) [**EN0110012/APP/LVS/06.03.16.02**] has confirmed that, should this route be required for construction traffic, no tree removal/pruning works would be needed to facilitate the use of the short length of track.

6.9.63 In the case of Ouse Bank-Westfield-Riccall Ings SINC, which extends the width of the Cable Route Corridor adjacent to the River Ouse, trenchless solutions will

be employed to pass beneath the SINC and the neighbouring River Ouse, retaining the habitats within the SINC during construction.

6.9.64 At Scarrow Green Pond-Little Skipwith SINC, the Highways Improvements Areas overlaps approximately 3.5 m of the SINC before joining Glade Road, with this 3.5 m comprising a hardstanding road. The SINC is designated for nutrient rich standing water and as such, the use of the road forming 3.5 m of the SINC for construction traffic, will not result in direct loss of the nutrient rich standing water, and as secured within the oCEMP **[EN0110012/APP/LVS/07.02]**, there will be no removal of habitat within the SINC to facilitate the development.

6.9.65 In light of the above, although these three SINCs are partially located within the Order Limits Outside of the Solar Development Sites, no direct habitat loss at the SINCs is anticipated as a result of the construction phase of the Proposed Development.

6.9.66 Furthermore, with regards to dust, the SINCs partially within the Order Limits Outside of the Solar Development Sites are classed as a low sensitivity receptor to dust soiling in line with the IAQM guidance. However, IAQM guidance also indicates that with the successful implementation of best practice embedded dust mitigation measures (as detailed in Appendix 16.1: Construction Dust Assessment (ES Volume 3) **[EN0110012/LVS/APP/06.03.16.01]**), there is likely to be a negligible effect on the SINCs from the dust-generating activities during the construction phase of development.

6.9.67 Embedded mitigation measures (as detailed in Section 6.8 above) to minimise the likelihood and severity of pollution events, dust deposition and run-off arising during construction have been detailed in the oCEMP **[EN0110012/APP/LVS/07.02]**. The oCEMP [**EN0110012/APP/LVS/07.02**] includes how vehicles, plant and materials will be transported to and around the construction zone, as well as other standard environmental protection measures that will apply during construction.

6.9.68 Nightingale Wood SINC is connected to a ditch that the cable must cross. To reduce impacts on the ditch, and therefore the connected SINC, trenchless solutions will be used to cross the ditch in this location, with entry and exit pits located at least 10 m from the bank top.

6.9.69 Due to the use of existing crossings or trenchless solutions, and following the implementation of the embedded mitigation (as detailed in Section 6.8 above) included within the oCEMP **[EN0110012/APP/LVS/07.02]** to reduce water related pollution, **no significant adverse effects** as a result of water quality impacts are anticipated during the construction phase of the Proposed Development on the three SINCs.

6.9.70 In addition, a GCN record was returned within the data search of juveniles within the pond forming Scarrow Green Pond-Little Skipwith SINC in 2020 (however the species is not listed as an official qualifying feature of the SINC). The road adjacent to the pond forms part of the Highways Improvements Area and therefore, will only be used for construction traffic for a limited time during the construction phase of the Cable Route Corridor within this section. The

embedded mitigation, discussed above to reduce water related pollution, will ensure there are **no significant adverse effects** as a result of water quality impacts during the construction phase of the Proposed Development on the habitats present within the SINC that support GCN.

6.9.71 Furthermore, as secured within the oCEMP **[EN0110012/APP/LVS/07.02]**, there will be no removal of habitat within the SINC of use to GCN to facilitate the development. Additionally, the habitats within the Highways Improvements Area that fall within the 250 m buffer zone surrounding the SINC (comprising the accepted upper dispersal limit for GCN) generally comprise habitats which are sub optimal for GCN, such as mowed modified grassland verges, arable fields, and hardstanding roads. There may be small areas of vegetation clearance required within these habitats, i.e. to create passing places or widen the road to accommodate HGVs. Where/if this is required, the works will be completed under PWMs for GCN, i.e. under the supervision of an ECoW, and following the completion of fingertip searching of the area. This will ensure that, in the small chance GCN are present within these sub optimal habitats forming the Highways Improvements Area in 250 m of the SINC, the species are protected for potential harm during the construction phase of the Proposed Development.

6.9.72 In light of the above, negligible effects on the qualifying features of the SINCs (county level) during the construction phase of the Proposed Development are anticipated, which is considered to be **not significant** in EIA terms.

SINCs adjacent to the Order Limits Outside of the Solar Development Sites (up to 250 m) or adjacent to the Construction Traffic Routes:

6.9.73 The following SINCs are located adjacent to the Order Limits Outside of the Solar Development Sites (up to 250 m):

1) Common Wood (adjacent to Cable Route Corridor 1-4);
2) Bywater Wood (adjacent to Highways Improvement Areas and 45 m south of Cable Route Corridor 4-POC);
3) Mulberry Farm Ponds (20 m west of Cable Route Corridor 1-4);
4) Small Lakes-Riccall Ings (35 m east of Cable Route Corridor 1-4);
5) Far Carr Meadow-Wistow Deleted SINC (83 m south-east of the Cable Route Corridor 1-4);
6) Bishop Wood (110 m east of Solar Development Site 8 Access, and 620 m east of Solar Development Site 8);
7) Crook Moor (130 m east of Highways Improvement Areas, and 400 m east of Cable Route Corridor 1-4);
8) Swamp on Selby Dam Near Low Rest Park Farm (deleted SINC) (190 m east of Solar Development Site 8 Access, and 235 m north-east of Solar Development Site 8);

9) Hollicarrs Wood (235 m north of Cable Route Corridor 1-4);

10) Barber Rein (235 m south of Cable Route Corridor 1-4); and

11) Moss Hagg (240 m north Cable Route Corridor 1-4).

6.9.74 The following SINCs are located adjacent to the Construction Traffic Routes. The Construction Traffic Routes are shown within Appendix 14.1 Transport Assessment (ES Volume 3) **[EN0110012/APP/LVS/06.03.14.01]**:

1) Gashouse Plantation (adjacent to the construction traffic routes on Skipwith Road, and 345 m north-west of Solar Development Site 1); and

2) Brayton Barff (adjacent to the construction traffic routes on A63, and 905 m south of Cable Route Corridor 1-4).

6.9.75 As the SINCS are not located within the Order Limits, no direct habitat loss within the SINCs is anticipated as a result of the construction phase of the Proposed Development.

6.9.76 With regards to dust, the SINCs in 50 m of the Order Limits Outside of the Solar Development Sites and the Construction Traffic Routes (Common Wood SINC, Bywater Wood SINC, Mulberry Farm Ponds SINC, Small Lakes-Riccall Ings SINC, Gashouse Plantation SINC, and Brayton Barff SINC) are classed as a low sensitivity receptor to dust soiling in line with the IAQM guidance. However, IAQM guidance also indicates that with the successful implementation of best practice embedded dust mitigation measures (as detailed in Appendix 16.1: Construction Dust Assessment (ES Volume 3) **[EN0110012/APP/LVS/06.03.16.01]**), there is likely to be a negligible effect on the SINCs from the dust-generating activities during the construction phase of development.

6.9.77 Embedded mitigation measures (as detailed in Section 6.8 above) to minimise the likelihood and severity of pollution events, dust deposition and run-off arising during construction have been detailed in the oCEMP [**EN0110012/APP/LVS/07.02**]. The oCEMP [**EN0110012/APP/LVS/07.02**] includes how vehicles, plant and materials will be transported to and around the construction zone, as well as other standard environmental protection measures that will apply during construction.

6.9.78 Barber Rein SINC, which comprises ancient woodland, is connected to a ditch that the cable must cross. To reduce impacts on the ditch, and therefore the connected SINC, existing ditch crossings will be used in the first instance, and where this is not possible, trenchless solutions will be used to cross the ditch in this location, with entry and exit pits located at least 10 m from the bank top.

6.9.79 Due to the use of trenchless solutions in strategic locations and following the implementation of the embedded mitigation (as detailed in Section 6.8 above) included within the oCEMP [**EN0110012/APP/LVS/07.02**] to reduce water related pollution, **no significant adverse effects** as a result of water quality impacts are anticipated during the construction phase of the Proposed Development on the SINCs.

6.9.80 As part of the Design Commitment, 15 m buffers have been established around all ancient woodland. However, the only location where such buffers may be breached is where the Cable Route Corridor passes Common Wood SINC to enable Cable Route Corridor construction traffic to utilise an existing culvert to cross an associated ditch in this location. It is however important to note that this potential breach would only extend to approximately 20 m. The use of this existing culverted ditch crossing will mean that a new temporary culvert will not need to be installed (outside of the 15 m buffer) for construction traffic, and is deemed to be less impactful for biodiversity. This potential access is included within the Order Limits for optionality, and in practice, this access route option may not in fact need to be utilised.

6.9.81 Nevertheless, standard pollution prevention methods detailed in the oCEMP [**EN0110012/APP/LVS/07.02**] will act to protect the adjacent ancient woodland from the potential passing construction traffic, and the Arboricultural Impact Assessment presented in Appendix 16.2 (ES Volume 3) [**EN0110012/APP/LVS/06.03.16.02**] details additional mitigation required when working within the 15 m buffer that is included in the oCEMP [**EN0110012/APP/LVS/07.02**] such that there will be **no significant adverse impacts** anticipated on the ancient woodland habitats within the SINC as a result of the Proposed Development.

6.9.82 Five construction compounds are located within the Cable Route Corridor, two of which are in proximity of a SINC, namely Cable Construction Compound 5, 100 m north of Bywater Wood SINC, and Cable Construction Compound 1, 235 m south-east of Moss Hagg SINC. The construction compounds may experience more frequent activity for a longer duration than the adjacent section of Cable Route Corridor, and be at a greater risk from contamination releases. However, due to the embedded mitigation (as detailed in Section 6.8 above) (detailed in the oCEMP [**EN0110012/APP/LVS/07.02]**) no significant effects are anticipated on the SINCs during the construction phase due to the proximity of the construction compounds.

6.9.83 In light of the above, negligible effects on the qualifying features of the SINCs (county level) during the construction phase of the Proposed Development are anticipated, which is considered to be **not significant** in EIA terms.

SINCs adjacent to the Solar Development Sites (up to 250 m)

6.9.84 The following SINCs are located adjacent to the Solar Development Sites:

1) Gilbertsons Plantation - Wheldrake Site 65 (on north-eastern boundary of Solar Development Site 1, and 2.2 km north-east of Cable Route Corridor 1-4);
2) Willow Scrub, Birkin Holme (deleted SINC) (60 m south of Solar Development Site 4, and 1.8 km south-east of the Cable Route Corridor 1-4); and

3) Borrow Pit East of Birkin (100 m south of Solar Development Site 4, and 1.2 km south-east of the Cable Route Corridor 4-POC).

6.9.85 As the SINCS are not located within the Order Limits, no direct habitat loss at the SINC is anticipated as a result of the construction phase of the Proposed Development.

6.9.86 Furthermore, as per the embedded mitigation measures (as detailed in Section 6.8 above), a 15 m buffer will be enforced around Gilbertsons Plantation - Wheldrake Site 65 SINC as it comprises ancient woodland. This will act to protect the habitat and fauna present within the SINC during the construction phase of the Proposed Development.

6.9.87 With regards to dust, Gilbertsons Plantation - Wheldrake Site 65 SINC is classed as a low sensitivity receptor to dust soiling in line with the IAQM guidance and was located within the 50 m assessment area for dust from the Order Limits. However, IAQM guidance also indicates that with the successful implementation of best practice embedded dust mitigation measures (as detailed in Appendix 16.1: Construction Dust Assessment (ES Volume 3) [**EN0110012/APP/LVS/06.03.16.01**]), there is likely to be a negligible effect on the SINC from the dust-generating activities during the construction phase of development.

6.9.88 Embedded mitigation measures (as detailed in Section 6.8 above) to minimise the likelihood and severity of pollution events, dust deposition and run-off arising during construction have been detailed in the oCEMP [**EN0110012/APP/LVS/07.02]**. The oCEMP [**EN0110012/APP/LVS/07.02**] includes how vehicles, plant and materials will be transported to and around the construction zone, as well as other standard environmental protection measures that will apply during construction.

6.9.89 As ditches within the Solar Development Sites will be retained, buffered and protected by the oCEMP [**EN0110012/APP/LVS/07.02]**, and following the implementation of the embedded mitigation (as detailed in Section 6.8 above) to reduce water related pollution, **no significant adverse effects** as a result of water quality impacts are anticipated during the construction phase of the Proposed Development on the SINCS.

6.9.90 In light of the above, negligible adverse effects on the qualifying features of the SINCs (county level) during the construction phase of the Proposed Development are anticipated, which is considered to be **not significant** in EIA terms.

Habitats

6.9.91 As a result of the embedded mitigation (as detailed in Section 6.8 above), and as per the Design Parameters and Commitments Document [**EN0110012/APP/LVS/05.06**], the Proposed Development has been designed to retain the most valuable habitats (those of local importance or above), such as arable field margins, neutral grassland, scrub, woodland, ponds, scattered trees, hedgerows, treelines and watercourses where practicable.

6.9.92 The locations of these habitats within the Solar Development Sites, are generally at arable field boundaries and surrounding ditches, hedgerows and ponds, which means the retention of these habitats has been easily incorporated into the Proposed Development. Furthermore, the location of the habitats adjacent to features which will be buffered (e.g. hedges, ditches and ponds), further solidifies the retention of the associated habitats through development.

6.9.93 As set out in the oCEMP [**EN0110012/APP/LVS/07.02**], the final cable route (working area comprising approximately 25 m) will be located within the Cable Route Corridor and will also be microsited to best avoid impacts to important ecological features, such as habitats of local ecological importance or higher wherever possible. The 25 m working area may be narrowed in places, for example to minimise removal of hedgerows or at open cut watercourse crossings to reduce impacts to these habitats.

6.9.94 Furthermore, as the works to the Order Limits Outside of the Solar Development Sites are temporary, should any habitats of importance be lost during construction, it will be possible for habitat to be reinstated within two years of the start of the works which affect them.

6.9.95 The oCEMP [**EN0110012/APP/LVS/07.02**] includes measures and approaches to be adopted which will limit the likelihood of impacts upon retained habitats through damage, pollution and disturbance during the construction phase.

Arable field margins (tussocky, pollen and nectar, and wild bird mix) and Other Neutral Grassland

6.9.96 Only discreate areas of arable field margins and neutral grassland will be lost, i.e. 0.24 ha of neutral grassland lost within the Solar Development Sites (as outlined in the BNG report V2 [**EN0110012/APP/LVS/05.09**]). However, these losses will be more than compensated for via the creation of grassland habitat in place of the cropland beneath the solar panels, the retention/expansion of the grassland field margins, and the creation of approximately 88 ha of wet grassland within the south of Solar Development Site 1 comprising the Bird Mitigation Area, as shown on the Outline Environmental Masterplan (oEM) [**EN0110012/APP/LVS/02.12**].

6.9.97 Within the Order Limits Outside of the Solar Development Sites, only small areas of arable field margins and neutral grassland were recorded, with the vast majority of the habitats comprising intensively managed cropland. In some instances, the neutral grassland and arable field margins are located within Avoidance Areas, where trenchless solutions will be employed to pass under features such as ditches. The use of trenchless techniques, while protecting the ditch from harm, will also protect the adjacent neutral grassland habitat, such as at the Avoidance Area surrounding Black Fen Drain, leaving the habitat unaffected by the construction works.

6.9.98 In light of the above, negligible adverse effects on the extent or quality of arable field margins and neutral grassland habitats (local level) during the construction phase of the Proposed Development are anticipated, which is considered to be **not significant** in EIA terms.

6.9.99 The creation of grassland habitat in place of cropland beneath the solar panels and the halt of detrimental farming practices adjacent to grassland, such as machinery use and chemical input (for the lifetime of the Proposed Development) is considered to result in a **significant beneficial effect** in the extent and quality of grassland habitats within the Solar Development Sites, which given the size and quality of the additional grassland habitat created would be **significant** at county level.

Scrub (mixed and willow scrub)

6.9.100 There will be no loss of the 0.87 ha of poor condition scrub habitat within the Solar Development Sites as a result of the Proposed Development, as outlined in the BNG report V2 [**EN0110012/APP/LVS/05.09**].

6.9.101 Within the Order Limits Outside of the Solar Development Sites, scrub only accounts for very small areas of the habitat (1.638 ha in total), generally located at boundary features adjacent to roads and railways, with the vast majority of the habitat dominated by intensively managed cropland. Some of these areas of scrub are located in Avoidance Areas, where trenchless solutions will be employed to pass under roads and railways, which will also pass under the adjacent scrub habitat, leaving the habitat unaffected by the works.

6.9.102 In light of the above, negligible adverse effects on the extent or quality of scrub habitat (local level) during the construction phase of the Proposed Development are anticipated, which is considered to be **not significant** in EIA terms.

6.9.103 The creation of 4.78 ha of mixed scrub of moderate condition (s shown on the oEM [**EN0110012/APP/LVS/02.12]**), and the halt of detrimental farming practices adjacent to the scrub, such as machinery use and chemical input (for the lifetime of the Proposed Development), is considered to result in a **significant beneficial effect** in the extent and quality of scrub habitats within the Solar Development Sites, which would be significant at a local level.

Woodland (other broadleaved woodland, and other coniferous woodland)

6.9.104 There is only 0.13 ha of broadleaved woodland located within the Solar Development Sites. However, there are a number of woodland copses located immediately adjacent to some of the Solar Development Sites, as well as areas of woodland within the Order Limits Outside of the Solar Development Sites, namely 0.06 ha of coniferous woodland, and 9.51 ha of broadleaved woodland. The majority of the broadleaved woodland within the Order Limits Outside of the Solar Development Sites is shown to be located at Monk Fryston substation as part of the proposed site plans submitted for the approved Yorkshire Green development (EN020024). The Proposed Development will result in the retention of all the broadleaved woodland within the Order Limits, with only the potential removal of two/three trees within the coniferous woodland copse within the Cable Route Corridor proposed, as outlined in the Arboricultural Impact Assessment

(Appendix 16.2 (ES Volume 3) [**EN0110012/APP/LVS/06.03.16.02**]) and BNG report V2 [**EN0110012/APP/LVS/05.09**].

6.9.105 The small loss of woodland within the Order Limits is more than compensated for via the proposed 8.47 ha of woodland creation within the Solar Development Sites which, as per the Design Commitments, has been positioned (where practicable) to connect and extend commuting features with the Solar Development Sites.

6.9.106 When setting the parameters for land suitable for development within the Solar Development Sites, embedded mitigation Design Commitments by way of 15 m buffers around ancient woodland, and 10 m buffer around non-ancient woodland were put in place, to ensure conformity with NE Standing Advice on Ancient Woodland (Ref 58). Following the establishment of more precise constraints in the form of Root Protection Area (RPAs) and canopy extents from the tree survey, the initial buffers or the RPA, whichever is greater, have been also applied to surrounding woodland adjacent to the Solar Development Sites. In rare cases where such buffers cannot be applied, alternative mitigation has been proposed to reduce the impacts on woodland outside of the Order Limits, for example ground protection, no-dig construction and minor pruning, as detailed in Section 3.5 of the Arboricultual Impact Assessment (Appendix 16.2 (ES Volume 3) [**EN0110012/APP/LVS/06.03.16.02]**).

6.9.107 With regards to the Order Limits Outside of the Solar Development Sites, the RPAs/canopy extents have been used to establish suitable distances between construction activity and retained woodland. As above, in rare cases where such buffers cannot be applied (e.g. potentially 20 m adjacent to Common Wood SINC as discussed in paragraph 6.9.67), similar alternative mitigation has been proposed to reduce the impacts on retained woodland, as detailed within Section 3.5 of the Arboricultual Impact Assessment (Appendix 16.2 (ES Volume 3) [**EN0110012/APP/LVS/06.03.16.02]**).

6.9.108 In light of the above, negligible adverse effects on the extent or quality of woodland habitat (local level) during the construction phase of the Proposed Development are anticipated, which is considered to be **not significant** in EIA terms.

6.9.109 The creation of 8.47 ha of broadleaved woodland (as shown on the oEM [**EN0110012/APP/LVS/02.12]),** and the halt of detrimental farming practices adjacent to the woodland, such as machinery use and chemical input (for the lifetime of the Proposed Development), is considered to result in a **significant beneficial effect** in the extent and quality of woodland habitats within the Solar Development Sites, which would be significant at a local level.

Ponds

6.9.110 The extent of pond habitat within the Solar Development Sites is limited, with ponds only present in Solar Development Site 1 (P1.1, P1.2, P1.3, P1.5, and P1.12), which are generally located at arable field boundaries and comprise 0.29 ha in total. No ponds were recorded within the Order Limits Outside of the Solar

Development Sites, as detailed within the BNG report V2 [**EN0110012/APP/LVS/05.09**].

6.9.111 The ponds within the Solar Development Sites will be retained and buffered, and the buffer zones will comprise habitat creation to be managed sympathetically for ecology where practicable.

6.9.112 There are 40 ponds present in 250 m of the Solar Development Sites, and 29 ponds present within 250 m of the Order Limits Outside of the Solar Development Sites. The embedded mitigation (as discussed in Section 6.8 above), detailed in the oCEMP [**EN0110012/APP/LVS/07.02**], will ensure no additional pollution enters the ponds within 250 m of the Order Limits, or ponds within the Order Limits, as a result of the construction phase of the Proposed Development, protecting the flora and fauna present. The cessation of detrimental farming practices adjacent to the ponds within the Order Limits, such as machinery use and chemical input (for the lifetime of the Proposed Development), may also improve water quality within these ponds.

6.9.113 In light of the above, negligible adverse effects on the extent or quality of pond habitat (local level) during the construction phase of the Proposed Development are anticipated, which is considered to be **not significant** in EIA terms.

Scattered trees

6.9.114 As outlined in the Arboricultural Impact Assessment (Appendix 16.2 (ES Volume 3) [**EN0110012/APP/LVS/06.03.16.02**]), when setting the parameters for land suitable for development within the Solar Development Sites, embedded mitigation Design Commitments by way of 15 x the stem diameter buffers around ancient/veteran trees, and 10 m buffer around non-ancient/non-veteran trees was put in place. Following the establishment of more precise constraints in the form of Root Protection Area (RPAs) and canopy extents from the tree survey, the initial buffers or the RPA, whichever is greater, have been applied surrounding scattered trees within the Solar Development Sites.

6.9.115 In rare cases where such buffers cannot be applied, alternative mitigation has been proposed to reduce the impacts on retained trees, as detailed in section 3.5 of the Arboricultural Impact Assessment (Appendix 16.2 (ES Volume 3) [**EN0110012/APP/LVS/06.03.16.02]**).

6.9.116 With regards to the Order Limits Outside of the Solar Development Sites, the RPAs/canopy extents have been used to establish suitable distances between construction activity and retained trees.

6.9.117 Eight veteran trees were identified within the Order Limits, one with the Cable Route Corridor 1-4, and seven within Solar Development Site 1. All of these trees will be retained and protected through development.

6.9.118 With regards to the Solar Development Sites, only one small tree (located within Solar Development Site 1) requires removal to facilitate the Proposed Development. Additional trees also require removal within the Order Limits Outside of the Solar Development Sites to facilitate the Proposed Development,

as a result of visibility splays, Highways Improvement Areas, or the approximate 25 m working area for laying of the cable (see BNG report V2 [**EN0110012/APP/LVS/05.09**] and Arboricultural Impact Assessment (Appendix 16.2 (ES Volume 3) [**EN0110012/APP/LVS/06.03.16.02]**).

6.9.119 Removals for visibility splays and accesses are based on a worst-case scenario Design Manual for Roads and Bridges (DMRB) criteria using the maximum criteria or One Step Below criteria. It may be possible to reduce the number of trees lost to visibility splay facilitation in the final construction plan by using alternative acceptable criteria or by using banksmen to ensure vehicle ingress/egress safety where high-value trees might otherwise be lost (albeit the assessment does not rely on this and is assessed on a worst-cases basis at this time).

6.9.120 To compensate the loss of trees within the Order Limits, 571 native trees are proposed with the Solar Development Sites, as shown on the oEM [EN0110012/APP/LVS/02.12]).

6.9.121 In light of the above, negligible adverse effects on the extent or quality of trees (local level) during the construction phase of the Proposed Development are anticipated, which is considered to be **not significant** in EIA terms.

