SOMERSET
ENERGY PARK

Planning Inspectorate Reference: EN0110039

Environmental Impact Assessment Scoping Report

October 2026



Prepared for:

Somerset Energy Park Ltd

Prepared by:

AECOM Limited

© 2026 AECOM Limited. All Rights Reserved.

This document has been prepared by AECOM Limited (“AECOM”) for sole use of our client (the “client”) in accordance with generally accepted consultancy principles, the budget for fees and terms of reference agreed between AECOM and the Client. Any information provided by third parties and referred to herein has not been checked or verified by AECOM, unless otherwise expressly stated in the document. No third party may rely upon this document without the prior and express written agreement of AECOM

Table Of Contents

1. Introduction 1
1.1. Background 1
1.2. Legislative Context and Need for Environmental Impact Assessment 2
1.3. Purpose and Structure of the EIA Scoping Report 5
1.4. The Applicant 8
1.5. ISEP Quality Mark 8
2. Scoping Site Boundary and Surrounding Area 9
2.1. Overview 9
2.2. The Scoping Site Boundary and Surrounding Area 9
3. The Proposed Development 13
3.1. Introduction 13
3.2. Overview of Proposed Development Infrastructure 14
3.3. Construction Programme and Activities 35
3.4. Operation and Maintenance Activities 38
3.5. Decommissioning 39
4. Consideration of Alternatives 41
4.1. Introduction 41
4.2. Approach to Design 41
4.3. Site Selection 41
4.4. Development of the Scoping Site Boundary 42
4.5. Grid Connection and Inter-Array Connections 42
4.6. Approach to Consideration of Alternatives 42
5. Consultation 44
5.1. Legislative, Regulation, and Advice Context 44
5.2. Approach to Consultation 44
5.3. Stakeholder Engagement to Date 45
5.4. Scoping Consultation 45
6. Environmental Impact Assessment Methodology 46
6.1. Purpose of the EIA Process 46
6.2. Overall Approach 46
6.3. Determining Baseline Conditions 47

6.4. Mitigation 47
6.5. Timescales and Assessment Years 49
6.6. Assessment of Impacts and Significance of Effects 52
6.7. Cumulative Effects 57
6.8. Proposed Topics to be included in the ES 61
6.9. Proposed Elements Scoped Out 62
6.10. Topic Chapter Structure 62
7. Climate Change 63
7.1. Introduction 63
7.2. Study Area 63
7.3. Legislation, Planning Policy Context and Guidance 64
7.4. Consultation 67
7.5. Baseline Conditions 67
7.6. Potential Effects and Mitigation 70
7.7. Assessment Methodology 73
7.8. Limitations and Assumptions 81
7.9. Summary of Elements Scoped In and Out 81
8. Cultural Heritage 83
8.1. Introduction 83
8.2. Study Area 83
8.3. Legislation, Planning Policy Context and Guidance 84
8.4. Consultation 85
8.5. Baseline Conditions 86
8.6. Potential Effects and Mitigation 91
8.7. Assessment Methodology 93
8.8. Limitations and Assumptions 97
8.9. Summary of Elements Scoped In and Out 98
9. Ecology and Biodiversity 100
9.1. Introduction 100
9.2. Characterising the Baseline 100
9.3. Legislation, Planning Policy Context and Guidance 103
9.4. Consultation 106

9.5. Baseline Conditions 107
9.6. Potential Effects and Mitigation 144
9.7. Assessment Methodology 148
9.8. Limitations and Assumptions 155
9.9. Summary of Elements Scoped In and Out 156
10. Water Environment 161
10.1. Introduction 161
10.2. Study Area 161
10.3. Legislation, Planning Policy Context and Guidance 162
10.4. Consultation 166
10.5. Baseline Conditions 167
10.6. Potential Effects and Mitigation 192
10.7. Assessment Methodology 199
10.8. Limitations and Assumptions 212
10.9. Summary of Elements Scoped In and Out 213
11. Landscape and Visual 218
11.1. Introduction 218
11.2. Study Area 218
11.3. Legislation, Planning Policy Context and Guidance 219
11.4. Consultation 223
11.5. Baseline Conditions 224
11.6. Potential Effects and Mitigation 232
11.7. Assessment Methodology 236
11.8. Limitations and Assumptions 238
11.9. Summary of Elements Scoped In and Out 239
12. Noise and Vibration 245
12.1. Introduction 245
12.2. Study Area 245
12.3. Legislation, Planning Policy Context and Guidance 246
12.4. Consultation 247
12.5. Baseline Conditions 248
12.6. Potential Effects and Mitigation 248

12.7. Assessment Methodology 250
12.8. Limitations and Assumptions 253
12.9. Summary of Elements Scoped In and Out 254
13. Socio-economics, Tourism and Recreation 256
13.1. Introduction 256
13.2. Study Area 256
13.3. Legislation, Planning Policy Context and Guidance 256
13.4. Consultation 258
13.5. Baseline Conditions 258
13.6. Potential Effects and Mitigation 263
13.7. Assessment Methodology 265
13.8. Limitations and Assumptions 270
13.9. Summary of Elements Scoped In and Out 270
14. Agriculture and Soils 272
14.1. Introduction 272
14.2. Study Area 272
14.3. Legislation, Planning Policy Context and Guidance 272
14.4. Consultation 274
14.5. Baseline Conditions 274
14.6. Potential Effects and Mitigation 276
14.7. Assessment Methodology 280
14.8. Limitations and Assumptions 284
14.9. Summary of Elements Scoped In and Out 285
15. Transport and Access 286
15.1. Introduction 286
15.2. Study Area 286
15.3. Legislation, Planning Policy Context and Guidance 287
15.4. Consultation 288
15.5. Baseline Conditions 288
15.6. Potential Effects and Mitigation 295
15.7. Assessment Methodology 297
15.8. Limitations and Assumptions 306

15.9. Summary of Elements Scoped In and Out 307
16. Materials and Waste 309
16.1. Introduction 309
16.2. Study Area 309
16.3. Legislation, Planning Policy Context and Guidance 310
16.4. Consultation 311
16.5. Baseline Conditions 312
16.6. Potential Effects and Mitigation 316
16.7. Assessment Methodology 317
16.8. Limitations and Assumptions 325
16.9. Summary of Elements Scoped In and Out 325
17. Other Environmental Topics 327
17.1. Air Quality 327
17.2. Ground Conditions 335
17.3. Human Health 348
17.4. Electromagnetic Fields 354
17.5. Glint and Glare 357
17.6. Telecommunications 363
17.7. Major Accidents and Disasters 367
18. Structure of the Environmental Statement 381
18.1. Introduction 381
19. Summary and Conclusions 383
20. Glossary and Abbreviations 402
20.1. Glossary 402
20.2. Abbreviations 415
21. References 423

Table of Plates

Plate 3-1 Illustrative Solar PV Panels 25
Plate 3-2 Solar Panels with south facing configuration 26
Plate 3-3 Typical string inverter (image reproduced courtesy of Huawei) 27
Plate 3-4 Typical centralised inverter (without enclosure) 28
Plate 3-5 Typical outdoor transformer (with fence enclosure) 28

Plate 3-6 Typical transformer cabin (including switchgear) 29
Plate 3-7 Typical switchgear 29
Plate 3-8 Typical deer security fence 33
Plate 3-9 Typical stock metal palisade fencing 33
Plate 3-10 Typical transformer compound fencing 34
Plate 16-1 The Waste Hierarchy, from Defra's Guidance on Applying the Waste Hierarchy, recreated by AECOM 317

Table of Tables

Table 1-1 Contents for the EIA Scoping Report Based on the Nationally Significant Infrastructure Projects: Pre-Application Advice on Environmental Impact Assessment Guidance. 6
Table 3-1 Design Parameters used for the EIA Scoping Report 16
Table 6-1: Magnitude of Change Criteria 53
Table 6-2: Sensitivity Criteria 54
Table 6-3: Example Matrix to Classify Environmental Effects 55
Table 6-4: Generic Effect Descriptions 56
Table 6-5: Summary of How Cumulative and In-Combination Effects will be Reported in the Environmental Statement 57
Table 7-1 Historic climate data (1981 – 2010) from the UK Met Office Climate Data Portal (Ref 54) for a 12x12 km grid (Grid ID: AS-90) 68
Table 7-2 Potential Sources of GHG emissions 70
Table 7-3 Climate parameters for the CCRA of the Proposed Development 72
Table 7-4 UK National and Sectoral Carbon Budgets and Indicative Carbon Budgets Based on the CCC's Balanced Net Zero Pathway 75
Table 7-5 Significance Criteria 76
Table 7-6 Likelihood of an impact occurring criteria for risk assessment 78
Table 7-7 Level of Consequence of a climate change impact occurring 79
Table 7-8 Significance Matrix for CCRA Assessment 81
Table 7-9 Elements scoped in and out of the Climate Change assessment 81
Table 8-1 Criteria for assessing the value of heritage assets 93
Table 8-2 Factors influencing the assessment of magnitude of impacts 94
Table 8-3 Assessment of significance of effects 95
Table 8-4 Elements scoped in and out of the cultural heritage assessment 98
Table 9-1 UK National Site Network sites within 10 km of the Scoping Site Boundary and within 20 km/30 km for which birds and/or bats are a qualifying feature 109
Table 9-2 Statutory designated sites at a national level within 5 km of the Scoping Site Boundary 114
Table 9-3: Non-statutory designated sites within 2 km of the Scoping Site Boundary 118
Table 9-4 Water Framework Directive (WFD) water bodies within the Study Area . 123

Table 9-5: Protected and/or notable species records within the Study Area 124
Table 9-6 Ecological surveys that have been, or will be, undertaken to characterise the baseline within the Scoping Site Boundary 128
Table 9-7 Summary of sensitivity of ecological features, according to geographic context..... 150
Table 9-8: Magnitude criteria for impacts and effects 153
Table 9-9: Significance criteria for impacts and effects..... 154
Table 9-10: Elements scoped in and out of the ecology and nature conservation assessment. 156
Table 10-1: Aquifer Designations across the Study Area..... 169
Table 10-2: Flood Risk Vulnerability and Flood Zone 'incompatibility' 173
Table 10-3 Baseline Flood Risk from All Sources..... 173
Table 10-4 Surface Water Features within the Study Area or potentially impacted by the Proposed Development..... 178
Table 10-5. WFD water bodies potentially impacted by the Proposed Development (Ref 223) 183
Table 10-6 Summary of water quality monitoring stations (Ref 224) relevant to the Proposed Development..... 187
Table 10-7 Summary of flow (F) and river level (RL) gauging stations (Ref 226) relevant to the Proposed Development 188
Table 10-8 Criteria to Determine Receptor Importance (adapted from DMRB LA 113 (Ref 241). 208
Table 10-9 Magnitude of Change Criteria (adapted from DMRB LA 113 (Ref 241) 211
Table 10-10 Matrix for Assessment of Significance of Effects (DMRB LA 104 (Ref 242)..... 211
Table 10-11 Elements scoped in and out of the Water Environment assessment .. 213
Table 11-1 Proposed Representative Viewpoints 230
Table 11-2 Elements Scoped In and Out of the Landscape and Visual Assessment 239
Table 12-1 Thresholds of potential effects of construction and decommissioning noise at residential buildings 251
Table 12-2 *Thresholds of potential effects of construction and decommissioning vibration (human response)*..... 251
Table 12-3 Construction and decommissioning traffic noise assessment criteria ... 252
Table 12-4 Operational noise assessment criteria..... 252
Table 12-5 Elements scoped in and out of the noise and vibration assessment 254
Table 13-1 Socio-economic Receptors Sensitivity Criteria 266
Table 13-2 Socio-economic Receptors Magnitude Criteria..... 267
Table 13-3 Tourism and Recreation Sensitivity Criteria 267
Table 13-4 Tourism and Recreation Magnitude Criteria..... 267
Table 13-5 Impact Assessment and Effect Significance 269

Table 13-6 Elements Scoped In and Out of the Socio-economics, Tourism and Recreation Assessment 270
Table 14-1 Area of Agricultural Land by Predictive ALC Grade within the Scoping Site Boundary (based on Predictive ALC data (2026)) 275
Table 14-2 Area of Soil Associations within the Scoping Site Boundary 275
Table 14-3 Sensitivity Criteria for Agricultural Land 282
Table 14-4 Magnitude of Change: Agricultural Land Resource 282
Table 14-5 Sensitivity of Soil Resources 283
Table 14-6 Magnitude of Change Criteria: Soil Resources 283
Table 14-7 Elements Scoped In and Out of the Agriculture and Soils Assessment 285
Table 15-1: PRoW within or close to the Scoping Site Boundary 289
Table 15-2: Bus Services 293
Table 15-3: Sensitivity/Value Criteria for Severance, Pedestrian Delay, Non-Motorised User Amenity, and Fear and Intimidation 300
Table 15-4: Sensitivity/Value Criteria for Driver Delay 301
Table 15-5: Sensitivity/Value Criteria for Road Safety and Hazardous/Large Loads 301
Table 15-6: Magnitude Criteria for Transport and Access (All Assessment Criteria) 305
Table 15-7: Additional Magnitude Criteria for Fear and Intimidation 306
Table 15-8: Significance of Effects Matrix (Transport and Access) 306
Table 15-9 Elements scoped in and out of the Transport and Access assessment 307
Table 16-1 Availability of Key Construction Materials (Baseline) 312
Table 16-2: Potential Recycled Content 313
Table 16-3: Landfill Capacity in the South West region (2024) 314
Table 16-4: Historic Landfill site details 314
Table 16-5: Material Receptor Sensitivity 320
Table 16-6: Inert and Non-hazardous Landfill Capacity Sensitivity 321
Table 16-7: Hazardous Landfill Capacity Sensitivity 322
Table 16-8: Materials Magnitude of Impact 323
Table 16-9: Inert and Non-hazardous Waste Magnitude of Impacts 324
Table 16-10: Hazardous Waste Management Magnitude of Impact 324
Table 16-11: Effect Thresholds 324
Table 16-12: Significance of Effect 325
Table 16-13: Elements scoped in and out of the Materials and Waste assessment 326
Table 17-1: Background Air Pollutant Concentrations for the 2026 Baseline Year (derived from Defra 2021-based Background Maps) 329
Table 17-2: Elements scoped in and out of the air quality assessment 334
Table 17-3: Environmental Design and Management Measures 343
Table 17-4 Ground Conditions aspects 347
Table 17-5 Human Health Profile 351
Table 17-6 Elements scoped in and out of the EMF assessment 356

Table 17-7 Elements scoped in and out of the glint and glare assessment 361
Table 17-8 Elements scoped out of the telecommunications and utilities assessment 366
Table 17-9 Construction Phase Major Accident and Disaster Risks Proposed to be Addressed within the EIA 373
Table 17-10 Operation (and Maintenance) Phase Major Accident and Disaster Risks Proposed to be Addressed within the EIA 374
Table 17-11 Decommissioning Phase Major Accident and Disaster Risks Proposed to be Addressed within the EIA 377
Table 19-1: Summary of matters proposed to be Scoped Out of the EIA 384

1. Introduction

1.1. Background

1.1.1 Somerset Energy Park Limited (hereafter referred to as 'the Applicant') has commissioned this Environmental Impact Assessment (EIA) Scoping Report for Somerset Energy Park (hereafter referred to as the 'Proposed Development').

1.1.2 The Proposed Development lies north and south of Mark and east of the M5. It comprises the construction, operation (and maintenance) and decommissioning of solar photovoltaic (PV) generating panels, interconnecting cables, associated Battery Energy Storage System(s) (BESS), a 'Main Substation' and 'Collector Substations' and other supporting infrastructure including but not limited to fencing, access tracks, drainage, and biodiversity and landscape enhancements at a proposed site near Highbridge. Each component is described further in **Chapter 3: The Proposed Development** of this EIA Scoping Report.

1.1.3 The Proposed Development comprises the 'Energy Park', 'Inter-Array Connections', a 'Grid Connection', and associated access infrastructure. The area required for the Proposed Development is referred to as the 'Scoping Site Boundary' as shown in **Figure 1-1: Proposed Development Location Plan**.

1.1.4 The Energy Park comprises the area of land that is being considered for the generation and storage of electricity through solar PV, the Main Substation, Collector Substations, BESS infrastructure, other related infrastructure, and areas for landscape and biodiversity mitigation and enhancement. The Energy Park comprises of land parcels grouped into five development areas: northern, eastern, southern, western and central. The National Grid Reference for the approximate centre of the Energy Park is ST 36559 48492.

1.1.5 The Connection & Access Infrastructure Corridors, shown on **Figure 1-2: Zonal Masterplan**, encompass land areas within which underground cabling and/or overhead lines will be sited to connect development areas within the Energy Park together and to the Point of Connection. It therefore includes Inter-Array Connections, a Grid Connection and associated access infrastructure. It is possible that the Main Substation may be sited within the Connection & Access Infrastructure Corridors, rather than within the Energy Park. The Connection & Access Infrastructure Corridors will be subject to further refinement during design development and are anticipated to be reduced from the current extent. It is not expected that this would materially change the scope of the EIA as outlined in this EIA Scoping Report.

1.1.6 The Proposed Development is expected to connect to the National Electricity Transmission System (NETS) at the proposed National Grid Electricity Transmission (NGET) substation at Woolavington (referred to as the 'National Grid Woolavington Substation').

1.1.7 The Energy Park will connect to the National Grid Woolavington Substation via the Grid Connection. The Applicant is not aware of any changes to the currently proposed National Grid Woolavington Substation that would be required to facilitate the connection. The National Grid Woolavington Substation is being delivered as a separate project.

1.1.8 As its proposed generating capacity is over 100 MW, the Proposed Development is classified as a Nationally Significant Infrastructure Project (NSIP) and would therefore require a Development Consent Order (DCO) under the Planning Act 2008 (Ref 1) for its construction, operation (and maintenance), and decommissioning.

1.1.9 The Scoping Site Boundary is likely to be refined as the Proposed Development design progresses. It is important to note at this stage that **Figure 1-1: Proposed Development Location Plan** shows the extent of land that is currently anticipated to be included within the DCO Application and provides a *"plan sufficient to identify the land"* for the purposes of this EIA Scoping Report.

1.1.10 This EIA Scoping Report forms a formal request for a Scoping Opinion from the Secretary of State (SoS) under Regulation 10(1) of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the 'EIA Regulations') (Ref 2).

1.2. Legislative Context and Need for Environmental Impact Assessment

1.2.1 This EIA Scoping Report describes the legislation and national and local planning policies relevant to the assessment with a summary provided for each environmental topic. The purpose of this EIA Scoping Report is not to assess the Proposed Development against planning policy; this will be undertaken and set out in a Planning Statement, a separate document that will be submitted as part of the DCO Application. The purpose of considering the above-mentioned planning policies at the scoping phase of the EIA is twofold:

a. To identify policy that could influence the sensitivity of receptors (and therefore the significance of effects) and any requirements for mitigation; and
b. To identify planning policy that could influence the methodology of the EIA. For example, a planning policy may require the assessment of a particular impact or the use of a particular methodology.

1.2.2 A summary of legislation and national and local planning policy relevant to each technical assessment is provided for each technical topic (refer to **Chapter 7 to 17** of this EIA Scoping Report).

Legislation and National Policy

1.2.3 The Planning Act 2008 provides the legislative basis for applications for a DCO. It also defines the application process under which a DCO is sought. The Proposed Development is defined as a NSIP under Sections 14(1)(a)

and 15(2) of the Planning Act 2008 as an onshore generating station in England with a capacity exceeding 100 Megawatt (MW). This means that consent to construct the Proposed Development must be sought via a DCO Application.

1.2.4 The requirement to undertake an EIA for NSIP developments is transposed into law through the EIA Regulations. The EIA Regulations specify which developments are required to undergo EIA. Schemes relevant to the NSIP planning process are listed under either of 'Schedule 1' or 'Schedule 2'. Those developments listed in Schedule 1 must be subject to EIA, while developments listed in Schedule 2 must only be subject to EIA if they are considered "*likely to have significant effects on the environment by virtue of factors such as its nature, size or location*". The criteria on which this judgement must be made are set out in Schedule 3 of the EIA Regulations.

1.2.5 The Proposed Development is a 'Schedule 2' development under paragraph 3(a) of Schedule 2 of the EIA Regulations, as it constitutes an "*industrial installation for the production of electricity, steam and hot water*".

1.2.6 It is considered that due to its size, nature and location, the Proposed Development has the potential to have significant effects on the environment. The Applicant therefore confirms, under Regulation 8(1)(b) of the EIA Regulations, that an Environmental Statement (ES) will be provided in respect of the application for development consent for the Proposed Development, as it is considered that the Proposed Development meets the criteria set out in Schedule 3 of the EIA Regulations.

1.2.7 Following the completion of surveys, assessments and consultation processes outlined in this EIA Scoping Report, and taking into account the Scoping Opinion, an application for a DCO will be made to the SoS for determination in accordance with the Planning Act 2008. The DCO Application will be accompanied by an ES, in accordance with Regulation 5(2)a of the Infrastructure Planning (Applications: Prescribed Forms and Procedures) Regulations 2009 ('APFP Regulations') (Ref 3). The ES will set out the methods and findings of a comprehensive EIA undertaken in line with the EIA Regulations.

1.2.8 The Localism Act 2011 (Ref 4) appointed the Planning Inspectorate as the government agency responsible for operating the DCO process for NSIPs. The SoS will appoint an Examining Authority from the Planning Inspectorate, who will examine the DCO Application for the Proposed Development and then make a recommendation to the SoS, who will in turn make the decision on whether to grant or refuse the DCO for the Proposed Development.

1.2.9 In accordance with Section 104(2) of the Planning Act 2008, the SoS is required to have regard to *"any National Policy Statement (NPS) which has effect in relation to development of the description to which the application relates"* amongst other matters, when deciding whether to grant a DCO. The Applicant considers that the Overarching NPS for Energy (EN-1) (Ref 5), NPS for Renewable Energy Infrastructure (EN-3) (Ref 6) and NPS for Electricity Networks Infrastructure (EN-5) (Ref 7) are the national policy statements which are relevant for the Proposed Development's DCO

Application. EN-1, EN-3, and EN-5 were published December 2025 and came into force January 2026. Section 104(3) of the Planning Act 2008 requires the SoS to decide the application in accordance with any relevant national policy statement, except to the extent that one or more of subsections (4) to (8) applies.

1.2.10 The adopted EIA approach takes account of the NPS documents which have effect; as well as national and local planning policy and other important and relevant considerations in relation to decision making. The broad national and local planning policy context is set out below, along with a summary provided of the relevant considerations for each technical assessment within each environmental topic (**Chapters 7 to 17**) of this EIA Scoping Report.

1.2.11 The Climate Change Act 2008 (Ref 8), came into effect in 2008 by the UK government which set out to reduce greenhouse gas emissions by 80% of 1990 levels by 2050. However, since then, as of June 2019, a secondary legislation was passed where the government increased this target to bring greenhouse gas emissions to net zero by 2050.

Other relevant policy

1.2.12 The National Planning Policy Framework (NPPF), revised in August 2026, (Ref 9) sets out the Government's national planning policies for England. Chapter 1, paragraph 13 of the NPPF sets out that the NPPF *"does not contain specific policies for nationally significant infrastructure projects. These are determined in accordance with the Planning Act 2008 (as amended) and relevant national policy statements for major infrastructure, as well as any other matters that are relevant (which may include this Framework)."*

1.2.13 Whilst the NPSs are the primary consideration in deciding applications for NSIPs, policies in Local Development Plans are also 'important and relevant' matters and can influence the content of local impact reports (which the host Local Planning Authorities (LPAs) produce following submission of DCO Applications), and which the SoS must have regard to in its decision making in accordance with Section 104(2)(b) of the Planning Act 2008.

1.2.14 The Proposed Development is located within the administrative area of Somerset Council. The relevant Development Plans for the Proposed Development includes the following:

a. Sedgemoor Local Plan 2011 to 2032 (Ref 11);
b. Somerset Minerals Plan Development Plan Document up to 2030 (Ref 12);
c. Somerset Waste Core Strategy Development Plan Document up to 2028 (Ref 13);
d. Burnham and Highbridge area Neighbourhood Plan (Ref 14);
e. Puriton Neighbourhood Plan (Ref 15);
f. Wedmore Neighbourhood Plan (Ref 16); and
g. Somerset Local Plan 2045 (Emerging) (Ref 10).

1.2.15 A summary of local planning policy that is relevant to each technical assessment is provided in each environmental topic chapter. Supplementary planning guidance which is relevant to the Proposed Development has also been considered in each of the topic areas.

1.2.16 Other policies which are likely to be important and relevant matters to the SoS's decision and are considerations for the EIA technical assessments include:

a. The Energy White Paper (Ref 17) published in December 2020 sets out how the UK will reach net zero emissions by 2050. It identifies the Government's aim for a fully decarbonised, reliable and low-cost power system by 2050;
b. The Environment Act (Ref 18), was published in 2021 and makes provisions about targets, plans and policies for improving the natural environment.
c. British Energy Security Strategy (Ref 19) was published in April 2022 and sets out how the UK will expand its domestic energy supply alongside commitments to completely remove Russian oil and coal imports by the end of 2022. The Strategy aims to accelerate the transition from fossil fuels through the roll out of new renewables.
d. Powering up Britain (PUB) (Ref 20) was published in March 2023 by the UK Government and provides an overarching delivery plan which brings together the Energy Security Plan and Net Zero Growth Plan as the blueprint for the future of energy in the UK. PUB states that solar has huge potential to help the UK decarbonise the power sector, with ambitions for a fivefold increase in solar by 2035, up to 70 GW, enough to power around 20 million homes.
e. The Environmental Improvement Plan 2025 (Ref 21), published December 2025, sets out the government's plan to improve the natural environment. It sets out goals for restoring nature and how the government will deliver these;
f. The Clean Power 2030 Action Plan (Ref 22) published in December 2024 sets out how the (UK) government will work with the renewables sector to achieve clean energy targets by 2030.Whilst the Proposed Development would connect after 2030, the preliminary 2035 targets in addition to the 2030 targets paints a clear picture of how the UK government addresses renewable energy for the future; and
g. Solar Roadmap (Ref 23) was published by the Department for Energy Security and Net Zero (DESNZ) in June 2025 and details government and industry actions that will be delivered to radically increase the deployment of solar in all its forms across the UK.

1.3. Purpose and Structure of the EIA Scoping Report

1.3.1 An EIA Scoping Report is produced by an applicant to formally request a Scoping Opinion. Although the Scoping Opinion is sought from the SoS, the

process is undertaken by the Planning Inspectorate on behalf of the SoS. An EIA Scoping Report provides information to support such a request and can be used to help inform both the Scoping Opinion and formal consultation with statutory environmental bodies by the Planning Inspectorate.

1.3.2 Regulation 10(3) of the EIA Regulations sets out the requirements for requesting a Scoping Opinion stating that the request (EIA Scoping Report) must include:

a. A plan sufficient to identify the land;
b. A description of the proposed development, including its location and technical capacity;
c. An explanation of the likely significant effects of the development on the environment; and
d. Such other information or representations as the person making the request may wish to provide of make.

1.3.3 The purpose of this EIA Scoping Report is therefore to fulfil these requirements and also to:

a. Provide a summary of the Proposed Development;
b. Set out the proposed scope of work and methods to be applied in carrying out the EIA;
c. Identify the likely significant environmental effects of the Proposed Development at an early phase of development to ensure they are considered and addressed throughout the design and consenting process;
d. Provide a justification and rationale for scoping out certain topics from further assessment (for example where no likely significant effects are predicted); and
e. Set out the proposed structure and coverage of the ES to be submitted with the DCO Application.

1.3.4 This EIA Scoping Report is set out in accordance with the Nationally Significant Infrastructure Projects: Pre-Application Advice on Environmental Impact Assessment Guidance (Ref 24).

1.3.5 **Table 1-1** lists the suggested requirements identified in Nationally Significant Infrastructure Projects: Pre-Application Advice on Environmental Impact Assessment Guidance and details where they are provided within this EIA Scoping Report.

Table 1-1 Contents for the EIA Scoping Report Based on the Nationally Significant Infrastructure Projects: Pre-Application Advice on Environmental Impact Assessment Guidance.

Suggested Scoping Report Contents	Location in this Scoping Report
Transboundary Screening Matrix	**Appendix 1-1: Transboundary Effects Screening Matrix**
The Proposed Development	

Suggested Scoping Report Contents	Location in this Scoping Report
An explanation of the approach to addressing uncertainty where it remains in relation to elements of the Proposed Development e.g. design parameters	**Chapter 3: The Proposed Development**
Referenced plans presented at an appropriate scale to convey clearly the information and all known features associated with the Proposed Development	**Figure 1-1: Proposed Development Location Plan** **Figure 2-1a and 2-1b: Environmental Constraints**
EIA Approach and Topic Areas	
An outline of the reasonable alternatives considered and the reasons for selecting the preferred option	**Chapter 4: Consideration of Alternatives**
A summary table depicting each of the aspects and matters that are requested to be scoped out allowing for quick identification of issues	**Chapter 19: Summary and Conclusions**
A detailed description of the aspects and matters proposed to be scoped out of further assessment with justification provided	**Chapters 7 to 17 (Technical Topics)**
Results of desktop and baseline studies where available and where relevant to the decision to scope in or out aspects or matters	**Chapters 7 to 17 (Technical Topics)**
Aspects and matters to be scoped in, the report should include details of the methods to be used to assess impacts and to determine significance of effect e.g. criteria for determining sensitivity and magnitude	**Chapters 7 to 17 (Technical Topics)**
Any avoidance or mitigation measures proposed, how they may be secured and the anticipated residual effects	**Chapters 7 to 17 (Technical Topics)**
Information Sources	
References to any guidance and best practice to be relied upon	**Chapters 7 to 17 (Technical Topics)**
Evidence of agreements reached with consultation bodies (for example the statutory nature conservation bodies or local authorities)	**Chapters 7 to 17 (Technical Topics)**
An outline of the structure of the proposed ES	**Chapter 18: Proposed Structure of the Environmental Statement**

1.3.6 A glossary and abbreviation list is presented at the back of this EIA Scoping Report.

1.4. The Applicant

1.4.1 The Applicant is Somerset Energy Park Limited, which is a subsidiary of Low Carbon Ltd ('Low Carbon'); a privately-owned renewable energy company.

1.4.2 Founded in 2011, Low Carbon is committed to making a positive and significant impact on climate change by investing in large-scale renewable energy projects across a range of energy technologies including utility scale solar, onshore wind and battery storage. Deploying capital at scale into renewables, it invests across the full life cycle from concept through to development, construction, and operation (and maintenance).

1.4.3 To date, Low Carbon has deployed more than £1 billion into building renewable infrastructure with more than 1 Gigawatt (GW) of assets either in construction or operation and a multi-GW proprietary pipeline of renewables currently being developed. Since becoming an Independent Power Producer (IPP), more than 450 GWh of renewable energy has been produced from assets owned and operated by Low Carbon – the equivalent of powering more than 200,000 homes with clean electricity and around 150,000 tCO_2e avoided annually.

1.4.4 Low Carbon has been active in large-scale solar energy since its formation in 2011. With an established track record in the UK, it also has operations across Europe.

1.5. ISEP Quality Mark

1.5.1 AECOM has prepared this EIA Scoping Report on behalf of the Applicant. AECOM is a Registered Impact Assessor with the Institute of Sustainability and Environmental Professionals (ISEP) (formerly known as IEMA) and holds the ISEP EIA Quality Mark as recognition of the quality of its EIA product and continuous training of its environmental consultants. A Statement of Competence will be included within the ES, outlining the relevant expertise or qualifications of the experts who prepared the ES.

2. Scoping Site Boundary and Surrounding Area

2.1. Overview

2.1.1 The Proposed Development consists of the Energy Park and Connection & Access Infrastructure Corridors (which includes Inter-Array Connections and Grid Connection) collectively known, at this stage, as the 'Scoping Site Boundary'. The Proposed Development is shown on **Figure 1-1: Proposed Development Location Plan** and **Figure 1-2: Zonal Masterplan**.

2.1.2 For the purposes of this Environmental Impact Assessment (EIA) Scoping Report, all electrical connections are anticipated to be delivered via underground cabling or overhead lines or a combination of both within the Scoping Site Boundary.

2.1.3 Further details on the Main Substation, Collector Substations, Connection Corridors, Point of Connection, and other infrastructure related to the Proposed Development are outlined in **Chapter 3: The Proposed Development**.

2.2. The Scoping Site Boundary and Surrounding Area

2.2.1 This section describes the location of key environmental features of the Scoping Site Boundary, which is located in the administrative area of Somerset Council. The rationale for the location of the Proposed Development is described in **Chapter 4: Consideration of Alternatives** of this EIA Scoping Report.

2.2.2 The Proposed Development lies north and south of Mark and east of the M5. The Scoping Site Boundary is approximately centred on National Grid Reference ST 36559 48492. The total area of the Scoping Site Boundary is approximately 2780 ha and it is located approximately 900 m east of Highbridge, and 3.8 km north east of Bridgwater.

2.2.3 The Proposed Development comprises the 'Energy Park', 'Inter-Array Connections', a 'Grid Connection', and associated access infrastructure. The area required for the Proposed Development is referred to as the 'Scoping Site Boundary' as shown in **Figure 1-1: Proposed Development Location Plan**. This will be refined as the Proposed Development design progresses, taking into account environmental and technical factors, and consultation responses.

2.2.4 Several environmental features and receptors have been identified within and in the vicinity of the Scoping Site Boundary. These are summarised below, with key features shown on **Figure 2-1a and Figure 2-1b: Environmental Constraints**.

2.2.5 The landscape features within the vicinity of the Scoping Site Boundary consist predominantly of agricultural fields, with several farm holdings and rural dwellings lying within the Connection & Access Infrastructure Corridors. Land within the Scoping Site Boundary predominantly consists of pasture farmland, with some limited arable areas. The Scoping Site Boundary sits within the 'Somerset Levels and Moors National Character Area' (NCA) which is a predominantly flat, low-lying landscape of drained wetlands, grazing marshes, rhynes and agricultural land, characterised by an extensive network of watercourses, floodplains, and biodiversity of national and international importance. The Mendip Hills National Landscape is located approximately 2.7 km north east of the Scoping Site Boundary. Further information is included within **Chapter 11: Landscape and Visual** of this EIA Scoping Report.

2.2.6 Settlements within the surrounding area consist of small clusters of development, with occasional individual properties and farmsteads scattered throughout the rural landscape. Nearby residential receptors include, but are not limited to, properties in Mark, Yarrow, East Huntspill, East Brent, Chapel Allerton, Woolavington and Puriton, as well as the eastern edge of Highbridge.

2.2.7 Somerset Wetlands National Nature Reserve (NNR) runs east-west through the south (refer to **Figure 1-2: Zonal Masterplan**) of the Scoping Site Boundary, along the Huntspill River. There are no internationally designated nature conservation sites within the Scoping Site Boundary.

2.2.8 The closest Site of Special Scientific Interest (SSSI) is Tealham and Tadham Moors SSSI, which is part of the internationally designated Somerset Levels and Moors Ramsar site and Special Protection Area (SPA), and is located approximately 0.15 km east of the Scoping Site Boundary. Catcott Edington and Chilton Moors SSSI, also part of the Somerset Levels and Moors Ramsar site and SPA is located approximately 0.71 km west of the Scoping Site Boundary. The Bridgwater Bay SSSI, Severn Estuary SPA, Ramsar and Special Area of Conservation (SAC) is located approximately 1.7 km west.

2.2.9 There are six non-statutory designated sites located within the Scoping Site Boundary, including the River Brue Local Wildlife Site (LWS), Brent River LWS, Blackford Moor LWS, Borrow Pit, Stoning Pound Field South and Stoning Pound Rhyne LWS and Puriton Rhynes and Ponds LWS. A further 24 LWS are located within 2 km of the Scoping Site Boundary.

2.2.10 A list of statutory designated ecological sites and non-statutory designated ecological sites in the vicinity of the Proposed Development are included within **Table 9-2** and **Table 9-3,** respectively, within **Chapter 9: Ecology and Biodiversity** of this EIA Scoping Report.

2.2.11 There are no World Heritage Sites, Listed Buildings, Registered Parks and Gardens, Scheduled Monuments or Conservation Areas within the Scoping Site Boundary. There are seven Grade I Listed Buildings, eight Grade II* Listed Buildings and 199 Grade II Listed Buildings within 3 km of the Scoping Site Boundary. Listed Buildings outside the Scoping Site Boundary are clustered around the settlements of Blackford, Watchfield, Mark, Woolavington East Huntspill and Rooksbridge with additional isolated assets

distributed throughout the wider rural area. These assets are predominantly Grade II listed farmhouses, agricultural buildings, churches, bridges and vernacular buildings associated with the historic settlements and agricultural landscape of the Somerset Levels.

2.2.12 The closest Scheduled Monument is Blackford Manor House Moat, located 820 m east of the Scoping Site Boundary. The closest Conservation Area is Stone Allerton Conservation Area, located approximate 420 m north east. The closest Registered Park and Garden is grade II registered Highbridge Garden of Remembrance (NHLE 1442317) approximately 1.1 km west. A list of designated heritage assets in the vicinity of the Proposed Development is included within **Chapter 8: Cultural Heritage** of this EIA Scoping Report.

2.2.13 The Scoping Site Boundary is intersected by a number of Main Rivers, including the River Brue, Huntspill River, South Drain, Cripps River, Brent River, Mark Yeo and associated rhyne network including New Rhyne, Shipham Rhyne, Pillrow Wall Rhyne, Yarrow Yeo Rhyne, Blind Pill Rhyne and Allerton Moor Rhyne. Ordinary watercourses within the Scoping Site Boundary include Westhill Rhyne, Blackford Rhyne, King's Way Rhyne, Plash Rhyne, Wainbridge and Tile House Rhyne, Yarrow Rhyne, Withy Pill Rhyne, Pyde Rhyne, Backlane Rhyne and Northwick Rhyne. In addition, numerous smaller drains, rhynes and ditches are present throughout the Scoping Site Boundary, reflecting the extensive drainage network characteristic of the Somerset Levels and Moors. Further information on surface water features within the Scoping Site Boundary is included within **Chapter 10: Water Environment** of this EIA Scoping Report

2.2.14 Based on data provided in the flood map for planning, the Scoping Site Boundary is situated within areas of elevated fluvial and tidal flood risk. The western and southern parts of the Scoping Site Boundary are located within Flood Zone 3 and the eastern part mainly within Flood Zone 2. Existing tidal flood defences are present in the vicinity of the Scoping Site Boundary. Flood defence infrastructure in the surrounding area comprises a series of flood walls, flow control structures and embankments along the coastline, together with the Bridgwater Tidal Barrier.

2.2.15 The local geology of the Scoping Site Boundary is characterised by Tidal Flat Deposits comprising clay, silt and sand, which overlie the Charmouth Mudstone Formation bedrock. The superficial deposits are of shallow marine origin and are typically detrital in nature, while the underlying mudstone comprises interbedded sedimentary rocks deposited in a shallow marine environment. Soils across the Scoping Site Boundary are predominantly loamy and clayey coastal flat soils with naturally high groundwater levels. The Environment Agency classifies the underlying bedrock as a Secondary (undifferentiated) aquifer.

2.2.16 The local highway network comprises a mixture of strategic and rural roads, including the M5 motorway, which runs adjacent to the western boundary of the Scoping Site Boundary, and the A38, B3139, B3140 and B3141. These routes provide vehicular access to the Scoping Site Boundary and connect the surrounding settlements with the wider regional road network.

2.2.17 A network of Public Rights of Way (PRoWs) intersects the Scoping Site Boundary, providing links to Mark, Yarrow, East Brent, Chapel Allerton and Woolavington, as well as connecting the surrounding rural area and agricultural land. National Cycle Network (NCN) Route 33, runs broadly east–west through the south of the Scoping Site Boundary. Further information on transport and access receptors within the Scoping Site Boundary is included within **Chapter 15: Transport and Access** of this EIA Scoping Report

2.2.18 The Predictive Agricultural Land Classification (ALC) Map (1:250,000 scale) indicates that the Scoping Site Boundary comprises predominantly Grade 3b quality with small parts of Grade 4 mapped in the north and north east. However, it is to be noted that this is subject to review via detailed surveys that will be undertaken as part of the DCO Application. Further information is included within **Chapter 14: Agriculture and Soils** of this EIA Scoping Report.

3. The Proposed Development

3.1. Introduction

3.1.1 To inform the scope of the EIA and the assessment studies, this chapter provides information on:

a. Solar and battery energy storage infrastructure, grid connection, and other associated and ancillary equipment required to operate the Proposed Development;
b. Construction programme and activities;
c. Operational and maintenance activities; and
d. Decommissioning.

3.1.2 Solar PV and BESS technologies continue to evolve rapidly. As a result, the parameters of the Development Consent Order (DCO) will maintain an appropriate degree of flexibility to allow the latest technology to be utilised at the time of construction.

3.1.3 This approach is supported by the National Policy Statements for Energy, and in the Nationally Significant Infrastructure Projects: Pre-Application Advice on Environmental Impact Assessment Guidance (Ref 24). Nationally Significant Infrastructure Projects: Pre-Application Advice on Environmental Impact Assessment Guidance provides sets out the degree of flexibility that may be considered appropriate within an application for development consent under the Planning Act 2008 (Ref 1) and the application of the 'Rochdale Envelope'[1] to ensure a robust assessment of the likely significant environmental effects of the Proposed Development.

3.1.4 The level of flexibility required within the DCO Application depends on the maturity of the design at the stage when the detailed EIA work is undertaken. Certain aspects of the Proposed Development still require design flexibility due, for example, to the precise make and model of technology not being selected at this stage. It is therefore necessary for the technical assessments to assess an 'envelope' within which the works will take place. As such, the DCO Application and EIA will be based on maximum and, so far as appropriate, minimum parameters or limits of deviation. To remain in accordance with the EIA Regulations, it is essential that the parameters are defined as narrowly as practicable to ensure that the EIA identifies the likely significant environmental effects, rather than overestimating effects through the assessment of unrealistic combinations of maximum or minimum design parameters. The defined parameters for the Proposed Development will be used within each relevant technical assessment, with each assessment identifying and justifying its reasonable worst-case basis.

[1] *The 'Rochdale Envelope' approach is used where some details of a Proposed Development have not been confirmed at the time a DCO Application is submitted and flexibility is sought to address uncertainty. In such cases, the assessment is undertaken using clearly defined parameters that represent the realistic worst-case for environmental assessment purposes.*

3.1.5 The key elements of the Nationally Significant Infrastructure Projects: Pre-Application Advice on Environmental Impact Assessment Guidance in relation to the Proposed Development are set out below:

a. The application should acknowledge the need for details of a project to evolve within clearly defined parameters;
b. The EIA should take account of the need for evolution within those parameters, and reflect the likely significance of such a flexible project in the ES;
c. Within those defined parameters, the level of detail of the proposals must be sufficient to enable a proper assessment of the likely significant environmental effects and the identification of mitigation measures, if necessary, considering a range of possibilities. This may include consideration of a range of possible design parameters and the application of a worst-case approach where appropriate; and
d. It is for the decision maker, when granting consent, to determine the degree of flexibility that can be accommodated and to ensure that the process of evolution remains within the parameters applied for and assessed within the ES.

3.1.6 The advice outlined above has been followed during the EIA scoping process for this Proposed Development to identify and refine the scope of environmental topics.

3.1.7 The ES will set out the parameters that have been assessed as part of the EIA, including details on the size (footprint, width, and height relative to Above Ordnance Datum (AOD)), technology, dimensions and locations of the different elements of the Proposed Development. The Proposed Development description within the ES will be supported, where appropriate, by plans, drawings and elevations.

3.2. Overview of Proposed Development Infrastructure

3.2.1 The Proposed Development would likely comprise the following key components:

a. Solar PV panels;
b. PV panel mounting structures;
c. Inverters (either string or central type);
d. Transformers;
e. High Voltage (HV) switchgear, protection and control equipment;
f. Intra-Array and Inter-Array Connections (overhead lines (OHL) and underground cables (UGC));
g. Battery Energy Storage System (BESS) (including inverters, transformers and other associated equipment);
h. Substations (including intermediary Collector Substations and a Main Substation);
i. Access Infrastructure (including operational access tracks);
j. Grid Connection (OHL and UGC); and

k. Ancillary infrastructure (e.g. combiner boxes, weather stations, communication and monitoring equipment), fencing and security measures, access tracks, drainage and landscaping, habitat creation and biodiversity enhancement measures.

3.2.2 During the construction phase, one or more temporary construction compound(s) would be established within the Scoping Site Boundary as well as temporary access tracks to facilitate access to all land within the Proposed Development. Further information on construction activities is provided in **Section 3.3**.

3.2.3 In areas around the arrays and on other land within the Scoping Site Boundary, appropriate landscaping, biodiversity enhancements and habitat management will be undertaken.

3.2.4 At this stage, flexibility is being sought for either a centralised BESS configuration or a distributed BESS configuration. The final arrangement will be determined through the ongoing design development, environmental assessment and engineering optioneering process.