Hedgerows (species-rich native hedgerow, and other native hedgerow, with/without trees/ditches) and lines of trees

6.9.122 The retained hedgerows and lines of trees within the Order Limits will be buffered, with buffers informed by the RPAs detailed in the Arboricultural Impact Assessment (Appendix 16.2 (ES Volume 3) [**EN0110012/APP/LVS/06.03.16.02]**). The buffer zones will comprise habitat creation to be managed sympathetically for ecology, where practicable.

6.9.123 Within the Solar Development Sites, hedgerows and treelines are located at field boundaries and therefore the features can be largely retained through development. Excluding for small sections of hedge removal for access, and for the creation of the Bird Mitigation Area in the south of Solar Development Site 1, where the entity of H1.1 (439 m) and H1.20 (335 m) will be removed, as shown on the OEM [**EN0110012/APP/LVS/02.12].** These two hedgerows comprise unimportant species poor hedgerows, which will be replaced by hedgerows of higher quality elsewhere within the Proposed Development.

6.9.124 With regards to the Order Limits Outside of the Solar Development Sites, hedgerow and treeline will require removal to facilitate visibility splays, Highways Improvement Areas, and the approximate 25 m working area for the laying of the cable. Removals for visibility splays and accesses are based on a worst-case scenario DMRB criteria using the maximum criteria or One Step Below criteria. It may be possible to reduce the lengths of hedges lost to visibility splay facilitation in the final construction plan by using alternative acceptable criteria or by using banksmen to ensure vehicle ingress/egress safety where hedgerows might otherwise be lost (albeit the assessment does not rely on this and is assessed on a worst-cases basis at this time).

6.9.125 Overall, based on worst case assumptions. 4.39 km of hedgerow and treeline will require removal to facilitate the development. To mitigate for this loss, 37.13 km of hedgerow are proposed within the Order Limits. Of this, 2.026 km comprises replacement hedgerow planting within the Order Limits Outside of the Solar Development Sites, formed of species rich native hedgerow of poor condition. The remaining lengths comprise 20.33 km of moderate condition species rich native hedgerow with trees, and 14.77 km of moderate condition species rich hedgerow, located within the Solar Development Sites. As per the Design Commitments, the hedgerows have been positioned (where practicable) to connect and extend commuting features with the Solar Development Sites. In addition, planting with be provided within retained hedgerows in the Solar Development Sites to reduce gaps and improve structure and function as commuting features post development.

6.9.126 In light of the above, even though there is a notable loss of hedgerow habitat within the Order Limits (4.39 km based on worst case assumptions), the creation of 37.13 km of hedgerow and enhancement of a number of existing hedgerows within the Solar Development Sites, as well as the cessation of detrimental farming practices adjacent to the hedgerows/treeline, such as machinery use and chemical input (for the lifetime of the Proposed Development), is considered to result in a **significant beneficial effect** in the extent and quality of hedgerow habitats within the Solar Development Sites, which would be significant at a local level.

Ditches and other rivers and streams

6.9.127 As per the Design Commitments, a 10 m buffer will be provided from the bank top for all watercourses where practicable and 50 m in the case of the River Ouse, protecting watercourse habitat within the construction phase of development. Silt fencing will also be used strategically (i.e. within overland flow paths) where required to minimise sediment pollution to watercourses.

6.9.128 Within the Solar Development Sites, ditches are the only watercourse present. Vehicle access into and around the Solar Development Sites, and cable trenching through the Solar Development Sites, including where watercourse crossings (and temporary culverts) are required, will aim to use existing access points/crossings and field openings wherever possible to reduce impacts. However, where this is not possible, works will be required within the 10 m buffer zone surrounding the ditches. With regards to vehicle crossings of watercourses, only one new temporary watercourse crossing (and temporary culvert) is proposed over a wet ditch within Solar Development Site 1 (two additional new permanent vehicle ditch crossing points are also required on the southern boundary of Solar Development Site 4 and northern boundary of Solar Development Site 2, however these span currently dry ditches). Cable trenching through the Solar Development Sites, may also require some temporary short-term culverting to cross ditches. However, the watercourse will be returned to a minimum of baseline condition once the cable has been installed, and therefore impacts will be temporary and reversible. The works will be completed following

pollution control measures outlined in the oCEMP [**EN0110012/APP/LVS/07.02**]. Losses and degradation of ditch habitat within the Solar Development Sites will therefore be minimal.

6.9.129 Within the Order Limits Outside of the Solar Development Sites, ditches form the boundary features of arable fields, with the majority of the habitat comprising intensively managed cropland. Small sections of the River Ouse and Selby Dam also pass through the Order Limits Outside of the Solar Development Sites and form river habitat. The final cable location will be microsited within the Cable Route Corridor to pass through existing crossing points over ditches where practicable, to reduce impacts.

6.9.130 In addition, trenchless technologies will be used to cross some watercourses within the Order Limits. The final locations where trenchless technologies will be utilised will not be confirmed until the detailed design stage, however, the use of trenchless technologies for some locations has been committed to at this stage, known as Avoidance Areas, as shown in, Figure 2.5 (ES Volume 2) [**EN0110012/APP/LVS/06.02.02.05].** These include the River Ouse (and Ouse Bank-Westfield-Riccall Ings SINC that flanks the river), main rivers, IDB watercourses, and WER water body line watercourses, as well as ditches that lead to the following designated sites: Nightingale Wood SINC, Burr Closes SSSI, and Barber Rain SINC. The entry and exit pits will be located a minimum of 50 m from the bank top of the River Ouse, and a minimum of 10 m from the bank top of all other watercourses (but at greater distances in some instances) and will always be located outside of the Avoidance Areas, as detailed in the oCEMP **[EN0110012/APP/LVS/07.02].** This will leave the watercourses and surrounding habitats unaffected by the works in these locations.

6.9.131 Where trenchless solutions are not employed, and there are no existing crossing points to exploit, open cut crossings using temporary culverts will be installed to cross ditches within the Cable Route Corridor. The open cut trench will be up to approximately 7 m wide, with the working width for installation of the cable anticipated to be 25 m wide. As well as the open cut trench, the typical 25 m working width will include a haul road along which vehicles and plant will be located as well as an area for temporary storage of excavated spoil. This 25 m working width may be narrowed in certain places, for example at open cut watercourse crossings, to reduce impacts on the watercourse. Mitigation measures for such crossings, such as pollution control and sensitive vegetation clearance, is set out in the oCEMP [**EN0110012/APP/LVS/07.02**]. Typically, the temporary culverts should be in place six months or less, although they may be required across two seasons as a worst-case, however would not be in place for more than two years.

6.9.132 In addition, to satisfy the aim of 10% gain in watercourse units within the Proposed Development, the condition of a small number of ditches within the Solar Development Sites will be improved from poor to moderate through in channel works such as removal of undesirable species such as filamentous algae and duckweed, reducing physical damage to the banks of the ditch through halting damaging management activities, and increasing the water quality

through no longer using chemical fertiliser and pesticides on adjacent land and via planting within the ditch, namely within Ditch 1.3, Ditch 1.12, Ditch 1.13, Ditch 6.3, and Ditch 6.5. These enhancement measures are detailed within the oLEMP **[EN0110012/APP/LVS/07.05].**

6.9.133 In light of the above, negligible adverse effects on the extent or quality of watercourse habitat (county level) during the construction phase of the Proposed Development are anticipated, which is considered to be **not significant** in EIA terms.

Species

6.9.134 As per the Design Commitment, set out in the Design Parameters and Commitments Document [**EN0110012/APP/LVS/05.06**], infrastructure and construction works will be located at suitable buffer distances from protected species, where practicable and mitigation provided where this is not practicable, as outlined below.

Otter

6.9.135 No otter holts or resting places have been recorded during the surveys completed within the Order Limits.

6.9.136 During the otter surveys, presence of otter was confirmed in a singular ditch (Ditch 2.1) within Solar Development Site 2 (spraint) and a singular ditch (Ditch 4.1) within Solar Development Sites 4 (prints). Solar Development Site 4 has been assessed as offering medium value for otter due to its relative proximity to the River Aire. All other Solar Development Sites have been assessed as being of low value for otter, with the majority of watercourses with all Solar Development Sites comprising heavily modified drainage ditches, with limited foraging opportunities and only occasional suitable cover for resting. As such, otter currently utilise the drainage ditch network within the Solar Development Sites for commuting only.

6.9.137 As detailed in the above discussion regarding on-site habitats, habitat features of importance for commuting otter, i.e. watercourses, hedgerows, treelines, and woodland will be retained and appropriately buffered where practicable, maintaining key habitats which offer value for the species within the Solar Development Sites, with only discrete areas of loss e.g. for access (save for the removal of H1.1 and H1.20 in Solar Development Site 1).

6.9.138 Furthermore, any habitat losses will be more than compensated for via the proposed woodland, hedgerow, scrub and grassland planting, and ditch enhancement, that will aim to connect and extend commuting networks and green corridors within the Solar Development Sites, which will improve habitat connectivity for otter.

6.9.139 To ensure otter are protected during the construction phase of Proposed Development, the oCEMP [**EN0110012/APP/LVS/07.02**] will detail measures and approaches to be adopted which will limit the likelihood of impacts upon

retained habitats of importance for otter, through damage, pollution and disturbance during the construction phase. The oCEMP [**EN0110012/APP/LVS/07.02**] will also include PWMs to protect otter e.g. though infilling of excavations/providing mammal ladders to reduce the likelihood entrapment, maintaining a tidy site and preserving important commuting routes.

6.9.140 The oCEMP [**EN0110012/APP/LVS/07.02**] will also detail how construction fencing within the Order Limits will be designed to let small mammals such as otter pass through, and construction lighting will be controlled to limit impacts on surrounding habitats, including habitats of importance to otter.

6.9.141 Within the Order Limits Outside of the Solar Development Sites, the majority of the ditch crossing points surveyed for otter were found to be of negligible value for the species as they were either dry or had no suitable surrounding vegetation. D9.16, D9.18, and D9.28 within the Cable Route Corridor, and Ditch 8.1a within the Solar Development Site 8 Access were however assessed as being of low value for otter, comprising heavily modified drainage ditches, with limited foraging opportunities and only occasional suitable cover for resting. These watercourses and surrounding habitat will however likely be utilised by commuting otter, although no evidence of otter was recorded within the Order Limits Outside of the Solar Development Sites.

6.9.142 The final cable and access locations will also be microsited to pass through existing crossing points over ditches wherever possible and to avoid habitats of value to otter, which will reduce impacts on the species within the Order Limits.

6.9.143 High value habitat for otter is provided within the River Ouse and Selby Dam. A section of Selby Dam is included within the Solar Development Site 8 Access, comprising an existing crossing over Selby Dam. In this location, if this access option into Solar Development Site 8 is utilised, it is likely the existing crossing will be used, and the footprint of the culvert will be maintained. However, as a worst-case scenario assessment, the existing culvert may need replacing with a new crossing structure. As such, an otter survey of this location was completed. No otter field signs or potential holt locations were recorded at this survey point, however the river was assessed as providing high value habitat for otter due to its connectivity and foraging opportunities. Otter may therefore use this section of river in a commuting/foraging context.

6.9.144 A second section of Selby Dam and a section of the River Ouse are also located within the Cable Route Corridor, also forming high value habitat for otter. However, as these are identified as Avoidance Areas, where trenchless techniques will be used, the watercourse and their surrounding habitat will be retained through the Proposed Development such that there will be no direct impacts on the species. This being said, there may still be some limited effects on otter as a result of disturbance either from the resulting vibration from the trenchless technique utilised, or the presence of the working area in proximity to the watercourse (with the entry and exit pits located a minimum of 50 m from the bank top of the River Ouse, and 10 m from the bank top of all other watercourses). In the absence of additional mitigation measures, the potential disturbance of

otter during the construction phase of the Cable Route Corridor may result in a **temporary significant adverse effect** at a local level. Furthermore, even though no holts or resting places are currently located within the Order Limits, due to the mobile nature of the species, these features may be created prior to the start of works. As detailed above, these features will be retained and buffer in the first instance. However, if this is not possible, the damage/disturbance of a holt or resting place may result in a **significant adverse effect**. As the location/characteristics/nature of impact of future holts cannot be known at this time, the sensitivity and magnitude of the effect cannot be confirmed currently, but as a worst-case scenario should a natal holt be damage/disturbed for example, this may result in up to a **significant adverse effect** at a county level.

Otter-construction phase additional mitigation measures and residual effects

6.9.145 A pre commencement otter survey of the Order Limits will be conducted at least three months prior to the start of works as outlined in the oCEMP [**EN0110012/APP/LVS/07.02**], to check for any new otter resting places/holts which may be impacted by disturbance or directly impacted through proposed de-vegetation/construction activities.

6.9.146 If new holts/resting places are identified, they would be retained and buffered in the first instance, with suitable mitigation put in place to mitigate the feature if retention was not possible, pursuant to a NE licence. As a result, no residual **significant adverse effects** on otter would be expected, which would be considered **not significant** in EIA terms.

6.9.147 Potential impacts from trenchless techniques will also be minimised via the supervision of works by an ECoW, minimum 10 m offset from the bank top for entry and exit pits, and other Precautionary Working Methods, where required.

6.9.148 The proposed creation of habitats of importance to otter, such as the ditch enhancement, hedgerow planting/enhancement and woodland creation, as well as the improvement of watercourse habitat due to the halt of detrimental framing practices (for the lifetime of the Proposed Development) is considered likely to result in **significant beneficial effects** for otter.

6.9.149 For information, the above additional mitigation measures, as well as additional mitigation measures detailed in the remainder of Section 6.9 below, are summarised in Section 6.10.

Badger

6.9.150 During the badger survey, badger field signs were recorded within all the Solar Development Sites and Cable Route Corridor, and the species therefore use all the survey area to commute and forage. However, badger setts were only recorded within the Cable Route Corridor, two Solar Development Sites and immediately adjacent to two of the other Solar Development Sites. Further details of the badger setts within the Solar Development Sites are detailed within

Appendix 6.3: Badger Report V2 (ES Volume 3) **[EN0110012/APP/LVS/06.03.06.03]**.

6.9.151 As per the Design Parameters and Commitments Document [**EN0110012/APP/LVS/05.06**], the development of the Solar Development Sites proposals have been created to retain all known badger setts, with a 30 m buffer provided around all setts within the Solar Development Sites regardless of sett classification. The same is true for the Cable Route Corridor, whereby the cable line has been microsited to avoid known badger setts and their buffers. In the case of the Cable Route Corridor however, the buffers extend 30 m for main and subsidiary setts, and 20 m for outlier setts.

6.9.152 However, due to the mobile nature of the species, new setts may be created within the Order Limits prior to the start of works. As detailed above, these setts will be retained and buffered in the first instance, although it is currently unknown if new setts will be impacted by the construction phase of the Proposed Development. As badger are common and widespread, the loss of badger setts would not constitute a significant effect, however the species are protected from harm by legislation and any setts that required removal to facilitate the Proposed Development would be closed under NE licence and with appropriate compensation measures in place, if necessary, to abide by legislation.

6.9.153 Furthermore, as set out in the oCEMP [**EN0110012/APP/LVS/07.02**], two pre commencement badger surveys will be conducted, the first at least three months prior to the start of works, and the second at least one month prior to the start of works, to check for any new setts which may be impacted by disturbance or directly impacted through proposed de-vegetation/construction activities, which would require a NE licence to close.

6.9.154 As detailed in the above discussion regarding on-site habitats, habitat features of importance for badger, i.e. hedgerows, treelines, woodland and scrub will largely be retained and appropriately buffered where practicable, maintaining key habitats which offer value for the species within the Solar Development Sites.

6.9.155 Furthermore, any habitat losses will be more than compensated for via the proposed creation of hedgerow, grassland, scrub and woodland, which will aim to connect and extend commuting networks and green corridors within the Solar Development Sites, which will improve habitat connectivity for badger.

6.9.156 There will however be a temporary reduction in the extent of foraging habitat available to badgers due to the loss of the arable habitats, until new habitats establish. However, badgers are highly mobile and the temporary loss of habitats within the Order Limits during construction is anticipated to be similar in effect (i.e. causing disturbance o temporary displacement to badgers) to the regular agricultural activities of harvesting, sowing, harrowing and rolling that take place across much of the Proposed Development at present. It is considered that the Order Limits would become suitable again for badgers immediately once works in a particular area are completed.

6.9.157 The cable will also be microsited within the Cable Route Corridor to pass through existing gaps in hedgerows and to avoid habitats of value to badger, where

practicable, which will reduce impacts on the species. Any unavoidable losses of ecologically important features for badger within the Cable Route Corridor will be appropriately mitigated.

6.9.158 To ensure badger are protected during the construction phase of Proposed Development, the oCEMP [**EN0110012/APP/LVS/07.02**] details measures and approaches to be adopted which will limit the likelihood of impacts upon retained habitats of importance for badger, through damage, pollution and disturbance during the construction phase. The oCEMP [**EN0110012/APP/LVS/07.02**] also includes PWMs to protect badger e.g. though infilling of excavations / providing mammal ladders to reduce the likelihood of entrapment, maintaining a tidy site and preserving important commuting routes. Construction lighting will also be controlled to limit impacts on surrounding habitats, including habitats of importance to badger.

6.9.159 Perimeter security fencing is not considered to be a barrier to badger movement given their propensity for digging (the security fencing is not proposed to be buried). Badger gates are not considered necessary within security or protective fencing as there is no known evidence of their efficacy. Badgers are known to preferentially dig under fencing or move through gaps in the fencing material as opposed to actively seek features such as gates. Natural undulations in the ground will be used to ensure sufficient space beneath fencing to facilitate badger access is available. Where no such undulations occur, it is considered most effective to raise the height of fencing panels to leave a narrow gap (no greater than 150 mm) which badgers (among other animals) will exploit to gain access. A narrow gap will also be created where known badger paths are present. Furthermore, green corridors proposed within the Solar Development Sites have been kept free of fencing to allow unrestricted faunal movement through the Proposed Development, as shown on the OEM [**EN0110012/APP/LVS/06.02.03.01.[01-08]**] and provided for in the oLEMP [**EN0110012/APP/LVS/07.05**]. As a result, **no significant adverse effects** associated with badger habitat fragmentation are anticipated.

6.9.160 In light of the above, **no significant effects** on badger during the construction phase of the Proposed Development are anticipated and legislation protecting badger will be adhered to.

Bats

Commuting and foraging bats

6.9.161 Overall, the level of bat activity recorded during the static detector deployments was similar across all the Solar Development Sites and was typical for the type of habitat present in its locality, largely comprising common and widespread species, with no significant bat assemblage identified. During the NBWs, Solar Development Site 1 had the highest level of bat activity recorded however, activity levels were still typical for the habitat type present in this locality. In comparison, Solar Development Site 8 had the lowest level of bat activity recorded during the NBWs.

6.9.162 The vast majority of the habitat within the developable area of the Order Limits is sub-optimal habitat for commuting and foraging bats, namely the cropland. As detailed in the above discussion regarding on-site habitats, habitat features of importance for commuting and foraging bats, i.e. watercourses, ponds, grassland, woodland and hedgerows will be retained and appropriately buffered where practicable. This will maintain key habitats which offer value for commuting and foraging bats within the Order Limits.

6.9.163 Some limited hedgerow loss within the Solar Development Sites will be required for access. In addition there will be total loss of H1.1 and H1.20 in the south of Solar Development Site 1 to create the Bird Mitigation Area. However, H1.1 and H1.20 comprise unimportant species poor hedgerows, which will be replaced by hedgerows of higher quality within the Proposed Development, as shown on the oEM [**EN0110012/APP/LVS/02.12**], maintaining commuting and foraging habitat for bats with the Solar Development Sites.

6.9.164 Other proposed habitat creation within the Solar Development Sites includes grassland (including a large area of grassland and scrapes in the south of Solar Development Site 1), woodland, scrub, trees, and hedgerows, aiming to connect and extend commuting networks within the Proposed Development, which will improve habitat quality, extent and connectivity for commuting and foraging bats.

6.9.165 With regards to the Cable Route Corridor, as per the Design Commitments, the approximate 25 m wide working area will be microsited to avoid important bat commuting and foraging features such as ponds, woodlands and trees, and will utilise existing crossing in hedgerows and ditches where practicable, which will reduce impacts on commuting and foraging bats.

6.9.166 Furthermore, the habitat surveys completed for the Cable Route Corridor (Appendix 6.4: Bat Report V3 (ES Volume 3) [**EN0110012/APP/LVS/06.03.06.04**]) confirmed the majority of the corridor comprised arable fields, which provide sub-optimal commuting and foraging habitat for bats. Additionally, the works along the Cable Route Corridor will be small scale and temporary, with any vegetation removal reinstated within two years of the start of works. For these reasons, impacts to commuting and foraging bats along the Cable Route Corridor are anticipated to be very low.

6.9.167 Furthermore, where the cable route crosses the River Ouse, main rivers, IDB watercourses, and WER water body line watercourses, as well as ditches that lead to the following designated sites: Nightingale Wood SINC, Burr Closes SSSI, and Barber Rain SINC, trenchless techniques will be utilised. This will help avoid impacts to the river and further protect commuting and foraging bats.

6.9.168 However, some localised loss of hedgerows and treelines within the Order Limits Outside of the Solar Development Sites will be required to facilitate visibility splays, Highways Improvement Areas, and the approximate 25 m working area for the laying of the cable, totalling approximately 2 km of hedgerow and treeline removal. Removals for visibility splays and accesses are based on a worst-case scenario DMRB criteria using the maximum criteria or One Step Below criteria. It may be possible to reduce the lengths of hedges lost to visibility splay facilitation

in the final construction plan by using alternative acceptable criteria or by using banksmen to ensure vehicle ingress/egress safety where hedgerows might otherwise be lost.

6.9.169 Where hedgerows/treelines are removed within the Order Limits Outside of the Solar Development Sites, the 2 km of hedgerow will be reinstated as soon as possible after the completion of the works (and within 2 years of the start of the works) to maintain the habitat provision for commuting bats within the Order Limits. As such, the removal of hedgerows within the Order Limits Outside of the Solar Development Sites may temporarily reduce commuting and foraging habitat for bats, however this will be maintained in the long-term, and through additional 37.14 km of hedgerow planting within the Solar Development Sites, will increase habitat provision for commuting and foraging bats post development.

6.9.170 To ensure commuting and foraging bats are protected during the construction phase of Proposed Development, the oCEMP [**EN0110012/APP/LVS/07.02**] details measures and approaches to be adopted which will limit the likelihood of impacts upon retained habitats of importance for commuting and foraging bats, through damage, pollution and disturbance during the construction phase.

6.9.171 Artificial lighting at night can dissuade bat activity, impact the behaviour of invertebrate prey, and potentially fragment commuting routes for particularly light-averse species. No artificial lighting is considered likely to be required during construction outside of the winter months, however, during winter, artificial lighting may be required within the construction zone due to the short-day lengths. Embedded mitigation measures (as discussed in Section 6.8 above) include buffer zones from the most valuable foraging and commuting habitats, such as hedgerows, woodland and watercourses. Additionally, a sensitive lighting strategy will be implemented, as to be detailed in the CEMP, whereby all artificial lighting is designed and installed to limit light spill onto these habitats. As such, the likelihood of light spill onto key foraging and commuting habitats during construction is very low. Furthermore, as bats are in hibernation during the winter months, and only active occasionally for short periods, they are unlikely to be significantly affected by the use of artificial lighting during the winter. Therefore, should artificial lighting in winter be required, **no significant effects** are anticipated on commuting and foraging bats.

6.9.172 In light of the above, negligible adverse effects on foraging and commuting bats (local level) during the construction phase of the Proposed Development are anticipated, which is considered to be **not significant** in EIA terms.

6.9.173 The proposed retention of habitats importance to commuting and foraging bats within the Order Limits, and the creation of large areas of suitable foraging and commuting habitat for bats as part of the Proposed Development (for the lifetime of the Proposed Development), is considered to result in **significant beneficial** effects for commuting and foraging bats.

Roosting bats

6.9.174 The only feature that could support roosting bats within the Order Limits are trees. As detailed in the above discussion regarding habitats, trees will be retained and appropriately buffered where practicable. This will maintain key habitats for the roosting bats within the Order Limits.

6.9.175 To ensure roosting bats are protected during the construction phase of Proposed Development, the oCEMP [**EN0110012/APP/LVS/07.02**] details measures and approaches to be adopted which will limit the likelihood of impacts upon retained trees, through damage, pollution and disturbance during the construction phase.