3.2.5 The operational life of the Proposed Development is anticipated to be up to 40 years. Once the Proposed Development ceases to operate, it will be decommissioned. A 40-year period for the operation phase of the Proposed Development will be assessed in the EIA and reported in the ES accompanying the DCO Application.

3.2.6 **Table 3-1** sets out the parameters that have been used by each of the technical topics in the EIA Scoping Report to set out the proposed approach and methodology for further assessment.

3.2.7 The ES will adopt a reasonable worst case assessment approach in accordance with the Rochdale Envelope principles, as described above. For each technical discipline, the assessment will be based on the design parameters that are reasonably considered to give rise to the greatest potential environmental effects. This approach ensures that the likely significant effects (beneficial and adverse) of the Proposed Development are robustly assessed, whilst providing sufficient flexibility to accommodate design evolution and technological advancements between submission of the DCO Application and commencement of construction.

3.2.8 As the design evolves in response to the environmental assessment and consultation processes, which run in parallel, the maximum and minimum parameters may be further refined from those presented in this EIA Scoping Report to achieve the optimum environmental outcome for the Proposed Development. The design parameters assessed within the ES will be presented in a Proposed Development Parameters Document, which will accompany the DCO Application and define the Rochdale Envelope as part of the EIA. These parameters will subsequently be secured through the DCO.

Table 3-1 Design Parameters used for the EIA Scoping Report

Proposed Development Component	Parameter Type	Applicable Design Parameter [2]
Solar PV Panels	Panel technology	Monofacial or Bifacial panels.
	Appearance	The solar panels will be either dark grey, blue or black.
	Length and width	Individual panels are typically up to 2.4 m in length and up to 1.4 m in width.
Solar PV Mounting Structures	Material	Anodised aluminium or steel frame supporting the solar panels in rows. Steel components will be galvanised where a protective finish is required.
	Foundation type	Standard will be driven piles but alternatives (e.g. helical piles, ballast footings or concrete 'shoes') may be required if dictated by specific ground conditions or other constraints.
Single Axis Tracker Arrays (Option A)	Indicative orientation	Solar PV panels aligned in north-south rows. The panels will rotate to the east and west.
	Maximum panel inclination	Up to 60° from horizontal.
	Minimum panel clearance above ground level	Typically, between 0.6 m to 0.8 m Above Ground Level (AGL) at maximum tilt.
	Maximum panel height above ground level	4.5 m AGL at maximum tilt.
	Minimum separation distance between rows	2 m to 8 m at the closest point.
Fixed South Facing Arrays (Option B)	Indicative orientation	Solar PV panels aligned in east-west rows with panels facing south.
	Maximum panel inclination	Between +10 to 45° from horizontal.

[2] *These parameters represent the current design assumptions for EIA Scoping only, and that the final Rochdale Envelope parameters will be presented within the Proposed Development Parameters Document submitted with the DCO Application.*

Proposed Development Component	Parameter Type	Applicable Design Parameter [2]
	Minimum panel clearance AGL	Typically, 0.6 m to 0.8 m AGL.
	Maximum height of Solar PV panels AGL	4 m AGL.
	Minimum separation distance between rows	2 m to 12 m at the closest point
Power Conversion Units (PCUs)	Maximum dimensions	16 m by 3.5 m and height of 3.5 m (with any flood mitigation allowance to be determined by the Flood Risk Assessment). PCUs include transformers, switchgear and - where applicable - centralised inverters. ***Flood resilience:*** *The Proposed Development will incorporate appropriate flood resilience measures for PCUs and associated electrical infrastructure, where required based on the results of the Flood Risk Assessment. Measures may include raising infrastructure above relevant flood levels, flood protection bunding or other appropriate flood resilience measures, subject to detailed design and site-specific constraints.*
	Materials	Units are housed in a container sitting on a concrete base or concrete feet.
Other outdoor electrical equipment (e.g. standalone Direct Current (DC) combiner boxes, string inverters, transformer or switchgear stations)	Maximum footprint	40 m^2
	Maximum height	3.5 m (with any flood mitigation allowance to be determined by the Flood Risk Assessment).
Solar PV Sites Perimeter Fencing	Fence type	Wooden post and metal wire stock fencing.
	Installation depth	Up to 1.5 m below ground level.
	Maximum height	3 m
Security System	Closed circuit television (CCTV) provision	Pole-mounted CCTV would be provided around the perimeter of operational and maintenance areas of the Energy Park to provide full perimeter

Proposed Development Component	Parameter Type	Applicable Design Parameter [2]
		coverage. CCTV may also be provided at other sensitive locations within the Scoping Site Boundary, including around substation locations.
	CCTV mounting	Cameras may be mounted on posts along the fenceline or pole-mounted/fixed to buildings or other structures at substation locations.
	Maximum height	5 m
Collector Substations (132 kV)	Maximum area	1.5 ha
	Maximum equipment height	9 m to the top of the busbars; lighting arrestors up to 12 m.
	Fence type	Metal palisade fencing anticipated.
	Maximum perimeter fence height	4 m
	Control room/switchroom buildings	Contained within parameters of overall area/height.
Main Substation (132 kV or 400 kV)	Maximum area	4 ha
	Maximum equipment height	Main electrical equipment is expected to be 15 m. Lighting arrestors expected to be 20 m.
	Maximum perimeter fence height	4 m
	Lighting columns	Up to 10 m
	Fence type	Metal palisade fencing anticipated.
	Voltage	132 kV or 400 kV configurations, depending on the ultimate grid connection voltage and associated step-up requirements.
	Control room/switchroom buildings	Contained within parameters of overall area/height.
BESS Area	Maximum main area	14 ha

Proposed Development Component	Parameter Type	Applicable Design Parameter [2]
	Maximum battery container dimensions	16 m by 3.5 m, and height of 4.5 m (with any flood mitigation allowance to be determined by the Flood Risk Assessment).
	Maximum perimeter fence height	4 m
	Fence type	Metal palisade fencing anticipated.
	Control room/switchroom buildings	Contained within parameters of overall area/height.
Access	Internal access tracks width	Anticipated to follow the alignment of the existing agricultural tracks, where possible. New internal access tracks would be up to 6 m wide constructed of compacted stone with slopes on either side (where required).
	Main access tracks width	Access tracks within substations and BESS may be up to 8 m wide and comprise hardstanding, such as concrete or tarmac.
	Haul road and access tracks type and width	Potential reinstatement of the former National Grid Electricity Transmission (NGET) haul road, together with the construction of Construction Access Tracks and Operational Access Tracks to facilitate access to areas of the Energy Park not readily accessible from the public highway. Stone-surfaced access tracks would be up to 8 m wide.
Intra-Array Connections	Cable type	Low voltage DC string cabling would be a mixture of above-ground (attached to framework) and buried. Low Voltage/Medium Voltage Alternating Current cabling would be buried or OHL.
	Installation method	Open cut or trenchless techniques for buried.
	Construction working width	Up to 30 m, subject to the number of circuits accommodated within a single trench and local constraints.

Proposed Development Component	Parameter Type	Applicable Design Parameter [2]
	Trench dimensions	Trench dimensions will vary depending on the number of circuits and local constraints. Typical trench depths are anticipated to be approximately 0.9 to 2.5 m.
Potential options for the Inter-Array Connections (33 kV)	**Option 1**	**Underground cable**
	Proposed crossing methodologies	Opencut or trenchless techniques (e.g. Horizontal Directional Drilling, Thrust Bore, Auger Boring or similar trenchless techniques).
	Working width for trenches	It is assumed that working widths would be up to 35 m, dependent on detailed design and local constraints.
	Trench dimensions	The open cut cable trench would be up to approximately 1 m to 2.5 m wide and 2.5 m in depth. The cables would typically have a minimum cover depth of 0.9 m.
	Minimum trenchless crossing depth	3 m below feature (e.g. bottom of watercourse, unless agreed otherwise with relevant asset owners).
	Trenchless crossing launch/reception pit dimensions	50 m by 50 m for minor Horizontal Directional Drilling (HDD) and 100 m by 100 m for major crossing.
	Cable joint bays dimensions	Typically, every 500 m to 1 km.
	Option 2	**Overhead line**
	OHL support structure type	Wooden or metal pole (single or twin H-pole).
	Max tower height	Maximum height of 18 m.
	Tower spacing	Assumed to be 50 m to 100 m.
	Construction working width	Assumed to be 20 m to 50 m.
	Option 1	**Underground cable**

Proposed Development Component	Parameter Type	Applicable Design Parameter [2]
Potential options for the Inter-Array Connections (132 kV)	Proposed crossing methodologies	Opencut or trenchless techniques (e.g. Horizontal Directional Drilling, Thrust Bore, Auger Boring or similar trenchless techniques)
	Indicative working width	It is assumed that working widths would be 30 m to 45 m, depending on the number of circuits and spacing requirements, and local constraints.
	Trench dimensions	Approximately 1 m to 2.5 m wide and up to 2.5 m deep. The cables would typically have a minimum cover depth of 0.9 m.
	Minimum trenchless crossing depth	3 m below feature (e.g. bottom of watercourse, unless agreed otherwise with relevant asset owners).
	Trenchless crossing launch/reception pit dimensions	50 m by 50 m for minor HDD and 100 m by 100 m for major crossing.
	Cable joint bays dimensions	Typically, every 500 m to 1 km.
	Option 2	**Overhead line**
	OHL support structure type	Wooden or metal pole (single or twin H-pole) or steel lattice tower.
	Max tower height	Maximum height of 25 m for wooden or metal pole towers, and 40 m for lattice towers.
	Tower spacing	Assumed to be 50 m to 100 m for wooden poles and 200 m to 300 m for steel lattice towers (reduced in hilly or constrained terrain).
	Construction working width	Typical working width 30 m to 40 m, increasing to approximately 50 m to 60 m at tower locations.
	Cable Sealing End Compound	Max compound footprint: 35 m x 35 m Max Height: As per Tower Height
	Option 1	**Underground cable**

Proposed Development Component	Parameter Type	Applicable Design Parameter [2]
Potential options for Grid Connection (132 kV)	Proposed crossing methodologies	Opencut or trenchless techniques (e.g. Horizontal Directional Drilling, Thrust Bore, Auger Boring or similar trenchless techniques).
	Indicative working width	It is assumed that working widths would be 30 m to 45 m, depending on the number of circuits and spacing requirements, and local constraints.
	Trench dimensions	Approximately 1 m to 2.5 m wide and up to 2.5 m deep. The cables would typically have a minimum cover depth of 0.9 m.
	Minimum trenchless crossing depth	3 m below feature (e.g bottom of watercourse, unless agreed otherwise with relevant asset owners)
	Trenchless crossing launch/reception pit dimensions	50 m by 50 m for minor HDD and 100 m by 100 m for major crossing
	Cable joint bays dimensions	Typically every 500 m to 1 km
	Option 2	**Overhead line**
	OHL support structure type	Wooden or metal pole (single or twin H-pole) or steel lattice tower.
	Max tower height	Maximum height of 25 m for wooden or metal pole towers, and 40 m for lattice towers.
	Tower spacing	Assumed to be 50 m to 100 m for wooden poles and 200 m to 300 m for steel lattice towers (reduced in hilly or constrained terrain).
	Construction working width	Typical working width 30 m to 40 m, increasing to approximately 50 m to 60 m at tower locations.
	Cable Sealing End Compound	Max compound footprint: 35 m x 35 m Max Height: As per Tower Height
	Option 1	**Underground cable**

Proposed Development Component	Parameter Type	Applicable Design Parameter [2]
Potential options for Grid Connection (400 kV)	Proposed crossing methodologies	Opencut or trenchless techniques (e.g. Horizontal Directional Drilling, Thrust Bore, Auger Boring or similar trenchless techniques)
	Indicative working width	It is assumed that working widths would be up to 40 m to 50 m, depending on the cable voltage and number of circuits, and local constraints.
	Trench dimensions	Approximately 1 m to 2.5 m wide and up to 2.5 m deep. The cables would have a minimum cover depth of 0.9 m.
	Minimum trenchless crossing depth	3 m below feature (e.g. bottom of watercourse, unless agreed otherwise with relevant asset owners).
	Trenchless crossing launch/reception pit dimensions	50 m by 50 m for minor HDD and 100 m by 100 m for major crossing.
	Cable joint bays dimensions	Typically every 500 m to 1 km.
	Option 2	**Overhead Line**
	OHL support structure type	Steel lattice tower.
	Max tower height	Maximum height of 60 m.
	Tower spacing	Assumed to be 300 m to 400 m.
	Construction working width	Typical working width 50 m to 60 m, increasing to approximately 80 m to 100 m at tower locations.
	Cable Sealing End Compound	Max compound footprint: 50 m x 50 m Max Height: As per Tower Height

Proposed Development Component	Parameter Type	Applicable Design Parameter [2]
Proposed National Grid Connection	Point of connection	The Proposed Development is expected to connect to National Grid's 400/132 kV substation near Woolavington. A Local Development Order Compliance certificate was issued 02 October 2026 for the erection of the new substation. It is understood that the substation is currently under construction.

Solar PV Infrastructure

Solar PV Panels

3.2.9 Solar PV panels convert sunlight into electrical current (as DC). Individual panels typically consist of a series of PV cells beneath a layer of toughened glass. PV technologies are developing rapidly, and different generation capacity panels may be available at the time of construction.

3.2.10 Each panel could have an approximate DC generating capacity of between 400 and 900 watts (W) depending on advances in technology at the time of construction. The panels are fixed to a mounting structure in groups known as ‘strings’. Various factors inform the number and arrangement of panels in each string, and it is likely some flexibility will be required to accommodate future technology developments.



Plate 3-1 Illustrative Solar PV Panels

Panel Mounting Structures

3.2.11 There are various types of Solar PV Mounting Structures, which are typically built from anodised aluminium and galvanised steel. While fixed south facing mounts are historically the most common for solar PV facilities in the United Kingdom (UK), the ongoing technological advances and economic considerations make other options increasingly more feasible. The options under consideration are:

a. Single axis tracker; and
b. Fixed south facing.

3.2.12 Each string of panels would be mounted on a metal rack, known as a frame. The frames are usually supported by galvanised steel poles. Alternative

foundation solutions (e.g. helical piles or ballast footings) may be required if dictated by specific ground conditions or other constraints.

3.2.13 Each of the currently considered mounting options is described in the paragraphs below. The dimensions presented below are indicative at this stage as the final elevations of the racks would be influenced by various design factors such as local topography, flood risk, inter-row shading and maintenance considerations. Where relevant, technical chapters (**Chapters 7 to 17)** of this EIA Scoping Report consider which option will present the reasonable worst-case scenario and the potential scoping implications associated with this option.

3.2.14 The design will be modified as the Proposed Development progresses to have regard to the outcome of environmental surveys, topography and configuration. For example, row pitch (the distance between the front edge of one row of panels to the front edge of the next row of panels) may vary across the Proposed Development taking account of terrain and potential environmental constraints.



Plate 3-2 Solar Panels with south facing configuration

Single Axis Tracker Arrays

3.2.15 A tracker system involves attaching the PV panels to a motorised table that can move in relation to the sun. This allows for optimal power generation throughout the day. These panels are then arranged into strings varied length which are fixed to the mounting system.

3.2.16 There are different types of tracking systems available and, if chosen, the Proposed Development would utilise a single-axis tracker system, which tilts the solar panel around a horizontal north-south axis thus tracking the sun's movement from east to west. The panels begin the day facing east (where the sun rises) and move into a horizontal position during the middle of the day, transitioning into west facing in the evening (where the sun sets). This typically enables the delivery of a better electricity generation during the

year; however, site-wide design factors ultimately influence whether fixed or tracked systems prove the optimum solution for any given development.

Fixed South Facing Arrays

3.2.17 The configuration where panels are arranged in rows running from east to west facing to the south at a fixed tilt is commonly seen on existing UK solar farms. These panels are then arranged into strings which are fixed to the mounting system.

Inverters

3.2.18 Inverters convert the DC electricity collected by the PV panels into AC which allows the electricity generated to be exported to the National Grid. Inverters are sized to deal with the level of voltage and intensity, which is output from the strings of solar PV panels. There are several possible arrangements for the inverter components which will be refined as the design for the Proposed Development evolves.

3.2.19 At this stage, the main optionality relates to:

a. The use of string inverters (**Plate 3-3**):
   i. String inverters would be situated on or adjacent to the rear of the solar PV framework or, in the case of Single Axis Tracker configuration which follow the sun throughout the day, mounted behind each row of panels; and
b. Locating equipment in Power Conversion Units (PCUs) (**Plate 3-4**):
   i. PCUs comprises an inverter, a transformer, and switchgear (with additional ancillary equipment), which may be housed in a single containerised unit or grouped together as isolated pieces of equipment. PCUs would be located at intervals amongst the solar PV panels.



Plate 3-3 Typical string inverter (image reproduced courtesy of Huawei)



Plate 3-4 Typical centralised inverter (without enclosure)

Transformers

3.2.20 Low Voltage (LV)/Medium Voltage (MV) transformers control the voltage of the electricity generated across the Proposed Development before it reaches the substation. The transformers can also be located inside containers, which are typically externally finished in keeping with the prevailing surrounding environment.



Plate 3-5 Typical outdoor transformer (with fence enclosure)



Plate 3-6 Typical transformer cabin (including switchgear)

Switchgear

3.2.21 Switchgear are the combination of electrical disconnector switches, fuses or circuit breakers used to control, protect, and isolate electrical equipment. Switchgear are used both to de-energise equipment to allow work to be done and to clear faults downstream. Similarly, switchgear are generally located within or adjacent to the transformer housing.



Plate 3-7 Typical switchgear

Substations

3.2.22 For the purposes of this EIA Scoping Report, the Proposed Development is anticipated to include a Main Substation and Collector Substations, which would facilitate the aggregation and transformation of electricity generated by the solar PV panels from the Energy Park to the National Grid. The Main Substation would be distinct from the point of connection infrastructure required to interface with the National Grid transmission network.

3.2.23 The substations would consist of electrical infrastructure such as the transformers, switchgear and metering equipment. The Proposed Development would include one Main Substation which would operate at either 132 kV or 400 kV. The Proposed Development would also include up to five Collector Substations located across the Energy Park, each operating at 132/33 kV.

3.2.24 The switch rooms and control building would be block buildings with external colours and finishes to be confirmed prior to construction. Maximum parameters for the associated substation infrastructure will be defined in the DCO application, and a reasonable worst-case scenario will be assessed and presented in the ES.

Battery Energy Storage System

3.2.25 The Proposed Development will include an associated BESS at one or more locations within the Energy Park. The battery-based electricity storage will allow the storage of energy generated by the solar panels at times of low demand and release energy to the grid at times when demand is high or when solar irradiance is lower, known as load shifting. The BESS will also have the ability to import power from the grid directly to allow the BESS system to help support the grid through grid balancing mechanisms.

3.2.26 The precise number of individual battery storage containers will depend upon the duration of energy storage.

3.2.27 The containers would be located on areas of hardstanding. The containers are typically externally finished in keeping with the prevailing surrounding environment. Maximum parameters for the containers will be defined in the DCO Application to present and assess a reasonable worst-case scenario.

Control Building

3.2.28 A control building will be included within the Proposed Development at the Collector Substations, Main Substation and BESS Site. The control building would consist of:

a. Central control room where all operation (and maintenance) data of the whole plant would be controlled and monitored. This includes the transformers, inverters and switchgear, Collector Substations, Main Substation, and the Grid Connection connecting the Proposed Development to the National Grid Woolavington Substation;
b. Central CCTV and security control of the whole plant, including access gates to fenced areas;
c. Welfare facility for staff and subcontractors;

d. Parking area for staff and subcontractors; and
e. Own power supply, including emergency power back-up.

Intra-Array Connections

3.2.29 LV intra-array cabling will connect the solar PV panels and BESS to inverters (typically via 0.6/1 kV cables), and the inverters to the transformers on-site.

3.2.30 Higher rated cables (likely 33 kV) would connect the transformers to switchgear and from switchgear to the Collector Substation(s).

3.2.31 Cabling between solar PV panels and the inverters would typically be installed above ground along rows of panels in the case of string inverter configurations. For central inverter configurations, cabling between panels and inverters could also be installed below ground.

3.2.32 Data/fibre optic cables would also be installed, typically alongside electrical cables to allow for monitoring during operation (and maintenance), such as the collection of solar data from pyranometers.

Inter-Array Connections

3.2.33 Inter-Array Connections are required to connect the various elements of infrastructure across the Energy Park via a combination of underground cables and/or overhead lines. These Inter-Array Connections would facilitate electrical connections between the solar PV arrays located throughout the Energy Park.

3.2.34 The precise alignment of the underground cabling and/or overhead lines within the Inter-Array Connections has not yet been finalised and will be informed by ongoing survey and design development. The routing of underground cabling and/or overhead lines will be designed to avoid sensitive receptors where practicable. As the design progresses, defined connection alignments, or appropriate connection corridors, will be established for the purposes of assessment.

Grid Connection

3.2.35 A 132 kV/400 kV Grid Connection will connect the Energy Park to the proposed National Grid Woolavington Substation via either underground cables, overhead lines or a combination of both.

3.2.36 Crossings would adopt opencut or trenchless techniques. Where the Grid Connection crosses other buried infrastructure and/or natural features, such as rivers or streams, the cables would need to be installed deeper, with specific techniques such as micro-tunnelling or horizontal directional drilling (HDD), or other similar trenchless techniques to cross these obstacles when open cutting is not practical.

3.2.37 The Grid Connection is subject to an iterative design process. A range of constraints will determine the final routing and installation method for the cable.

Cable Sealing Ends

3.2.38 Cable sealing end compounds would be required where an overhead line (carried on a lattice tower) changes to an underground cable, or back again. It allows a section of a connection to be undergrounded, for example to pass beneath an existing overhead line or another constraint, or to enter a substation. The compound typically contains a terminal tower where the overhead conductors end and are carried down to the sealing ends by steel gantries and support structures as well as associated equipment. The equipment is mounted on concrete foundations within a stoned compound, which is enclosed by palisade security fencing.

Point of Connection to National Grid

3.2.39 For the purposes of this EIA Scoping Report, it is assumed that the Point of Connection would be the proposed 'National Grid Woolavington Substation', located near Woolavington within the southern part of the Scoping Site Boundary.

3.2.40 The final configuration of the National Grid Woolavington Substation remains subject to ongoing design development and will be kept under review as further information becomes available from National Grid. National Grid submitted a Local Development Order (LDO) compliance application to Somerset Council on 9 July 2026 (ref. 95/26/00001).

Fencing and Security

3.2.41 A security fence would enclose the operation (and maintenance) areas of the Energy Park, including the substations and BESS(s). Stock proof security fencing will enclose the solar PV panels in Energy Park. Clearances above ground, or the inclusion of mammal gates would be included to permit the passage of wildlife.

3.2.42 The CCTV systems would have fixed views and would be aligned to face along the fence and therefore would not encroach on any private land. The operation (and maintenance) staff would also grant access for operations and maintenance works which are typically CCTV surveyed to prevent unauthorised access.



Plate 3-8 Typical deer security fence



Plate 3-9 Typical stock metal palisade fencing

3.2.43 To comply with relevant design standards, if transformers are not enclosed in a container, they would be surrounded by a secure wire mesh.

3.2.44 Permanent lighting is not anticipated to be required within the solar PV areas for the operational period of the Proposed Development. It is likely that lighting sensors for security purposes would be deployed around the electrical infrastructure and potentially at other pieces of critical infrastructure. This would either be switch activated lighting or motion

detection lighting, depending on substation type, to assist maintenance staff visiting the Proposed Development during hours of darkness, no areas are proposed to be continually lit.



Plate 3-10 Typical transformer compound fencing

Access Tracks

3.2.45 It is anticipated internal access tracks would comprise compacted stone tracks with 1:2 gradient slopes on either side (where required). The main access tracks to the Collector Substations, Main Substation and BESS would facilitate two-way Heavy Goods Vehicle (HGV) traffic. Where drainage is required, a ditch or a swale may be located downhill of the internal access track to control any potential for surface water run-off.

3.2.46 It is anticipated that the local road network would be used for general routine operation (and maintenance) activities, however new permanent access roads may be required to facilitate long term operation (and maintenance) access for HGVs/Abnormal Indivisible Loads (AIL) to the Energy Park.

Surface Water Drainage

3.2.47 The detailed drainage design will be developed prior to construction works commencing with the objective of ensuring that drainage of the land to the present level is maintained. The drainage strategy would be designed to accommodate the proposed infrastructure (e.g. access tracks, cable trenches and structure foundations), including potential impacts during construction. Where construction activities interact with or disrupt existing land drainage systems, appropriate new or replacement drainage infrastructure would be installed to maintain effective drainage across the Scoping Site Boundary.

3.2.48 The design of new drainage systems will be based on the Flood Risk Assessment (FRA) and hydrological assessment to be undertaken and provided in the ES. Infiltration drainage design will be in accordance with Building Research Establishment (BRE) Digest 365: Soakaway Design (Ref 25) and where appropriate and reasonably practicable infrastructure would be placed a minimum of 9 m from the top of watercourse banks, increasing to 10 m where watercourses are found to support riparian mammals.

Biodiversity and Landscaping

3.2.49 The existing hedgerows, woodland, ditches, ponds and field margins would be retained within the layout of the solar arrays, with the exception of breaks and/or crossings required for new access tracks, security fencing and connection routes. Existing accesses will be utilised wherever practicable, however, where new breaks are necessary the width will be kept to a minimum required for that use. Watercourse crossings would be carried out via a combination of open cut trenching and trenchless techniques such as HDD, with the crossing method determined on a case-by-case basis and HDD used where needed to avoid and reduce adverse environmental effects.

3.2.50 The Proposed Development would involve field boundary enhancement and planting of seed mixes within the Energy Park. Planting of hedges and small trees would also be used to provide screening where suitable and practicable. Minimum offsets from solar infrastructure and ecological features would be incorporated within the design.

3.2.51 The enhancements and planting would increase biodiversity throughout the landscape and contribute to the Proposed Development achieving Biodiversity Net Gain (BNG) in line with the requirements of the Environment Act 2021 (Ref 18), the National Planning Policy Framework and local planning policy. The Proposed Development will achieve BNG levels greater than the minimum 10% required by the Environment Act 2021.

3.2.52 Prior to the commencement of any phase of development, a Landscape and Ecology Management Plan (LEMP) will be prepared and submitted to and approved by the relevant planning authority and is proposed to be secured by a Requirement in the DCO. The LEMP will set out the long-term management, maintenance and monitoring of landscape planting, habitat creation and biodiversity enhancement measures to ensure the successful establishment of mitigation and enhancement measures and, where possible, secure beneficial environmental outcomes. The LEMP will be prepared in accordance with the Outline LEMP submitted as part of the DCO Application.

3.3. Construction Programme and Activities

Construction Programme

3.3.1 Subject to being granted consent and following a final investment decision, the earliest construction could start is likely 2030, and will require 24 to 36 months to complete, with operation (and maintenance) therefore anticipated

to commence between 2032 and 2033. The ES will provide further details of the construction activities, their anticipated duration, and indicative programme of each phase of construction work.

3.3.2 It is anticipated that the Proposed Development will be constructed over a continuous period rather than being phased. A reasonable worst-case scenario for the construction programme will be assessed and presented in the ES.

3.3.3 Construction activities are likely to be carried out Monday to Friday 08:00-18:00 and between 08:00 and 13:00 on Saturdays. However, some activities may be required outside of these times (such as the delivery of abnormal loads, concrete pours for foundations, nighttime working for cable construction works in public highways or horizontal direction drilling activities). Where possible, construction deliveries will be coordinated to avoid HGV movements during the traditional AM peak hour (08:00-09:00) and PM peak hour (17:00-18:00).

Indicative Construction Activities

3.3.4 Proposed Development preparation to include:

a. Import of construction materials, plant, and equipment to site;
b. The establishment of construction compound(s);
c. Upgrading of existing access tracks and highways;
d. Construction of new access tracks, including new and existing access points/bell mouths and highways connections;
e. The upgrade or construction of crossing points (bridges/culverts) over drainage ditches and other watercourses as required; and
f. Marking out the location of the infrastructure.

3.3.5 Energy Park construction to include:

a. Import of components to site;
b. Construction of foundations;
c. Erection of panel mounting structures;
d. Mounting of solar PV panels;
e. Installation of electric cabling;
f. Installation of transformers;
g. Installation of BESS units;
h. Construction of substations; and
i. Construction of Energy Park buildings and other infrastructure.

3.3.6 Cable installation (overhead and underground cabling):

a. The establishment of mobilisation areas and running tracks;
b. Temporary construction compounds (to be located on or near cable route, which are yet to be determined);
c. Stripping of topsoil in sections;
d. Trenching in sections;
e. Appropriate storage and capping of soil;
f. Appropriate construction drainage with pumping where necessary;

g. Sectionalised approach of duct installation;
h. Excavation and installation of jointing pits;
i. Cable joint installation;
j. Cable pulling;
k. Implementation of crossing methodologies for watercourses, infrastructure (including roads and rail), and sensitive habitats (e.g. Horizontal Directional Drilling, cable bridging, etc.);
l. Clearance of vegetation and installation of fencing. Temporary stone pad would be required next to pylon locations for cranes and piling (for OHL only);
m. Import of components to the Proposed Development;
n. Temporary haul routes for construction vehicles;
o. Excavation of soil at pylon bases. Piling subject to the ground conditions (for OHL only);
p. Erection of the poles and/or pylons (for OHL only).
q. Testing and commissioning; and
r. Scheme reinstatement with habitat and ecological enhancement.

Construction Site Access

3.3.7 It is anticipated that construction access would utilise the existing road network to the Energy Park. Swept path analysis will be undertaken to determine if land take or road widening is required. It is anticipated that abnormal loads would be required to transport the transformers associated with the Collector Substations and Main Substation.

3.3.8 It is anticipated that the existing local roads would be utilised wherever possible, subject to suitability of these roads. Although roads around the Energy Park are currently accessible to farm machinery and agriculture-related vehicles, many are also single track with passing places. The need for road upgrades, widening, and new road construction, for example for abnormal loads or to facilitate visibility splays at site access/egress points, will be determined as the Proposed Development design develops and will be assessed as appropriate.

3.3.9 Due to constraints within the local road network, the Proposed Development may require the reinstatement of sections of the Haul Road previously utilised by NGET, as well as additional Construction and Access Tracks to provide access to areas that are not readily accessible from the public highway network. These routes may be temporary or permanent, as required. This may include the temporary reinstatement of sections of the previous NGET construction haul road used for the erection of the existing T-pylons across the central part of the Scoping Site Boundary, together with additional lateral spur tracks from this haul route.

3.3.10 All construction access will be confirmed as the Proposed Development design progresses and in consultation with the relevant authorities.

3.3.11 Based on the preliminary construction material and equipment requirements, it is anticipated that there could be approximately 150 HGV movements (75 HGVs) per day during the peak construction period, based on the most rapid

build out. This number is indicative, excludes construction staff transportation and ancillary construction traffic, and is subject to refinement. A reasonable worst-case scenario will be assessed in the ES.

3.3.12 An Outline Construction Traffic Management Plan (CTMP) is proposed to be developed and submitted with the application.

Construction Staff

3.3.13 It is currently estimated that up to a peak of 480 staff per day would work on the Proposed Development during the construction period. This includes construction of the Main Substation, export cabling, connection to the proposed National Grid Woolavington Substation (Grid Connection), and establishment of the solar PV and BESS. There would be noticeably fewer workers outside peak activities which would be an average of 120 staff per day.

Construction Environmental Management

3.3.14 An Outline Construction Environmental Management Plan (CEMP) is proposed to accompany the DCO application which will describe the mitigation measures and best practice guidance to be employed during the construction phase. The Outline CEMP will form the framework for a detailed CEMP that will be agreed with the Local Planning Authority prior to construction.

3.3.15 The aim of the CEMP is to manage and mitigate environmental impacts such as those listed below:

a. Use of land for temporary laydown areas, accommodation etc;
b. Construction traffic (including parking and access requirements) and changes to access and temporary road or footpath closure (if required);
c. Noise and vibration;
d. Utilities diversion;
e. Dust generation and mitigation measures;
f. Ecological mitigation;
g. Water pollution prevention measures; and
h. Waste generation.

3.3.16 The detailed CEMP would be produced by the appointed construction contractor following grant of the DCO and prior to the start of construction (for example, as part of a requirement attached to the DCO) and will identify the procedures to be adhered to and managed by the Principal Contractor throughout construction.

3.4. Operation and Maintenance Activities

3.4.1 During the operational phase, activities on the Energy Park would be limited to routine operation (and maintenance) of the Proposed Development. This would include vegetation management, routine inspections, condition monitoring, equipment servicing, cleaning (where required), and the repair or replacement of components that fail or reach the end of their operational life,

in order to maintain the safe and efficient operation of the Proposed Development.

3.4.2 Operational access would utilise the permanent access points and internal access tracks provided as part of the Proposed Development. The final operational access arrangements will be developed as the design progresses and, where appropriate, in consultation with the relevant highway authorities.

3.4.3 It is anticipated that there would be approximately 17 full-time workers employed on-site carrying out routine maintenance activities across the Energy Park. Additional workers, specialist contractors and equipment may be required periodically to undertake planned maintenance, inspections or the replacement of major plant and equipment.

3.4.4 An Outline Operational Environmental Management Plan (OEMP) is proposed to be submitted as part of the Application. The Outline OEMP will set the framework for the management and monitoring of operation environmental mitigation measures identified in the ES and will inform the preparation of a detailed OEMP prior to commencement of operation.

3.5. Decommissioning

3.5.1 The design life of the Proposed Development is expected to be 40 years. It is expected that throughout this period, faulty or damaged PV panels and other components would be replaced as part of the normal maintenance.

3.5.2 The future of the substations and control buildings will be determined as part of the decommissioning strategy, taking account of operational requirements, the agreed restoration strategy and the relevant regulatory requirements in force at the time of decommissioning.

3.5.3 Where practicable, materials and equipment arising from decommissioning will be reused or recycled in accordance with the waste hierarchy and relevant legislation in force at the time of decommissioning. An Outline Site Waste Management Plan (SWMP) will be included within the Outline CEMP.

3.5.4 The mode of cable decommissioning for the Inter-Array Connection cables and underground cables would be dependent upon government policy and best practice at that time. Current industry practice is generally to leave underground cables in situ where this avoids unnecessary environmental disturbance and where there is no overriding requirement for their removal. Alternatively, the cables can be removed by opening up the ground at regular intervals and pulling the cable through to the extraction point, avoiding the need to open up the entire length of the cable route.

3.5.5 The effects of decommissioning are usually similar to, or of a lesser magnitude than, construction effects and will be considered in the relevant sections of the ES. The specific method of decommissioning the Proposed Development at the end of its operational life is uncertain at present as the engineering approaches to decommissioning would evolve over the operational life of the Proposed Development. Assumptions will therefore be made where appropriate and the impact assessment would be based on the reasonable worst-case parameters for each technical topic.

3.5.6 Decommissioning is expected to take approximately 24 to 36 months and could be undertaken in phases. Following completion of decommissioning, the Energy Park would be restored in accordance with the agreed restoration strategy and returned to an appropriate after-use, subject to the requirements of the DCO and the terms of any legal agreements with the landowners. Existing habitat creation and landscaping measures that do not require removal may be retained where appropriate.

3.5.7 An Outline Decommissioning Environmental Management Plan (DEMP) will be submitted as part of the DCO Application and will set out the general principles to be followed in the decommissioning of the Proposed Development. A detailed DEMP will be prepared and submitted to the relevant authorities for approval at the time of decommissioning, in advance of the commencement of decommissioning works, and would include timescales and transportation methods.

3.5.8 Decommissioning would be undertaken having regard to the environmental legislation, standards and good practice applicable at the time of decommissioning.

4. Consideration of Alternatives

4.1. Introduction

4.1.1 Schedule 4, paragraph 2 of the Environmental Impact Assessment (EIA) Regulations (Ref 2) requires 'a description of the reasonable alternatives (for example in terms of development design, technology, location, size and scale) studied by the developer, which are relevant to the proposed project and its specific characteristics, and an indication of the main reasons for selecting the chosen option, including a comparison of the environmental effects'. This will be included in the Environmental Statement (ES). The assessment will also be in line with Regulation 14(2)(d) of the EIA Regulations which states 'a description of the reasonable alternatives studied by the applicant, which are relevant to the proposed development and its specific characteristics, and an indication of the main reasons for the option chosen, taking into account the effects of the development on the environment'.

4.2. Approach to Design

4.2.1 The Proposed Development will be informed by the principles of Good Design. This will include the application of a clear design framework and project specific design principles at the early stages of the design process.

4.2.2 Design will be an integrated and iterative process, informed by the technical requirements of the Proposed Development, feedback from engagement and consultation, and an understanding of the environmental, social and economic context of the Proposed Development and its surroundings. Design considerations will inform the evolution of the Proposed Development from inception through to delivery.

4.2.3 The design process will apply the mitigation hierarchy, seeking to avoid, reduce, mitigate, or compensate likely significant negative effects. The Proposed Development will also seek opportunities for the restoration, creation, and enhancement of biodiversity through nature inclusive design and the incorporation of opportunities for social and economic benefits.

4.3. Site Selection

4.3.1 A site selection process was undertaken to identify a suitable location capable of accommodating the Proposed Development, taking account of environmental, engineering, technical, planning, commercial and land availability considerations. The assessment sought to identify a site that could accommodate the proposed photovoltaic (PV) arrays and associated infrastructure, whilst providing a feasible connection to the National Grid and minimising potential environmental effects, where reasonably practicable.

4.3.2 The site selection process and key considerations will be detailed within the ES, with the Planning Statement submitted with the Development Consent Order (DCO) providing the wider policy justification for site selection. This will

describe the site selection process and the reasonable alternatives considered, including the principal environmental, technical and planning factors that informed the selection of the Proposed Development site. It will explain how environmental constraints and opportunities, engineering requirements, land availability and deliverability were considered alongside commercial and operational requirements during the iterative evolution of the Proposed Development.

4.4. Development of the Scoping Site Boundary

4.4.1 An iterative optioneering process was undertaken to inform the development of the Proposed Development and define the Scoping Site Boundary. The process considered alternative PV field parcels, potential substation locations, Inter-Array Connections and the Grid Connection. Environmental, engineering, technical, planning and land use considerations informed the optioneering process to identify opportunities to avoid or minimise environmental effects whilst maintaining a technically feasible and commercially viable Proposed Development.

4.4.2 As part of the optioneering process to date, two separate Black, Red, Amber and Green (BRAG) assessments were undertaken. The first considered alternative Inter-Array Connections and the Grid Connections, whilst the second considered alternative PV field parcels, potential substation locations and associated infrastructure. These assessments identified environmental, technical, planning constraints and opportunities, which informed the refinement of the Proposed Development and the Scoping Site Boundary.

4.5. Grid Connection and Inter-Array Connections

4.5.1 Alternative routeing and design options are being considered for the Grid Connection and Inter-Array Connections. These connections may comprise underground cabling, overhead lines, or a combination of both. The precise route alignments within the identified corridors and connection design have not yet been determined and remain subject to ongoing feasibility studies, environmental assessment and design development. The alternatives considered, together with the reasons for selection of the preferred option, will be presented in the ES.

4.5.2 The Scoping Site Boundary presented in this EIA Scoping Report is indicative and includes flexibility to accommodate a range of potential routeing and design options for both the Grid Connection and the Inter-Array Connections.

4.6. Approach to Consideration of Alternatives

4.6.1 The DCO Application will include a description of the alternatives relevant to the Proposed Development that have been considered, including their specific characteristics, and an indication of the main reasons for selecting the chosen option, including a comparison of the associated environmental effects. This will include consideration of alternative site layouts, PV field

parcels, potential substation locations, Inter-Array Connections, the Grid Connection and alternative options for connecting into the National Grid.

4.6.2 For the Proposed Development, the alternatives analysis will focus on different layouts, sizing, technologies, site location and design parameters in line with National Policy Statement (NPS) EN-1 4.3.15 (Ref 5):

'Applicants are obliged to include information about the reasonable alternatives they have studied in their ES. This should include an indication of the main reasons for the applicant's choice, taking into account the environmental, social and economic effects and including, where relevant, technical and commercial feasibility'.

4.6.3 A detailed appraisal of the alternatives considered will be presented within the ES, discussing the rationale for the choice of site location, final site layout and design selection, as well as explaining the flexibility sought within the DCO.

4.6.4 NPS EN-1 at paragraph 4.3.27 states 'alternative proposals which mean the necessary development could not proceed, for example because the alternative proposals are not commercially viable or alternative proposals for sites would not be physically suitable, can be excluded on the grounds that they are not important and relevant to the Secretary of State's decision'.

4.6.5 A 'no development' would not deliver the additional electricity generation capacity and other proposed benefits associated with the Proposed Development. The 'no development' scenario is therefore not considered a reasonable alternative and will not be discussed within the ES. This does not preclude the use of the 'no development' also referred to as a 'do nothing' scenario in certain technical chapters of the ES where this is required to present future baseline conditions in relation to the impact assessment.

4.6.6 Further refinements will be made as the Proposed Development design progresses. The ES will confirm the DCO Application boundaries and the illustrative layout for the Proposed Development, within the parameters of the Rochdale Envelope described in **Chapter 3: The Proposed Development**.

5. Consultation

5.1. Legislative, Regulation, and Advice Context

5.1.1 The Planning and Infrastructure Act 2025 (Ref 25), which received Royal Assent on 18 December 2025, introduced reforms to the Nationally Significant Infrastructure Project ('NSIP') consenting regime. This included the removal of the prescribed statutory consultation stage associated with an NSIP.

5.1.2 The Planning and Infrastructure Act 2025 (Commencement No 4 and Transitional Provisions) Regulations 2026 (Ref 27) came into force on the 24 July 2026. These regulations removed the statutory pre-application consultation requirements (including associated activities, deliverables and publicity requirements) from the Planning Act 2008 ('PA 2008') (Ref 1). This includes the removal of the need to consult on preliminary environmental information as part of the former statutory consultation process.

5.1.3 To support this transition, the Ministry of Housing, Communities and Local Government ('MHCLG') issued new guidance and updated existing advice for applicants with respect to pre-application steps. Of relevance to the Environmental Impact Assessment ('EIA') process is:

a. Planning Act 2008: Guidance on preparing an application: Part 1 – Pre-application steps (Ref 28);
b. Planning Act 2008: Guidance on preparing an application: Part 2 – Application contents (Ref 29);
c. Nationally Significant Infrastructure Projects: Pre-Application Advice on Environmental Impact Assessment (Ref 24); and
d. Nationally Significant Infrastructure Projects: 2024 Pre-application Prospectus (Ref 30).

5.1.4 This guidance and advice set out good practice associated with the practical adoption of the pre-application changes now brought into force through revisions to the PA 2008.

5.2. Approach to Consultation

5.2.1 The Applicant's approach to consultation will align with the advice set out in in paragraph 5.1.3. Effective and meaningful stakeholder engagement is fundamental to the development of the Proposed Development and the EIA process. Early, prioritising front-loading, proportionate, open and timely engagement with stakeholders will be undertaken to help identify key issues, inform design development and support the preparation of a robust application.

5.2.2 Engagement will be ongoing and iterative, supported by technical meetings with statutory bodies and the host planning authority to allow the sharing of baseline data, early assessment, mitigation strategies and design information as it becomes available. This approach will seek to enable

impact avoidance where practicable and mitigation measures to be incorporated into the Proposed Development design, thereby minimising residual adverse environmental effects and maximising environmental benefits where possible.

5.2.3 Evidence plans will be used to support engagement, and the Applicant will manage and maintain Issues Trackers with statutory bodies and the host authority to derive Potential Main Issues for Examination to be submitted with the application for development consent. The Applicant will also draft initial Statements of Common Ground during the pre-application phase where possible.

5.3. Stakeholder Engagement to Date

5.3.1 Initial meetings with Somerset Council, as host authority and statutory bodies have already taken place including the Environment Agency, National Highways, Natural England, South West Heritage Trust and Historic England. Consultation with these key technical stakeholders and others identified during the pre-application process through stakeholder mapping will remain ongoing as set out within **Section 5.2** of this chapter.

5.4. Scoping Consultation

5.4.1 The Planning Inspectorate (on behalf of the Secretary of State) will consult on this EIA Scoping Report in accordance with Regulation 10(6) of the EIA Regulations. Consultees include statutory consultation bodies, such as Natural England, the Environment Agency and relevant local planning authority. Comments received from consultees will be considered and included within the Scoping Opinion issued by the Planning Inspectorate.

6. Environmental Impact Assessment Methodology

6.1. Purpose of the EIA Process

6.1.1 The main objective of the EIA process is to present a clear, impartial assessment of the likely significant beneficial and adverse environmental impacts of a proposed development, including direct and indirect effects.

6.1.2 The Environmental Statement (ES) must contain the information specified in Regulation 14(2) of the EIA Regulations (Ref 2) and must meet the requirements of Regulation 14(3) of the EIA Regulations. It must also include any additional information specified in Schedule 4 to the EIA Regulations which is relevant to the specific characteristics of the particular development or type of development and the environmental features likely to be significantly affected.