6.9.176 Construction lighting, as discussed above, will also avoid illuminating trees within and adjacent to the Order Limits, to reduce potential impacts on roosting bats.

6.9.177 As detailed in the Arboriculture Impact Assessment (Appendix 16.2 (Volume 3) [**EN0110012/APP/LVS/06.03.16.02**]), 88 individual trees and two treelines are proposed for removal/pruning within the Order Limits as a worst-case assessment. This figure includes the 11 individual trees and two treelines added for removal/pruning as a result of the Change Application submitted during Examination.

6.9.178 This tree loss will be compensated for via the proposed planting of 523 native trees within the Solar Development Sites, which is shown on the OEM [**EN0110012/APP/LVS/02.12**], and will maintain future provision of potential roosting features within the Solar Development Sites.

6.9.179 A GLTA completed on these trees found 71 individual trees and two treelines were determined to have no potential suitability for roosting bats 'None', 10 trees were assessed as PRF-I, having suitability for individual/low numbers of bats, and two trees were assessed as PRF-M[7], having suitability for multiple bats. In addition, five trees were assessed as Further Assessment Required (FAR), outlining that further surveys are required to determine if there are any PRFs present within the tree, and the roosting potential of any PRFs present.

6.9.180 Appendix 16.2: Arboriculture Impact Assessment (ES Volume 3) [**EN0110012/APP/LVS/06.03.16.02**] has been completed as a worst-case scenario and as such in reality, tree loss may be less than currently anticipated. However, when assessing this worst-case scenario, the Proposed Development would result in the removal of two PRF-M trees, one FAR tree, and six PRF-I trees, as well as the pruning of four PRF-I trees and four FAR trees.

6.9.181 As the two PRF-M trees scheduled for potential removal were identified during the January 2026 GLTA (and were not added as a result of the Change Application during Examination), nocturnal emergence surveys were completed on the two PRF-M trees in 2026 (Tree 505 and Tree 1961) to confirm presence/likely absence of roosting bats. The nocturnal emergence surveys

[7] PRF-I, PRF-M and FAR described in further detail in Appendix 6.4: Bat Report V3 (ES Volume 3) **[EN0110012/APS/LVS/06.03.06.04]**

concluded that bats do not currently roost within Tree 1961 or Tree 505, and therefore no bats roosts will currently be affected by the removal of these trees.

6.9.182 However, due to length of time before the start of work, the presence of bat roosts within the two PRF-M trees may change prior to the construction phase of the Proposed Development. In addition, no emergence surveys have been completed on the 10 PRF-I trees or five FAR trees that may be removed/pruned to facilitate the Proposed Development (as per best practice guidance Ref 38-41). Should a bat be roosting within one of these trees at the time of the works, this may result in the accidental direct harm to individual roosting bats, should they be present within the 10 PRF-I, two PRF-M trees or five FAR trees. The accidental killing/injury of bats during the construction phase would result in a **significant adverse effect**. The characteristics of any potential roost in these trees cannot be known at this time and as such, the sensitivity and magnitude of the effect cannot be confirmed currently. However, as a worst-case scenario assessment (deemed very unlikely due to the current absence of bats roosts within the PRF-M trees, as four of the FAR trees only requiring pruning, and as the final FAR tree is assessed as FAR due to ivy coverage potentially obscuring PRFs, with no PRFs noted currently), should a maternity roosts of various species be damaged/destroyed in all PRF-M and FAR trees, this may result in up to a **significant adverse effect** at a local/county level.

Roosting bats - additional mitigation measures and residual effects

6.9.183 Updated surveys of the two PRF-M trees to be removed are required in the suitable season prior to the proposed tree removal to confirm if bats are still absent. If a roost is identified, a NE bat licence will be required before the tree can be felled.

6.9.184 The further bat surveys on the FAR trees will be undertaken in a suitable surveying season prior to the start of works to determine if there are any PRFs within the tree/the roosting suitability of any PRFs. Surveys will also be completed to confirm if bats currently roost within the PRFs identified. If a roost is identified and may be impacted by the proposed works, a NE bat licence will be required before the works can be completed on the tree.

6.9.185 Due to the size of the Solar Development Sites, the low number of trees to be surveyed, and the current absence of roosting bats within the PRF-M trees, it is anticipated that any required mitigation for the loss of bat roosts, even considering the worst-case scenario, could be easily accommodated within the Proposed Development, such as the installation of bat boxes.

6.9.186 With regards to the 10 PRF-I trees, these trees will be soft felled under the supervision of an ECoW to protect any individual bats that may be present with the trees, without the need for further survey or licence.

6.9.187 Following the implementation of the above additional avoidance and mitigation measures, it is considered that any potential adverse effects on roosting bats arising during the construction phase could be avoided or appropriately mitigated.

As a result, no residual effects are anticipated currently, which would be considered **not significant** in EIA terms.

6.9.188 Tree planting and bat box installation (for the lifetime of the Proposed Development) is considered to maintain habitat for roosting bats within the Order Limits.

Water vole

6.9.189 In summary, the majority of ditch survey points within the Order Limits were found to be unsuitable for water vole as they were highly managed drainage ditches or were found to be dry. Although some suitability for the species was present in places, and high value habitat for water vole is provided within the River Ouse and Selby Dam, which pass through the Cable Route Corridor and Solar Development Site 8 Access. In addition, five ditch survey points recorded evidence of water vole (D2.1 within Solar Development Site 2, D3.2 within Solar Development Site 3, D4.8b within Solar Development Site 4, D6.3c within Solar Development Site 6, and D9.16 within the Cable Route Corridor).

6.9.190 However, the only location where confirmed water vole field signs were recorded as well as a confirmed water vole burrow was within D2.1. The only other record of a burrow was within D9.16, where a probable water vole burrow and feeding remains were recorded. As such, water vole are known to be present within D2.1 and may be present in four other locations within the Order Limits, however this is not confirmed.

6.9.191 To ensure water vole are protected during the construction phase of Proposed Development, the oCEMP [**EN0110012/APP/LVS/07.02**] details measures and approaches to be adopted which will limit the likelihood of impacts upon retained habitats of importance for water vole, through damage, pollution and disturbance during the construction phase. The oCEMP [**EN0110012/APP/LVS/07.02**] also includes Precautionary Working Methods (PWMs) to protect water vole e.g. through infilling excavations/providing mammal ladders to reduce the likelihood of entrapment and appropriate use of watercourse crossings.

6.9.192 Construction fencing within the Proposed Development has been designed to let small mammals, such as water vole, pass through, and construction lighting will be controlled to limit impacts on surrounding habitats, including habitats of importance to water vole.

6.9.193 As detailed in the above discussion regarding on-site habitats, habitat features of importance for water vole, i.e. watercourses and ponds will be retained and appropriately buffered where practicable (50 m buffer proposed from the river Ouse and 10 m buffer proposed from all other watercourses). This will maintain key habitats which offer value for the species within the Solar Development Sites, with only discrete areas of loss e.g. for access, which will aim to use existing crossing points were possible to reduce impacts. The cable will also be microsited to pass through existing gaps in ditches, where practicable, which will reduce impacts on the species.

6.9.194 Any small areas of habitat loss will be compensated for via the proposed ditch enhancement, including grassland margin plating around ditches, within the Solar Development Sites. This will aim to connect and extend commuting networks within the Proposed Development, which will improve habitat quality, extent and connectivity for water vole.

6.9.195 As part of the Change Application submitted during examination, the existing culvert over Roe Lane Drain on the southern boundary of Site 4 may require widened during the construction period. The culvert would be returned to its current dimension following construction.

6.9.196 During the water vole surveys completed at the culvert over Roe Lane Drain (survey location D4.8a), the ditch was found to be dry, and therefore unsuitable for the species. However, a second crossing point was surveyed within the same ditch (survey location D4.8b) approximately 140 m west of the Roe Lane Drain culvert, at which point the ditch was found to hold water, with water vole feeding remains were recorded within the western survey area of D4.8b. The water vole feeding remains were located approximately 300 m west of the proposed location of the in-channel works at the existing culvert over Roe Lane Drain proposed in the Change Application.

6.9.197 Currently, as the in-channel works will be small-scale, temporary, completed within a dry section of ditch, with feeding remains recorded 300 m from the proposed works location, and no water vole burrows identified within the ditch, the proposed temporary widening of the existing culvert over Roe Lane Drain would have negligible impacts on water vole. The works will however be completed under PWMs for the species as a precautionary approach, as detailed in the oCEMP [**EN0110012/APP/LVS/07.02**].

6.9.198 However, any in channel works to enhance existing crossings or to create new crossing points at ditches D2.1 (Solar Development Site 2), and potentially within D3.2 (Solar Development Site 3), D4.8b (Solar Development Site 4), D6.3c (Solar Development Site 6), and D9.16 (or if D4.8a is found to hold water) (Figure 6.11: Water Vole Results V2 [**EN0110012/APS/LVS/06.02.06.11**]), in the absence of additional mitigation measures, may result in the accidental direct harm to individual water vole. The accidental killing / injury of water vole during the construction phase would likely result in a **significant adverse effect** at the local level. It is noted however that D2.1 is the only location where in channel works are currently proposed in a wet ditch.

6.9.199 Furthermore, due to the mobile nature of the species, water vole may move into an area at any time should the conditions be suitable. As detailed above, ditches containing water vole will be retained and buffer in the first instance. However, if this is not possible, the damage/disturbance of burrow or the accidental killing / injury of water vole would likely result in a **significant adverse effect**. As the location/characteristics/nature of impact of future water vole populations cannot be known at this time, the sensitivity and magnitude of the effect cannot be confirmed currently. However, as a worst-case scenario, due to the limited impact on watercourses within the Order Limits, and the low proportion of field signs

recorded during the surveys, a **significant adverse effect** at the local level would be likely.

6.9.200 High value habitat for water vole is also provided within the River Ouse and Selby Dam, which pass through the Cable Route Corridor. However, as these locations are designated as Avoidance Areas, where trenchless techniques will be used, the watercourse and their surrounding habitat will be retained through the Proposed Development such that there will be no direct impacts. Therefore, these watercourses, and other ditches within the Cable Route Corridor that will be crossed using trenchless techniques, were not surveyed for water vole at this stage as impacts to the species in these locations are anticipated to be reduced, as agreed with NYC (see Table 6-7). This being said, there may still be some limited effects on water vole as a result of disturbance either from the resulting vibration from the trenchless technique utilised, or the presence of the working area in proximity to the watercourse (with the entry and exit pit at least 50 m from the River Ouse and 10 m from all other watercourses). In the absence of additional mitigation measures, the potential disturbance of water vole during the construction phase of the Cable Route Corridor may result in a **temporary significant adverse effect** at a local level.

6.9.201 A section of Selby Dam also passes through Solar Development Site 8 Access, comprising high value habitat for water vole. If this access route is used, some in channel works may be required. However, no evidence of water vole was recorded during the survey at this location, so currently works in this area would not adversely impact water vole.

Water vole - construction phase additional mitigation measures and residual effects

6.9.202 A NE water vole licence should be in place before any proposed works within the 10 m buffer zone of D2.1 (Solar Development Site 2), and potentially D3.2 (Solar Development Site 3), D4.8b (Solar Development Site 4), D6.3c (Solar Development Site 6), and D9.16 (Cable Route Corridor) (or if D4.8a is found to hold water), to protect water voles known to be present within the ditches, assuming presence of water voles is confirmed prior to construction. It is noted however that D2.1 is the only location where in channel works are currently proposed. Due to the small extent of the works within D2.1, and limited anticipated impact on water vole, a Water Vole Displacement Class Licence (CL31) is deemed sufficient mitigation, as agreed with Natural England. A Draft Water Vole Mitigation Strategy has been submitted to Natural England for their agreement.

6.9.203 An updated suite of water vole surveys of the Order Limits (including all affected watercourses and ditches including seasonally wet ditches where works are proposed) will also be conducted in the suitable season (one survey April to June, one survey July to September) prior to the start of works. This will confirm the use of the ditch network by the species at that time, which may be impacted by disturbance or directly impacted through proposed de-vegetation / construction activities.

6.9.204 If water vole are found to be present in ditches where works are required, a NE licence would be procured which would include mitigation measures such that **no residual significant adverse effects** on water vole would be expected, which would be considered **not significant** in EIA terms.

6.9.205 Potential impacts from trenchless techniques will also be minimised through, where required, the supervision of works by an ECoW, and other Precautionary Working Methods, such as supervised displacement.

6.9.206 Following the implementation of the above additional avoidance and mitigation measures, it is considered that any potential adverse effects on water vole arising during the construction phase could be avoided or appropriately mitigated. As a result, no residual effects are anticipated currently, which would be considered **not significant** in EIA terms.

6.9.207 The proposed enhancement of ditches and surrounding grassland margins within the Solar Development Sites (for the lifetime of the Proposed Development) is considered to result in **significant beneficial effects** for water vole.

Amphibians

6.9.208 The vast majority of the habitats within the Order Limits are sub-optimal for amphibians, namely the cropland. As detailed in the above discussion within this section regarding habitats within the Order Limits, habitat features of importance for amphibians, i.e. watercourses, ponds, grassland, woodland, scrub, and hedgerows will largely be retained and appropriately buffered where practicable, with the complete retention of all ponds within the Order Limits. This will maintain key habitats which offer value for the species group within the Solar Development Sites, with only discrete areas of terrestrial habitat loss e.g. for access, which will aim to use existing access/crossing points were possible to reduce impacts.

6.9.209 Any habitat losses will however be more than compensated for via the proposed creation of large areas of grassland (including approximately 88 ha of grassland with scrapes in the south of Solar Development Site 1), 37.14 km of species rich hedgerow, as well as newly created areas of scrub and woodland. This habitat creation will aim to connect and extend commuting networks within the Proposed Development, which will improve habitat quality, extent and connectivity for amphibians.

6.9.210 To ensure amphibians are protected during the construction phase of Proposed Development, the oCEMP [**EN0110012/APP/LVS/07.02**] details measures and approaches to be adopted which will limit the likelihood of impacts upon retained habitats of importance for amphibians, through damage, pollution and disturbance during the construction phase.

6.9.211 Construction fencing within the Proposed Development will be designed to let amphibians pass through, and construction lighting will be controlled to limit impacts on surrounding habitats, including habitats of importance to amphibians, pursuant to the sensitive lighting strategy agreed via the CEMP.

6.9.212 The final cable and access locations within the Cable Route Corridor will also be microsited to pass through existing gaps in ditches / hedges, where practicable, which will reduce impacts on the species group.

6.9.213 In addition, trenchless technologies will be used to cross some ditches (and their surrounding margins) within the Cable Route Corridor that may provide suitable habitat for common amphibians. The final locations where trenchless technologies will be utilised for the entirety of the Cable Route Corridor will not be confirmed until the detailed design stage, however, the use of trenchless technologies for some locations has been committed to at this stage, known as Avoidance Areas, as shown in Figure 2.5 (ES Volume 2) [**EN0110012/APP/LVS/06.02.02.05**]. These include the River Ouse, main rivers, IDB watercourses, and WER water body line watercourses, as well as ditches that lead to the following designated sites: Nightingale Wood SINC, Burr Closes SSSI, and Barber Rain SINC (with the entry and exit pits located a minimum of 50 m from the bank top of the River Ouse, and 10 m from the bank top of all other watercourses). This will leave the watercourses and adjacent habitat unaffected by the works in these locations and further protect the species group.

6.9.214 Considering GCN and the Order Limits Outside of the Solar Development Sites, no ponds are located within the Order Limits Outside of the Solar Development Sites, however there are 29 ponds within 250 m of the Order Limits Outside of the Solar Development Sites. As the works to the Order Limits Outside of the Solar Development Sites will be temporary, on a small scale, largely extend over sub-optimal GCN habitat (cropland and hardstanding), and avoid all ponds and their 250 m buffers where practicable, no eDNA surveys were completed for ponds within 250 m of the Order Limits Outside of the Solar Development Sites. Instead, the limited impacts to GCN that may be experienced during the works within the Order Limits Outside of the Solar Development Sites will be suitably mitigated through the implementation of PWM for the species, and through pollution control methods, detailed within an oCEMP [**EN0110012/APP/LVS/07.02].** This approach was agreed with NYC (see Table 6-7).

6.9.215 The closest GCN record to the Order Limits was located within Scarrow Green Pond SINC where juveniles were observed in the pond in 2020. The Highways Improvements Areas overlaps approximately 3.5 m of Scarrow Green Pond, Little Skipwith SINC before joining Glade Road, with this 3.5 m comprising a hardstanding road. The SINC is designated for nutrient rich standing water, and the GCN record is associated with the pond forming the SINC, however the species is not listed as an official qualifying feature of the SINC.

6.9.216 The road adjacent to the pond forms part of the Highways Improvements Area and therefore, will only be used for construction traffic for a limited time during the construction phase of the Cable Route Corridor within this section. The embedded mitigation, discussed above to reduce water related pollution, will ensure there are **no significant adverse effects** as a result of water quality impacts during the construction phase of the Proposed Development on the habitats present within the SINC that support GCN.

6.9.217 Furthermore, as secured within the oCEMP **[EN0110012/APP/LVS/07.02]**, there will be no removal of habitat within the SINC (that may be used by GCN) to facilitate the development. Additionally, the habitats within the Highways Improvements Area that fall within the 250 m buffer zone surrounding the SINC (comprising the accepted upper dispersal limit for GCN) generally comprise habitats which are sub optimal for GCN, such as mowed modified grassland verges, arable fields, and hardstanding roads. There may be small areas of vegetation clearance required within these habitats, i.e. to create passing places or widen the road to accommodate HGVs. Where/if this is required, the works will be completed under PWMs for GCN, i.e. under the supervision of an ECoW, and following the completion of fingertip searching of the area. This will ensure that, in the small chance GCN are present within these sub optimal habitats forming the Highways Improvements Area in 250 m of the SINC, the species are protected for potential harm during the construction phase of the Proposed Development.

6.9.218 Considering GCN and the Solar Development Sites. Of the 46 ponds to be surveyed (five ponds in Solar Development Site 1 and 41 in 250 m of the Solar Development Sites), 10 ponds could not be accessed to complete the eDNA surveys in 2025 or 2026. As such it is unknown if GCN are present within these 10 ponds, and as a precautionary approach, presence of the species within these ponds is therefore assumed.

6.9.219 Of the 36 ponds successfully surveyed, 13 were dry or not present and therefore unsuitable for breeding GCN. In addition, 22 ponds received negative GCN eDNA survey results, and it can therefore be concluded that GCN are likely absent from these 22 ponds.

6.9.220 In addition, one pond, Pond 1.14, located approximately 50 m west of Site 1 was the only pond to return a positive eDNA result for GCN. The pond is located within an off-site woodland copse, separated from Site 1 by Skipwith Road. There are no other records of GCN located within 2 km of this pond. The area of Site 1 present within the 250 m buffer zone of Pond 1.14 comprises approximately 4.23 ha of arable field (sub optimal GCN habitat), 0.153 ha of arable field margin, and 105 m of ditch. The arable field margin and ditch within this area will be retained appropriately buffered and protected through development. The arable land will be replaced with neutral grassland margins and grassland beneath the solar panels post development. As such, while this pond returned a positive eDNA result, due to the suitable terrestrial habitat immediately surrounding the pond, and the partial dispersal barrier present between the pond and Site 1, any GCN present in Pond 1.14 would have little motivation to commute east into Site 1.

6.9.221 What is more, the majority of the 250 m pond buffer within Site 1 comprises cropland, which is a sub-optimal habitat for GCN, and would further strengthen the limited motivation for GCN to commute into Site 1. Additionally, all suitable habitat for the species within the 250 m pond buffer (0.153 ha of arable field margin and 105 m of ditch) will be retained, appropriately buffered and protected through development. This will mean in the unlikely event a GCN is present within

the 250 m pond buffer in Site 1, it is likely they would remain within the arable field margin or ditch buffer, which will remain unimpacted.

6.9.222 There are also no other ponds positive for GCN eDNA (from field survey results and data search) within 2 km of Pond 1.14, as such the GCN present in Pond 1.14 do not form part of a wider meta population which would be of greater importance.

6.9.223 Finally, post development proposals for the area of removed cropland within the 250 m pond buffer comprise the creation of neutral grassland margin planting and further grassland beneath the solar arrays. This provides habitat of greater importance to GCN in the 250 m pond buffer post development. For these reasons, even though Pond 1.14 is positive for GCN, GCN have little motivation to commute into Site 1 so their presence within Site 1 is unlikely, and in any case their preferred habitats will remain unimpacted, therefore reducing potential impacts on GCN in the unlikely event any are present.

6.9.224 With regards to the 10 ponds that could not be accessed, and as a precautionary approach, the presence of the species within these ponds has been assumed. Due to the characteristics of these ponds i.e. presence of potential dispersal barriers (railway lines, roads etc.), distance from the Order Limits (majority approximately ≥200 m from the Solar Development Sites), sub optimal GCN habitats where the Solar Development Sites overlap the 250 m ponds buffers (largely cropland, with suitable GCN habitat retained), and no other GCN records in 2 km of any of the 10 ponds, similar to Pond 1.14, GCN would have little motivation to commute from the ponds into the Solar Development Sites so their presence within the Solar Development Sites is unlikely. In addition, their preferred habitats within the 250 m pond buffers will remain largely unimpacted, therefore reducing potential impacts on any GCN in the unlikely event any are present.

6.9.225 That being said, potential GCN present within 250 m of Pond 1.14 and the 10 inaccessible ponds cannot be completely ruled out. Therefore, as a worst-case scenario assessment, initial habitat clearance / groundworks to be completed within the 250 m buffers of Pond 1.14 and the 10 inaccessible ponds may result in the accidental direct harm to individual amphibians (including GCN), should they be present within working area. In the absence of additional mitigation measures, the accidental killing/injury of amphibians (including great crested newts) during the construction phase may results in a **significant adverse effect** at local level.

Amphibians-construction phase additional mitigation measures and residual effects

6.9.226 In order to minimise the risk of accidental killing / injury of common amphibians during the construction phase, the oCEMP [**EN0110012/APP/LVS/07.02**] sets out the supervision and protective measures required during works affecting potentially suitable habitat for amphibians at field boundaries, for example where new hedgerow gaps for access or cabling are required. These will include

sympathetic, staged habitat clearance, and supervision by an ECoW where required.

6.9.227 With regards to GCN, as agreed with NYC, due to the low risk to GCN as a result of the proposed works within 250 m of Pond 1.14 and the 10 inaccessible ponds, the risk of accidental killing / injury of great crested newts can be appropriately managed through avoidance, Precautionary Working Methods and pre-commencement controls, without the need for formal licencing. These additional methods/controls are further detailed within the oCEMP [**EN0110012/APP/LVS/07.02**]. These include the stop work procedure should a GCN be found at any time during the works.

6.9.228 Following the implementation of the above additional mitigation measures, it is considered that any potential adverse effects on amphibians arising during the construction phase could be avoided. As a result, no residual effects are anticipated, which would be considered **not significant** in EIA terms.

6.9.229 The proposed creation of habitats of importance to amphibians, i.e. the creation of large areas of grassland (including approximately 88 ha of grassland with scrapes in the south of Solar Development Site 1), 37.14 km of species rich hedgerow, as well as newly created areas of scrub and woodland, and the improvement of aquatic and terrestrial habitat due to the cessation of detrimental framing practices (for the lifetime of the Proposed Development), is considered to result in **significant beneficial effects** for amphibians.

Reptiles

6.9.230 The vast majority of the habitat within the Order Limits are sub-optimal habitat for reptiles, namely the cropland. As detailed in the above discussion regarding on-site habitats, habitat features of importance for reptiles, i.e. watercourses, ponds and grassland will be retained and appropriately buffered where practicable (10 m buffer proposed from the bank top for all watercourses). This will maintain key habitats which offer value for the species group within the Order Limits, with only discrete areas of loss e.g. for access, which will aim to use existing crossing points were possible to reduce impacts.

6.9.231 Any habitat losses will be more than compensated for via the proposed creation of large areas of grassland (including approximately 88 ha of wet grassland with scrapes in the south of Solar Development Site 1), as well as enhancements to existing ditches. This habitat enhancement/creation will aim to connect and extend commuting networks within the Proposed Development, which will improve habitat quality, extent and connectivity for reptiles.

6.9.232 The final cable location within the Cable Route Corridor will also be microsited to pass through existing gaps in ditches, where practicable, which will reduce impacts on the species group.

6.9.233 In addition, trenchless technologies will be used to cross some ditches (and their surrounding margins) within the Cable Route Corridor. The final locations where trenchless technologies will be utilised for the entirety of the Cable Route Corridor

will not be confirmed until the detailed design stage, however, the use of trenchless technologies for some locations has been committed to at this stage, known as Avoidance Areas, as shown in Figure 3.1 (ES Volume 2) [**EN0110012/APP/LVS/06.02.02.04**]. These include the River Ouse, main rivers, IDB watercourses, and WER water body line watercourses, as well as ditches that lead to the following designated sites: Nightingale Wood SINC, Burr Closes SSSI, and Barber Rain SINC (with the entry and exit pits located a minimum of 50 m from the bank top of the River Ouse, and 10 m from the bank top of all other watercourses). This will leave the watercourses and adjacent habitat unaffected by the works in these locations and further protect the species group.

6.9.234 To ensure reptiles are protected during the construction phase of Proposed Development, the oCEMP [**EN0110012/APP/LVS/07.02**] details measures and approaches to be adopted which will limit the likelihood of impacts upon retained habitats of importance for reptiles, through damage, pollution and disturbance during the construction phase.

6.9.235 Construction fencing within the Proposed Development will be designed to let reptiles pass through where practicable, and construction lighting will be controlled to limit impacts on surrounding habitats, including habitats of importance to reptiles.

6.9.236 Although assumed to be unlikely as the vast majority of the developable area is sub-optimal for reptiles, initial habitat clearance/groundworks associated with the construction phase within the Solar Development Sites, as well as any works to watercourses and their margins within the Order Limits Outside of the Solar Development Sites, may result in the accidental direct harm to individual reptiles, should they be present within working areas. In the absence of additional mitigation measures, the accidental killing / injury of reptiles during the construction phase may results in an **adverse effect** at a local level.

Reptiles-construction phase additional mitigation measures and residual effects

6.9.237 In order to minimise the risk of accidental killing/injury of reptiles during the construction phase, the oCEMP [**EN0110012/APP/LVS/07.02**] sets out the supervision and protective measures required during works affecting potentially suitable habitat for reptiles, for example where open span ditch crossing are utilised within the Cable Route Corridor. These will include sympathetic, staged habitat clearance and timing, under the supervision of an ECoW where necessary. As legislation protects the reptiles themselves not their habitats, these measures will ensure compliance.

6.9.238 Following the implementation of the above additional mitigation measures, it is considered that any potential adverse effects on reptiles arising during the construction phase could be avoided. As a result, no residual effects are anticipated, which would be considered **not significant** in EIA terms.

6.9.239 The proposed creation of large areas of grassland (including approximately 88 ha of wet grassland with scrapes in the south of Solar Development Site 1), as

well as enhancements to existing ditches (for the lifetime of the Proposed Development), is considered likely to result in **significant beneficial effects** for reptiles.

Brown hare

6.9.240 As detailed in the above discussion within this section regarding habitats within he Order Limits, habitat features of importance for brown hares, i.e. arable field margins, neutral grassland and woodland edges will be retained and appropriately buffered where practicable. This will maintain key habitats which offer value for the species within the Order Limits.

6.9.241 Brown hare will however utilise the cropland habitat and as such, there will be a temporary reduction in the extent of suitable habitat for the species due to the loss of the arable habitats, until new habitats establish. Hares are however highly mobile and the temporary loss of habitats during construction is anticipated to be similar in effect (i.e. causing disturbance or temporary displacement to hares) to the regular agricultural activities of harvesting, sowing, harrowing and rolling that take place across much of the Proposed Development at present. It is considered that the Proposed Development would become more suitable for brown hares immediately once works in a particular area are completed. As a result, **no significant effects** arising from the loss of habitat or displacement/disturbance during the construction phase are anticipated.

6.9.242 Any habitat losses will be compensated for via the proposed creation of grassland, woodland and hedgerow habitat within the Solar Development Sites. This habitat creation will aim to connect and extend commuting networks within the Proposed Development, which will improve habitat quality, extent and connectivity for brown hares.

6.9.243 The final cable location within the Cable Route Corridor will also be microsited to pass through existing gaps in hedges, where practicable, which will reduce impacts on the species group.

6.9.244 To ensure brown hare are protected during the construction phase of Proposed Development, the oCEMP [**EN0110012/APP/LVS/07.02**] details measures and approaches to be adopted which will limit the likelihood of impacts upon retained habitats of importance for brown hare, through damage, pollution and disturbance during the construction phase. The oCEMP [**EN0110012/APP/LVS/07.02**] also includes PWMs to protect brown hare e.g. though infilling of excavations / providing mammal ladders to reduce the likelihood of entrapment.

6.9.245 Construction fencing within the Proposed Development has been designed to let brown hare pass through where practicable, and construction lighting will be controlled to limit impacts on surrounding habitats, including habitats of importance to brown hares.

6.9.246 However, on a precautionary basis as programme of cropland clearance is not yet known, initial habitat clearance/groundworks associated with the construction phase may result in the accidental direct harm to individual leverets (brown hare

young) that are raised in scrapes (shallow indentations in the middle/edges of fields). Hares breed between January and August and during these periods, the potential for impacts upon hares may be slightly greater than at other times of year. Therefore, on a precautionary basis, in the absence of additional mitigation measures, the killing/injury of individual brown hares during the construction phase may result in **adverse effect** at a local level.

Brown hare-construction phase additional mitigation measures and residual effects

6.9.247 In order to minimise the risk of accidental killing/injury of brown hare. The oCEMP [**EN0110012/APP/LVS/07.02**] details how a 15-mph speed limit for surfaced tracks, and a 10-mph speed limit for unsurfaced tracks, will be applied across the construction sites, as well as how the existing arable habitats will be cleared or left fallow prior to construction. It also details that, as part of their induction, construction staff will be informed of the potential presence of protected species, including hare, as well as the need to temporarily cease works and implement an exclusion zone in the unlikely event that dependent leverets are discovered within a working area. A pre commencement check for leverets by an ECoW may also be required if certain areas of habitat are cleared during brown hare breeding season.

6.9.248 Following the implementation of the above additional mitigation measures, it is considered that any potential adverse effects on brown hare arising during the construction phase could be avoided. As a result, no residual effects are anticipated, which would be considered **not significant** in EIA terms.

Hedgehog

6.9.249 As detailed in the above discussion within this section regarding habitats within the Order Limits, habitat features of importance for hedgehog, i.e. hedgerows, woodland, scrub and grassland will be retained and appropriately buffered where practicable. This will maintain key habitats which offer value for the species within the Order Limits, with only discrete areas of loss e.g. for access, which will aim to use existing access points were possible to reduce impacts.

6.9.250 Any habitat losses will however be more than compensated for via the proposed grassland, woodland, scrub and hedgerow creation. This habitat enhancement/creation will connect and extend commuting networks within the Proposed Development, which will improve habitat quality, extent and connectivity for hedgehog.

6.9.251 The final cable location within the Cable Route Corridor will also be microsited to pass through existing gaps in hedgerows, where practicable, which will reduce impacts on the species.

6.9.252 To ensure hedgehog are protected during the construction phase of Proposed Development, the oCEMP [**EN0110012/APP/LVS/07.02**] details measures and approaches to be adopted which will limit the likelihood of impacts upon retained habitats of importance for hedgehog, through damage, pollution and disturbance

during the construction phase. The oCEMP [**EN0110012/APP/LVS/07.02**] also includes PWMs to protect hedgehog e.g. though infilling of excavations, inclusion of mammal ladders and maintaining important commuting routes.

6.9.253 Construction fencing within the Proposed Development has been designed to let small mammals such as hedgehog pass through where practicable, and construction lighting will be controlled to limit impacts on surrounding habitats, including habitats of importance to hedgehog.

6.9.254 In light of the above, negligible effects on hedgehog (local level) during the construction phase of the Proposed Development are anticipated, which is considered to be **not significant** in EIA terms.

6.9.255 The proposed creation of grassland, woodland, scrub and hedgerow habitats of importance to hedgehog (for the lifetime of the Proposed Development), is considered likely to result in **significant beneficial effects** for hedgehog.

Fish

6.9.256 Based on the findings of the fish habitat assessment, the majority of watercourses within the Solar Development Sites and within the Cable Route Corridor were assessed as unlikely to support fish species of conservation value. This was later confirmed by eDNA results, with only minor fish species; three-spined and nine-spined stickleback recorded at representative eDNA survey locations within the Cable Route Corridor. However, the River Ouse and Selby Dam were identified as exceptions to this.

6.9.257 The River Ouse, in the vicinity of the Proposed Development, is a known migration route for European eel, sea-going salmonids (Atlantic salmon and sea trout) and sea-going lamprey species (river lamprey and sea lamprey). Marginal silts may also support larval (ammocoete) stage lamprey species. This includes both adult lamprey and salmonids returning from the marine environment to spawn in the upper catchment, and seaward migrating salmonid smolts and lamprey transformers. This migratory activity has been confirmed through Environment Agency monitoring data, which recorded lamprey species and Atlantic salmon upstream at Naburn Weir (15.7 km upstream). The reach within the Cable Route Corridor is likely used by these species as a passage/migration corridor to more suitable upstream spawning and nursery habitats.

6.9.258 Selby Dam is considered to support a common coarse fish assemblage and European eel. The watercourse is considered suboptimal for salmonid and lamprey species and based on desk study data they are considered absent.

6.9.259 Species of conservation value and the common coarse fish assemblage utilising habitats within the Cable Route Corridor at the River Ouse and Selby Dam, may be subject to temporary disturbance during construction. This may affect species using habitats in the vicinity of the Cable Route Corridor, or migratory species moving through the Cable Route Corridor.

Disturbance through noise and vibration

6.9.260 While the use of trenchless technologies beneath the River Ouse and Selby Dam is specifically designed to avoid direct in-channel works, thereby substantially reducing the risk of physical habitat disruption, the procedure may still generate localised noise and vibration, particularly around entry and exit pits, which could affect fish species during critical life stages such as larval (juvenile) stages and migration. This effect would be temporary and localised and reduced further by avoiding the use of trenchless technologies during the core migratory periods.

6.9.261 Adult river lamprey typically move out of estuaries into freshwater from October to December to travel upstream to spawning grounds (Ref 52). Upstream and downstream migration of river lamprey occurs at night under cover of darkness and at high tide.

6.9.262 Adult sea lamprey typically move out of estuaries into freshwater from April and May to travel upstream to spawning grounds. Young adults also migrate the opposite direction from freshwater into the estuary during the autumn/winter (Ref 52).

6.9.263 The core period for Atlantic salmon and sea trout migration from the estuaries into freshwater is late autumn into early winter, the time of spawning in gravel beds higher up in the catchment ranges from November to February. Salmonid smolts migrating downstream and back to sea do so between April and June. Downstream migration within the river is predominantly nocturnal and is often triggered by increases in flow (Ref 50).

6.9.264 Whilst European eel are considered likely to be present in the vicinity of the Proposed Development throughout the year, core migrations occur in spring (when juvenile eels migrate upstream from the estuary into freshwater) and in autumn (where sexually mature adults migrate downstream to return to spawning grounds in the Sargasso Sea).

6.9.265 In the absence of suitable mitigation, the trenchless technologies use to cross the River Ouse and Selby Dam could impact migrating fish of conservation value, by disturbing migrating individuals during the periods set out above, or individuals using habitats adjacent to the Proposed Development. Delayed or disturbed spawning migration could affect recruitment, which could affect the populations of lamprey and their distribution within the River Ouse catchment.

6.9.266 Atlantic salmon and European eel are categorised as fish with ‘medium’ hearing sensitivity (Ref 61). While they possess a swim bladder, it is not acoustically connected to the inner ear and therefore does not enhance sound detection. While they are susceptible to barotrauma, their hearing only involves particle motion and not sound pressure. While salmon are generally less sensitive to underwater noise compared to species with specialised hearing structures (i.e. herring (*Clupea harengus*)), they can be susceptible to intense impulsive sounds such as pile driving, which may trigger avoidance behaviour or short-term disturbance during migration. Similarly, European eel may exhibit avoidance responses to high-intensity impulsive noise, but overall, their susceptibility to

underwater noise is considered low, with potential effects confined to individuals in close proximity.

6.9.267 In contrast, the sensitivity of lamprey to noise and vibration is inherently limited. Lamprey are categorised as low hearing sensitivity fish (Ref 61). They lack specialist hearing structures such as a swim bladder or other anatomical adaptations that amplify sound signals, and their auditory system is relatively simple. They are generally considered sensitive only to particle motion within a narrow frequency band, with some research indicating exclusive sensitivity to particle motion (Ref 61).

6.9.268 Fish sensitivity to noise and vibration is relevant when considering potential effects from trenchless technologies, as the degree to which vibration transfers into the aquatic environment determine whether particle motion levels in water could be detectable to fish species. For trenchless technologies, vibration transmitted into water (via the ground) is considered to be low compared to high impact underwater activities such as pilling or blasting. Sound does not propagate efficiently from ground into water. When a wavefront encounters a boundary between different geological media (e.g. rock/soil interface or the water table), part of the energy is transmitted, part reflected, and part refracted, with dissipation dependent on the density and stiffness of the material. A similar process occurs when vibration reaches the interface between solid ground and water; however, shear waves cannot travel through liquids, so only compressional wave energy enters the water. Due to the large difference in stiffness and density between water and solid ground, most of the incident energy is reflected or refracted, meaning vibration levels transmitted into the water column are substantially lower than into the ground. As a result, only a limited proportion of trenchless technology-related vibration will transfer into the water column.

6.9.269 Based on the above, it is considered unlikely for trenchless technologies to result in any material substrate vibration or associated noise in the water column that would result in behavioural or physical impacts to fish species given the large volumes of substrate between the trenchless technology pits and the river (a minimum setback distance of 50 m from the River Ouse, 10 m from Selby Dam, and a minimum depth of 5 m below the bed level). The drilling activity will be temporary and short-term, with the drilling process at this location typically completed within 1-2 days. Taken together, the limited auditory sensitivity of notable fish species present, and the attenuation of vibration across the river corridor indicate that trenchless technologies are unlikely to generate underwater noise or vibration at levels that could cause physical injury or significant behavioural disruption.

6.9.270 Although noise and vibration disturbance is predicted to be minimal, a precautionary avoidance period should be observed for Atlantic salmon, brown trout and lamprey species. For river lamprey, peak avoidance periods for migration are between October and March. For sea lamprey, peak avoidance periods for migration are between April and May. For Atlantic salmon/brown trout, peak avoidance periods for migration are between October and February, noting that spawning/incubation habitat is absent. The timing of avoidance periods

should be agreed in consultation with the EA. However, it is assumed that the core spring migrations (i.e. downstream movement of salmon smolts and upstream migration of sea lamprey) and the core winter spawning migration (upstream migration of salmonids and river lamprey) will be avoided unless otherwise agreed by the EA.

6.9.271 As set out in the oCEMP [**EN0110012/APP/LVS/07.02**], construction of the Cable Route Corridor beneath the River Ouse will also be limited to the breeding and passage season for ornithological receptors (April – October).

6.9.272 It is expected that following the application of embedded mitigation, fish species will experience a minor adverse effect of low magnitude, at most, arising from the Proposed Development construction. Impacts are therefore currently considered to be **not significant** in EIA terms.

Physical Habitat Disturbance

6.9.273 A potential requirement has been identified for the installation of a temporary culvert on Habholme Dyke and the potential replacement of the existing culvert on Selby Dam to facilitate access to Solar Development Site 8, with Selby Dam recognised as supporting a common coarse fish assemblage and European eel. Although this requirement is not yet confirmed, any proposed culvert installation, replacement, or temporary bridging at these watercourses has the potential to result in short-term construction-phase impacts on fish species present, both of which were identified as present or likely present within Selby Dam and its associated tributaries during the baseline habitat surveys and supporting desk study.

6.9.274 Potential impact pathways include temporary obstruction to upstream and downstream fish movement during in channel activities, the risk of stranding or entrainment if water levels require temporary drawdown or diversion, and localised increases in suspended sediment and bed disturbance that could reduce water quality and habitat suitability within downstream reaches. The magnitude and spatial extent of these effects are expected to be small and confined to the immediate working area due to the limited footprint of the works and the short duration of any temporary crossing, which is anticipated to remain in place for less than six months.

6.9.275 Culvert replacement on Selby Dam (if required) will proceed using staged construction to maintain channel connectivity wherever practicable, which may be achieved by half width working or by providing a temporary flume or bridge unit that retains continuous downstream passage. Flow management will be implemented to minimise the need for full dewatering, and any abstractions or returns will be screened to prevent entrainment of fish.

6.9.276 Prior to any dewatering, fish will be captured and translocated under licence where required, with releases made to suitable receptor habitats under the direction of an aquatic Ecological Clerk of Works. The timing of the works will be agreed with the EA to avoid key periods for European eel and to avoid coarse fish spawning and emergence windows.

6.9.277 Embedded mitigation will include standard environmental pollution measures (as listed in the oCEMP [**EN0110012/APP/LVS/07.02**]). Measures will be put in place to control sediment and prevent pollution, which will include the use of silt curtains or barrier mats where safe and effective, the settlement and filtration of any abstracted water prior to return, the provision of spill response kits at working areas, the restriction of refuelling and plant maintenance to designated containment areas, and the secure storage of chemicals and fuels away from the water's edge. Bed and bank habitats will be protected and reinstated so that naturalistic bed material is reintroduced through the culvert barrel, roughness elements provide low velocity margins, and bank tie ins prevent scour or perching at the inlet and outlet.

6.9.278 An aquatic Ecological Clerk of Works will be present on site to oversee compliance with the method statements, to undertake environmental monitoring, and to adjust mitigation in response to site conditions where necessary. The construction programme will be kept as short as practicable, with clearly defined working windows and contingency plans to demobilise during high flow events in order to prevent uncontrolled sediment release or fish stranding.

6.9.279 Passage for fish will be maintained through suitable watercourse crossing design. The design of watercourse crossings will facilitate the free movement of fish under a variety of flow conditions and aim to maintain or enhanced aquatic habitats and the fluvial geomorphological processes that control habitat distribution and quality.

6.9.280 With the application of embedded mitigation for culvert replacement works on Selby Dam, the likelihood of significant adverse effects on European eel and coarse fish is considered low. On this basis, the construction phase impact significance is assessed as minor adverse and **not significant**, reducing to neutral during the operational phase provided that replacement or new culvert structures maintain suitable low flow depth, low velocity pathways, and appropriate bed and substrate conditions to support unimpeded fish movement and habitat function.

Changes in water quality

6.9.281 There is an increased risk of pollution entering the River Ouse and Selby Dam during construction, particularly from accidental release of drilling fluids (e.g. bentonite), surface runoff, or mobilisation of sediments. In the absence of mitigation, such pollution could degrade water quality, smother juvenile habitats, or interfere with olfactory cues essential for fish navigation and spawning. In the absence of mitigation, indirect effects such as silt liberation, sediment transfer, and pollution could result in injury or mortality to fish species through gill clogging, behavioural disruption, or spawning failure.

6.9.282 Trenchless technologies (in the absence of mitigation) could result in frac-out of bentonite drilling fluid into the River Ouse and Selby Dam. A frac-out is an unintentional release of drilling fluids to the surface that is possible during the use of trenchless technologies. This occurs when the pressure of the drilling fluid

exceeds the surrounding ground pressure, causing the fluid to escape through cracks or weak points in the ground, this can cause sedimentation, chemical contamination and physical disruption. This in turn could affect migration, juvenile habitat areas or prey availability for fish species.

6.9.283 Embedded mitigation will include standard environmental pollution measures (to be provided in the oCEMP [**EN0110012/APP/LVS/07.02**]) and as per the Design Commitments, a 10 m buffer will be provided from bank top for all watercourses. Silt fencing will be used strategically (i.e. within overland flow paths) where required to minimise sediment pollution to watercourses.

6.9.284 Any works relating to trenchless technologies will be undertaken in line with a Method Statement. This commitment is secured via the oCEMP [**EN0110012/APP/LVS/07.02**]. Strict adherence to the Method Statement will be required when utilising trenchless technologies with any changes requiring approval from the Contractors Project Manager and documented risk assessments. The Method Statement will cover project details, equipment setup, drilling procedures, and the handling of drilling fluids, emphasising adherence to safety measures and risk assessments. The document will also include details on emergency response procedures, environmental protection strategies, and the use of personal protective equipment. It will also stress the importance of training, supervision, and communication among all personnel involved to ensure the successful and safe completion of the works.

6.9.285 A frac-out contingency plan will be implemented as a mitigation measure which will include measures to prevent, contain and control the risk of frac-out including clean-up procedures, as secured through the oCEMP [**EN0110012/APP/LVS/07.02**].

6.9.286 As per Chapter 15: Water Resources and Flood Risk **[EN0110012/APP/LVS/06.01.15]**, long term monitoring of the Proposed Development will be undertaken to ensure effective monitoring of water receptors close to key infrastructure or construction works. This will include the monitoring of both surface-water and groundwater receptors in proximity to these works. The specific receptors requiring monitoring will be identified at the final detailed design stage once the design is complete, with monitoring requirements implemented as set out in the oCEMP **[EN0110012/APP/LVS/07.02]**, where necessary.

6.9.287 It is expected that following the application of embedded mitigation, fish species will experience a minor adverse effect of low magnitude, at most, arising from the construction of the Proposed Development. Impacts are therefore currently considered to be **not significant** in EIA terms.

White-clawed crayfish

6.9.288 White-clawed crayfish are considered likely absent from watercourses within the Order Limits. On the basis that embedded mitigation will be fully adopted and protect white-clawed crayfish should they be present (unlikely based on desk study and eDNA results), impacts will be negligible and therefore **not significant**.

Invertebrates

6.9.289 With regard to terrestrial invertebrates, the hedgerows, mature trees, woodland edges, neutral grassland and arable field margins were comparatively of higher importance to invertebrates than the cultivated cropland, which is largely of negligible importance. However, as these habitats are either limited in extent, or currently subject to degradation from agricultural activities, such as dust deposition/ runoff and spray drift from herbicide and pesticide applications, the presence of a notable assemblage of invertebrates within the Solar Development Sites is considered unlikely.

6.9.290 As per the Design Commitments, habitat features of importance for terrestrial invertebrates will be retained and appropriately buffered where practicable. This will help to maintain key habitats which offer value for invertebrates within the Solar Development Sites. As the solar panels will largely extend across habitat of negligible importance to invertebrates (namely cropland), and as it is unlikely there will be a notable assemblage of invertebrates present, it is anticipated that any effects on terrestrial invertebrates during the construction phase of the Proposed Development will be **not significant** in EIA terms.

6.9.291 Any habitat losses will be more than compensated for via the proposed creation of grassland (including 88 ha of wet grassland and scrapes in the south of Solar Development Site 1), woodland, trees, scrub and hedgerows. The habitat creation will aim to connect and extend green corridors within the Proposed Development, which will improve habitat quality, extent and connectivity for invertebrates.

6.9.292 The final cable location within the Cable Route Corridor will also be microsited to pass through existing gaps in ditches/hedges, where practicable, which will reduce impacts on terrestrial invertebrates.

6.9.293 The oCEMP [**EN0110012/APP/LVS/07.02**] also details measures and approaches to be adopted which will limit the likelihood of impacts upon retained habitats of importance for terrestrial invertebrates, through damage, pollution and disturbance during the construction phase.

6.9.294 The creation of additional habitats of importance to terrestrial invertebrates and the cessation of the use of pesticides for agricultural practices (for the lifetime of the Proposed Development), is considered likely to result in **significant beneficial effects** for invertebrates.

6.9.295 With regard to aquatic invertebrates, watercourses and ditches were comparatively of higher importance than the cultivated cropland, which is largely of negligible importance. However, as these habitats are either limited in extent, or subject to degradation from agricultural activities, such as dust deposition/ runoff and spray drift from herbicide and pesticide applications, the presence of a notable assemblage of aquatic invertebrates within the Order Limits is considered unlikely.

6.9.296 As per the Design Commitments, habitat features of importance for aquatic invertebrates will be retained and appropriately buffered where practicable. This

will help to maintain key habitats which offer value for aquatic invertebrates within the Order Limits.