6.2. Overall Approach

6.2.1 The ES will be based on a number of related activities, as follows:

a. Establishing existing baseline conditions;
b. Engagement with key consultees and stakeholders through the Development Consent Order (DCO) pre-application process;
c. Consideration of relevant local, regional and national planning policies, guidelines and legislation relevant to Environmental Impact Assessment (EIA);
d. Consideration of technical standards for the development of environmental effect significance criteria;
e. Review of secondary information, previous environmental studies and publicly available information and databases;
f. Desk-top studies;
g. Physical surveys and monitoring;
h. Computer modelling (where required); and
i. Expert opinion.

6.2.2 The EIA process is designed to be capable of, and sensitive to, changes that occur as a result of design development, including any impact avoidance and mitigation measures that are incorporated into, or developed in response to, the Proposed Development design during the EIA. This is particularly important for this EIA as the design and layout of the Proposed Development is still being refined, and the design is likely to evolve further following submission of this EIA Scoping Report. It is not, however, anticipated that the Proposed Development subject to the EIA and the DCO Application will be materially different from the Proposed Development as detailed in this EIA Scoping Report, as its location, scale, design, and use of technology are currently anticipated to remain within the parameters set out

in **Chapter 3: The Proposed Development** of this EIA Scoping Report. The defined parameters for the Proposed Development will be used within each relevant technical assessment, with each assessment identifying and justifying its reasonable worst-case basis.

6.2.3 Impacts will be considered on the basis of their magnitude, duration and reversibility. Cumulative and combined effects will also be considered where appropriate. Effect significance will be evaluated on the basis of the scale of the impact and the importance or sensitivity of the receptors/resources being affected, in accordance with standard assessment methodologies. More information on the assessment methodology is provided in **Section 6.6**.

6.2.4 Where potentially significant adverse environmental effects are identified in the assessment process, measures to mitigate these effects will be put forward in the form of recommendations to be undertaken as part of the Proposed Development, as far as is practicable.

6.2.5 The ES will set out the process followed during the EIA including the methods used for the collection of data and for the identification and assessment of impacts. Any assumptions will be clearly identified.

6.3. Determining Baseline Conditions

6.3.1 Baseline conditions are the environmental conditions that currently exist within the Scoping Site Boundary and surrounding area in the absence of the Proposed Development, including existing developments which are already operational. In order to predict the potential environmental impacts of the Proposed Development, it is necessary to determine these baseline conditions.

6.3.2 Detailed environmental baseline information will be collected and the methodology for the collection process will be detailed within the ES. The baseline information will be gathered from various sources, including:

a. Online/digital resources;
b. Data searches, for example Historic Environment Record (HER); and
c. Baseline surveys of the Proposed Development and its surroundings.

6.3.3 Consideration will also be given to how the baseline conditions may evolve in the absence of the Proposed Development, known as the ‘future baseline’.

6.4. Mitigation

6.4.1 EIA Regulation 14 (2)(c) requires the ES to provide “*a description of any features of the proposed development, or measures envisaged in order to avoid, prevent or reduce and, if possible, offset likely significant adverse effects on the environment”*. These are commonly referred to as mitigation measures. Where possible, these measures will be incorporated into the form or design of the Proposed Development.

6.4.2 The Proposed Development will adopt a standard hierarchical approach to identifying mitigation requirements as follows:

a. **Avoid or prevent**: In the first instance, mitigation measures should seek to avoid or prevent the adverse effect at source, for example, by appropriate siting and routing of infrastructure within the Energy Park, or by locating Photo Voltaic (PV) panels away from sensitive receptors;
b. **Reduce**: If an effect is unavoidable, mitigation measures should be implemented which seek to reduce the significance of the effect. For example, the use of noise barriers to reduce the level of construction noise experienced by nearby noise sensitive receptors; and
c. **Offset**: If the effect can neither be avoided nor reduced, mitigation should seek to offset the effect through the implementation of compensatory mitigation, for example habitat creation to replace any habitat losses.

6.4.3 Mitigation measures fall into two categories: 'embedded mitigation measures' which are built into the design of the Proposed Development, and 'additional mitigation measures' which are additional to the Proposed Development design commitments.

6.4.4 Enhancement measures and their associated benefits, which are those measures that are over and above what is required to mitigate the adverse effects of the Proposed Development, will also be detailed within the ES, as appropriate. These are generally not factored into the determination of residual effects, unless they have been incorporated into the Proposed Development design, in which case they will be included in the assessment as embedded measures.

Embedded Mitigation Measures

6.4.5 The Proposed Development will be developed through an iterative EIA and design process which involves seeking to avoid or reduce and, if possible, offset potential environmental effects. Where possible, these measures will be incorporated into the form or design of the Proposed Development, for example, through the appropriate routing and siting of infrastructure.

6.4.6 Once these measures are incorporated into the Proposed Development design, they are termed 'embedded mitigation' measures. Embedded mitigation measures relevant to the construction phase will be described within each technical chapter of the ES and listed within **Appendix 1-2: Environmental Mitigation and Commitments Register** that accompanies this EIA Scoping Report. For the operation (and maintenance) phase, embedded measures will be represented primarily in the Proposed Development design. Such measures will be incorporated into the Proposed Development design from the outset and/or identified through the iterative EIA process.

6.4.7 The ES will also describe industry control measures which are common practice on construction sites as embedded mitigation measures. These will be described in each technical chapter of the ES and included in the Outline Construction Environmental Management Plan (CEMP), which will be prepared as part of the DCO Application. The Outline CEMP will provide a

structure within which the appointed construction Contractor (including any sub-contractors or suppliers involved in the works) would plan, implement and deliver environmental management, mitigation and monitoring requirements (ensuring the results of such monitoring are used to inform and implement any remedial action required) during the construction phase of the Proposed Development as committed to within the ES. The Outline CEMP would be secured through the DCO and developed into a detailed CEMP by the appointed construction Contractor prior to the start of construction. It is intended that the detailed CEMP would be maintained and updated as necessary to reflect changes to the construction team or other relevant project information, in accordance with the requirements of the DCO.

6.4.8 The following outline management plans are proposed to be submitted as part of the DCO Application. These documents will set out the framework for implementing embedded mitigation measures and will be secured through Requirements in the DCO:

a. Outline CEMP;
b. Outline Operational Environmental Management Plan (OEMP);
c. Outline Decommissioning Environmental Management Plan (DEMP);
d. Outline Landscape and Ecological Management Plan (LEMP);
e. Outline Battery Storage Safety Management Plan (BSMP);
f. Outline Soil Management Plan (SMP);
g. Outline Construction Traffic Management Plan (CTMP); and
h. Outline Public Rights of Way (PRoW) Management Plan.

Additional Mitigation Measures

6.4.9 The ES will assess the environmental effects of the Proposed Development with embedded mitigation measures in place. Where significant adverse environmental effects remain following consideration of these measures, additional mitigation measures will be identified, where appropriate, to further avoid, reduce or offset those effects. These measures will be described within the relevant technical chapters of the ES and may include measures beyond standard industry control measures, such as bespoke site-specific mitigation (for example, possible temporary screening to reduce glint and glare until landscape planting has become established). Additional mitigation measures will also be incorporated into the relevant management plans, where appropriate.

6.5. Timescales and Assessment Years

Construction Phase Effects

6.5.1 For the assessment, construction effects will be taken to be those for which the impact source begins and ends during the Proposed Development construction phase, and do not endure beyond the completion of construction. This covers sources such as construction traffic, noise and vibration from construction activities, dust generation, site runoff, mud on roads, risk of fuel/oil spillage, and the visual intrusion of plant and machinery

on-site. Some construction-related effects may last longer than others, for example, impacts related to the establishment of construction compounds are likely to be relatively short in duration in respect of the whole construction period, whereas the construction of energy infrastructure and landscaping activities are likely to persist throughout the entire construction period. By their nature, most construction impacts will be temporary and reversible.

6.5.2 The assessment of construction effects will assume the implementation of standard good practice measures, for example, the use of temporary noise barriers to reduce noise levels as appropriate and, where practicable, control of dust on haul roads (embedded mitigation measures are detailed in **Section 6.4**). The purpose of this is to focus on the Proposed Development specific effects, rather than generic construction effects that can be easily addressed using generic best practice mitigation measures. Construction assumptions, including good practice measures, will be set out within the ES and Outline CEMP. The ES will identify and assess construction effects that are likely to remain after these mitigation measures are in place.

Operation and Maintenance Phase Effects

6.5.3 For the operation (and maintenance) assessment, these are the effects that, although they may start during construction, are either permanent, endure a substantial period beyond construction or decommissioning, or represent an extended cumulative effect of construction or decommissioning activity. This includes the effects of the physical presence of the energy infrastructure and its operation, use and maintenance. Timescales associated with these enduring effects are as follows:

a. Short term – endures for up to 12 months after construction or decommissioning;
b. Medium term – endures for 1-5 years; and
c. Long term – endures for more than 5 years.

6.5.4 Effects may also be classified according to their reversibility:

a. Reversible effects – effects which endure throughout the lifetime of the Proposed Development but which cease once the Proposed Development has been decommissioned (operation (and maintenance) effects will fall into this category); and
b. Permanent effects – effects which cannot be reversed following decommissioning (e.g. where buried archaeology is permanently removed during construction).

6.5.5 Environmental management and mitigation measures for the operation (and maintenance) phase of the Proposed Development would be planned, implemented and delivered through an Operational Environmental Management Plan (OEMP), secured through a Requirement in the DCO. An Outline OEMP will be prepared as part of the DCO Application, which will set out the general principles to be followed during the operation of the Proposed Development. The Outline OEMP would be developed into a detailed OEMP following the grant of the DCO.

Decommissioning Phase Effects

6.5.6 For the assessment, decommissioning effects will be taken to be those for which the source of the effect begins and ends during the decommissioning phase and does not extend beyond the completion of the decommissioning phase. For example, sources of effects arising from decommissioning activities, such as decommissioning traffic, noise and vibration, dust generation, site runoff, mud on roads, risks of fuel/oil spillage and the visual intrusion of plant and machinery. Typically, decommissioning phase effects are similar in nature to those experienced during the construction phase, although they may be of shorter duration and slightly less intensity. As with construction phase activities and effects, some aspects of decommissioning activities and effects would endure for longer than others.

6.5.7 Environmental management and mitigation measures for the decommissioning phase of the Proposed Development would be planned, implemented and delivered through a Decommissioning Environmental Management Plan (DEMP), secured through a Requirement in the DCO. An Outline DEMP will be prepared as part of the DCO Application which will set out the general principles to be followed during the operation of the Proposed Development. The Outline DEMP would be developed into a detailed DEMP following the grant of the DCO.

Assessment Years

6.5.8 In order to ensure the EIA is robust in considering the likely significant effects of the Proposed Development, appropriate assessment scenarios and years have been identified and discussed below.

6.5.9 The assessment scenarios that will be considered for the purposes of the EIA are:

a. Existing Baseline: 2025 – 2027.
b. Construction: 2030 – 2032.
c. Operation Year 1: 2032.
d. Decommissioning: 2072.
e. A future year, beyond the Operation Year 1, may be considered for specific topics where the effects of mitigation are expected to change over time, such as landscape and visual effect. This is advised by the Landscape Institute Guidelines, which are discussed further in **Chapter 11: Landscape and Visual** of this EIA Scoping Report.

6.5.10 The peak construction year for the purpose of the EIA is anticipated to be during 2031. This is based on the assumption that the Proposed Development would be built out over approximately 24 to 36 months, which is a reasonable worst-case from a traffic generation point of view as the trip numbers would be compressed into a shorter duration. This would therefore also be the reasonable worst-case in terms of potential effects on drivers, pedestrians, cyclists and traffic-related air quality and noise effects.

6.5.11 The peak construction assessment year will be reviewed as the anticipated construction programme is considered in more detail during the design

development. A detailed justification for the reasonable worst-case scenario that is assessed will be provided in the ES.

6.5.12 The current date of connection for the Proposed Development is anticipated to fall between 2031 and 2035, with an aspiration for the Proposed Development to start operating sooner where possible. The proposed operation (and maintenance) assessment year for the purpose of the EIA is 2032.

6.5.13 The decommissioning assessment year for the purpose of the EIA is 2072, based on the design life of the Proposed Development.

6.6. Assessment of Impacts and Significance of Effects

6.6.1 The evaluation of the significance of an effect is important, as it is the effect significance that determines the resources that should be deployed in avoiding or mitigating a significant adverse effect, or conversely the actual value of a beneficial effect. The overall environmental acceptability of the Proposed Development is a matter for the SoS to determine, having taken into account the environmental information that is set out in the ES, including all likely beneficial and adverse environmental effects, amongst other matters. Where it has not been possible to quantify effects, qualitative assessments will be undertaken based on available knowledge and professional judgement. Where uncertainty exists, this will be noted in the relevant technical chapter of the ES and valid assumptions made/a reasonable worst-case approach taken, as appropriate.

6.6.2 The significance of residual effects will be determined by reference to criteria developed for each technical assessment. Specific effect significance criteria for each technical assessment are presented in **Chapter 7** to **17** of this EIA Scoping Report. The assessment of significance will take into account:

a. Magnitude of change:
    i. Scale of the impact (described as high, medium, low and very low);
    ii. Spatial extent of the impact, where relevant;
    iii. Effect duration and whether effects are temporary, reversible or permanent;
    iv. Whether the effect occurs in isolation, is cumulative or interacts with other effects;
b. Effect nature (whether beneficial neutral/negligible or adverse);
c. Sensitivity of the receptor or resource (described as high, medium, low and very low); and
d. Other relevant considerations, including:
    i. Performance against any relevant environmental quality standards;
    ii. Compatibility with environmental policies.

6.6.3 Further guidance relating to the magnitude of change, the sensitivity of receptors/resources, and the significance of any resultant effects is provided in **Sections 6.6.4**, **6.6.5** and **6.6.6**.

Magnitude of Change

6.6.4 General criteria for defining the magnitude of change (adverse or beneficial) are set out in **Table 6-1.** Key factors that influence this include:

a. Scale of change: The scale of change refers to the degree of change to or from baseline environment conditions caused by the impact being described;
b. Spatial extent: The extent of an impact is the full area over which the impact occurs; and
c. Duration and frequency: The duration is the period within which the impact is expected to last prior to recovery or replacement of the feature. Frequency refers to how often the impact would occur.

Table 6-1: Magnitude of Change Criteria

Magnitude	Change
High	Long term and/or regional level loss; or major alteration to key elements/features of the baseline condition such that post development character/composition of the baseline would be fundamentally changed.
Medium	Medium term loss and/or local level change (greater than the Proposed Development footprint) or alteration to one or more key elements/features of the baseline conditions such that post development character/composition of the baseline condition would be materially changed.
Low	Short term, Proposed Development specific and/or a minor shift away from baseline conditions. Changes arising from the alteration would be detectable but not material; the underlying character/composition of the baseline condition would be similar to the pre-development situation.
Very Low	Very little change from baseline conditions. Change is barely distinguishable, approximating to a 'no change' situation.

Sensitivity of Receptor/Resource

6.6.5 The sensitivity (or value) of a receptor or resource is characterised by the vulnerability to change, recoverability and importance of the receptor or resource (see **Table 6-2**). Characterisation of the receptor or resource is achieved by balancing out three considerations to determine the receptor/resource's sensitivity as follows:

a. **Vulnerability**: The vulnerability of the receptor or resource relates to its capacity to accommodate change i.e. the tolerance/intolerance of the receptor/resource to change;

b. **Recoverability**: The ability of the receptor or resource to return to the baseline state before the Proposed Development impact caused the change; and
c. **Importance**: The importance of the receptor or resource is a measure of the value assigned to that receptor/resource based on biodiversity and ecosystem services, social value and economic value. The importance of the receptor or resource is also defined within a geographical context, whether it is important internationally, national or locally.

Table 6-2: Sensitivity Criteria

Sensitivity	Description
High	Receptor/resource has little or no ability to absorb change without fundamentally altering its character. For example: Receptor/resource has low/no capacity to return to baseline conditions within the Proposed Development's life e.g. low tolerance to change and low recoverability such as a physical feature formed over a geological time scale, or loss of access with no alternatives; Receptor/resource is a designated feature of a protected site or is rare or unique; and/or; Receptor/resource is economically valuable.
Medium	Receptor/resource has moderate capacity to absorb change without significantly altering is character, however some damage to the receptor/resource would occur. For example: Receptor/resource has intermediate tolerance to change; Medium capacity to return to baseline condition e.g. >5 or up to 10 years; and/or The receptor/resource is valued but not protected.
Low	The receptor/resource is tolerant to change without significant detriment to its character. Some minor damage to the receptor/resource may occur. For example: Receptor/resource has a high tolerance to change; High capacity to return to baseline condition e.g. >5 or up to 10 years; May affect socio-economic behaviour but is not a nuisance to users; and/or The receptor/resource is common and/or widespread.
Very Low	The receptor or resource is tolerant to change with no effect on its character. The activity resulting from the Proposed Development does not have a detectable effect on survival or viability.

Evaluating the Significance of Effect

6.6.6 Once the magnitude of change (impact) and the sensitivity of the receptor or resource have been established, the significance of an effect can be assessed. The significance of residual effects (effects that remain after the implementation of defined mitigation measures) will be evaluated with reference to available definitive standards, accepted criteria, and applicable legislation. For issues where definitive quality standards do not exist, significance will be based on the following:

a. Local, district, regional or national scale or value of the receptor or resource affected;
b. Number of receptors/resources affected;
c. Sensitivity of these receptors/resources; and
d. Duration of the effect.

6.6.7 In order to provide a consistent approach to expressing the outcomes of the various studies undertaken as part of the EIA, and thereby enable comparison between effects upon different technical topics, the following terminology will be used in the ES to define residual effects:

a. **Adverse**: Detrimental or negative effects to an environmental/socio-economic receptor or resource;
b. **Negligible** (also referred to as 'neutral' for some technical topics): Imperceptible effects to an environmental/socio-economic receptor or resource; or
c. **Beneficial**: Advantageous or positive effect to an environmental/socio-economic receptor or resource.

6.6.8 Where adverse or beneficial effects are identified, these will be assessed against the following scales in **Table 6-4**.

6.6.9 Each of the technical chapters of the ES will provide the criteria, including sources and justifications, for qualifying the different categories of effect. Where possible, this will be based upon quantitative and accepted criteria (for example, noise assessment guidelines), together with the use of value judgement and expert interpretation, to establish to what extent an effect is significant. **Table 6-3** illustrates an example of the classification of effects matric (often referred to as a significance matrix).

Table 6-3: Example Matrix to Classify Environmental Effects

Sensitivity or value of receptor/ resource	**Magnitude of Change**			
	High	Medium	Low	Very Low
High	Major	Major	Moderate	Minor
Medium	Major	Moderate	Minor	Negligible
Low	Moderate	Minor	Negligible	Negligible

Sensitivity or value of receptor/ resource	Magnitude of Change			
	High	Medium	Low	Very Low
Very Low	Minor	Negligible	Negligible	Negligible

6.6.10 Following the classification of an effect, clear statements will be made within the technical chapters of the ES as to whether an effect is significant or not significant. As a general rule, major and moderate effects are considered to be significant (as shown by the shaded cells in **Table 6-3**), whilst minor and negligible effects are generally considered to be not significant. However professional judgement will be applied, including taking account of whether the effect is permanent or temporary, its duration/frequency, whether it is reversible, and/or its likelihood of occurrence. A precautionary/reasonable worst-case approach will be adopted to ensure the recorded effects are not understated. Generic definitions for the classification of effects are shown in **Table 6-4**.

Table 6-4: Generic Effect Descriptions

Effect	Generic Description
Major	These effects may represent key factors in the decision making process. Potentially associated with sites and features of national importance or likely to be important considerations at a regional or district scale. Major effects may relate to resources or features which are unique and which, if lost, cannot be replaced or relocated. Considerable effect (by extent, duration or magnitude) of more than local significance or in breach of recognised acceptability, legislation, policy or standards. Such effects are considered significant.
Moderate	These effects, if adverse, are likely to be important at a local scale and on their own could have a material influence on decision making. Limited effect (by extent, duration or magnitude) which is likely to be considered significant (to be confirmed in the technical chapters of the ES).
Minor	These effects may be raised as local issues and may be of relevance in the detailed design of the Proposed Development but are unlikely to be critical in the decision-making process. Slight, very short or highly localised effect of no significant consequence.
Negligible	Effects which are beneath levels of perception, within normal bounds of variation or within the margin of forecasting error, these effects are unlikely to influence decision making, irrespective of other effects.

6.6.11 Where mitigation measures are identified to eliminate, mitigate or reduce adverse impacts, these have either been incorporated into the design of the Proposed Development; translated into construction commitments; or

operation (and maintenance) or managerial standards/procedures. The ES will highlight 'residual effects', which remain following the implementation of suitable mitigation measures, and classify these in accordance with the effect classification terminology as given above.

6.6.12 It should be noted some technical chapters of the ES may use different criteria when undertaking assessments due to differences in industry accepted guidelines and specifications. Where this is the case, the technical chapters (**Chapter 7** to **17**) of this EIA Scoping Report discuss how the assessment methodology or classification of effects differs from the general EIA methodology (as described in this section) and provides justification.

6.7. Cumulative Effects

6.7.1 In accordance with the EIA Regulations (Ref 2), 'cumulative effects' will be considered. These are effects that result from incremental changes caused by other past, present or reasonably foreseeable actions together (i.e. cumulatively) with the Proposed Development. For the cumulative impact assessment, two types of impact will be considered:

a. The combined effect of individual impacts from the Proposed Development, for example noise or pollutants on a single receptor (these will be referred to as 'In-Combination Effects'); and
b. The combined effects of several development schemes which may, on an individual basis be insignificant but, cumulatively with the Proposed Development, have a new or different likely significant effect.

6.7.2 The assessment will be based on the best available data from other proposed and committed developments and associated information which is currently in the public domain or has been provided. The assessment will assume publicly available information is accurate and is also reliant on effective collaboration between, and information sharing with, a range of consultees, neighbouring authorities and other developers to identify changes in information which may be pertinent to the assessment.

6.7.3 Where there are specific limitations associated with data, these will be highlighted in the ES. **Table 6-5** summarises how cumulative and in-combination effects will be reported in the ES.

Table 6-5: Summary of How Cumulative and In-Combination Effects will be Reported in the Environmental Statement

Effect	Description	Approach to reporting
In-Combination Effects	The interaction and combination of different environmental discipline residual (post-additional mitigation) effects from within the proposed development effecting a single receptor. For example, noise and visual	Will be identified in the technical chapter with a summary of effects provided in a separate cumulative chapter supported by a cross-discipline effect interaction matrix.