6.9.297 As per the Design Commitments, a 10 m buffer will be provided from bank top for all watercourses where practicable. Silt fencing will also be used strategically (i.e. within overland flow paths) where required to minimise sediment pollution to watercourses. In addition, the cable route will be sited to pass through existing gaps in ditches where practicable to reduce impacts, and the use of trenchless techniques will help avoid impacts to watercourses and adjacent habitat, further protecting the species group. Trenchless techniques are proposed for the River Ouse, main rivers, IDB watercourses, and WER water body line watercourses, as well as ditches that lead to the following designated sites: Nightingale Wood SINC, Burr Closes SSSI, and Barber Rain SINC (with the entry and exit pits located a minimum of 50 m from the bank top of the River Ouse, and 10 m from the bank top of all other watercourses).

6.9.298 In light of the above, negligible effects on aquatic and terrestrial invertebrates (local level) during the construction phase of the Proposed Development are anticipated, which is considered to be **not significant** in EIA terms.

Operational phase impacts

6.9.299 Impacts during the operation of the Proposed Development are anticipated to be restricted to maintenance activities, which will be of low frequency and require a low number of people/vehicles entering the Solar Development Sites. The only time maintenance activity would increase within the Solar Development Sites would be during the replacement works as set out within section 2.8 of Chapter 2: The Proposed Development (ES Volume 1) [**EN0110012/AP/LVS/06.01.02**]. The effects during this replacement are not anticipated to be any worse, or would be less than, the predicted impacts during construction, pursuant to measures included in the oOEMP **[EN0110012/APP/LVS/07.03]**.

6.9.300 As the cable within the Cable Route Corridor will be laid underground, there are no anticipated operational phase impacts as any required maintenance, while very unlikely, will only be on a small and temporary scale.

Designated sites

6.9.301 With regards to terrestrial ecology, in light of the above, as well as the distance between a number of the designated sites and the Proposed Development, and as there will be no increased visitor pressure at the designated site due to the type of development (non-residential), negligible effects on the terrestrial qualifying habitats and species of the designated sites (county to international level) during the operational phase of the Proposed Development are anticipated, which is considered to be **not significant** in EIA terms.

6.9.302 With regards to aquatic ecology, the Proposed Development is located upstream of the confluence between the River Derwent and the River Ouse (Derwent-Ouse confluence is located downstream of the Proposed Development at NGR: SE 68057 28561). While lamprey found within the River Ouse may be part of the same meta-population as those found in the River Derwent, lamprey migrating towards the River Derwent SAC would not pass through, nor be influenced by, the stretch of the River Ouse affected by the Proposed Development. Consequently, there is no direct hydrological or ecological pathway by which lamprey populations utilising the River Derwent SAC could be affected by operational phase impacts, including EMF related effects.

6.9.303 It is expected that there the River Derwent SAC (International level) would experience a negligible adverse impact with regards to aquatic species, which does not require mitigation and would be considered **not significant** in EIA terms.

6.9.304 With regards to the Humber Estuary SAC, there is potential for EMF associated with cables crossing watercourses to disturb fish species that are qualifying features of the statutory protected site during operation. The full assessment is included within the Shadow HRA Report [**EN0110012/APP/LVS/05.11**] and Paragraph 6.9.347 to 6.9.352 for lamprey species.

6.9.305 Following the implementation mitigation (burying the cable at a minimum distance of 5 m below the bed level), it is considered that any potential adverse effects on

lamprey during operation would be expected to be negligible and **not significant** in EIA terms.

Habitats

6.9.306 Embedded mitigation measures (as included in Section 6.8 above), detailed in the oLEMP [**EN0110012/APP/LVS/07.05**], will ensure that the degradation of retained and proposed habitats as a result of maintenance activities over the operational phase of the Proposed Development is avoided.

6.9.307 The oLEMP [**EN0110012/APP/LVS/07.05**] also details how the proposed grassland beneath the solar panels is managed, which is considerate of ecology, and will either be managed via low density grazing or through traditional mowing regimes to encourage species diversity in the sward. Use of machinery for mowing is considered to be the worst-case management scenario and is therefore used as the basis for this assessment.

6.9.308 The end of the current farming practices within the Solar Development Sites, such as the application of fertilisers or pesticides and machinery use, may also further benefit any retained woodland, scattered trees, ponds, hedgerows/treelines and watercourses as detrimental farming practices will no longer be undertaken in proximity to the habitat for the duration of the Proposed Development.

6.9.309 In light of the above, negligible effects on the extent or quality of retained/proposed habitats (local to county level) during the operational phase of the Proposed Development are anticipated, which is considered to be **not significant** in EIA terms.

Species

Terrestrial species

6.9.310 As discussed in Section 6.8 above, embedded mitigation measures, detailed in the oLEMP [**EN0110012/APP/LVS/07.05**], will ensure that the degradation of habitats of importance to protected species as a result of maintenance activities over the operational phase of the Proposed Development are avoided.

6.9.311 Furthermore, any large-scale replacement activities would be undertaken pursuant to measures included in the oOEMP [**EN0110012/APP/LVS/07.03**], such as:

1) An ecological walkover to identify any new constraints.
2) Updated protected species surveys of the appropriate part of the relevant Solar Development Site(s) prior to any large-scale replacement activities to understand the current location of protected fauna.
3) The completion of a pre replacement otter survey to be conducted at least three months prior to any large-scale replacement activities. The surveys will be targeted to the area of potential impact (plus any suitable buffers around the area of impact) and be assessed at the time as to the need for

survey. For example, it may be deemed that the works in a certain area will not risk disturbing otter and therefore not require a survey.

4) The completion of two pre replacement badger surveys, the first at least three months prior to the start of to any large-scale replacement activities, and the second at least one months prior to the start of any large-scale replacement activities. The surveys will be targeted to the area of potential impact (plus any suitable buffers around the area of impact).

5) A pre replacement check for leverets by an ECoW which may be required if certain areas of habitat are impacted during brown hare breeding season.

6) An avoidance period should be observed for Atlantic salmon, brown trout and lamprey species if replacement works are required within the section of the Cable Route Corridor situated within the River Ouse. It is assumed that the core spring migrations (i.e. downstream movement of salmon smolts and upstream migration of sea lamprey) and the core winter spawning migration (upstream migration of salmonids and river lamprey) will be avoided unless otherwise agreed by the EA.

6.9.312 In addition, as per the Design Parameters and Commitments Document [**EN0110012/APP/LVS/05.06**] the Proposed Development has incorporated numerous green corridors through the centre of the Solar Development Sites and surrounding existing linear features, such as ditches and hedgerows, as shown on the oEM [**EN0110012/APP/LVS/02.12**]. This will allow continued and enhanced opportunities for species / species groups such as otter, badger, water vole, amphibians, reptiles, brown hare, hedgehog, invertebrates, and bats to commute through the Solar Development Sites. The proposed habitat enhancement/creation (i.e. grassland, woodland, scrub, trees, hedgerows and ditches) will be protected and secured for the lifespan of the Proposed Development via the oLEMP [**EN0110012/APP/LVS/07.05**].

6.9.313 A series of features such as hibernacula/log piles, hedgehog houses, insect houses, and bat boxes will be easily incorporated into the areas of proposed habitat creation within the Proposed Development to increase habitat provision within the Proposed Development for a range of fauna.

6.9.314 The end of the current farming practices within the Solar Development Sites, including the application of insecticides and pesticides or machinery use, may also further benefit terrestrial and aquatic invertebrates for the duration of the Proposed Development.

6.9.315 This potential increase in invertebrate prey, further assisted by the creation of grassland in place of the cropland beneath the solar panels, will act to improve the Solar Development Sites for commuting and foraging bats during the operational phase.

6.9.316 The wider effects of the installation of solar panels on bat activity and the activity of their prey is however largely unknown. There is research to suggest a potential displacement effect of arrays on foraging and commuting bats (Ref 55), with reduced activity levels observed by some species among arrays compared to

control sites. However, numerous issues have been identified with this study, including a lack of baseline (pre-development) data on both habitat type and bat activity, as well as a short window of sampling. Furthermore, the microphone height for the detectors was set at 1.27 m (around the mid-height of panels), which may have precluded detection and account for the observed apparent reduction in activity levels. More research is needed in this area; however, it is probable that any adverse impacts on bats will be largely neutral; particularly when considering the likely higher value of the habitats present within the Solar Development Sites (predominately comprising grassland) over the baseline of largely arable land, together with the buffer zones around retained commuting and foraging features post development.

6.9.317 The location of any features considered to produce higher noise or vibration levels, such as the BESS and transformers (as discussed in Chapter 11: Noise and Vibration (ES Volume 1) [**EN0110012/APP/LVS/06.01.11.00**]), have been considered in relation to commuting and foraging bats. As per the Design Parameters and Commitments Document [**EN0110012/APP/LVS/05.06**], these features have been positioned as far from potential bat commuting/foraging features as possible to reduced potential impacts via noise and vibration.

6.9.318 External lighting is only to be installed at substations and battery storage facilities (and not within the solar panels themselves) and will only be demand responsive motion sense lights. Luminaires installed will be downward facing so as to avoid upward light spill, and a sensitive lighting strategy will be employed during replacement campaigns. As such, any adverse impacts associated with artificial lighting during the operational phase on bats, or other fauna, are therefore anticipated to be infrequent, short-term and **not significant**.

6.9.319 Fencing within the Solar Development Sites has been designed to let small mammals such as otter, water vole, hedgehog etc. pass through. With regards to badgers, fencing will take advantage of natural undulations or be raised to leave a narrow gap (no greater than 150 mm) at the base, which badgers will exploit to commute through the Proposed Development. Also, the green corridors have been kept free of fencing to allow unrestricted faunal movement through the Proposed Development, as shown on the oEM [**EN0110012/APP/LVS/02.12**].

6.9.320 Targeted invasive species programmes to be completed as part of the Proposed Development for American mink *Neogale vison*, a known invasive species and predator of water vole, will prevent further expansion of the American mink populations and support the recovery of water vole populations within the Solar Development Sites, which will be included within the detailed Invasive Species Management Plan.

6.9.321 It is considered unlikely that any new badger setts would be excavated within the solar panel area, such that there would be potential conflict with ongoing operation activities. However, this possibility cannot be ruled out. If setts were damaged or disturbed by operational activities, this would constitute an offence under the Protection of Badgers Act 1992. However, as the species are common and widespread, this would **not form a significant effect** in EIA terms.

6.9.322 Should new setts be excavated in areas where they come into conflict with ongoing management activities, then these setts would likely be excluded under a mitigation licence from NE. The mitigation licence would ensure that any compensation measures (such as the creation of artificial setts) required would be implemented prior to the exclusion of the sett/s. Following the implementation of such mitigation measures, it is considered legislation protecting badgers will be adhered to.

6.9.323 In light of the above, negligible effects on terrestrial protected species (local level) during the operational phase of the Proposed Development are anticipated, which is considered to be **not significant** in EIA terms.

Aquatic species

Fish

6.9.324 Significant adverse impacts to fish are not anticipated during the operation of the Proposed Development.

6.9.325 There is potential for EMFs associated with cables crossing watercourses to disturb fish during operation. Where the cables from electrical infrastructure associated with energy installations cross watercourses there is potential for residual EMFs generated to impact on fish through changes in fish behaviour and migration, and via the EMFs affecting the development of fish eggs and fish fry.

6.9.326 The potential response of fish to EMF is species specific, with different species being more or less sensitive to EMFs. There is evidence to suggest that EMFs impact fish behaviour, but most of this evidence has been collected in marine and estuarine environments and there remains a degree on uncertainly, both within the research community at the regulatory authorities, and further evidence of effects is required especially for anadromous species (Ref 62).

6.9.327 However, even with this uncertainty in the behavioural response of fish to EMFs many factors can be used to assess potential impacts. These include the type and strength of the residual EMFs (measured in micro-Teslas), the species and life-stage affected, in the context of the habitat present within the vicinity of the cable crossing, and the use of the habitat for particular life-stages (e.g. migration, spawning, feeding etc.) in the vicinity of the cable crossing.

6.9.328 For the purposes of this assessment, only two watercourses crossed by the Cable Route Corridor are considered to support a notable fish assemblage based on the findings from the fish habitat surveys and desk study; these are the River Ouse and Selby Dam.

6.9.329 The River Ouse in the vicinity of where the Cable Route Corridor crosses it is a known migration route for European eel, sea-going salmonids (Atlantic salmon and sea trout) and sea-going lamprey species (river lamprey and sea lamprey). This includes both adult lamprey and salmonids returning from the marine environment to spawn in the upper catchment, and seaward migrating salmonid smolts and lamprey transformers. The River Ouse is also considered to support

a resident coarse fish assemblage, resident European eel and there is potential for juvenile (ammocoete) lamprey to be present living buried in marginal silt deposits. The are some sporadic records of Allis shad, and twaite shad, but these species are largely absent.

6.9.330 Selby Dam is considered to support a common coarse fish assemblage and European eel. The watercourse is considered suboptimal for salmonid and lamprey species and based on desk study data they are considered absent.

6.9.331 An EMF assessment has been undertaken to support this assessment and includes the calculation of residual EMFs anticipated to be emitted into the watercourse above the cable crossings. The methodology, including assumptions and limitations are contained in Appendix 16.6: Electromagnetic Field Report (ES Volume 3) **[EN0110012/APP/LVS/06.03.16.06]**.

6.9.332 The assessment involves calculating the residual EMFs that will present vertically above the cable and into the water column, and horizontally along the riverbed upstream and downstream of the cable centre line. The maximum residual EMF strengths are observed immediately above the cable centre line. At the riverbed this is predicted to be a maximum of 14.72 micro-Tesla (μT) reducing with distance from the bed and up into the water column; 14.15 μT (0.1m), 13.61 μT (0.2m), 12.17 μT (0.5m), 10.22 μT (1.0m), 8.71 μT (1.5m) and 7.51 μT (2.0m).

6.9.333 The strength of the EMF at the riverbed decreases with distance upstream and downstream of the cable centre line. This equates to the following residual EMF strengths; 14.72 μT (0m), 3.68 μT (5m) and 1.64 μT (10m) and 0.59 μT (20m).

Salmonid species

6.9.334 The habitat within the River Ouse is considered unsuitable for salmon spawning and highly suboptimal for juvenile life-stage salmonids, due to the lack of suitable spawning substrate and refuge habitat; salmonid species are assumed absent form Selby Dam. Therefore, the potential EMF effect is considered to be limited to migrating Atlantic salmon and seat trout; both adults making their upstream migration to gravel-bed spawning rivers in the upper Humber catchment and juvenile ‘smolts’ of each species migrating back to sea, typically in spring.

6.9.335 Salmonid species are magneto sensitive and there is strong evidence that adult fish utilise the Earth's magnetic field to guide migration back from feeding grounds in the Atlantic Ocean before returning to natal spawning rivers (Ref 63, Ref 65Ref 63Ref 64). However, there is also strong evidence that once in the freshwater environment other flow velocity and olfactory cues (such as changed salinity gradient, water chemistry) drive continued migration (Ref 64).

6.9.336 The majority of studies on the potential EMF effects of salmonids focus on larval fish and their sensitivity to EMFs during early development (summarised in Ref 66) and so are not relevant to this assessment which is focused on adult salmon. The most relevant study identified by Wyman et al. (2018) (Ref 67) used acoustic transmitters to track Chinook salmon smolts (*Oncorhynchus tshawyscha*) migrating back to sea, before and after the installation of an 85 km high voltage

(200 kV DC) cable within San Francisco Bay. The authors concluded that the cable did not significantly impact the proportion of fish that successfully migrated through the bay, or the probability of successful migration. Overall, the study results showed that the installation of the cable appeared to have mixed effects, with some salmon smolts swimming parallel to the cable, some observed to swim faster, and some possible attraction to the active cable leading to misdirection and reduced transit times through some locations. However, the survival and outward migration success of salmon was not considered to be significantly affected.

6.9.337 Based available literature and as outlined above, the potential for sea-going salmonid migrants to sense residual EMFs above the cable crossing cannot be ruled out entirely. However, this potential effect is very localised and migrating fish will respond to other environmental (e.g. flow/tidal) and olfactory (salinity gradients / water chemistry) cues, in addition to EMFs. There is no evidence that suggests EMFs, particularly at the levels predicted, present a behavioural barrier to migrating salmonid fish and based on the evidence available any change in behaviour in response to EMFs (e.g. minor migration delay or slight variation in direction) is likely to be minor, especially given the constrained nature of the channel which is only approximately c.55 m in width.

6.9.338 In summary, following the implementation mitigation (burying the cable at a minimum distance of 5 m below the bed level), it is considered that any potential adverse effects on Atlantic salmon and brown/sea trout during operation would be expected to be **negligible and not significant in EIA terms**.

European eel

6.9.339 The habitat within the River Ouse is considered to support European eel and represents a migratory path for this species. Likewise, Selby Dam supports European eel, despite barrier to migrations, including the pumping station located at the junction between Selby Dam and the River Ouse. The residual EMFs therefore have the potential to affect resident eel living in the vicinity of the cable crossing and eel undertaking their migration to and from the Sargasso Sea via the Humber Estuary.

6.9.340 European eel are thought to use geomagnetic information to facilitate their long-distance migration from the Sargasso Sea, particularly during the later stages of their marine journey when moving into coastal waters in search for suitable freshwater streams(Ref 68)Ref 68. Eel have also been shown to respond to altered magnetic fields under laboratory conditions (Ref 69Ref 69).

6.9.341 Hutchinson et al (2021) (Ref 70Ref 70) studied behavioural response to marine cables in tagged ‘silver’ American eel (*Anguilla rostrata*) emitting both Direct Current (DC) and Alternating Current (AC) EMFs. Behavioural changes, detected through analysis of the 3D telemetry data revealed that eels in this study responded to the DC Magnetic Field (MF) by increasing their mean step length. Step length increased with increasing DC MF (up to 86.9 nT). In state 2 (intermediate steps, medium activity), the mean step length became longer in

response to greater DC MF anomalies. In state 3 (large step length, higher activity), the mean step length became longer and less variable (i.e., more similar) in response to the greater DC MF anomalies. The assessment was made in relation to the DC MF, however, owing to the correlation between the DC and AC MFs, it is plausible that eels responded to either DC or AC MFs

6.9.342 Eels are known to be tenacious in their upstream migration seeking to overcome natural and man-made barriers should they seek to migrate to upper regions of the catchment, while other individuals never migrate to fully freshwater habitats seeking to stay in coastal and estuarine waters (Ref 71Ref 71). In a review of literature pertaining to eel migration, Cresci (2020) (Ref 71Ref 71) confirmed that extensive research has been conducted to understand the behavioural mechanisms and environmental cues that aid and guide glass eels' migration. Glass eels have been shown to follow odours and salinity gradients, they avoid light, and they change orientation and depth according to the tides. Recent work revealed that European glass eels also use the Earth's magnetic field and lunar cues to orient.

6.9.343 However in the same review Cresci (2020) (Ref 71Ref 71) proposes, that, although glass eels have the sensory capacity to use multiple cues at any given time, their migration is based on a hierarchical succession of orientation mechanisms dictated by the physical properties of the environments that they occupy: (i) lunar and magnetic cues in pelagic water; (ii) chemical and magnetic cues in coastal areas; and (iii) odours, salinity, water current and magnetic cues in estuaries.

6.9.344 Whilst this suggests that magnetic cues play a role in migration, other physical and chemical cues such and tidal flow, river flow, and olfactory cues are likely to play an increasingly important role in freshwater environments.

6.9.345 Based on available literature and as outlined above, the potential for European eel (both juveniles migrating upstream, eels residing in the vicinity of the cable, and adult 'silver' eels migrating downstream) to sense residual EMFs above the cable crossing cannot be ruled out entirely. However, this potential effect is very localised and migrating eels will respond to other environmental (e.g. flow/tidal) and olfactory (salinity gradients / water chemistry) cues, in addition to EMFs. There is no evidence that suggests EMFs, particularly at the levels predicted, present a behavioural barrier to migrating eels and based on the evidence available any change in behaviour in response to EMFs (e.g. minor migration delay or slight variation in direction) is likely to be minor, especially given the constrained nature of the channel which is only approximately c.55 m in width.

6.9.346 In summary, following the implementation mitigation (burying the cable at a minimum distance of 5 m below the bed level), it is considered that any potential adverse effects on European eel during operation would be expected to be **negligible and not significant in EIA terms.**

Lamprey species

6.9.347 Sea and river lamprey are anadromous, spawning in large freshwater rivers and migrating to sea to feed as pre-adults and adults. They aggregate to spawn and extrude their eggs into 'nests' excavated in the riverbed. After hatching the young lamprey larvae, known as ammocoetes, drift downstream with the current. They settle in nursery habitat consisting of fine, soft substrate in well oxygenated, slow flowing water. The ammocoetes are blind and spend several years in this muddy nursery habitat before metamorphosing.

6.9.348 Based on the above there is potential for residual EMFs to effect migrating river and sea lamprey, both adults moving upstream to spawning and post-juvenile 'transformers' one their way to sea. Juvenile lamprey ammocoetes may also be present, living in marginal silts in in the River Ouse within the vicinity of the cable crossing.

6.9.349 There is lots of evidenced that lamprey can detect electric fields and weak electric fields play a role in sexual behaviour and spawning, however as described, (non-magnetitic) electric fields will be fully mitigated by embedded mitigation and standard design techniques.

6.9.350 At present, there is no published evidence demonstrating that sea lamprey can detect magnetic B fields (Ref 72). Consequently, electromagnetic cues are not considered to play a recognised role in their migration from feeding grounds to coastal and estuarine habitats. The specific mechanisms guiding their return migrations remain uncertain. However, once at the coast, stream-finding behaviour of adult sea lamprey has been subject to a substantial amount of research. Research indicates that they employ olfactory cues for identifying rivers (Ref 73). The key olfactory signal is a bile acid released by larval lamprey, (Ref 74, Ref 75). which enables adults to identify rivers supporting juvenile populations. Unlike salmon, lamprey do not home to natal rivers but preferentially ascend rivers where larvae are present, thereby ensuring access to suitable spawning and nursery habitats. These bile acid cues are not species-specific (Ref 76Ref 76) and function as a common pheromone among several lamprey species.

6.9.351 No research on the effects of EMFs on the early life stages of lamprey was identified to support this assessment. However, any potential effect is highly localised to the cable location, and would only impact juvenile lamprey should they remain in close proximity, rather than moving away. In addition, there is no evidence that lampreys possess an ability to detect B fields and there is no evidence to suggest the residual EMFs would adversely affect the development of juvenile lamprey.

6.9.352 In summary, following the implementation mitigation (burying the cable at a minimum distance of 5 m below the bed level), it is considered that any potential adverse effects on river and sea lamprey during operation would be expected to be **negligible and not significant in EIA terms**.

Decommissioning phase impacts

6.9.353 It is considered likely that the impacts and associated embedded mitigation measures during the decommissioning phase within the Solar Development Sites will be similar to those identified for the construction phase.

6.9.354 When the Solar Development Sites are returned back to landowners, it is likely the grassland created beneath the panels will be reverted back to agricultural land. This will result in the loss of the grassland, and potentially an increase in detrimental farming practices such as the use of pesticide or fertiliser and machinery use. The decision on farming practices to be employed will be made by the landowner prior to decommissioning.

6.9.355 Depending on the ecological value of the habitats that develop over the lifespan of the Proposed Development (other than the grassland beneath the panel area), it is realistic that certain areas of the Solar Development Sites may be retained due to their value for wildlife on decommissioning. Additionally, application of the ecological mitigation hierarchy principles may be necessary, however some areas of habitat may be removed.

6.9.356 With regards to the Cable Route Corridor, the mode of removing the Interconnecting Cables and Grid Connection Cables during decommissioning would be dependent upon government policy and good practice at that time, which would form a requirement of the DEMP. Currently, the most environmentally acceptable option is considered to be leaving the cables in situ, however the DEMP will provide a mechanism for this to method change in the future as required. Alternatively, the cables can be removed by opening up the ground at regular intervals and pulling the cable through to the extraction point, leaving the ducting and jointing bays in place, avoiding the need to open up the entire length of the cable route. This will reduce the potential impacts arising from decommissioning within the Cable Route Corridor and it is likely any residual adverse effects from decommissioning along the Cable Route Corridor would **not be significant**.

6.9.357 Further mitigation measures may be required but this cannot be known at this stage. Pre-decommissioning surveys will be carried out and will inform whether any additional mitigation is required to conform with all applicable biodiversity policies and legislation at the time of decommissioning. The completion of pre-decommissioning surveys and any additional mitigation would result in negligible effects on the ecological receptors, which would be considered **not significant** in EIA terms. This is set out within the approved oDEMP [**EN0110012/APP/LVS/07.04**].

6.9.358 This is however excluding the effect of the decommissioning phase on grassland habitats. Due to the likely reversion of the grassland habitat to cropland as discussed above, the decommissioning phase of the Proposed Development may result in a **significant adverse effect** in the extent and quality of grassland habitats within the Solar Development Sites. As details and extent of this is not known at this time, the geographical scale of this effect cannot be confirmed, however is anticipated to be up to local/county as a worst-case scenario.

6.10 Additional mitigation summary

6.10.1 Additional mitigation is actions that require additional site and project specific activity in order to achieve a reduction in effect, and/or anticipated outcome. Additional mitigation identified for Biodiversity have been included in the above section, and are summarised below:

Construction

Otter

6.10.2 A pre-commencement otter survey of the Order Limits would be conducted at least three months prior to the start of works, to check for any new otter resting places/holts which may be impacted by disturbance or directly impacted through proposed de-vegetation/construction activities. If new holts/resting places are identified, they would be retained and buffered in the first instance, with suitable mitigation put in place to protected/mitigate the feature if retention was not possible, pursuant to a NE licence.

6.10.3 Potential impacts from trenchless techniques will also be minimised via the supervision of works by an ECoW, minimum 10 m offset from the bank top for entry and exit pits, and other Precautionary Working Methods, where required.

Badger

6.10.4 Due to the mobile nature of the species, new setts may be created within the Order Limits prior to the start of works. These setts will be retained and buffered in the first instance, although it is currently unknown if new setts will be impacted by the construction phase of the Proposed Development. As badger are common and widespread, the loss of badger setts would not constitute a significant effect, however the species are protected from harm by legislation and any setts that required removal to facilitate the Proposed Development would be closed under NE licence and with appropriate compensation measures in place, if necessary, to abide by legislation.

6.10.5 Furthermore, two pre commencement badger surveys will be conducted, the first at least three months prior to the start of works, and the second at least one month prior to the start of works, to check for any new setts which may be impacted by disturbance or directly impacted through proposed de-vegetation/construction activities, which would require a NE licence to close.

Roosting bats

Updated surveys of the two PRF-M trees to be removed are required in the suitable season prior to the proposed tree removal to confirm if bats are still absent. If a roost is identified, a NE bat licence will be required before the tree can be felled.

The further bat surveys on the FAR trees will be undertaken in a suitable surveying season prior to the start of works to determine if there are any PRFs within the tree/the roosting suitability of any PRFs. Surveys will also be completed to confirm if bats currently roost

within the PRFs identified. If a roost is identified and may be impacted by the proposed works, a NE bat licence will be required before the works can be completed on the tree.

6.10.6 Due to the size of the Solar Development Sites, the low number of trees to be surveyed, and the current absence of roosting bats within the PRF-M trees, it is anticipated that any required mitigation for the loss of bat roosts, even considering the worst-case scenario, could be easily accommodated within the Proposed Development, such as the installation of bat boxes.

6.10.7 With regards to the 10 PRF-I trees, these trees will be soft felled under the supervision of an ECoW to protect any individual bats that may be present with the trees, without the need for further survey or licence.

Water vole

6.10.8 A NE water vole licence should be in place before any proposed works within the 10 m buffer zone of D2.1 (Solar Development Site 2), and potentially D3.2 (Solar Development Site 3), D4.8b (Solar Development Site 4), D6.3c (Solar Development Site 6), and D9.16 (Cable Route Corridor) (or if D4.8a is found to hold water) (Figure 6.11: Water Vole Results (ES Volume 2) [**EN0110012/APP/LVS/06.02.06.11**]), to protect water voles present within the ditches, assuming presence confirmed at the time prior to construction. It is noted however that D2.1 is the only location where in channel works are currently proposed. Due to the small extent of the works within D2.1, and limited anticipated impact on water vole, a Water Vole Displacement Class Licence (CL31) is deemed sufficient mitigation, as agreed with Natural England. A Draft Water Vole Mitigation Strategy has been submitted to Natural England for their agreement.

6.10.9 Following an updated suite of water vole surveys of the Order Limits (including all affected watercourses and ditches including seasonally wet ditches where works are proposed) prior to the start of construction, should water vole be found to be present in any other ditches where works are required, suitable mitigation, such as a NE licence, will be put in place to protected / mitigate for the species.

6.10.10 Potential impacts from trenchless techniques will also be minimised through, where required, the supervision of works by an ECoW, and other Precautionary Working Methods, such as supervised displacement.

Amphibians

6.10.11 In order to minimise the risk of accidental killing / injury of amphibians during the construction phase, the oCEMP [**EN0110012/APP/LVS/07.02**] sets out the supervision and protective measures required during works affecting potentially suitable habitat for amphibians at field boundaries, for example where new hedgerow gaps for access or cabling are required. These will include sympathetic, staged habitat clearance, supervised by an ECOW where required.

6.10.12 With regards to GCN, as agreed with NYC, due to the low risk to GCN as a result of the proposed works within 250 m of Pond 1.14 and the 10 inaccessible ponds,

the risk of accidental killing / injury of great crested newts can be appropriately managed through avoidance, Precautionary Working Methods and pre-commencement controls, without the need for formal licencing. These additional methods/controls are further detailed within the oCEMP [**EN0110012/APP/LVS/07.02**]. These include the stop work procedure should a GCN be found at any time during the works.

Reptiles

6.10.13 In order to minimise the risk of accidental killing/injury of reptiles during the construction phase, the oCEMP [**EN0110012/APP/LVS/07.02**] sets out the supervision and protective measures required during works affecting potentially suitable habitat for reptiles. These will include sympathetic, staged habitat clearance and timing, under the supervision of an ECoW where necessary. As legislation protects the reptiles themselves not their habitats, these measures will ensure compliance.

Brown hare

6.10.14 In order to minimise the risk of accidental killing/injury of brown hare. The oCEMP [**EN0110012/APP/LVS/07.02**] details how a 15-mph speed limit for surfaced tracks, and a 10-mph speed limit for unsurfaced tracks, will be applied across the construction sites, as well as how the existing arable habitats will be cleared or left fallow prior to construction. It will also detail that, as part of their induction, construction staff will be informed of the potential presence of protected species including hare as well as the need to temporarily cease works and implement an exclusion zone in the unlikely event that dependent leverets are discovered within a working area. A pre commencement check for leverets by an ECoW will be completed if certain areas of habitat are cleared during brown hare breeding season.

Fish

6.10.15 For Selby Dam and Habholme Dyke, any temporary replacement culverts or associated in-water works (if required) will be constructed using a staged approach to maintain channel connectivity wherever practicable. This may include half-width working, or the installation of a temporary flume or bridge unit to ensure uninterrupted downstream passage. Flow management measures will be employed to minimise the requirement for full dewatering, and any temporary abstractions or returns will be appropriately screened to prevent entrainment of fish. Where dewatering is unavoidable, fish rescue and translocation will be undertaken by suitably qualified personnel, with the release of fish into appropriate receptor habitats overseen by an aquatic ECoW.

6.10.16 An aquatic ECoW will be present on site throughout any potential in-water works associated with temporary culvert installation or replacement on Selby Dam and Habholme Dyke. The ECoW will oversee compliance with approved method statements, undertake environmental monitoring, and adjust mitigation measures

to reflect prevailing site conditions. To minimise ecological disturbance, the construction period for these activities will be kept as short as practicable, with defined working windows and contingency plans in place to cease works during high-flow events, thereby reducing the risk of uncontrolled sediment release, bank instability, or fish stranding, as detailed in the oCEMP [**EN0110012/APP/LVS/07.02**].

6.10.17 The design and installation of temporary crossings and culvert structures on Selby Dam and Habholme Dyke, if required, will ensure that fish passage is maintained for the duration of construction. Temporary watercourse crossing designs will facilitate the free movement of fish across a range of flow conditions and will seek to maintain, as far as practicable, the existing aquatic habitats and underlying fluvial geomorphological processes that influence habitat distribution and quality within both watercourses.

Operation

6.10.18 No additional mitigation is currently recommended for the operational phase.

Decommissioning

Other neutral grassland

6.10.19 Further mitigation measures may be required, depending on the future baseline of the Proposed Development, including pre-decommissioning surveys to ensure that the embedded mitigation of the Proposed Development is fully appropriate for the future baseline of the Proposed Development at the time of the decommissioning phase, and to conform with all applicable biodiversity policies and legislation. This will be set out within, and implemented through, the approved oDEMP [**EN0110012/APP/LVS/07.04**].

6.10.20 Due to the likely reversion of the grassland habitat to cropland beneath the solar panels, the decommissioning phase of the Proposed Development may result in a **significant adverse effect** in the extent and quality of grassland habitats within the Solar Development Sites. As details and extent of this is not known at this time, the geographical scale this effect cannot be confirmed, however is anticipated to be up to local/county as a worst-case scenario. Additional mitigation associated with this effect is unknown at this time but would be detailed within the oDEMP [**EN0110012/APP/LVS/07.04**] at the time of decommissioning.

6.11 Residual effects

6.11.1 Assuming the recommended additional mitigation is implemented, **no residual significant adverse effects** are anticipated for the construction or operational phase. All other effects remain as assessed within Section 6.9.

Decommissioning - other neutral grassland

6.11.2 Due to the likely reversion of the grassland habitat to cropland beneath the solar panels, and as additional mitigation associated with this effect is unknown at this time, there will be a possible **residual significant adverse effect**, the geographical scale of which cannot be determined at this time, however is anticipated to be up to local/county as a worst-case scenario.

6.12 Monitoring

6.12.1 Any required monitoring is detailed with the oCEMP [**EN0110012/APP/LVS/07.02**], oOEMP [**EN0110012/APP/LVS/07.03**], oLEMP [**EN0110012/APP/LVS/07.05**] and oDEMP [**EN0110012/APP/LVS/07.04**].

6.12.2 With regards to aquatic species, as per Chapter 15: Water Resources and Flood Risk [**EN0110012/APP/LVS/06.01.15**], long term monitoring of the Proposed Development will be undertaken to ensure effective monitoring of water receptors close to key infrastructure or construction works. This will include the monitoring of both surface-water and groundwater receptors in proximity to these works. The specific receptors requiring monitoring will be identified at the final detailed design stage once the design is complete, with monitoring requirements implemented as set out in the oCEMP [**EN0110012/APP/LVS/07.02**], where necessary.

6.13 Summary

6.13.1 Table 6-12 presents a summary of the biodiversity assessment, detailing further mitigation requirements and residual effects.

Table 6-12 Biodiversity - preliminary assessment summary

Receptor/aspect and sensitivity /value /importance	Description of impact	Magnitude	Significance of effect	Additional mitigation	Residual effect and significance
Construction					
Skipwith Common SAC and SSSI (International/National)	As a result of the embedded mitigation, **no significant effects** on the qualifying habitats of the designated site during the construction phase of the Proposed Development are anticipated.	Negligible	Negligible	None required	Negligible
Lower Derwent Valley SAC & Ramsar including the various underlying SSSIs (International/National)	As a result of the embedded mitigation, **no significant adverse effects** on the qualifying habitats or species of the designated site during the construction phase of the Proposed Development are anticipated.	Negligible	Negligible	None required	Negligible
River Derwent SAC (International)	As a result of the embedded mitigation, **no significant adverse effects** on the qualifying habitats or species of the designated site during the construction phase of the Proposed Development are anticipated. In relation to fish, there is no perceived hydrological connection between the Proposed Development and the SAC, and therefore no impact pathways are present.	Negligible	Negligible	None required	Negligible
Humber Estuary SAC & Ramsar (International)	Minor adverse effects on the qualifying species (lamprey) of the designated site are anticipated during the construction	Minor adverse	Negligible	None required	Negligible

Receptor/aspect and sensitivity /value /importance	Description of impact	Magnitude	Significance of effect	Additional mitigation	Residual effect and significance
	phase of the Proposed Development; however, these are considered **not significant** in EIA terms.				
Burr Closes SSSI (National)	As a result of the embedded mitigation, **no significant adverse effects** on the qualifying habitats or species of the designated site during the construction phase of the Proposed Development are anticipated.	Negligible	Negligible	None required	Negligible
Sherburn Willows SSSI (National)	As a result of the embedded mitigation, **no significant adverse effects** on the qualifying habitats of the designated site during the construction phase of the Proposed Development are anticipated.	Negligible	Negligible	None required	Negligible
Fairburn and Newton Ings SSSI (National)	As a result of the embedded mitigation, **no significant adverse effects** on the qualifying habitats of the designated site during the construction phase of the Proposed Development are anticipated.	Negligible	Negligible	None required	Negligible
SINCs partially within the Order Limits Outside of the Solar Development Sites (county) ▪ Ouse Bank-Westfield-Riccall Ings SINC	Although part within the Order Limits Outside of the Solar Development Sites, trenchless techniques will be employed to pass beneath Ouse Bank-Westfield-Riccall Ings SINC, no tree removal/pruning works would be required to facilitate the use of the short length of track within Nightingale Wood SINC, and no vegetation removal proposed within Scarrow Green Pond-	Negligible	Negligible	None required	Negligible

Receptor/aspect and sensitivity /value /importance	Description of impact	Magnitude	Significance of effect	Additional mitigation	Residual effect and significance
▪ Nightingale Wood SINC ▪ Scarrow Green Pond-Little Skipwith SINC	Little Skipwith SINC. As a result of such embedded mitigation, **no significant adverse effects** on the qualifying features of the designated sites during the construction phase of the Proposed Development are anticipated.				
SINCs adjacent to the Order Limits outside of the Solar Development Sites (up to 250 m) or adjacent to the Construction Traffic Routes (county)	As a result of the embedded mitigation, **no significant adverse effects** on the qualifying features of the designated sites during the construction phase of the Proposed Development are anticipated.	Negligible	Negligible	None required	Negligible
SINCs adjacent to the Solar Development Sites (up to 250 m) (county)	As a result of the embedded mitigation, **no significant adverse effects** on the qualifying features of the designated sites during the construction phase of the Proposed Development are anticipated.	Negligible	Negligible	None required	Negligible
Arable field margins (tussocky, pollen and nectar, and wild bird mix) and Other Neutral Grassland (local importance)	As a result of the embedded mitigation, negligible adverse effects on the extent or quality of arable field margins and neutral grassland habitats (local level) during the construction phase of the Proposed Development are anticipated, which is considered to be **not significant** in EIA terms. Given this and the creation of grassland habitat in place of cropland beneath the solar panels and the halt of	Moderate beneficial effect on a county level	**Significant beneficial effect**	None required	**Significant beneficial effect**

Receptor/aspect and sensitivity /value /importance	Description of impact	Magnitude	Significance of effect	Additional mitigation	Residual effect and significance
	detrimental farming practices (for the lifetime of the Proposed Development) is considered likely to result in a **significant beneficial effect** in the extent and quality of grassland habitats within the Solar Development Sites, which given the size and quality of the additional grassland habitat created would be significant at county level.				
Scrub (mixed and willow scrub) (local importance)	As a result of the embedded mitigation, negligible adverse effects on the extent or quality of scrub habitat (local level) during the construction phase of the Proposed Development are anticipated, which is considered to be **not significant** in EIA terms. Given this and the creation of 4.86 ha of mixed scrub of moderate condition and the halt of detrimental farming practices within the Solar Development Sites is considered to result in significant **beneficial effects** in the extent and quality of scrub habitats within the Solar Development Sites, which would be significant at a local level.	Minor beneficial effect on a local level	**Significant beneficial effect**	None required	**Significant beneficial effect**
Woodland (other broadleaved woodland, and other coniferous woodland)	As a result of the embedded mitigation, negligible adverse effects on the extent or quality of woodland habitat (local level) during the construction phase of the	Moderate beneficial effect on a local level	**Significant beneficial effect**	None required	**Significant beneficial effect**

Receptor/aspect and sensitivity /value /importance	Description of impact	Magnitude	Significance of effect	Additional mitigation	Residual effect and significance
(local importance)	Proposed Development are anticipated, which is considered to be **not significant** in EIA terms. Given this and the creation of 8.52 ha of broadleaved woodland and the halt of detrimental farming practices within the Solar Development Sites is considered to result in **significant beneficial effects** in the extent and quality of woodland habitats within the Solar Development Sites, which would be significant at a local level.				
Ponds (local importance)	As a result of the embedded mitigation, negligible adverse effects on the extent or quality of pond habitat (local level) during the construction phase of the Proposed Development are anticipated, which is considered to be **not significant** in EIA terms. Given this and the cessation of detrimental farming practices and creation of grassland adjacent to the ponds (for the lifetime of the Proposed Development), may also improve water quality within these ponds and create a **significant positive effect**.	Minor beneficial effect on a local level	**Significant beneficial effect**	None required	**Significant beneficial effect**
Scattered trees (local importance)	As a result of the embedded mitigation, and the plating of 523 trees within the Solar Development Sites to satisfy BNG, negligible adverse effects on the extent or	Negligible	Negligible	None required	Neutral (**not significant**)

Receptor/aspect and sensitivity /value /importance	Description of impact	Magnitude	Significance of effect	Additional mitigation	Residual effect and significance
	quality of trees (local level) during the construction phase of the Proposed Development are anticipated, which is considered to be **not significant** in EIA terms.				
Hedgerows (species-rich native hedgerow, and other native hedgerow, with/without trees/ditches) and Lines of Trees (County when ditches, hedgerows and treelines across all Solar Development Sites considered as a singular network)	As a result of the embedded mitigation, and the replacement of any lengths of hedgerow lost to development, negligible adverse effects on the extent or quality of hedgerow and treeline habitat (county level) during the construction phase of the Proposed Development are anticipated, which is considered to be **not significant** in EIA terms. Given this and the creation of 37.14 km of species rich hedgerow and the halt of detrimental farming practices within the Solar Development Sites is considered to result in **significant beneficial effects** in the extent and quality of hedgerow habitats within the Solar Development Sites, which would be significant at a local level.	Moderate beneficial effect on a local level	**Significant beneficial effect**	None required	**Significant beneficial effect**
Ditches and Other Rivers and Streams (County when ditches, hedgerows and treelines across all Solar Development	As a result of the embedded mitigation, the halt of detrimental farming practices, and use of trenchless technologies, negligible adverse effects on the extent or quality of watercourse habitat (county level) during the construction phase of the	Minor beneficial effect on a local level	**Significant beneficial effect**	None required	**Significant beneficial effect**

Receptor/aspect and sensitivity /value /importance	Description of impact	Magnitude	Significance of effect	Additional mitigation	Residual effect and significance
Sites considered as a singular network)	Proposed Development are anticipated, which is considered to be **not significant** in EIA terms. Given this and the proposed removal of undesirable species such as filamentous algae and duckweed, reducing physical damage to the banks of the ditch through halting damaging management activities, and increasing the water quality through no longer using chemical fertiliser and pesticides on adjacent land and via planting within the ditch, is anticipated to result in a **significant beneficial effect** at local level.				
Invasive non-native flora (negligible-legal reasons)	An oISMP [**EN0110012/APP/LVS/07.22**] covering invasive non-native flora, including but not limited to, Himalayan balsam and Japanese knotweed, for the lifespan of the Proposed Development has been created. Biosecurity measures have been incorporated into the oISMP to avoid accidental introduction of invasive species, including a pathway specific risk assessment identifying any pathways for spread during construction, operation and decommissioning.	Minor beneficial at a local level	**Significant beneficial effect**	None required	**Significant beneficial effect**
Otter (local)	Due to the mobile nature of the species, new holts or couches may be created within the Order Limits prior to the start of	Moderate adverse permanent	**Significant adverse effect**	A pre commencement otter survey should be conducted at least three months prior	The additional mitigation

Receptor/aspect and sensitivity /value /importance	Description of impact	Magnitude	Significance of effect	Additional mitigation	Residual effect and significance
	works. These features will be retained and buffer in the first instance. However, if this is not possible, the damage/disturbance of a holt or resting place may result in a **significant adverse effect**. As the location/characteristics/nature of impact of future holts cannot be known at this time, the sensitivity and magnitude of the effect cannot be confirmed currently, but as a worst-case scenario should a natal holt be damage/disturbed for example, this may result in up to a **significant adverse effect** at a county level.	effect at a county level on otter as a worst-case scenario should holts/resting places be impacted		to the start of works. If new holts/resting places are identified, suitable mitigation will be put in place to protected/mitigate for the feature. Potential impacts from trenchless techniques will also be minimised via, PWMs where required.	reduces the impacts to Neutral (not significant).
	The proposed creation/enhancement of habitats of importance to otter.	Minor beneficial effect on a local level	**Significant beneficial effect**	N/A – mitigation is embedded	**Significant beneficial effect**
Badger (negligible-legal reasons)	Legislation protecting badger will be adhered to during the construction phase	N/A	N/A	N/A	N/A
Commuting and foraging bats (local)	As a result of the embedded mitigation, negligible effects on foraging and commuting bats (local level) during the construction phase of the Proposed Development are anticipated, which is considered to be **not significant** in EIA terms. Given this and the proposed	Moderate beneficial effect on a local level	**Significant beneficial effect**	None required	**Significant beneficial effect**

Receptor/aspect and sensitivity /value /importance	Description of impact	Magnitude	Significance of effect	Additional mitigation	Residual effect and significance
	retention of habitats of importance to commuting and foraging bats within the Order Limits, and the creation of large areas of suitable foraging and commuting habitat for bats is considered to result in **significant beneficial effects** for commuting and foraging bats.				
Roosting bats (local)	Accidental direct harm (killing/injury) to individual roosting bats, should they be present within the 10 PRF-I, two PRF-M trees or five FAR trees that may be removed/pruned during construction would result in a **significant adverse effect**. As it is currently unknown if bats will be roosting in these trees at the time of felling (no bat roosts in the PRF-M trees currently), the sensitivity and magnitude of the effect cannot be confirmed currently. However, as a worst-case scenario (deemed highly unlikely), should a maternity roosts of various species be damaged/destroyed in all PRF-M and FAR trees, this may result in up to a significant adverse effect at a local/county level.	Minor adverse permanent effect at a local/county level on roosting bats	**Significant adverse effect**	Updated bat surveys to confirm bats are still absent, or potential NE bat licence for any roosts in PRF-M trees to be lost Further bat surveys of the FAR trees or potential NE bat licence for any roosts in FAR trees to be lost PRF-I trees to be soft felled under the supervision of an ECoW	Negligible (**not significant**)
Water vole (local)	Accidental direct harm (killing/injury) to individual water vole, should they be present within ditches to be impacted during construction would likely result in a	Minor adverse permanent effect at a	**Significant adverse effect**	A Natural England water vole licence should be in place before any proposed works within the 10 m buffer	The additional mitigation reduces the

Receptor/aspect and sensitivity /value /importance	Description of impact	Magnitude	Significance of effect	Additional mitigation	Residual effect and significance
	significant adverse effect. As the location/characteristics/nature of impact of future water vole populations cannot be known at this time, the sensitivity and magnitude of the effect cannot be confirmed currently. However, as a worst-case scenario, due to the limited impact on watercourses within the Order Limits, and the low proportion of field signs recorded during the surveys, **a significant adverse effect at the local level** would be likely.	local level on water vole if water vole are harmed		zone of D2.1, and potentially D3.2, D4.8b, D6.3c, and D9.16 (or if D4.8a is found to hold water), assuming presence of water voles is confirmed prior to construction. It is noted that D2.1 is the only location where in channel works are currently proposed. Following an updated suite of water vole surveys of the Order Limits prior to the start of works, if water vole are found to be present in ditches where works are required, suitable mitigation, such as a NE licence, will be put in place Potential impacts from trenchless techniques will also be minimised through Precautionary Working Methods where required.	impacts to Neutral (not significant).