Effect	Description	Approach to reporting
	effects on a single heritage receptor, or noise and air quality effects on a single residential receptor.	
Cumulative Effects	The combined residual (post-additional mitigation) effects of the Proposed Development and another project or projects on a single receptor.	Will be assessed within the technical chapter with a summary of effects provided in a separate cumulative chapter of the ES.

In-Combination Effects

6.7.4 There is no established EIA methodology for assessing and quantifying effect interactions that lead to combined effects on sensitive receptors, however, the European Commission (EC) has produced guidelines for assessing effect interactions, which "*are not intended to be formal or prescriptive, but are designed to assist EIA practitioners in developing an approach which is appropriate to a project…"* (Ref 31).

6.7.5 AECOM has reviewed these guidelines and has developed an approach which uses the defined residual effects of the Proposed Development to determine the potential for effect interactions that lead to combined effects. This approach was undertaken on the Sunnica Energy Farm, Longfield Solar Farm, Gate Burton Energy Park, Fenwick Solar Project, East Yorkshire Solar Farm and Tillbridge Solar Project, all of which are solar NSIPs that have completed DCO examination and granted development consent.

6.7.6 The EIA will predict beneficial and adverse effects during construction, operation (and maintenance), and decommissioning of the Proposed Development, which are classified as minor, moderate or major. Several effects on one receptor or receptor group could theoretically interact or combine to produce a combined significant overall effect.

6.7.7 An exercise which tabulates the effects on receptors or receptor groups will be undertaken to determine the potential for effect interactions and therefore any combined effects. Only adverse or beneficial residual effects classified as minor, moderate or major will be considered in relation to potential effect interactions. Residual effects, which are classified as negligible will be excluded from the assessment of the effects interactions as, by virtue of their definition (see **Section 6.6** and **Table 6-4**), they are considered to be imperceptible effects to an environmental/socio-economic resource or receptor.

Cumulative Effects with Other Developments

6.7.8 The Planning Inspectorate's advice on the assessment of cumulative effects (Ref 32) identifies a four-stage approach as follows:

Stage 1 – Establish the NSIP's Zone of Influence (ZoI) and Identify a Long List of 'Other Development'

6.7.9 A review of other developments will be undertaken, initially encompassing a 'zone of influence' defined by the environmental topic specialists to prepare a long list of 'other developments'. At this phase, it is anticipated that the long list will be based on up to a 10 km area of search.

6.7.10 There are currently no DCO Solar Projects within 10 km of the Scoping Site Boundary**.**

6.7.11 The long list of 'other development' to be included in the assessment of cumulative effects will be reviewed and developed in consultation with the local planning authorities, consultees, stakeholders and other relevant organisations.

6.7.12 Development will be included in the initial long-list based on the following criteria:

a. Development currently under construction;
b. Approved applications which have not yet been implemented (covering the past five years and taking account of those that received planning consent over three years ago and are still valid, but have not yet been completed);
c. Submitted applications not yet determined;
d. On the National Infrastructure Planning Programme of Projects;
e. All solar and BESS developments identified within 10 km of the Proposed Development; and
f. Development identified in the relevant Development Plan (and emerging) Development Plans.

6.7.13 Criteria will be developed and applied to filter development which may be excluded from the initial long list, having regard to the size and spatial influence of each development. These criteria will be documented and set out within the ES.

Stage 2 – Identify shortlist of 'Other Development' for Cumulative Effects Assessment

6.7.14 At Stage 2, to ensure a proportionate approach to the assessment, a detailed review of the long list of other developments will be undertaken. This review will consider the spatial scope of the assessment, informed by the likely Zone of Influence (ZoI) for each environmental topic, and the temporal scope, including the extent to which construction, operation and decommissioning activities may overlap with those of other developments. Any developments of a nature or scale without the potential to result in cumulative impacts will be excluded, following discussion with Local Planning Authorities, and consideration of the likely ZoI for each environmental topic.

6.7.15 The criteria will address the following:

a. Temporal Scope;
b. Scale and nature of development;
c. Documentation; and
d. Other factors such as nature and capacity of the environment, as well as any need for a pathway receptor approach to inform assessment.

6.7.16 The justification for including or excluding developments from the long list will be provided in a matrix, modelled on the example given within Appendix 1 of the Planning Inspectorate's Advice on Cumulative Effects Assessment (Ref 32).

Stage 3 – Information Gathering

6.7.17 Information relating to other developments will be collected from the appropriate source (which may include the Local Planning Authorities, the Planning Inspectorate or directly from the applicant/developer) and will include, but not be limited to:

a. Proposed design and location information;
b. Proposed programme of demolition, construction, operation and/or decommissioning; and
c. Environmental assessments that set out baseline data and effects arising from 'other development'.

Stage 4 – Assessment

6.7.18 The assessment will include a list of those developments considered to have the potential to generate a cumulative effect together with the Proposed Development, and this will be documented in a matrix which includes the following:

a. A brief description of the development;
b. An assessment of the cumulative effect with the Proposed Development;
c. Proposed mitigation applicable to the Proposed Development including any apportionment; and
d. The likely residual cumulative effect.

6.7.19 The criteria for determining the significance of any cumulative effect will be based upon:

a. The duration of effect, i.e. will it be temporary or permanent;
b. The extent of the effect, i.e. the geographical area of an effect;
c. The type of effect, e.g. whether additive or synergistic;
d. The frequency of the effect;
e. The 'value' and resilience of the receptor affected; and
f. The likely success of mitigation.

6.7.20 Particular consideration will be given to other solar developments proposed within the 10 km area of search and information available at the time of assessment will be used to inform the assessment of cumulative effects.

6.7.21 In reporting the overall significance of cumulative effects, it is appropriate to also acknowledge the relative contributions different projects make to a cumulative effect and carefully consider whether the cumulative effect is significant. The assessment will consider the extent to which the Proposed Development contributes to any identified cumulative effect and whether it materially alters the nature, magnitude or significance of that effect. Consequently, care will be taken to not simply define such effects as being cumulative, but rather to focus on the nature and scale to which genuine cumulative effects might result.

6.8. Proposed Topics to be included in the ES

6.8.1 The following chapters of this EIA Scoping Report present a discussion of the potential significant environmental effects associated with the Proposed Development that will be considered as part of the EIA and reported in the ES. The methodology and assessment criteria that will be used to assess the identified effects are also outlined. These topics comprise:

a. Climate Change (**Chapter 7**);
b. Cultural Heritage (**Chapter 8**);
c. Ecology and Biodiversity (**Chapter 9**);
d. Water Environment (**Chapter 10**);
e. Landscape and Visual (**Chapter 11**);
f. Noise and Vibration (**Chapter 12**);
g. Socio-economics, Tourism and Recreation (**Chapter 13**);
h. Agriculture and Soils (**Chapter 14**);
i. Transport and Access (**Chapter 15**);
j. Materials and Waste (**Chapter 16**); and
k. Other Environmental Topics (**Chapter 17**).

6.8.2 **Chapter 17: Other Environmental Topics** of this EIA Scoping Report provides a summary of environmental topics which have been considered during the preparation of this EIA Scoping Report, but for which standalone chapters are not anticipated to be required in the ES. For these topics, it is considered that, from previous experience, the demonstration of no likely significant effects being expected can be quickly established without the need for detailed information on legislation, policy and baseline conditions being provided. Therefore, technical appendices may be provided where required for these topics with a short summary in a single chapter of the ES. In the unlikely event that a likely significant effect is identified for a particular topic, a standalone chapter will be produced in accordance with the chapter structure set out in **Section 6.10**. These topics comprise:

a. Air Quality;
b. Ground Conditions;
c. Electromagnetic Fields;
d. Telecommunications;
e. Major Accidents and Disasters; and

f. Glint and Glare.

6.8.3 Human health effects will be considered indirectly through the assessment of environmental determinants of health within relevant topic chapters, rather than through a standalone Human Health Impact Assessment.

6.8.4 **Chapters 7** to **17** of this EIA Scoping Report provide an outline of the proposed scope of works for the topics identified in **Section 6.8** above.

6.9. Proposed Elements Scoped Out

6.9.1 Based upon the work presented in this EIA Scoping Report, each of the technical chapters (**Chapter 7** to **17**) set out the technical elements to be scoped out of the EIA for that topic. This information is summarised in **Table 19-1**.

6.10. Topic Chapter Structure

6.10.1 Each of the technical chapters (**Chapters 7** to **17**) of this EIA Scoping Report is set out as follows:

a. Introduction to the topic;
b. Description of the Study Area for the topic;
c. Legislation, planning policy context and guidance to the topic;
d. Consultation;
e. Baseline conditions;
f. Potential effects and mitigation;
g. Assessment methodology;
h. Limitations and assumptions; and
i. Summary of elements scoped in and out.

6.10.2 For **Chapter 17: Other Environmental Topics** of this EIA Scoping Report, a general discussion of each topic is provided, including the elements as listed above where relevant, but the text is not confined to the structure above.

7. Climate Change

7.1. Introduction

7.1.1 This chapter sets out the proposed approach to the assessment of likely significant effects on climate during construction, operation (and maintenance) and decommissioning phases, how these effects will be identified and assessed, and how suitable mitigation strategies will be put forward and set out within the climate change chapter of the Environmental Statement (ES).

7.1.2 To align with the requirements of the EIA Regulations (Ref 2) and Institute of Sustainability and Environment Professionals (ISEP) guidance for assessing climate mitigation and adaptation in Environmental Impact Assessments (EIAs), consideration has been given within this chapter to the following aspects of climate change assessment:

a. **Lifecycle greenhouse gas (GHG) impact assessment:** the impact of GHG emissions arising from the Proposed Development on the climate over its lifetime; and
b. **Climate change risk assessment (CCRA):** the resilience of the Proposed Development to future climate change impacts.

7.1.3 A standalone In-Combination Climate Change Impact (ICCI) assessment is proposed to be scoped out on the basis that environmental disciplines will consider climate change where relevant within their technical chapters.

7.1.4 There are no supporting technical figures or technical appendices to this chapter.

7.2. Study Area

7.2.1 The general Study Area for the climate change assessments is illustrated in **Figure 1-1: Proposed Development Location Plan**. Further details regarding the Study Area for each of the aspects of the climate change assessments are provided below.

Lifecycle greenhouse gas (GHG) impact assessment

7.2.2 The GHG assessment considers all direct GHG emissions arising from activities undertaken within the Scoping Site Boundary during construction, operation (and maintenance), and decommissioning of the Proposed Development. It also includes indirect emissions usually arising outside the Scoping Site Boundary, such as emissions embedded within the construction materials arising as a result of the energy used for their production, as well as emissions arising from the transportation of materials, waste and construction workers. The assessment also considers activities that may be avoided or displaced as a result of the Proposed Development. For example, other grid electricity production activities e.g. fossil-fuelled energy generation displaced by the renewable energy generated from this Proposed Development.

7.2.3 The Study Area will be updated to reflect the final Order Limits for the DCO application.

Climate change risk assessment (CCRA)

7.2.4 The CCRA assessment considers the impact of climate change at the Scoping Site Boundary during construction, operation, maintenance and decommissioning of the Proposed Development.

7.3. Legislation, Planning Policy Context and Guidance

7.3.1 Legislation, planning policy and guidance relating to climate change and pertinent to the Proposed Development comprises:

Legislation

7.3.2 Relevant legislation includes:

a. The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017: Regulation 5(2) and Schedule 4, paragraphs 4 and 5(f) (Ref 2);
b. The Climate Change Act 2008 (as amended by the Climate Change Act 2008 (2050 Target Amendment) Order 2019 (Ref 8). The Climate Change Act 2008 set a legally binding target for the UK to reduce its GHG emissions from 1990 levels by at least 80% by 2050. This target is supported by a system of legally binding five-year 'carbon budgets' and an independent body to monitor progress, the Climate Change Committee (CCC). The UK carbon budgets restrict the amount of GHG emissions the UK can legally emit in a defined five-year period. The Act was amended in 2019 to revise the existing 80% reduction target and legislate for Net Zero emissions by 2050;
c. UK Nationally Determined Contribution (2020) (Ref 33);
d. UK's 2035 Nationally Determined Contribution (NDC) emissions reduction target under the Paris Agreement (Ref 34);
e. The Carbon Budget Order 2011 (sets the fourth carbon budget for the 2023–2027 budgetary period (Ref 35);
f. The Carbon Budget Order 2016 (sets the fifth carbon budget for the 2028–2032 budgetary period) (Ref 36);
g. The Carbon Budget Order 2021 (sets the sixth carbon budget for the 2033-2037 budgetary period) (Ref 37);
h. The Carbon Budget Order 2026 (sets the seventh carbon budget for the 2038-2042 budgetary period) (Ref 38);
i. The Paris Agreement (2015) (Ref 39) is a legally binding agreement within the United Nations Framework Convention on Climate Change (UNFCCC) dealing with GHG emissions mitigation, adaptation and finance starting in the year 2020. It requires all signatories to set a target, known as an NDC, and to strengthen their climate change mitigation efforts to keep global warming to well below 2°C this

century and to pursue efforts to limit global warming to 1.5°C. The agreement contains a 'ratchet' mechanism by which NDCs must be strengthened every five years;

j. The Environment Act (2021) (Ref 18) sets legally binding targets for air quality, water quality and biodiversity. These include halting the decline in species populations by 2030 and cutting exposure to the most harmful air pollutant to human health- PM2.5; and

k. The Energy Act (2023) (Ref 40) includes a number of changes aimed at creating a more energy efficient energy system and lays the groundwork for achieving the UK's climate targets through promoting low-carbon technologies.

National Planning Policy

7.3.3 The following planning policies from relevant National Policy Statements (NPS) have been taken into account as part of identifying the assessment methodology, receptor selection/ sensitivity, potential significant environmental effects, and mitigation:

a. Overarching National Policy Statement for Energy (EN-1) (December 2025) (Ref 5) with particular reference to paragraphs 4.10.5 to 4.10.12 which set out assessment principles in relation to climate change adaptation and resilience; paragraphs 4.10.18 to 4.10.19 in relation to adaptation measures in response to climate projections that will be considered by the Secretary of State in their decision making; and paragraphs 4.10.3 to 4.10.4 and 5.8.3 to 5.8.12 in relation to climate projections, flood risk and the importance of relevant mitigation. Paragraph 4.10.4 should be read alongside Section 5.3 on greenhouse gas emissions, which sets out assessment principles in relation to greenhouse gas emissions in the context of energy infrastructure;

b. National Policy Statement for Renewable Energy Infrastructure (EN-3) (December 2025) (Ref 6), specifically paragraph 2.4.11 which requires applicants to consider how plant on solar PV development will be resilient to the increased risk of flooding and the impact of higher temperatures. Paragraphs 2.4.1 to 2.4.4 reference NPS EN-1 and the generic considerations that should be taken into account; and

c. National Policy Statement for Electricity Networks Infrastructure (EN-5) (December 2025) (Ref 7) – paragraph 2.3.1 references NPS EN-1 and the importance of climate change resilience, and paragraph 2.3.3 in relation to ES requirements regarding climate change resilience.

Other Policy and Guidance

7.3.4 Other relevant national policy and guidance includes:

a. National Planning Policy Framework (August 2026) (Ref 41) – Policy W3 (Renewable and low carbon energy development and electricity network infrastructure), Policy CC2 (Mitigation of climate change), and Policy CC3 (Adaptation to climate change);

b. UK Climate Change Risk Assessment (2022) (Ref 42): As required by the Climate Change Act 2008, the UK government completed the third five-year assessment of the risks of climate change on the UK. This is based on the Independent Assessment of the UK Climate Risk, the statutory advice provided by the CCC, commissioned by the UK government and devolved administrations. The CCC's Fourth Independent Assessment of UK Climate Risk (May 2026) (Ref 43) will inform the next UK CCRA;
c. Net Zero Strategy: Build Back Greener (2021) (Ref 44), which sets out policies and proposals for meeting the carbon budget targets and its vision for a decarbonised economy by 2050. The document states that low carbon power is expected to become the predominant form of energy in 2050;
d. Energy White Paper: Powering our Net Zero future (2020) (Ref 17), details the Government's revised ambitions, setting 2035 as the date by which all the UK's electricity will need to come from low carbon sources, subject to security of supply, whilst meeting a 40-60% increase in demand; and
e. UK Infrastructure: A 10 Year Strategy (2025) (Ref 45).
f. Powering Up Britain: Net Zero Growth Plan (2023) (Ref 20).

7.3.5 Relevant local planning policy includes:

a. Sedgemoor Local Plan 2011 to 2032 (February 2019) (Ref 11)
    i. Policy S4 (Sustainable development principles) supports development that contributes to mitigating the cause of climate change;
    ii. Policy S5 (Mitigating the causes and adapting to the effects of climate change) strongly supports developments that seek to reduce greenhouse gas emissions and contribute to mitigating the causes of climate change, including the development of renewable and low carbon energy generation;
    iii. Policy D3 (Sustainability and energy in development) requires all major development proposals to provide a statement demonstrating how sustainable construction principles have been incorporated. It also sets out a requirement for an applicant to prepare a Construction Environmental Management Plan in situations where there is potential for the development proposal to result in significant adverse environmental impacts;
    iv. Policy D19 (Landscape) requires development proposals to take account of the predicted long-term impacts of climate change on the landscape; and
    v. Policy D24 (Pollution impacts of development) requires applications to be supported by assessments relating to carbon emissions.
b. Somerset Energy Investment Plan (2025) (Ref 46), produced by Regen to support Somerset Council in identifying opportunities for energy investments in Somerset, potential economic and local

benefits, policy development and options for delivering action on the Somerset Net Zero Pathway. The plan documents six areas of opportunity within Somerset which can support energy decarbonisation and how the Council can encourage and attract inward investment into the County in areas of solar power and other renewable energy resources; and

c. Somerset Climate Emergency Strategy (2020) (Ref 47) outlines three goals:
   i. To decarbonise Local Authorities, the wider public sector and reduce the Councils carbon footprint;
   ii. To work towards making Somerset a Carbon Neutral County by 2030; and
   iii. To have a Somerset which is prepared for, and resilient to the impacts of Climate Change.

Relevant Industry Guidance

7.3.6 Relevant industry guidance includes:

a. ISEP (2026) Assessing Greenhouse Gas Emissions and Evaluating Their Significance (Ref 48), which provides guidance on assessing emissions in infrastructure projects;
b. PAS 2080:2023 (Ref 49) outlines the core principles for assessing the magnitude of emissions associated with infrastructure projects;
c. ISEP (2022) Climate Change Adaptation Practitioner Guidance (Ref 50), which provides guidance on assessing climate risks to infrastructure;
d. European Commission (EC) (2021) Technical guidance on the climate proofing of infrastructure in the period 2021-2027, outlines common practices for assessing climate risks to infrastructure (Ref 51); and
e. World Business Council for Sustainable Development and World Resources Institute (2001). The GHG Protocol: A Corporate Accounting and Reporting Standard (Ref 52), which outlines core standards for reporting greenhouse gas emissions.

7.4. Consultation

7.4.1 Consultation as part of the EIA process will be undertaken with relevant statutory parties following submission of this EIA Scoping Report if particular interest is raised on climate change topics. This may include climate change targets, aims, commitments, or other projects, plans and policy that may have a material impact on the Proposed Development.

7.5. Baseline Conditions

Lifecycle GHG Impact Assessment

7.5.1 The baseline condition for the lifecycle GHG assessment is a ‘business as usual’ scenario where the Proposed Development does not go ahead. The current land use within the Scoping Site Boundary and the local area

consists predominantly of agricultural fields, mainly pasture. The current land use is Grades 3b and 4 Agricultural land according to the predictive Agricultural Land Classification (ALC). Grade 3b land is moderate quality agricultural land, capable of producing a moderate yield of crops or high yield of grasses. Grade 4 land is poor agricultural land, mainly suited to grass with occasional arable crops (Ref 53). The current land use has relatively low levels of land use GHG emissions in the context of the overall emissions in the wider area as it is largely pasture.

7.5.2 Baseline agricultural GHG emissions are dependent on types of soil and vegetation present, fuel use for the operation of vehicles and machinery, and other inputs, such as fertiliser and pesticide use. Agricultural emissions displaced from the Proposed Development are not considered, as it is assumed that these agricultural activities would continue in a new location hence no changes in emissions are expected.

7.5.3 The future baseline comprises existing carbon stock and sources of GHG emissions resulting from the existing activities within the Study Area, as well as the existing emissions from the generation of grid electricity if the Proposed Development does not go ahead.

7.5.4 GHG emissions from the Proposed Development will be contextualised by comparison with the carbon intensity of the UK electricity grid at the time of assessment. This will enable an assessment of the difference in emissions associated with generating electricity from solar PV compared with the baseline grid mix. The comparison will provide an indication of the emissions savings associated with the operation of the Proposed Development but will not affect the total whole-life GHG emissions reported within the ES.

Climate Change Risk Assessment (CCRA)

7.5.5 The existing baseline condition is the historical and current climate as defined in terms of temperature, rainfall and other climatic factors. Existing baseline data will be gathered for the historic climatic factors from a 12x12 km grid within which the Proposed Development is proposed. Current baseline data from the 1981-2010 30-year period, consistent with UKCP18 projections, is displayed in **Table 7-1**.

Table 7-1 Historic climate data (1981 – 2010) from the UK Met Office Climate Data Portal (Ref 54) for a 12x12 km grid (Grid ID: AS-90)

Climate Variable	Baseline (1981 – 2010)
Temperature	
Mean Annual air temperature (°C)	10.6
Mean Summer air temperature (°C)	16.4
Mean Winter air temperature (°C)	5.2
Number of days of air frost per annum	36.6
Maximum summer temperature for baseline period (°C)	34.1 (July 1990)

Climate Variable	Baseline (1981 – 2010)
Minimum winter temperature for baseline period (°C)	-12.3 (January 1982)
Rainfall	
Mean annual rainfall (mm)	846
Mean summer rainfall (mm)	198
Mean winter rainfall (mm)	220
Wettest month on average (mm)	October (95.8)
Driest month on average (mm)	February (55.4)

7.5.6 The future climatic baseline for the Proposed Development will be determined through the Met Office UK Climate Projections 2018 (UKCP18) (Ref 55). To provide context, projections highlight the following examples of changes to the climate relative to the 1981 – 2010 baseline, under the Representative Concentration Pathway (RCP) 8.5 scenario:

a. Mean temperatures are expected to increase in both summer and winter;
b. Mean daily maximum and minimum temperatures are expected to increase across the UK in both summer and winter;
c. Winter precipitation is expected to increase, and summer precipitation will decrease; and
d. Increased frequency of extreme weather events.

7.5.7 This is based on the 50th percentile of the Representative Concentration Pathway (RCP) 8.5 scenario, a trajectory adopted by the Intergovernmental Panel on Climate Change (IPCC) that is considered to be the high-emissions global scenario with the greatest concentration of GHGs in the atmosphere. RCP8.5 has been used for the purposes of this assessment as a reasonable worst-case that predicts a high-emissions scenario.

7.5.8 Examples of extreme weather events near the Proposed Development that will inform the baseline include:

a. Floods across the Somerset Levels as a result of Storm Goretti in January 2026 (Ref 56); and
b. Severe flooding across Somerset due to Storm Herminia, leading to evacuations in January 2025 (Ref 57).

Baseline Surveys/Information Gathering

7.5.9 The sources of information used to inform the baseline and assessment methodology include:

a. UK Met Office Climate Data Portal for baseline observations (Ref 54).
b. Climate Projections (UKCP) (2018) (Ref 58), in accordance with NPS-EN1 (Ref 5);
c. NASA Sea Level Projection Tool – IPCC 6th Assessment Report Sea Level Projections (Ref 59);

d. Department for Energy Security and Net Zero (DESNZ) (2025) Conversion Factors Database (Ref 60);
e. Inventory of Carbon and Energy (ICE) Database v.4.1 (2025) (Ref 61); and
f. The British Standards Institution (BSI) (2023) Publicly Available Specification (PAS) 2080:2023, Carbon management in buildings and infrastructure (Ref 49).

7.6. Potential Effects and Mitigation

7.6.1 This Section sets out the potential effects of the Proposed Development on climate change.

7.6.2 Mitigation measures relevant to climate change are included in **Appendix 1-2: Environmental Mitigation and Commitments Register** of this EIA Scoping Report.

Lifecycle GHG Impact Assessment

7.6.3 **Table 7-2** provides the lifecycle stages, related activities and primary emission sources from the Proposed Development that will be considered in the GHG assessment, in line with the PAS 2080:2023 (Ref 49).

Table 7-2 Potential Sources of GHG emissions

Lifecycle Stage	Activity	Primary Emission Sources
Product Stage	Raw material extraction and manufacturing of products required to build the equipment for the Proposed Development. Due to the complexity of the equipment, this stage is expected to contribute to a large proportion of the overall GHG emissions.	Embodied GHG emissions from energy use in the extraction of materials and the manufacture of components and equipment.
	Transportation of materials for manufacturing.	Emissions of GHG from transportation of products and materials.
Construction process stage	On-site construction activity including emissions from construction compounds.	Consumption of energy (electricity; other fuels) from plant, vehicles, and generators on-site.
	Transportation of construction materials (where these are not included in product-stage).	Fuel consumption from transportation of materials to the Scoping Site Boundary, where these are not included in product-stage embodied emissions.

Lifecycle Stage	Activity	Primary Emission Sources
		Due to the nature of the equipment, this could require shipment of certain components over significant distances.
	Travel of construction workers.	GHG emissions from transportation of workers.
	Disposal of waste materials generated by the construction process.	GHG emissions from transportation and disposal of waste.
	Land use change.	GHG impact from changes to carbon sequestration potential.
	Water use.	Provision of clean water, and treatment of wastewater.
Operation and maintenance stage	Operation, energy generation from the Proposed Development, and maintenance and replacement of the components.	GHG emissions from energy consumption. Generated renewable energy is exported to the grid. Leakage of potent GHGs, such as SF6, during operation. GHG emissions from material use and waste generation resulting from ongoing site maintenance. Emissions from routine maintenance (including emissions from the transportation of workers) are expected to be negligible, but the periodic replacement of components has the potential to have large associated emissions given the complexity of the equipment involved, and the embodied carbon of the components to be considered.
Decommissioning stage	On-site decommissioning activity.	Consumption of energy (electricity and other fuels) from plant, vehicles, and

Lifecycle Stage	Activity	Primary Emission Sources
		generators on the Scoping Site Boundary.
	Transportation and disposal of waste materials.	Emissions from the disposal and transportation of waste.
	Worker travel.	GHG emissions from transportation of workers to the Scoping Site Boundary.

7.6.4 Module D in the PAS2080 methodology includes 'impacts beyond the project boundary' (Ref 49). For this Proposed Development, that includes the emission reductions resulting from the displacement of current energy generation technology. The carbon intensity of the Proposed Development will be compared with the UK grid carbon intensity at the time of assessment to demonstrate the potential carbon savings resulting from solar generated electricity.

7.6.5 A Construction Environmental Management Plan (CEMP) will be prepared and implemented by the selected Principal Contractor to include a range of good practice construction measures including measures to reduce carbon emissions. An Outline CEMP will be submitted with the DCO application.

7.6.6 Further measures to mitigate GHG emissions during construction, operation and decommissioning of the Proposed Development will be presented in the ES. An Outline Operational Environmental Management Plan (OEMP) and Outline Decommissioning Environmental Management Plan (DEMP) will be submitted with the DCO Application including the proposed mitigation.

Climate Change Risk Assessment (CCRA)

7.6.7 Climate parameters relevant to the CCRA are detailed in **Table 7-3** below.

Table 7-3 Climate parameters for the CCRA of the Proposed Development

Parameter	Scoped In/Out	Rationale for Scoping Conclusion
Extreme weather events	In	The Proposed Development may be vulnerable to extreme weather events, such as storm damage to structures and assets.
Temperature change	In	The various receptors in the surrounding environment may be vulnerable to changes in temperature with potential effects of the Proposed Development identified by technical specialists. Extremes in temperatures may also result in heat stress of materials and structures. It is not expected that projected temperature increases would have impacts on the panels themselves, as solar PV Proposed Developments operate all over the world

Parameter	Scoped In/Out	Rationale for Scoping Conclusion
		in climates which are already much warmer than the predicted future climate of the UK.
Precipitation change (frequency and magnitude of precipitation events and droughts)	In	The Proposed Development may be vulnerable to changes in precipitation, for example, land subsidence and damage to structures and drainage systems during periods of heavy rainfall.
Wind	In	The Proposed Development may be vulnerable to changing wind patterns, for example, high winds and falling trees could damage structures and assets.
Sea Level Rise	In	Sea level rise will be considered in the CCRA due to the location of the Proposed Development.
Flooding	In	A Flood Risk Assessment will be completed for the Proposed Development as the Scoping Site Boundary is mostly located within Flood Zones 2 and 3 based on data provided in the flood map for planning (Ref 62). The CCRA will consider the future evolution of flood risk at the site location.

7.6.8 The climate change risk assessment will qualitatively assess the Proposed Development's resilience to climate change. This will be completed in liaison with the design team and the other EIA technical disciplines by considering the climate projections for the geographical location and timeframe of the Proposed Development.

7.6.9 A statement will be provided within the ES to describe how the Proposed Development will be adapted to improve its resilience to future climate conditions.

7.7. Assessment Methodology

7.7.1 The assessment of potential effects as a result of the Proposed Development (construction, operation (and maintenance), and decommissioning) on climate change will be undertaken using the methodology set out below.

Lifecycle GHG Impact Assessment

7.7.2 The receptor for the GHG impact assessment is the global climate. The GHG assessment will follow a project lifecycle approach to calculate estimated GHG emissions arising from the construction, operation and decommissioning of the Proposed Development and to identify GHG 'hot spots' (i.e., emissions sources likely to generate the largest amount of GHG

emissions). This will enable the identification of priority areas for mitigation in line with the principles set out in ISEP guidance.

7.7.3 In line with ISEP and PAS2080:2023, the GHG assessment will be reported as tonnes of carbon dioxide equivalent (tCO_2e) and will consider the seven Kyoto Protocol gases:

a. Carbon dioxide (CO_2);
b. Methane (CH_4);
c. Nitrous oxide (N_2O);
d. Sulphur hexafluoride (SF_6);
e. Hydrofluorocarbons (HFCs);
f. Perfluorocarbons (PFCs); and
g. Nitrogen trifluoride (NF_3).

7.7.4 Expected GHG emissions arising from the construction activities, embodied carbon in materials, operational, maintenance and decommissioning emissions of the Proposed Development and baseline emissions, will be quantified using a calculation-based methodology as per the following equation:

Activity data x GHG emissions factor = GHG emissions

7.7.5 Department for Energy Security and Net Zero (DESNZ) 2025 emissions factors (Ref 60) and embodied carbon data from the University of Bath Inventory of Carbon and Energy (ICE) (Ref 61) are among those that will be used as the primary data sources for calculating GHG emissions.

Sensitivity

7.7.6 The sensitivity of the receptor (global climate) to increases in GHG emissions is always defined as high, as any additional GHG impacts could compromise the UK's ability to reduce its GHG emissions and therefore meet its future 5-year carbon budgets. Also, the extreme importance of limiting global warming to below 2°C this century is widely accepted by the International Paris Agreement (Ref 39) and the climate science community.

Magnitude of Impact

7.7.7 For the lifecycle GHG impact assessment, the magnitude of impact considers the output of the GHG quantification process, i.e. the Proposed Development's GHG lifecycle footprint, in the context of its contribution to the UK carbon budgets and the possible impact of the Proposed Development on meeting the net zero targets. GHG emissions will also be contextualised against sectoral budgets as defined by the UK Government's Carbon Budget and Growth Delivery Plan (Ref 63).

7.7.8 The ISEP guidance (Ref 48) on assessing GHG emissions in EIA states at Section 6.1:

"*GHG emissions have a combined environmental effect that is approaching a scientifically defined environmental limit, as such any GHG emissions or reductions from a Project might be considered to be significant.*"

7.7.9 The UK carbon budgets are in place to restrict the amount of GHG emissions the UK can legally emit in a five-year period. The UK is currently in the 4th Carbon Budget period, which runs from 2023 to 2027, as detailed in **Table 7-4**. The 3rd, 4th, and 5th Carbon Budgets reflect the previous 80% reduction target by 2050. The 6th Carbon Budget is the first to align with the legislated 2050 net zero commitment.

7.7.10 It is expected that the construction stage of the Proposed Development will occur spanning the 5th national carbon budget and operation of the Proposed Development will span the 6th and 7th national carbon budgets and beyond.

7.7.11 In order to illustrate the Proposed Development's trajectory towards net zero by 2050, it is recommended that the CCC's Balanced Net Zero Pathway (Ref 64) is used post-2042 in the absence of any nationally legally binding carbon budgets after using the 7th Carbon Budget.

7.7.12 The CCC Balanced Net Zero Pathway is recommended to be divided into five-year periods post-2042 to match the previous seven legally binding UK national carbon budgets. The proposed carbon budget periods derived from the net zero pathway encompass the 8th and 9th indicative budget periods up to 2050 in line with the UK's 1.5°C trajectory as detailed in **Table 7-4**.

7.7.13 The CCC's Balanced Pathway by Sector has also been used to inform the carbon budgets governing energy generation infrastructure.

Table 7-4 UK National and Sectoral Carbon Budgets and Indicative Carbon Budgets Based on the CCC's Balanced Net Zero Pathway

Carbon budget	Power Sector Budget based upon the CCC Electricity Supply Balanced Pathway ($MtCO_2e$)	UK Carbon Budget ($MtCO_2e$)	Indicative Carbon Budgets based upon the CCC's Balanced Net Zero Pathway ($MtCO_2e$)
3rd (2018-2022)	-	2,544	-
4th (2023-2027)	162	1,950	-
5th (2028-2032)	68	1,725	-
6th (2033-2037)	29	965	-
7th (2038-2042)	22	535	-
8th (2043-2047)	10	-	220
9th (2048-2050)	3	-	23

Determining significance of effect

7.7.14 When evaluating significance of the GHG emissions of the Proposed Development, all new GHG emissions contribute to a negative environmental impact; however, some projects will replace existing development or baseline activity that has a higher GHG impact. The

significance of a Proposed Development's emissions should therefore be based on its net impact over its lifetime, which may be positive, negative or negligible. The crux of significance is therefore not whether a project emits GHG emissions, nor even the magnitude of GHG emissions alone, but whether it contributes to reducing GHG emissions relative to a comparable baseline consistent with a trajectory towards net zero by 2050.

7.7.15 For further context, the net GHG emissions from the Proposed Development will be assessed through comparison the carbon intensity of the UK electricity grid at the time of assessment. The assessment will seek to quantify any emissions reduction as a result of the Proposed Development, as projected grid decarbonisation would not be realised if developments such as the Proposed Development do not go ahead.

7.7.16 The electricity generated by the Proposed Development over its operational lifetime would displace electricity supplied by the UK grid. The associated reduction in GHG emissions can be estimated by applying the carbon intensity factor of the UK electricity grid (at the time of assessment) to the lifetime energy generated by the Proposed Development.

7.7.17 **Table 7-5** presents the different significance levels as per the latest version of the ISEP guidance (Ref 48) for assessing GHG emissions. This guidance emphasises that:

"a project that follows a 'business-as-usual' or 'do minimum' approach and is not compatible with the UK's net zero trajectory, or accepted aligned practice or area-based transition targets, results in a significant adverse effect. It is down to the practitioner to differentiate between the 'level' of significant adverse effects e.g. 'moderate' or 'major' adverse effects".

Table 7-5 Significance Criteria

Level of effect	Significance Criteria	Significance
Major Adverse	The project's GHG impacts are not mitigated or are only compliant with do-minimum standards set through regulation, and do not provide further reductions required by existing local and national policy for projects of this type. A project with major adverse effects is locking in emissions and does not make a meaningful contribution to the UK's trajectory towards net zero.	Significant Adverse
Moderate Adverse	The project's GHG impacts are partially mitigated and may partially meet the applicable existing and emerging policy requirements but would not fully contribute to decarbonisation in line with local and national policy goals for projects of this type. A project with moderate adverse effects falls short of	Significant Adverse

Level of effect	Significance Criteria	Significance
	fully contributing to the UK's trajectory towards net zero.	
Minor Adverse	The project's GHG impacts would be fully consistent with applicable existing and emerging policy requirements and good practice design standards for projects of this type. A project with minor adverse effects is fully in line with measures necessary to achieve the UK's trajectory towards net zero.	Not Significant
Negligible	The project's GHG impacts would be reduced through measures that go well beyond existing and emerging policy and design standards for projects of this type, such that radical decarbonisation or net zero achieved well before 2050. A project with negligible effects provides GHG performance that is well 'ahead of the curve' for the trajectory towards net zero and has minimal residual emissions.	Not Significant
Beneficial	The project's net GHG impacts are below zero and it causes a reduction in atmospheric concentration, whether directly or indirectly compared to the without project baseline. A project with beneficial effects substantially exceeds net zero requirements with a positive climate impact.	Significant Beneficial

CCRA

7.7.18 The receptor for the CCRA is the Proposed Development itself, including its construction, operation (and maintenance), and decommissioning stages. The CCRA will provide a description of how the Proposed Development will be designed to be more resilient to the climate change effects identified during the review of the UKCP 2018 data.

7.7.19 A detailed review of climate change projections relevant to the Proposed Development will be undertaken as part of the ES. The CCRA will qualitatively assess the resilience of the Proposed Development to future climate change using UKCP18 climate projection data for the relevant 12 km grid cell.

Magnitude of Impact

7.7.20 The approach outlined below is aligned with existing guidance, including ISEP guidance (Ref 50). Climate parameters to be considered in the CCRA across all lifecycle stages are stated in **Table 7-3**.

7.7.21 The following key terms and definitions relating to the CCRA will be used:

a. Climate hazard – a weather or climate related event, which has the potential to do harm to environmental or community receptors or assets, for example, increased winter precipitation;
b. Climate change impact – an impact from a climate hazard which affects the ability of the receptor or asset to maintain its function or purpose; and
c. Consequence – any effect on the receptor or asset resulting from the climate hazard having an impact.

7.7.22 The likelihood of a climate impact occurring is based on the likelihood of the hazard occurring combined with the vulnerability of the Proposed Development, using professional judgement and in discussion with the design team. Embedded mitigation measures will also be taken into account, and a likelihood rating will be assigned as described in **Table 7-6.**

7.7.23 Following the identification of climate hazards, the likelihood and consequences will be assessed according to **Table 7-6** and **Table 7-7** respectively. The categories and descriptions are based on the ISEP climate change resilience and adaptation guidance (Ref 50).

Table 7-6 Likelihood of an impact occurring criteria for risk assessment

Likelihood term	Qualitative	Quantitative
Rare	Highly unlikely to occur	5%
Unlikely	Unlikely to occur	20%
Moderate	As likely to occur as not	50%
Likely	Likely to occur	80%
Almost certain	Very likely to occur	95%

Table 7-7 Level of Consequence of a climate change impact occurring

Risk Areas	Magnitude of Consequence				
	Insignificant	**Minor**	**Moderate**	**Major**	**Catastrophic**
Asset damage, engineering, operational	Impact can be absorbed through normal activity.	Adverse event that can be absorbed by taking business continuity actions.	A serious event that requires additional emergency business continuity actions.	A critical event that requires extraordinary/ emergency business continuity action.	Disaster with the potential to lead to shut down or collapse or loss of the asset/ network.
Health and safety	First aid case.	Minor injury, medical treatment.	Serious injury or lost work.	Major or multiple injuries, permanent injury or disability.	Single or multiple fatalities.
Environment	No impact on baseline environment. Localised in the source area. No recovery required.	Localised within site boundaries. Recovery measurable within one month of impact.	Moderate harm with possible wider effect Recovery in one year.	Significant harm with local effect Recovery longer than one year. Failure to comply with environmental regulations/ consent.	Significant harm with widespread effect. Recovery longer than one year. Limited prospect of full recovery.
Social	No negative social impact.	Localised, temporary social impacts.	Localised, long term social impacts.	Failure to protect poor or vulnerable groups. National, long term social impacts.	Loss of social licence to operate. Community protests.
Financial (*)	x% IRR** < 2% of turnover.	x% IRR 2-10% of turnover.	x% IRR 10-25% of turnover.	x% IRR 25-50% of turnover.	x% IRR > 50% of turnover.

Risk Areas	Magnitude of Consequence				
	Insignificant	**Minor**	**Moderate**	**Major**	**Catastrophic**
Reputational	Localised, temporary impact on public opinion.	Localised, short-term impact on public opinion.	Local, long-term impact on public opinion with adverse local media coverage.	National, short-term impact on public opinion. Negative national media coverage.	National, long-term impact with potential to affect the stability of the government.
Cultural heritage and cultural premises (1)	Insignificant.	Short term impact. Possible recovery or repair.	Serious damage with wider impact to tourism industry.	Significant damage with national and international impact.	Permanent loss with resulting impact on society.

(1) Including groups that depend on natural resources for their income/livelihoods and cultural heritage (even if not considered poor) and groups considered poor and vulnerable (and often that have less capacity to adapt) as well as persons with disabilities and older persons.

(*) Example indicators – other indicators that may be used including costs of immediate/ long-term emergency measures; restoration of assets; environmental restoration; indirect costs on the economy, indirect social costs.

(**) Internal Rate of Return (IRR)

7.7.24 Engagement will be undertaken with relevant environmental disciplines and the engineering design team to discuss the CCRA and identify mitigation measures where necessary and proportionate for incorporation into the design of the Proposed Development.

Significance of Effects

7.7.25 The significance of the CCRA will be determined as a function of the likelihood of a climate change impact occurring and the consequence to the receptor if the impact occurs. Effect significance criteria will be assigned in accordance with the matrix as detailed in **Table 7-8**. The assessment will take into account confirmed design and mitigation measures (referred to as embedded mitigation).

Table 7-8 Significance Matrix for CCRA Assessment

		Consequence				
		Insignificant	**Minor**	**Moderate**	**Major**	**Catastrophic**
Likelihood	**Rare**	Low (NS)*	Low (NS)	Medium (NS)	High (S)	Extreme (S)
	Unlikely	Low (NS)	Low (NS)	Medium (NS)	High (S)	Extreme (S)
	Moderate	Low (NS)	Mediu m (NS)	High (S)	Extreme (S)	Extreme (S)
	Likely	Medium (NS)	High (S)	High (S)	Extreme (S)	Extreme (S)
	Almost certain	High (S)	High (S)	Extreme (S)	Extreme (S)	Extreme (S)
(*) ("S" Significant "NS" Not Significant)						

7.8. Limitations and Assumptions

7.8.1 Where detailed information is not available regarding energy use, types and quantities of materials used, or the embodied carbon of key features of the assets, precautionary assumptions will be made based on industry approximations and professional best practice.

7.8.2 All assumptions and limitations, including any exclusions, together with assumptions for choices and criteria leading to exclusion of input and output data, will be documented as part of the assessment reported in the ES.

7.9. Summary of Elements Scoped In and Out

7.9.1 A summary of the elements scoped in and out of this chapter is presented in **Table 7-9**.

Table 7-9 Elements scoped in and out of the Climate Change assessment

Element	Scoped In/Scoped Out
GHG impact assessment	Scoped in: Product stage – Raw material extraction, manufacturing and transport of products required to build the equipment for the Proposed Development. Scoped in: Construction process stage – All construction sources identified in **Table 7-2**, including on-site construction activity, transport of materials, worker travel, waste disposal, land use change and water use. Scoped in: Operation (and maintenance) stage – Operation and maintenance of the Proposed Development.

Element	Scoped In/Scoped Out
	Scoped in: Decommissioning stage – All sources decommissioning sources identified in **Table 7-2** including on-site decommissioning activity, transport and disposal of waste and worker travel.
Climate change risk assessment	Scoped in: Extreme weather events. Scoped in: Temperature change. Scoped in: Sea level rise. Scoped in: Precipitation change. Scoped in: Wind. Scoped in: Flooding.
ICCI Assessment	Scoped out

8. Cultural Heritage

8.1. Introduction

8.1.1 This chapter sets out the proposed approach to the assessment of likely significant effects on cultural heritage during construction, operation and decommissioning phases of the Proposed Development. It identifies the proposed assessment methodology and embedded mitigation measures that will be considered within the Environmental Statement (ES).

8.1.2 This chapter is supported by the following figures:

a. **Figure 8-1: Designated Heritage Assets within 3 km**;
b. **Figure 8-2: Designated Heritage Assets within 3-5 km**; and
c. **Figure 8-3: Non-designated Heritage Assets within 1 km**.

8.2. Study Area

8.2.1 The Study Areas have been defined to include all designated and non-designated heritage assets with the potential to be affected by the Proposed Development. This allows for heritage assets to be set within their wider context and for the assessment of archaeological potential within the **Scoping Site Boundary**.