Receptor/aspect and sensitivity /value /importance	Description of impact	Magnitude	Significance of effect	Additional mitigation	Residual effect and significance
	Proposed creation/enhancement of habitats of importance to water vole.	Minor beneficial effect on a local level	**Significant beneficial effect**	N/A – mitigation is embedded	**Significant beneficial effect**
Amphibians (local)	Although assumed to be unlikely, potential GCN present within 250 m of Pond 1.14 and the 10 inaccessible ponds cannot be completely ruled out. Therefore, as a worst-case scenario assessment, initial habitat clearance / groundworks to be completed within the 250 m buffers of Pond 1.14 and the 10 inaccessible ponds may result in the accidental direct harm (killing/injury) to individual amphibians, should they be present within working areas. In the absence of additional mitigation measures, the accidental killing/injury of amphibians (including great crested newts) during the construction phase may results in a **significant adverse effect** at local level.	Minor adverse permanent effect at a local level on amphibians	**Significant adverse effect**	oCEMP (**EN0110012/APP/LVS/07.02**) sets out the supervision and protective measures for common amphibians Due to the low risk to GCN as a result of the proposed works within 250 m of Pond 1.14 and the 10 inaccessible ponds, the risk of accidental killing / injury of great crested newts can be appropriately managed through avoidance, PWMs and pre-commencement controls, without the need for formal licencing, as detailed within the oCEMP [**EN0110012/APP/LVS/07.02**].	The additional mitigation reduces the impacts to Neutral (not significant).
	The proposed creation/enhancement of habitats of importance to amphibians.	Moderate beneficial	**Significant beneficial effect**	N/A – mitigation is embedded	**Significant beneficial effect** (prior

Receptor/aspect and sensitivity /value /importance	Description of impact	Magnitude	Significance of effect	Additional mitigation	Residual effect and significance
		effect on a local level			to the results of final 32 ponds)
Reptiles (local)	Although assumed to be unlikely as the vast majority of the developable area is sub-optimal for reptiles, initial habitat clearance/groundworks associated with the construction phase may result in the accidental direct harm (killing/injury) to individual reptiles, should they be present within working areas. In the absence of additional mitigation measures, this may result in an adverse effect of up to a local level.	Minor adverse permanent effect at a local level on reptiles	**Significant adverse effect**	oCEMP [**EN0110012/APP/LVS/07.02**] sets out the supervision and protective measures required during works for reptiles.	The additional mitigation reduces the impacts to Neutral (not significant). In light of this, and taking into account, an overall residual **Significant beneficial effect** is identified
	Proposed creation/enhancement of habitats of importance to reptiles	Minor beneficial effect on a local level	**Significant beneficial effect**	N/A – mitigation is embedded	**Significant beneficial effect**
Brown hare (local)	Initial habitat clearance / groundworks associated with the construction phase may result in the accidental direct harm (killing / injury) to individual leverets	Minor adverse permanent effect at a	**Significant adverse effect**	The oCEMP [**EN0110012/APP/LVS/07.02**] details methods to protect hares and a pre	Neutral (**not significant**)

Receptor/aspect and sensitivity /value /importance	Description of impact	Magnitude	Significance of effect	Additional mitigation	Residual effect and significance
	(brown hare young), should they be present within working areas. In the absence of additional mitigation measures, this may result in an **adverse effect** of up to a local level.	local level on brown hare		commencement check for leverets by an ECoW if certain areas of habitat are cleared during brown hare breeding season.	
Hedgehog (local)	As a result of the embedded mitigation, negligible adverse effects on hedgehog (local level) during the construction phase of the Proposed Development are anticipated, which is considered to be **not significant** in EIA terms. Given this and the proposed creation of grassland, woodland, scrub and hedgerow habitats of importance to hedgehog (for the lifetime of the Proposed Development), is considered likely to result in **significant beneficial effects** for hedgehog.	Moderate beneficial effect on a local level	**Significant beneficial effect**	None required	**Significant beneficial effect**

Fish (Local to International)	Potential disturbance from increased noise and vibration, changes to water quality, and physical disturbance to habitat. As a result of the embedded mitigation, minor adverse effects on fish species during the construction phase of the Proposed Development are anticipated, which is considered to be **not significant** in EIA terms.	Minor adverse	Negligible	None required	Negligible (**not significant**)

Receptor/aspect and sensitivity /value /importance	Description of impact	Magnitude	Significance of effect	Additional mitigation	Residual effect and significance
White-clawed crayfish (County)	Negligible effect anticipated following embedded mitigation (buffer zones, oCEMP [**EN0110012/APP/LVS/07.02**] measures). The oCEMP [**EN0110012/APP/LVS/07.02**] measures include a minimum offset of 10 m from bank top for all watercourses and pollution control including silt fencing.	Negligible	Negligible	None required	Negligible (**not significant**)
Invertebrates (local)	As a result of the embedded mitigation, negligible adverse effects on invertebrates (local level) during the construction phase of the Proposed Development are anticipated, which is considered to be **not significant** in EIA terms. Given this and the creation of additional habitats of importance to invertebrates and the cessation of the use of pesticides for agricultural practices (for the lifetime of the Proposed Development), is considered likely to result in **significant beneficial effects** for invertebrates.	Moderate beneficial effect on a local level	**Significant beneficial effect**	None required	**Significant beneficial effect**
Operation					
Skipwith Common SAC and SSSI (International/National)	As a result of the embedded mitigation, negligible adverse effects on the qualifying habitats of the designated site (international level) during the operational phase of the Proposed Development are	Negligible	Negligible	None required	Negligible (**not significant**)

Receptor/aspect and sensitivity /value /importance	Description of impact	Magnitude	Significance of effect	Additional mitigation	Residual effect and significance
	anticipated, which is considered to **be not significant** in EIA terms.				
Lower Derwent Valley SAC & Ramsar including the various underlying SSSIs (International/National)	As a result of the embedded mitigation, as well as the distance between the Proposed Development and the designated site, and as there will be no increased visitor pressure at the designated site due to the type of development, negligible adverse effects on the qualifying habitats and species of the designated site (international level) during the operational phase of the Proposed Development are anticipated, which is considered to be **not significant** in EIA terms.	Negligible	Negligible	None required	Negligible (**not significant**)
River Derwent SAC (International)	As a result of the embedded mitigation, negligible adverse effects on otter or the qualifying habitats of the SAC (international level) during the operational phase of the Proposed Development are anticipated, which is considered to be **not significant** in EIA terms. In relation to fish, there is no perceived hydrological connection between the Proposed Development and the SAC, and therefore no impact pathways are present.	Negligible	Negligible	None required	Negligible (**not significant**)

Receptor/aspect and sensitivity /value /importance	Description of impact	Magnitude	Significance of effect	Additional mitigation	Residual effect and significance
Humber Estuary SAC & Ramsar (International)	As a result of the embedded mitigation (including mitigation of the potential EMF effect on fish if required), negligible adverse effects on the qualifying habitats or species of the SAC/Ramsar (international level) during the operational phase of the Proposed Development are anticipated, which is considered to **be not significant** in EIA terms.	Negligible	Negligible	None required	Negligible (**not significant**)
Burr Closes SSSI (National)	As a result of embedded mitigation, negligible adverse effects on the qualifying habitats and species of the SSSI (national level) during the operational phase of the Proposed Development are anticipated, which is considered to be **not significant** in EIA terms.	Negligible	Negligible	None required	Negligible (**not significant**)
Sherburn Willows SSSI (National)	As a result of the embedded mitigation, as well as the distance between the Proposed Development and the designated site, and as there will be no increased visitor pressure at the designated site due to the type of development, negligible adverse effects on the qualifying habitats of the SSSI (national level) during the operational phase of the Proposed Development are anticipated, which is considered to be **not significant** in EIA terms.	Negligible	Negligible	None required	Negligible (**not significant**)

Receptor/aspect and sensitivity /value /importance	Description of impact	Magnitude	Significance of effect	Additional mitigation	Residual effect and significance
Fairburn and Newton Ings SSSI (National)	As a result of the embedded mitigation, as well as the distance between the Proposed Development and the designated site, and as there will be no increased visitor pressure at the designated site due to the type of development, negligible adverse effects on the qualifying habitats of the SSSI (national level) during the operational phase of the Proposed Development are anticipated, which is considered to be **not significant** in EIA terms.	Negligible	Negligible	None required	Negligible (**not significant**)
SINCs partially within the Order Limits Outside of the Solar Development Sites (county)	As there will be minimal operational activities within the Order Limits Outside of the Solar Development Sites, negligible adverse effects on the qualifying features of the SINCs (county level) during the operational phase of the Proposed Development are anticipated, which is considered to be **not significant** in EIA terms.	Negligible	Negligible	None required	Negligible (**not significant**)
SINCs adjacent to the Order Limits Outside of the Solar Development Sites (up to 250 m) or Construction Traffic Routes (county)	As a result of the embedded mitigation, negligible adverse effects on the qualifying features of the SINCs (county level) during the operational phase of the Proposed Development are anticipated, which is considered to be **not significant** in EIA terms.	Negligible	Negligible	None required	Negligible (**not significant**)

Receptor/aspect and sensitivity /value /importance	Description of impact	Magnitude	Significance of effect	Additional mitigation	Residual effect and significance
SINCs adjacent to the Solar Development Sites (up to 250 m) (county)	As a result of the embedded mitigation, and as there will be no increased visitor pressure at the SINCs due to the type of development, negligible adverse effects on the qualifying features of the SINCs (county level) during the operational phase of the Proposed Development are anticipated, which is considered to be **not significant** in EIA terms.	Negligible	Negligible	None required	Negligible (**not significant**)
Arable field margins (tussocky, pollen and nectar, and wild bird mix) and Other Neutral Grassland (local importance)	As a result of the embedded mitigation, negligible adverse effects on the extent or quality of arable field margins and neutral grassland habitats (local level) during the operational phase of the Proposed Development are anticipated, which is considered to be **not significant** in EIA terms.	Negligible	Negligible	None required	Negligible (**not significant**)
Scrub (mixed and willow scrub) (local importance)	As a result of the embedded mitigation, negligible adverse effects on the extent or quality of scrub habitat (local level) during the operational phase of the Proposed Development are anticipated, which is considered to be **not significant** in EIA terms.	Negligible	Negligible	None required	Negligible (**not significant**)
Woodland (other broadleaved woodland, and other coniferous woodland)	As a result of the embedded mitigation, negligible adverse effects on the extent or quality of woodland habitat (local level) during the operational phase of the	Negligible	Negligible	None required	Negligible (**not significant**)

Receptor/aspect and sensitivity /value /importance	Description of impact	Magnitude	Significance of effect	Additional mitigation	Residual effect and significance
(local importance)	Proposed Development are anticipated, which is considered to be **not significant** in EIA terms.				
Ponds (local importance)	As a result of the embedded mitigation, negligible adverse effects on the extent or quality of pond habitat (local level) during the operational phase of the Proposed Development are anticipated, which is considered to be **not significant** in EIA terms.	Negligible	Negligible	None required	Negligible (**not significant**)
Scattered trees (local importance)	As a result of the embedded mitigation, negligible adverse effects on the extent or quality of trees (local level) during the operational phase of the Proposed Development are anticipated, which is considered to be **not significant** in EIA terms.	Negligible	Negligible	None required	Negligible (**not significant**)
Hedgerows (species-rich native hedgerow, and other native hedgerow, with/without trees/ditches) and Lines of Trees (County when ditches, hedgerows and treelines across all Solar Development	As a result of the embedded mitigation, negligible adverse effects on the extent or quality of hedgerow and treeline habitat (county level) during the operational phase of the Proposed Development are anticipated, which is considered to be **not significant** in EIA terms.	Negligible	Negligible	None required	Negligible (**not significant**)

Receptor/aspect and sensitivity /value /importance	Description of impact	Magnitude	Significance of effect	Additional mitigation	Residual effect and significance
Sites considered as a singular network)					
Ditches and Other Rivers and Streams (County when ditches, hedgerows and treelines across all Solar Development Sites considered as a singular network)	As a result of the embedded mitigation, negligible adverse effects on the extent or quality of watercourse habitat (county level) during the operational phase of the Proposed Development are anticipated, which is considered to be **not significant** in EIA terms.	Negligible	Negligible	None required	Negligible (**not significant**)
Invasive non-native flora (negligible-legal reasons)	An oISMP [**EN0110012/APP/LVS/07.22**] covering invasive non-native flora for the lifespan of the Proposed Development has been created. Biosecurity measures have been incorporated into the oISMP to avoid accidental introduction of invasive species, including a pathway specific risk assessment identifying any pathways for spread during construction, operation and decommissioning.	Negligible	Negligible	None required	Negligible (**not significant**)
Otter (local)	As a result of the embedded mitigation, negligible adverse effects on otter (local level) during the operational phase of the Proposed Development are anticipated, which is considered to be **not significant** in EIA terms. Given this, and the proposed long-term management of habitats suitable for otter, it is likely to result in an overall	Minor beneficial effect on a local level	**Significant beneficial effect**	None required	**Significant beneficial effect**

Receptor/aspect and sensitivity /value /importance	Description of impact	Magnitude	Significance of effect	Additional mitigation	Residual effect and significance
	significant beneficial effect for the species.				
Badger (negligible-legal reasons)	Legislation protecting badger will be adhered to during the operational phase	Negligible	Negligible	None required	N/A
Bats (local)	As a result of the embedded mitigation, negligible adverse effects on commuting and forging or roosting bats (local level) during the operational phase of the Proposed Development are anticipated, which is considered to be **not significant** in EIA terms. Given this, and the proposed long-term management of habitats suitable for bats, it is likely to result in an overall **significant beneficial effect** for the species.	Minor beneficial effect on a local level	**Significant beneficial effect**	None required	**Significant beneficial effect**
Water vole (local)	As a result of the embedded mitigation, negligible adverse effects on water vole (local level) during the operational phase of the Proposed Development are anticipated, which is considered to be **not significant** in EIA terms. Given this, and the proposed long-term management of habitats suitable for water vole, it is likely to result in an overall **significant beneficial effect** for the species.	Minor beneficial effect on a local level	**Significant beneficial effect**	None required	**Significant beneficial effect**
Amphibians (local)	As a result of the embedded mitigation, negligible adverse effects on amphibians (local level) during the operational phase	Minor beneficial	**Significant beneficial effect**	None required	**Significant beneficial effect**

Receptor/aspect and sensitivity /value /importance	Description of impact	Magnitude	Significance of effect	Additional mitigation	Residual effect and significance
	of the Proposed Development are anticipated, which is considered to be **not significant** in EIA terms. Given this, and the proposed long-term management of habitats suitable for amphibians, it is likely to result in an overall **significant beneficial effect** for the species.	effect on a local level			
Reptiles (local)	As a result of the embedded mitigation, negligible adverse effects on reptiles (local level) during the operational phase of the Proposed Development are anticipated, which is considered to be **not significant** in EIA terms. Given this, and the proposed long-term management of habitats suitable for reptiles, it is likely to result in an overall **significant beneficial effect** for the species.	Minor beneficial effect on a local level	**Significant beneficial effect**	None required	**Significant beneficial effect**
Brown hare (local)	As a result of the embedded mitigation, negligible adverse effects on brown hare (local level) during the operational phase of the Proposed Development are anticipated, which is considered to be **not significant** in EIA terms. Given this, and the proposed long-term management of habitats suitable for brown hare, it is likely to result in an overall **significant beneficial effect** for the species.	Minor beneficial effect on a local level	**Significant beneficial effect**	None required	**Significant beneficial effect**

Receptor/aspect and sensitivity /value /importance	Description of impact	Magnitude	Significance of effect	Additional mitigation	Residual effect and significance
Hedgehog (local)	As a result of the embedded mitigation, negligible adverse effects on hedgehog (local level) during the operational phase of the Proposed Development are anticipated, which is considered to be **not significant** in EIA terms. Given this, and the proposed long-term management of habitats suitable for hedgehog, it is likely to result in an overall **significant beneficial effect** for the species.	Minor beneficial effect on a local level	**Significant beneficial effect**	None required	**Significant beneficial effect**
Fish (Local to International)	As a result of the embedded mitigation, negligible adverse effects on fish during the operational phase of the Proposed Development are anticipated, which is considered to be **not significant** in EIA terms.	Negligible	Negligible	None required	Negligible (**not significant**)
White-clawed crayfish (National)	As a result of the embedded mitigation, negligible adverse effects on white-clawed crayfish during the operational phase of the Proposed Development are anticipated, which is considered to be **not significant** in EIA terms.	Negligible	Negligible	None required	Negligible (**not significant**)

Receptor/aspect and sensitivity /value /importance	Description of impact	Magnitude	Significance of effect	Additional mitigation	Residual effect and significance
Invertebrates (local)	As a result of the embedded mitigation, negligible adverse effects on terrestrial or aquatic invertebrates (local level) during the operational phase of the Proposed Development are anticipated, which is considered to be **not significant** in EIA terms. Given this, and the proposed long-term management of habitats suitable for invertebrates, it is likely to result in an overall **significant beneficial effect** for the species.	Minor beneficial effect on a local level	**Significant beneficial effect**	None required	**Significant beneficial effect**
Decommissioning					
Skipwith Common SAC and SSSI (International/National)	Further mitigation measures may be required but this cannot be known at this stage. Pre-decommissioning surveys will be carried out and will inform whether any additional mitigation is required to conform with all applicable biodiversity policies and legislation at the time of decommissioning. The completion of pre-decommissioning surveys and any additional mitigation would result in negligible adverse effects on the qualifying features of the designated site (international level), which would be considered **not significant** in EIA terms. This will be set out within, and implemented through, the approved oDEMP [**EN0110012/APP/LVS/07.04**].	Negligible	Negligible	None required	Neutral (**not significant**)

Receptor/aspect and sensitivity /value /importance	Description of impact	Magnitude	Significance of effect	Additional mitigation	Residual effect and significance
Lower Derwent Valley SAC & Ramsar including the various underlying SSSIs (International/National)	Further mitigation measures may be required but this cannot be known at this stage. Pre-decommissioning surveys will be carried out and will inform whether any additional mitigation is required to conform with all applicable biodiversity policies and legislation at the time of decommissioning. The completion of pre-decommissioning surveys and any additional mitigation would result in negligible adverse effects on the qualifying features of the designated site (international level), which would be considered **not significant** in EIA terms. This will be set out within, and implemented through, the approved oDEMP [**EN0110012/APP/LVS/07.04**].	Negligible	Negligible	None required	Negligible (**not significant**)
River Derwent SAC (International)	Further mitigation measures may be required but this cannot be known at this stage. Pre-decommissioning surveys will be carried out and will inform whether any additional mitigation is required to conform with all applicable biodiversity policies and legislation at the time of decommissioning. The completion of pre-decommissioning surveys and any additional mitigation would result in negligible adverse effects on the qualifying features of the designated site (international level), which would be considered **not significant** in	Negligible	Negligible	None required	Negligible (**not significant**)

Receptor/aspect and sensitivity /value /importance	Description of impact	Magnitude	Significance of effect	Additional mitigation	Residual effect and significance
	EIA terms. This will be set out within, and implemented through, the approved oDEMP [**EN0110012/APP/LVS/07.04]**. In relation to fish, there is no perceived hydrological connection between the Proposed Development and the SAC, and therefore no impact pathways are present.				
Humber Estuary SAC & Ramsar (International)	Further mitigation measures may be required but this cannot be known at this stage. Pre-decommissioning surveys will be carried out and will inform whether any additional mitigation is required to conform with all applicable biodiversity policies and legislation at the time of decommissioning. The completion of pre-decommissioning surveys and any additional mitigation would result in negligible adverse effects on the qualifying features of the designated site (international level), which would be considered **not significant** in EIA terms. This will be set out within, and implemented through, the approved oDEMP [**EN0110012/APP/LVS/07.04**].	Negligible	Negligible	None required	Negligible (**not significant**)
Burr Closes SSSI (National)	Further mitigation measures may be required but this cannot be known at this stage. Pre-decommissioning surveys will be carried out and will inform whether any additional mitigation is required to conform	Negligible	Negligible	None required	Negligible (**not significant**)

Receptor/aspect and sensitivity /value /importance	Description of impact	Magnitude	Significance of effect	Additional mitigation	Residual effect and significance
	with all applicable biodiversity policies and legislation at the time of decommissioning. The completion of pre-decommissioning surveys and any additional mitigation would result in negligible adverse effects on the qualifying features of the designated site (national level), which would be considered **not significant** in EIA terms. This will be set out within, and implemented through, the approved oDEMP [**EN0110012/APP/LVS/07.04**].				
Sherburn Willows SSSI (National)	Further mitigation measures may be required but this cannot be known at this stage. Pre-decommissioning surveys will be carried out and will inform whether any additional mitigation is required to conform with all applicable biodiversity policies and legislation at the time of decommissioning. The completion of pre-decommissioning surveys and any additional mitigation would result in negligible adverse effects on the qualifying features of the designated site (national level), which would be considered **not significant** in EIA terms. This will be set out within, and implemented through, the approved oDEMP [**EN0110012/APP/LVS/07.04**].	Negligible	Negligible	None required	Negligible (**not significant**)

Receptor/aspect and sensitivity /value /importance	Description of impact	Magnitude	Significance of effect	Additional mitigation	Residual effect and significance
Fairburn and Newton Ings SSSI (National)	Further mitigation measures may be required but this cannot be known at this stage. Pre-decommissioning surveys will be carried out and will inform whether any additional mitigation is required to conform with all applicable biodiversity policies and legislation at the time of decommissioning. The completion of pre-decommissioning surveys and any additional mitigation would result in negligible adverse effects on the qualifying features of the designated site (national level), which would be considered **not significant** in EIA terms. This will be set out within, and implemented through, the approved oDEMP [**EN0110012/APP/LVS/07.04**].	Negligible	Negligible	None required	Negligible (**not significant**)
SINCs partially within the Order Limits Outside of the Solar Development Sites (county)	Further mitigation measures may be required but this cannot be known at this stage. Pre-decommissioning surveys will be carried out and will inform whether any additional mitigation is required to conform with all applicable biodiversity policies and legislation at the time of decommissioning. The completion of pre-decommissioning surveys and any additional mitigation would result in negligible adverse effects on the qualifying features of the designated sites (county level), which would be considered **not significant** in	Negligible	Negligible	None required	Negligible (**not significant**)

Receptor/aspect and sensitivity /value /importance	Description of impact	Magnitude	Significance of effect	Additional mitigation	Residual effect and significance
	EIA terms. This will be set out within, and implemented through, the approved oDEMP [**EN0110012/APP/LVS/07.04**].				
SINCs adjacent to the Order Limits Outside of the Solar Development Sites (up to 250 m) or the Construction Traffic Routes (county)	Further mitigation measures may be required but this cannot be known at this stage. Pre-decommissioning surveys will be carried out and will inform whether any additional mitigation is required to conform with all applicable biodiversity policies and legislation at the time of decommissioning. The completion of pre-decommissioning surveys and any additional mitigation would result in negligible adverse effects on the qualifying features of the designated sites (county level), which would be considered **not significant** in EIA terms. This will be set out within, and implemented through, the approved oDEMP [**EN0110012/APP/LVS/07.04**].	Negligible	Negligible	None required	Negligible (**not significant**)
SINCs adjacent to the Solar Development Sites (up to 250 m) (county)	Further mitigation measures may be required but this cannot be known at this stage. Pre-decommissioning surveys will be carried out and will inform whether any additional mitigation is required to conform with all applicable biodiversity policies and legislation at the time of decommissioning. The completion of pre-decommissioning surveys and any additional mitigation	Negligible	Negligible	None required	Negligible (**not significant**)

Receptor/aspect and sensitivity /value /importance	Description of impact	Magnitude	Significance of effect	Additional mitigation	Residual effect and significance
	would result in negligible adverse effects on the qualifying features of the designated sites (county level), which would be considered **not significant** in EIA terms. This will be set out within, and implemented through, the approved oDEMP [**EN0110012/APP/LVS/07.4**].				
Arable field margins (tussocky, pollen and nectar, and wild bird mix) and Other Neutral Grassland (local importance)	Further mitigation measures may be required but this cannot be known at this stage. Pre-decommissioning surveys will be carried out and will inform whether any additional mitigation is required to conform with all applicable biodiversity policies and legislation at the time of decommissioning. This will be set out within, and implemented through, the approved oDEMP [**EN0110012/APP/LVS/07.04**]. Due to the likely reversion of the grassland habitat to cropland beneath the solar panels, the decommissioning phase of the Proposed Development may result in a **significant adverse effect** in the extent and quality of grassland habitats within the Solar Development Sites. As details and extent of this is not known at this time, the geographical scale this effect cannot be confirmed, however is anticipated to be up to local/county as a worst-case scenario.	Possible moderate adverse effect on a local/county level as a worst-case scenario.	**Possible significant adverse effect**	Unknown at this time	**Possible significant adverse effect**

Receptor/aspect and sensitivity /value /importance	Description of impact	Magnitude	Significance of effect	Additional mitigation	Residual effect and significance
Scrub (mixed and willow scrub) (local importance)	Further mitigation measures may be required but this cannot be known at this stage. Pre-decommissioning surveys will be carried out and will inform whether any additional mitigation is required to conform with all applicable biodiversity policies and legislation at the time of decommissioning. The completion of pre-decommissioning surveys and any additional mitigation would result in negligible adverse effects on scrub (local level), which would be considered **not significant** in EIA terms. This will be set out within, and implemented through, the approved oDEMP [**EN0110012/APP/LVS/07.04**].	Negligible	Negligible	None required	Negligible (**not significant**)
Woodland (other broadleaved woodland, and other woodland; mixed) (local importance)	Further mitigation measures may be required but this cannot be known at this stage. Pre-decommissioning surveys will be carried out and will inform whether any additional mitigation is required to conform with all applicable biodiversity policies and legislation at the time of decommissioning. The completion of pre-decommissioning surveys and any additional mitigation would result in negligible adverse effects on woodland (local level), which would be considered **not significant** in EIA terms. This will be set out within, and	Negligible	Negligible	None required	Negligible (**not significant**)

Receptor/aspect and sensitivity /value /importance	Description of impact	Magnitude	Significance of effect	Additional mitigation	Residual effect and significance
	implemented through, the approved oDEMP [**EN0110012/APP/LVS/07.04**].				
Ponds (local importance)	Further mitigation measures may be required but this cannot be known at this stage. Pre-decommissioning surveys will be carried out and will inform whether any additional mitigation is required to conform with all applicable biodiversity policies and legislation at the time of decommissioning. The completion of pre-decommissioning surveys and any additional mitigation would result in negligible adverse effects on ponds (local level), which would be considered **not significant** in EIA terms. This will be set out within, and implemented through, the approved oDEMP [**EN0110012/APP/LVS/07.04**].	Negligible	Negligible	None required	Negligible (**not significant**)
Scattered trees (local importance)	Further mitigation measures may be required but this cannot be known at this stage. Pre-decommissioning surveys will be carried out and will inform whether any additional mitigation is required to conform with all applicable biodiversity policies and legislation at the time of decommissioning. The completion of pre-decommissioning surveys and any additional mitigation would result in negligible adverse effects on trees (local level), which would be	Negligible	Negligible	None required	Negligible (**not significant**)

Receptor/aspect and sensitivity /value /importance	Description of impact	Magnitude	Significance of effect	Additional mitigation	Residual effect and significance
	considered **not significant** in EIA terms. This will be set out within, and implemented through, the approved oDEMP [**EN0110012/APP/LVS/07.04**].				
Hedgerows (species-rich native hedgerow, and other native hedgerow, with/without trees/ditches) and Lines of Trees (County when ditches, hedgerows and treelines across all Solar Development Sites considered as a singular network)	Further mitigation measures may be required but this cannot be known at this stage. Pre-decommissioning surveys will be carried out and will inform whether any additional mitigation is required to conform with all applicable biodiversity policies and legislation at the time of decommissioning. The completion of pre-decommissioning surveys and any additional mitigation would result in negligible adverse effects on hedgerows and treelines (county level), which would be considered **not significant** in EIA terms. This will be set out within, and implemented through, the approved oDEMP [**EN0110012/APP/LVS/07.04**].	Negligible	Negligible	None required	Negligible (**not significant**)
Ditches and Other Rivers and Streams (County when ditches, hedgerows and treelines across all Solar Development Sites considered as a singular network)	Further mitigation measures may be required but this cannot be known at this stage. Pre-decommissioning surveys will be carried out and will inform whether any additional mitigation is required to conform with all applicable biodiversity policies and legislation at the time of decommissioning. The completion of pre-decommissioning	Negligible	Negligible	None required	Negligible (**not significant**)

Receptor/aspect and sensitivity /value /importance	Description of impact	Magnitude	Significance of effect	Additional mitigation	Residual effect and significance
	surveys and any additional mitigation would result in negligible adverse effects on watercourses (county level), which would be considered **not significant** in EIA terms. This will be set out within, and implemented through, the approved oDEMP [**EN0110012/APP/LVS/07.04**].				
Invasive non-native flora (negligible-legal reasons)	An oISMP [**EN0110012/APP/LVS/07.22**] covering invasive non-native flora, including but not limited to, Himalayan balsam and Japanese knotweed, for the lifespan of the Proposed Development has been created. Biosecurity measures have been incorporated into the oISMP to avoid accidental introduction of invasive species, including a pathway specific risk assessment identifying any pathways for spread during construction, operation and decommissioning.	Negligible	Negligible	None required	Negligible (**not significant**)
Otter (local)	Further mitigation measures may be required but this cannot be known at this stage. Pre-decommissioning surveys will be carried out and will inform whether any additional mitigation is required to conform with all applicable biodiversity policies and legislation at the time of decommissioning. The completion of pre-decommissioning surveys and any additional mitigation	Negligible	Negligible	None required	Negligible (**not significant**)

Receptor/aspect and sensitivity /value /importance	Description of impact	Magnitude	Significance of effect	Additional mitigation	Residual effect and significance
	would result in negligible adverse effects on otter (local level), which would be considered **not significant** in EIA terms. This will be set out within, and implemented through, the approved oDEMP [**EN0110012/APP/LVS/07.04**].				
Badger (negligible-legal reasons)	Further mitigation measures may be required but this cannot be known at this stage. Pre-decommissioning surveys will be carried out and will inform whether any additional mitigation is required to conform with all applicable biodiversity policies and legislation at the time of decommissioning for badger. This will be set out within, and implemented through, the approved oDEMP [**EN0110012/APP/LVS/07.04**].	Negligible	Negligible	None required	N/A
Bats (local)	Further mitigation measures may be required but this cannot be known at this stage. Pre-decommissioning surveys will be carried out and will inform whether any additional mitigation is required to conform with all applicable biodiversity policies and legislation at the time of decommissioning. The completion of pre-decommissioning surveys and any additional mitigation would result in negligible adverse effects on bats (local level), which would be considered **not significant** in EIA terms.	Negligible	Negligible	None required	Negligible (**not significant**)

Receptor/aspect and sensitivity /value /importance	Description of impact	Magnitude	Significance of effect	Additional mitigation	Residual effect and significance
	This will be set out within, and implemented through, the approved oDEMP [**EN0110012/APP/LVS/07.04**].				
Water vole (local)	Further mitigation measures may be required but this cannot be known at this stage. Pre-decommissioning surveys will be carried out and will inform whether any additional mitigation is required to conform with all applicable biodiversity policies and legislation at the time of decommissioning. The completion of pre-decommissioning surveys and any additional mitigation would result in negligible adverse effects on water vole (local level), which would be considered **not significant** in EIA terms. This will be set out within, and implemented through, the approved oDEMP [**EN0110012/APP/LVS/07.04**].	Negligible	Negligible	None required	Negligible (**not significant**)
Amphibians (local)	Further mitigation measures may be required but this cannot be known at this stage. Pre-decommissioning surveys will be carried out and will inform whether any additional mitigation is required to conform with all applicable biodiversity policies and legislation at the time of decommissioning. The completion of pre-decommissioning surveys and any additional mitigation would result in negligible adverse effects	Negligible	Negligible	None required	Negligible (**not significant**)

Receptor/aspect and sensitivity /value /importance	Description of impact	Magnitude	Significance of effect	Additional mitigation	Residual effect and significance
	on amphibians (local level), which would be considered **not significant** in EIA terms. This will be set out within, and implemented through, the approved oDEMP [**EN0110012/APP/LVS/07.04**].				
Reptiles (local)	Further mitigation measures may be required but this cannot be known at this stage. Pre-decommissioning surveys will be carried out and will inform whether any additional mitigation is required to conform with all applicable biodiversity policies and legislation at the time of decommissioning. The completion of pre-decommissioning surveys and any additional mitigation would result in negligible adverse effects on reptiles (local level), which would be considered **not significant** in EIA terms. This will be set out within, and implemented through, the approved oDEMP [**EN0110012/APP/LVS/07.04**].	Negligible	Negligible	None required	Negligible (**not significant**)
Brown hare (local)	Further mitigation measures may be required but this cannot be known at this stage. Pre-decommissioning surveys will be carried out and will inform whether any additional mitigation is required to conform with all applicable biodiversity policies and legislation at the time of decommissioning. The completion of pre-decommissioning	Negligible	Negligible	None required	Negligible (**not significant**)

Receptor/aspect and sensitivity /value /importance	Description of impact	Magnitude	Significance of effect	Additional mitigation	Residual effect and significance
	surveys and any additional mitigation would result in negligible adverse effects on brown hare (local level), which would be considered **not significant** in EIA terms. This will be set out within, and implemented through, the approved oDEMP [**EN0110012/APP/LVS/07.04**].				
Hedgehog (local)	Further mitigation measures may be required but this cannot be known at this stage. Pre-decommissioning surveys will be carried out and will inform whether any additional mitigation is required to conform with all applicable biodiversity policies and legislation at the time of decommissioning. The completion of pre-decommissioning surveys and any additional mitigation would result in negligible adverse effects on hedgehog (local level), which would be considered **not significant** in EIA terms. This will be set out within, and implemented through, the approved oDEMP [**EN0110012/APP/LVS/07.04**].	Negligible	Negligible	None required	Negligible (**not significant**)

Fish (Local to International)	Further mitigation measures may be required but this cannot be known at this stage. Pre-decommissioning surveys will be carried out and will inform whether any additional mitigation is required to conform with all applicable biodiversity policies and legislation at the time of decommissioning. pre-decommissioning surveys and any additional mitigation would result in minor adverse effects on fish, which would be considered not significant in EIA terms. This will be set out within, and implemented through, the approved oDEMP [**EN0110012/APP/LVS/07.04**].	Minor adverse	Negligible	None required	Negligible (**not significant**)

Receptor/aspect and sensitivity /value /importance	Description of impact	Magnitude	Significance of effect	Additional mitigation	Residual effect and significance
White-clawed crayfish (National)	Negligible following embedded mitigation (buffer zones)	Negligible	Negligible	None required	Negligible (**not significant**)
Invertebrates (local)	Further mitigation measures may be required but this cannot be known at this stage. Pre-decommissioning surveys will be carried out and will inform whether any additional mitigation is required to conform with all applicable biodiversity policies and legislation at the time of decommissioning. The completion of pre-decommissioning surveys and any additional mitigation would result in negligible adverse effects on invertebrates (local level), which would be considered **not significant** in EIA terms. This will be set out within, and implemented through, the approved oDEMP [**EN0110012/APP/LVS/07.04**].	Negligible	Negligible	None required	Negligible (**not significant**)

6.14 Cumulative assessment

6.14.1 This section presents an assessment of cumulative effects between the Proposed Development and other proposed and committed plans and projects.

6.14.2 This assessment has been made with reference to the methodology and guidance set out in Chapter 17: Cumulative and In-Combination Effects (ES Volume 1) [**EN0110012/APP/LVS/06.01.17.00**] and the shortlist of cumulative plans and projects identified within Chapter 17.

6.14.3 The Study Area for the biodiversity assessment extends to 20 km for international designated sites. The long list of cumulative developments included within Appendix 17.1 (ES Volume 3) [**EN0110012/APP/LVS/06.03.17.01**] included a search area of 20 km from the Order Limits for DCO Applications, but for other applications the search area was 10 km.

6.14.4 For individual receptors, this cumulative effect assessment identifies where the predicted effects of the Proposed Development could interact with effects arising from other plans and/or projects based on a spatial and/or temporal basis.

6.14.5 Plans and projects identified within Chapter 17: Cumulative and In-Combination Effects (ES Volume 1) [**EN0110012/APP/LVS/06.01.17.00**] which have the potential to result in cumulative effects on biodiversity are set out in Table 6-13 and are considered below. The remaining plans and projects were reviewed in relation to the biodiversity receptors identified in this assessment and no further potential for significant cumulative effects are identified due to the temporary nature of construction and limited impacted from operation and maintenance.

Table 6-13 Plans and projects relevant to the biodiversity cumulative assessment

Application reference	Description	Distance from the Proposed Development	Potential cumulative effects
Ferrybridge Next Generation Power Station Also local plan land allocation ES08	A generating station of up to 1.2GW output capacity designed to run on 100% hydrogen and able to run on 100% natural gas and associated infrastructure.	0 m (crosses Solar Development Site 4) 0 m (intersects CRC 4-POC)	The project overlaps the Proposed Development as the gas pipeline extends through Solar Development Site 4. The PEIR report and statutory consultation for the project has been completed, with a number of ecology surveys still required. However, as a result of anticipated standard embedded/additional mitigation likely to be

Application reference	Description	Distance from the Proposed Development	Potential cumulative effects
			imposed for the project it is likely that any **significant effects** from the project on the ecological receptors scoped into assessment can be mitigated such that there are no residual effects. As such, at this stage, it is considered that there will be **no significant cumulative effects** with the Proposed Development as a result of the project.
Helios Renewable Energy Project	Installation of ground mounted solar arrays, energy storage and associated development.	6 km east of Solar Development Site 4 4.5 km southeast of CRC 1-4	The ES produced for this project concluded that **no significant adverse effects** are anticipated to arise during construction, operation and decommissioning of the project as a result of the design measures and mitigation in place. A such, it is considered that there will be **no significant cumulative effects** with the Proposed Development as a result of the project.
East Yorkshire Solar Farm	Construction, operation (including maintenance) and decommissioning of ground mounted solar photovoltaic (PV) panel arrays, including underground cabling to connect to the	8.6 km southeast of Solar Development Site 1 7.6 km southeast of CRC 1-4	The ES produced for this project concluded that **no significant adverse effects** are anticipated to arise during construction, operation and decommissioning of the project and no additional mitigation is

Application reference	Description	Distance from the Proposed Development	Potential cumulative effects
	national electricity transmission network.		required (not including birds to be discussed in Chapter 12 Ornithology (ES Volume 1). A such, it is considered that there will be **no significant cumulative effects** with the Proposed Development as a result of the project.
Humber Carbon Capture Pipeline	The Humber Carbon Capture Pipeline project comprises an onshore underground CO2 pipeline and associated above ground infrastructure to transport captured carbon dioxide.	11 km east of Solar Development Site 4 8.35 km southeast of CRC 1-4	Pre-application and no aquatic data available. The Proposed Development crosses the Humber Estuary SAC and likely to result in LSE for changes to water quality and noise and vibration disturbance. HRA has not been undertaken although it is considered that significant effects upon the Humber Estuary would be avoided through adherence to standard practice measures. With the implementation of a CEMP on this project, it is unlikely that adverse impacts to watercourses would occur that would result in effects upon fish populations for which the Humber Estuary SAC is designated. As such, at this stage, it is considered that there will be **no significant cumulative effects** with the Proposed

Application reference	Description	Distance from the Proposed Development	Potential cumulative effects
			Development as a result of the project.
Mylen Leah Solar Farm	Ground-mounted solar electricity generating station with a gross output of over 50 Megawatts (MW) and associated grid connection infrastructure.	5.1 km east of SDS 1 5.2 km east of CRC 1-4	This project is at the pre-application stage. The application is expected to be submitted December 2026. The scoping report for the project has been completed, with a number of ecology surveys still required. However, as a result of anticipated standard embedded/additional mitigation likely to be imposed for the project it is likely that any significant effects from the project on the ecological receptors scoped into assessment can be mitigated such that there are no residual effects. As such, at this stage, it is considered that there will be **no significant cumulative effects** with the Proposed Development as a result of the project.
Outline application for development of 150 dwellings ZG2023/1152/OUTM	Outline application with all matters reserved except for means of access to, but not within, the site for the development of up to 150 dwellings and associated landscaping and infrastructure works	1.15 km southeast of Solar Development Site 8 280 m north of CRC 1-4	Due to the close proximity of the project to the Cable Route Corridor, potential effects on protected species and habitat have been considered. The Ecological Impact Assessment and Protected Species Surveys completed for the project concluded the habitats at the

Application reference	Description	Distance from the Proposed Development	Potential cumulative effects
			project area were considered to be of no more than local importance as they represent common and widespread habitats supporting limited botanical diversity. Predicted effects on important ecological habitat features were therefore anticipated to be **not significant**. Proposals will result in over 10% net gain in BNG units. The project area is suitable for roosting bats and GCN. As a result of proposed mitigation, impacts on protected species as a result of the project will be avoided. A such, it is considered that there will be **no significant cumulative effects** with the Proposed Development as a result of the project.
Outline application for development of 145 dwellings ZG2023/0358/OUTM	Outline application for up to 145 residential dwellings and associated works, including access from Leeds Road but not access within the site (all other matters reserved).	2.65 km southeast of Solar Development Site 8 290 m south of CRC 1-4	Due to the close proximity of the project to the Order Limits, potential effects on protected species and habitat have been considered. The Ecological Impact Assessment completed for the project concluded that due to the limited ecological value of the Site, there would be no significant adverse effects as a result of

Application reference	Description	Distance from the Proposed Development	Potential cumulative effects
			the project. As such, it is considered that there will be no significant cumulative effects with the Proposed Development as a result of the project.
Erection of a Solar Farm AP/2025/0037/REF	Erection of a solar farm together with ancillary development	0 m (adjacent to boundary of Solar Development Sites 3 and 4) 0 m (intersects CRC 3-4a and CRC 3-4)	Due to the close proximity of the project to the Order Limits, potential effects on protected species and habitat have been considered. The Ecological Impact Assessment completed for the project concluded the habitats of highest value were the hedgerows and ditches. Proposals will result in over 10% net gain in BNG units. The project area has limited suitability for reptiles, and GCN and badger are considered absent from the project area. Following proposed mitigation, impacts on protected species as a result of the project will be avoided. A such, it is considered that there will be **no significant cumulative effects** with the Proposed Development as a result of the project
Solar development with co-located Battery Energy Storage System	Solar development with co-located Battery Energy Storage	1.55 km east of Solar Development Site 8	Due to the close proximity of the project to the Cable Route Corridor, potential effects on protected

Application reference	Description	Distance from the Proposed Development	Potential cumulative effects
ZG2024/1129/FULM	System and associated works	100 m north of CRC 1-4	species and habitat have been considered. The Preliminary Ecological Assessment and Protected Species Surveys completed for the project concluded the habitats were of relatively low ecological value, excluding boundary features and mature trees. Proposals will result in over 10% net gain in BNG units. The project area is suitable for brown hare, commuting otter, water vole, commuting and foraging bats, common amphibians, grass snake, and hedgehog. Following proposed mitigation, impacts on protected species as a result of the project will be avoided. A such, it is considered that there will be **no significant cumulative effects** with the Proposed Development as a result of the project.
Fenwick Solar Farm	Installation of solar photovoltaic (PV) generating panels, associated electrical equipment, cabling and energy storage facilities together with grid connection infrastructure. The generating capacity of the scheme will exceed 50 MW, and	11.7 km east of Solar Development Site 4 8.4 km southeast of CRC 1-4	The ES produced for this project concluded that **no significant adverse effects** are anticipated to arise during construction, operation and decommissioning of the project and no additional mitigation is required. As such, it is considered that there

Application reference	Description	Distance from the Proposed Development	Potential cumulative effects
	its maximum capacity is anticipated to be 237.5MW		will be **no significant cumulative effects** with the Proposed Development as a result of the project.
Outline application for development of 140 dwellings ZG2023/0551/OUTM	Outline application with all matters reserved except for means of access to, but not within, the site for the development of up to 140 dwellings and associated landscaping and infrastructure	2.6 km east of Solar Development Site 8 0 m (adjacent to Cable Route Corridor 1-4)	Due to the close proximity of the project to the Cable Route Corridor, potential effects on protected species and habitat have been considered. Ecological Impact Assessment and Protected Species Surveys completed for the project concluded the habitats were of relatively low ecological value, excluding boundary features and mature trees. Proposals will result in over 10% net gain in habitat, hedgerow, and watercourse units. The assessment identified bats, breeding birds, water vole and hedgehog as important ecological features which have the potential to be affected by proposals or warrant consideration due to the legal protection afforded them. However, residual impacts were expected to be at least neutral following implementation of mitigation and/or

Application reference	Description	Distance from the Proposed Development	Potential cumulative effects
			compensation measures. As such, it is considered that there will be **no significant cumulative effects** with the Proposed Development as a result of the project.
Outline planning application for development of 110 dwellings ZG2023/1017/OUTM	Outline Planning Application including access, with all other matters reserved, for up to 110 residential dwellings	3.2 km southeast of Solar Development Site 8 660 m southeast of Cable Route Corridor 1-4	Due to the close proximity of the project to the Cable Route Corridor, potential effects on protected species and habitat have been considered. However, the Ecological Impact Assessment produced for the project concluded the habitats were of relatively low ecological value, excluding boundary features, although a gain in hedgerows was proposed. Additional Public Open Space has been provided as part of the project to reduced potential recreational pressure on the nearby Brayton Braff SINC, and any potential impacts on protected species were to be controlled through a CEMP and LEMP. As such, it is considered that there will be **no significant cumulative effects** with the Proposed Development as a result of the project.

Application reference	Description	Distance from the Proposed Development	Potential cumulative effects
Construction and operation of a solar farm ZG2023/0481/SCN	EIA Screening Opinion in relation to the construction and operation of a solar farm together with all associated works, equipment, necessary infrastructure, and landscaping	50 m east of Solar Development Site 7 10 m east of CRC 6-7	This project is at EIA Screening Opinion stage. It is considered that the development will lead to effects on a number of aspects of the environment, but due to the nature of solar developments and having considered the characteristics and location of the site and surrounding area, most effects are unlikely to be significant on the environment. As such, as a result of anticipated standard embedded/additional mitigation likely to be imposed for the project it is likely that any significant effects from the project on the ecological receptors scoped into assessment can be mitigated such that there are no residual effects. As such, at this stage, it is considered that there will be **no significant cumulative effects** with the Proposed Development as a result of the project.
Reserved Matters Application including layout of planning permission 2021/1531/EIA for an outline application for the demolition of existing colliery	Reserved Matters application including layout of planning permission 2021/1531/EIA for outline application for the demolition of	60 m north of Solar Development Site 7 660 m north of CRC 2-6	A Preliminary Ecological Assessment and Protected Species Surveys completed for this project found that the project area

Application reference	Description	Distance from the Proposed Development	Potential cumulative effects
buildings and the construction of up to 1,460,000 sq ft of employment floorspace ZG2025/0529/REMM Also, local plan land allocation SHERBURN/028	existing colliery buildings and the construction of up to 1,460,000 sq. ft of employment floorspace comprising Use Classes B2, B8 and E(g) to include access (with all other matters reserved).		supports low numbers of foraging and commuting bats, a low population of grass snake in 2018, and suitable habitat for riparian mammals and brown hare. However, due to the implementation of the proposed mitigation it is considered that there will be **no significant cumulative effects** with the Proposed Development as a result of the project.
Installation of a solar farm comprising ground mounted solar PV panels with an installed capacity of 49.99MW ZG2025/0693/EIA	Installation of a solar farm comprising ground mounted solar PV panels with an installed capacity of 49.99MW AC including mounting system, Conversion Units, underground cabling, stock proof fence, CCTV, internal tracks and associated infrastructure, landscaping, biodiversity net gain and environmental enhancements for a temporary period of 50 years and a permanent substation.	8.2 km south of Solar Development Site 1 4.1 km southeast of CRC 1-4	No alterations to the River Ouse form part of the project. Standard mitigation measures anticipated to be required under relevant legislation, including pollution prevention guidance, would be implemented. Accordingly, **no significant cumulative effects** with the Proposed Development are anticipated.
Construction and operation of solar photovoltaic farm and BESS ZG/2025/0762/EIA	Construction and operation of solar photovoltaic farm and Battery Energy Storage System (BESS) including access, fencing, CCTV, internal service tracks, ancillary	4.55 km northeast of Solar Development Site 8 1.45 km northwest of CRC 1-4	An Ecological Impact Assessment completed for this project found that the project area provides suitable habitat for badger, foraging and commuting bats, GCN, brown hare, and

Application reference	Description	Distance from the Proposed Development	Potential cumulative effects
	equipment and scheme of landscaping.		hedgehog. However, protected species surveys are yet to be completed for the project, so the spread of species within the project area is currently unknown. However, due to the anticipated mitigation that would likely be proposed as part of the project to abide by legislation, and due to the reversion of arable land to grassland beneath the panels, there is considered to be **no significant cumulative effects** with the Proposed Development as a result of the project.

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