8.2.2 For designated heritage assets (World Heritage Sites, Scheduled Monuments, Registered Parks and Gardens, Listed Buildings, Conservation Areas and Registered Battlefields) a 3 km Study Area has been defined around the Scoping Site Boundary. This Study Area has been established to ensure that designated heritage assets are considered within their wider context and for a proportionate assessment of potential effects on the settings of designated heritage assets arising from the Proposed Development.

8.2.3 A flexible approach will be adopted in the identification and assessment of designated heritage assets of high value (specifically World Heritage Sites, Scheduled Monuments, grade I and II* Listed buildings, grade I and II* Registered Parks and Gardens and Conservation Areas containing a number of assets of high value) located beyond the 3 km Study Area, where there is potential for effects on their setting. This wider Study Area will extend up to 5 km beyond the Scoping Site Boundary. Consideration may also be given to high value designated heritage assets beyond 5 km where potential effects are identified through consultation with stakeholders or through the Environmental Impact Assessment (EIA) process. The selection of high value designated heritage assets for inclusion within the assessment presented in the ES will be informed by the Proposed Development's Zone of Theoretical Visibility (ZTV), prepared as part of **Chapter 11: Landscape and Visual**. The assessment will also take account of physical and historical associations between heritage assets, as well as their relationships with the wider historic landscape.

8.2.4 A Study Area of 1 km has been defined to identify non-designated heritage assets and historic landscapes which may experience potential effects from the Proposed Development. This Study Area is considered appropriate and proportionate to provide historical and archaeological context and to assess the potential for the survival of archaeological remains within the Scoping Site Boundary.

8.2.5 The Study Area will be updated to reflect the distances set out above, as taken from the final Order Limits for the DCO application.

8.3. Legislation, Planning Policy Context and Guidance

8.3.1 Legislation, planning policy and guidance relating to Cultural Heritage and pertinent to the Proposed Development comprises:

Legislation

8.3.2 Relevant legislation includes:

a. Ancient Monuments and Archaeological Areas Act 1979 (Ref 65) (amended by the National Heritage Act 1983 (Ref 66) and 2002 (Ref 67));
b. Planning (Listed Buildings and Conservation Areas) Act 1990 (Ref 68);
c. The Infrastructure Planning (Environmental Impact Assessment) Regulations, 2017 (Ref 2);
d. Hedgerows Regulations 1997 (Ref 69); and
e. Infrastructure Planning (Decisions) Regulations 2010 (Ref 70).

National Planning Policy

8.3.3 The following National Policy Statements (NPS) have been considered as part of identifying the assessment methodology for cultural heritage effects and informing the proposed scope of the assessment:

a. Overarching National Policy Statement (NPS) for Energy (EN-1) (December 2025) (Ref 5), with reference to Section 5.9: Historic Environment which relates to the significance, impact and recording of the historic environment;
b. NPS for Renewable Energy Infrastructure (EN-3) (December 2025) (Ref 6), with reference to Section 2.10: Solar Photovoltaic Generation which provides specific guidance relating to solar photovoltaic sites; and
c. NPS for Electricity Networks Infrastructure (EN-5) (December 2025) (Ref 7), with reference to Section 2.2: Factors Influencing Site Selection and Design which provides specific guidance relating to electricity networks infrastructure, specifically with reference to paragraph 2.2.10 and the desirability of preserving sites, buildings and objects of architectural, historic or archaeological interest.

Other Policy

8.3.4 Other relevant national and local policy includes the following;

a. National Planning Policy Framework (NPPF) (August 2026), with particular reference to Chapter 20: Conserving and enhancing the historic environment (Ref 9); and
b. Relevant local planning policy includes the Sedgemoor Local Plan 2011-2032 (February 2019) (Ref 11), specifically Policy D26 Historic Environment.

Relevant Guidance

8.3.5 The following guidance is of relevance for cultural heritage:

a. Planning Practice Guidance on the Historic Environment (published 2014 and last updated 2019) (Ref 71);
b. Historic Environment Good Practice Advice in Planning Note 2. Managing Significance in Decision Taking in the Historic Environment. Historic England (2015) (Ref 72);
c. Historic England Advice Note 2: Making changes to Heritage Assets. (2025) (Ref 73);
d. Historic Environment Good Practice Advice in Planning Note 3. The Setting of Heritage Assets. Historic England (2nd edition, 2017) (Ref 74);
e. Statements of Heritage Significance: Analysing Significance in Heritage Assets (Ref 75);
f. Delivering Clean Power: Commercial Renewable Energy Development and the Historic Environment (2nd edition) (Historic England, 2026) (Ref 76);
g. Chartered Institute for Archaeologists (CIfA) Code of Conduct: professional ethics in archaeology (2025) (Ref 77);
h. Institute of Environmental Management and Assessment (IEMA) (now Institute of Sustainability and Environmental Professionals (ISEP)), Institute of Historic Building Conservation (IHBC) and CIfA 'Principles of Cultural Heritage Impact Assessment in the UK (2021)' (Ref 78); and
i. Association of Local Government Archaeological Officers (ALGAO), Archaeology and Solar Farms Good Practice Guide. Advice for Developers, Archaeological Advisors, Consultants and Contractors 2026 (Ref 79).

8.4. Consultation

8.4.1 Consultation as part of the EIA process will be undertaken following submission of this Scoping Report with statutory parties including:

a. Historic England (HE);
b. South West Heritage Trust (SWHT); and

c. Somerset Council.

8.4.2 Initial and high-level engagement has been undertaken with the above parties prior to submission of this Scoping Report.

8.5. Baseline Conditions

8.5.1 This section describes the historical and archaeological baseline conditions for the Proposed Development and surrounding areas. To assist with the scoping assessment, data has been considered from the National Heritage List for England (NHLE) and the Somerset Historic Environment Record (SHER).

8.5.2 All heritage assets identified within the Scoping Site Boundary and Study Areas are illustrated on **Figures 8-1 to 8-3**. They are referred to in the text by a unique identity code in bold and parentheses assigned by the NHLE (e.g. **NHLE 1234567**) and HER (**PRN 1234**).

Designated Heritage Assets

8.5.3 There are no World Heritage Sites or Registered Battlefields within the Scoping Site Boundary or the Study Areas. There are no Scheduled Monuments, Conservation Areas, Registered Parks and Gardens or Listed Buildings within the Scoping Site Boundary.

8.5.4 There are 11 Scheduled Monuments, four Conservation Areas, one Registered Park and Garden and 214 Listed Buildings located within the 3 km Study Area (refer to **Figure 8-1: Designated Heritage Assets within 3 km**).

8.5.5 The 11 Scheduled Monuments within the 3 km Study Area are:

a. Blackford Manor House Moat (**NHLE 1006135)** located approximately 820 m to the east of the Scoping Site Boundary;
b. Moated Site at Edithmead (**NHLE 1006134**) located approximately 1.1 km to the west of the Scoping Site Boundary;
c. Duck decoy, 770 m SSE of Gold Corner Bridge (**NHLE 1014858**) located approximately 930 m to the east of the Scoping Site Boundary;
d. Roman briquetage mounds on Burtle Moor (**NHLE 1006148**) located approximately 1.1 km to the east of the Scoping Site Boundary;
e. Brent Knoll hillfort and associated field system (**NHLE 1008248**) located approximately 1.3 km to the west, north-west of the Scoping Site Boundary;
f. Alstone lake settlement site (**NHLE 1012311**) located approximately 1.6 km to the west of the Scoping Site Boundary;
g. Wayside cross at Stoughton Cross (**NHLE 1015451**) located approximately 1.8 km east, north-east of the Scoping Site Boundary;
h. Wooden trackways on Chilton Moor, 300 m west of Station Farm (**NHLE 1014437**) located approximately 2.3 km to the east, south-east of the Scoping Site Boundary;

i. Picken's Hole (**NHLE 1010715**) Palaeolithic cave site located approximately 2.8 km to the north of the Scoping Site Boundary;
j. Horsey medieval settlement immediately north of Board's Farm (**NHLE 1020438**) located approximately 2.9 km to the south, south-east of the Scoping Site Boundary; and
k. Motte with two baileys immediately east of Bristol Road, Down End (**NHLE 1019291)** located approximately 2.9 km to the south-west of the Scoping Site Boundary.

8.5.6 Within the 3 km Study Area there are four Conservation Areas, namely:

a. Stone Allerton Conservation Area located approximately 410 m to the north-east of the Scoping Site Boundary;
b. Weare Conservation Area located approximately 2 km to the north-east of the Scoping Site Boundary;
c. Wedmore Conservation Area located approximately 2.7 km to the east, north-east of the Scoping Site Boundary; and
d. Loxton Conservation Area located approximately 2.8 km to the north of the Scoping Site Boundary.

8.5.7 There is one Registered Park and Garden located within the 3 km Study Area which is the grade II registered Highbridge Garden of Remembrance (**NHLE 1442317**) approximately 1.1 km west of the Scoping Site Boundary.

8.5.8 Within the 3 km Study Area there are 214 Listed Buildings, comprising seven grade I Listed Buildings, eight grade II* Listed Buildings, and 199 grade II Listed Buildings. The Listed Buildings are mostly concentrated within the settlements, with a large number within the Conservation Areas.

8.5.9 The seven grade I Listed Buildings within the 3 km Study Area are all churches of medieval origin, and these comprise:

a. Church of St Mary (**NHLE 1060144**) located approximately 220 m to the south of the Scoping Site Boundary;
b. Parish Church of Holy Cross and Parish Church of St Mark (**NHLE 1252187**) located approximately 550 m west of the Scoping Site Boundary;
c. Church of St Mary (**NHLE 1262673**) located approximately 1.6 km to the north-west of the Scoping Site Boundary;
d. Church of St Michael (**NHLE 1251356**) located approximately 1.8 km to the east, north-east of the Scoping Site Boundary;
e. Church of St Michael and All Angels (**NHLE 1344664**) located approximately 1.8 km to the east, south-east of the Scoping Site Boundary;
f. Church of St Gregory (**NHLE 1295977**) located approximately 2.2 km to the north-east of the Scoping Site Boundary; and
g. Church of St Peter (**NHLE 1060138**) located approximately 2.7 km to the east, south-east of the Scoping Site Boundary.

8.5.10 The eight grade II* Listed Buildings within the 3 km Study Area are:

a. Former Market Cross in Churchyard, Church of St Mark (**NHLE 1252188**) located approximately 590 m to the west of the Scoping Site Boundary;
b. Churchyard Cross in the Churchyard, 5 metres south of south porch, Church of St John the Baptist (**NHLE 1173427**) located approximately 770 m to the north of the Scoping Site Boundary;
c. Church of St John the Baptist (**NHLE 1059138**) located approximately 780 m north of the Scoping Site Boundary;
d. Ashton Windmill (**NHLE 1173522),** located approximately 890 m north-east of the Scoping Site Boundary;
e. Church of St Mary (**NHLE 1344698),** located approximately 1.8 km to the south of the Scoping Site Boundary;
f. Roadside Cross at NGR ST 4248 4966 (**NHLE 1252914**) located approximately 1.8 km to the north-east of the Scoping Site Boundary;
g. Church of St Michael and All Angels (**NHLE 1060158**) located approximately 2.1 km to the south of the Scoping Site Boundary; and
h. Churchyard Cross in churchyard approximately 10 m south of nave, Church of St Gregory (**NHLE 1059090),** located approximately 2.2 km to the north-east of the Scoping Site Boundary.

8.5.11 The 199 grade II Listed Buildings within the 3 km Study Area are predominantly concentrated within historic settlements and hamlets, rural in character and comprising farmhouses and agricultural buildings, historic houses and cottages, religious buildings and associated churchyard memorials, war memorials and commemorative structures, transport-related heritage assets (milestones, mileposts and bridges), community buildings such as schools and school rooms, and boundary walls, gates and railings.

8.5.12 Within the wider 3 km and 5 km Study Area there are 32 designated heritage assets of high value, comprising 12 Scheduled Monuments, nine grade I Listed Buildings and 11 grade II* Listed Buildings (refer to **Figure 8-2: Designated Heritage Assets within 3-5 km**).

8.5.13 The 12 Scheduled Monuments located in the 3 km and 5 km Study Area comprise:

a. Churchyard cross in St Andrew's churchyard (**NHLE 1015514**) located approximately 3.1 km north of the Scoping Site Boundary;
b. Timber trackways 850 m east of Catcott Burtle Farm (**NHLE 1014433**) located approximately 3.2 km south-east of the Scoping Site Boundary;
c. Village cross (**NHLE 1015450**) located approximately 3.5 km east of the Scoping Site Boundary;
d. Duck decoy 170 m south-west of Parson's Farm (**NHLE 1014445**) located approximately 3.7 km north-east of the Scoping Site Boundary;
e. Timber trackway site, 700 m west of Honeygar Farm (**NHLE 1014434**) located approximately 4 km south-east of the Scoping Site Boundary;

f. Section of the Abbot's Way trackway, 500 m WSW of Honeygar Farm (**NHLE 1014432**) located approximately 4.3 km south-east of the Scoping Site Boundary;
g. Manor house at Mudgley (**NHLE 1006136**) located approximately 4.4 km east of the Scoping Site Boundary;
h. Duck decoy, west of Nyland Hill (**NHLE 1014452**) located approximately 4.5 km east of the Scoping Site Boundary;
i. Bowl barrow on Shiplate Slait (**NHLE 1009883**) located approximately 4.6 km north of the Scoping Site Boundary;
j. Prehistoric timber trackways, 670 m SSE of Parchey Bridge (**NHLE 1014430**) located approximately 4.6 km south of the Scoping Site Boundary;
k. Two bowl barrows on Shiplate Slait (**NHLE 100811**2) located approximately 4.6 km north of the Scoping Site Boundary; and
l. Shrunken medieval village of Christon and associated field system 200 m north of Manor Farm (**NHLE 1008186**) located approximately 4.8 km north of the Scoping Site Boundary.

8.5.14 The nine grade I Listed Buildings within the 3 km and 5 km Study Area are:

a. Church of St Andrew (**NHLE 1059079**) located approximately 3.1 km north of the Scoping Site Boundary;
b. Church of St Mary (**NHLE 1262159)** located approximately 3.3 km south-east of the Scoping Site Boundary;
c. Church of St John the Baptist (**NHLE 1173441**) located approximately 3.4 km north-east of the Scoping Site Boundary;
d. Church of St Andrew (**NHLE 1262914)** located approximately 3.4 km west of the Scoping Site Boundary;
e. Church of St Christopher (**NHLE 1262678**) located approximately 3.6 km north-west of the Scoping Site Boundary;
f. Church of St Mary (**NHLE 1060110**) located approximately 4.1 km south of the Scoping Site Boundary;
g. Parish Church of St Mary (**NHLE 1320668**) located approximately 4.6 km north of the Scoping Site Boundary;
h. Church of St John the Baptist (**NHLE 1173117**), located approximately 4.7 km north-east of the Scoping Site Boundary; and
i. Church of St Peter (**NHLE 1173050**) located approximately 4.8 km south-east of the Scoping Site Boundary.

8.5.15 The 11 grade II* Listed Buildings within the 3 km and 5 km Study Area are:

a. Parish Church of St Andrew **(NHLE 1313078)** located approximately 3.2 km north of the Scoping Site Boundary;
b. Churchyard Cross in Churchyard, 30 m east of east end, Church of St Mary **(NHLE 1252634**) located approximately 3.3 km east of the Scoping Site Boundary;
c. Manor House (**NHLE 1262680**) located approximately 3.7 km north-west of the Scoping Site Boundary;

d. Stawell Church **(NHLE 1174228)** located approximately 4.1 km south of the Scoping Site Boundary;
e. Edington House (**NHLE 1344661**) located approximately 4.3 km south-west of the Scoping Site Boundary;
f. Compton House and Forecourt Railings (**NHLE 1173405)** located approximately 4.3 km north-east of the Scoping Site Boundary;
g. Old Manor House **(NHLE 1059147)** located approximately 4.6 km north-east of the Scoping Site Boundary;
h. St Judes (**NHLE 1344894**) located approximately 4.6 km north-east of the Scoping Site Boundary;
i. 9, High Street **(NHLE 1344893)** located approximately 4.6 km north-east of the Scoping Site Boundary;
j. King John's Hunting Lodge (Axbridge Museum) **(NHLE 1059142)** located approximately 4.6 km north-east of the Scoping Site Boundary; and
k. The Old Angel **(NHLE 1344883)** located approximately 4.7 km north-east of the Scoping Site Boundary.

Non-designated Heritage Assets

8.5.16 There are 703 non-designated heritage assets recorded on the SHER, located within the 1 km Study Area (refer to **Figure 8-3: Non-designated Heritage Assets within 1 km**). Non-designated assets recorded on the SHER across the 1 km Study Area range in date from early Mesolithic (11,000-6,000 BP) to the modern period (1901 up to present). These comprise a broad range of archaeological sites, findspots, earthworks, water-management features, historic buildings, industrial remains and modern military assets. The largest period group is Roman, comprising salterns and salt-working mounds around Woolavington Bridge, Gold Corner, Cossington, Liberty Moor and Chilton Moor. Medieval settlement and agricultural features form the next largest archaeological resource, followed by post-medieval, modern and uncertain date records.

8.5.17 Of the 703 non-designated heritage assets recorded within the 1 km Study Area, 151 assets are located within the Scoping Site Boundary. These include medieval settlement and water management features, Roman salt working and settlement sites, post-medieval routeways and industrial features, modern military/industrial remains, assets of uncertain date and undefined features recorded during archaeological investigations.

8.5.18 In addition, the Somerset HER divides the 1 km Study Area into 137 parcels representing different Historic Landscape Character (HLC) areas. Of these, 65 are present within the Scoping Site Boundary, which is predominantly characterised by enclosed agricultural land. Recently Enclosed Land dating from the 18th to 21st centuries accounts for approximately 70% of the Scoping Site Boundary land. Smaller components comprise Anciently Enclosed Land modified during the 17th to 19th centuries (16.5%), Recently Enclosed Land of 17th to 18th century date (6.9%), and limited areas of pre-17th-century enclosed land (2.4%), industrial landscapes (2.5%) and post-Tithe Map settlement (1.9%).

8.6. Potential Effects and Mitigation

8.6.1 This section sets out the potential effects of the Proposed Development on heritage assets and any potential mitigation measures that could be implemented to avoid, reduce or offset potential impacts on them. This section should be read in conjunction **with Appendix 1-2: Environmental Mitigation and Commitments Register**.

8.6.2 The Proposed Development has the potential to affect designated and non-designated heritage assets and the historic landscape during the construction, operation and decommissioning stages. Such effects could comprise:

a. Physical effects on a heritage asset;
b. Effects upon the value (heritage significance) of a heritage asset due to changes to its setting; and
c. Changes to the character of the historic landscape.

8.6.3 There is potential for physical effects on recorded and unrecorded non-designated heritage assets within the Scoping Site Boundary as a result of construction groundworks associated with the Proposed Development. Such impacts may arise from the installation of solar PV panel arrays, power control and electrical infrastructure including Battery Energy Storage Systems (BESS) and substations, intra-array and inter-array connections, construction compounds, access tracks and other associated works.

8.6.4 Although the intended piling methodology for the solar PV arrays is expected to minimise ground disturbance across most of the Scoping Site Boundary, certain highly sensitive remains, including burials and structural remains, may still be vulnerable to damage. As a result, previously unidentified archaeological finds, features and deposits may also be affected during construction.

8.6.5 No further physical impacts on archaeological remains are anticipated during operation or decommissioning, as any effects would occur and be addressed during the construction phase. A flexible approach to design will be employed to limit below ground archaeological impact during construction.

8.6.6 In addition, long term but reversible effects to the setting of designated and non-designated heritage assets may arise due to the introduction of new infrastructure in the landscape at construction stage and during its operation.

8.6.7 Construction activities also have the potential to result in temporary effects on the setting of heritage assets through visual change, noise, dust, increased traffic and lighting.

8.6.8 During the construction and decommissioning phases, the Proposed Development will require temporary lighting, which would be designed as far as reasonably practicable to minimise any light spill and sky glow and will not be continuously lit. Lighting is likely to be limited to core construction working hours, with the exception of any security lighting that is likely to be sensor operated.

8.6.9 During the operational phase, the Proposed Development will generally remain unlit except for at substations and potentially at other pieces of critical infrastructure, where manually operated or motion-detection lighting utilised for operational and security purposes will likely be deployed.

8.6.10 It is expected that the lighting design would seek to limit any impacts on sensitive receptors through good working practices during construction and restricted lighting requirements for security and would be secured through the Outline OEMP.

8.6.11 No additional effects on the setting of heritage assets are anticipated during the decommissioning phase beyond those identified during the construction and operational phases, as the infrastructure will be removed and the landscape will return to its former (agricultural) use.

8.6.12 There is potential for changes to the character of the historic landscape during the construction and operation phases of the Proposed Development. There is anticipated to be no further changes to the character of the historic landscape during the decommissioning phase, beyond those already identified during the construction and operation phases, as the infrastructure will be removed and the landscape will return to its former (agricultural) use.

8.6.13 At this scoping stage, where appropriate and informed by the assessment, embedded mitigation within the design of the Proposed Development is limited to an assumption that changes to the settings of heritage assets may be mitigated through measures such as appropriate set-backs, exclusion zones and/or screening, as well as careful consideration of the siting of new infrastructure.

8.6.14 Initially, a geophysical (magnetometer) survey of the Energy Park land is proposed in order to assess the potential presence of below-ground remains. As the Scoping Site Boundary is refined, further geophysical survey of selected locations within the Connection & Access Infrastructure Corridors (such as launch and reception pits and tower or pole locations) may be undertaken. Consultation with SWHT will be undertaken to agree the methodology for geophysical survey. Following completion of the geophysical survey and review of the results, further archaeological evaluation may be required, subject to agreement with SWHT.

8.6.15 If as a result of the geophysical survey any significant archaeological remains are identified, where feasible, the primary approach will be to consider design options to avoid or reduce potential physical impacts. Where mitigation by design is not deemed possible, an appropriate mitigation strategy will be proposed. Heritage inputs should be agreed with SWHT through an Outline Archaeological Mitigation Strategy (OAMS), integrated into a Construction Environmental Management Plan (CEMP), so that works as part of the construction phase are planned, managed and monitored in a way which enables the preservation in-situ of archaeological remains (where appropriate).

8.6.16 The Proposed Development is not anticipated to require the significant removal of any extant hedge, boundary features or woodland within the Scoping Site Boundary (other than minor hedge removal for improved

access, visibility splays, etc.) in order to maintain the overall character of the historic landscape.

8.7. Assessment Methodology

8.7.1 The baseline assessment of potential effects as a result of the Proposed Development on cultural heritage will be undertaken applying the methodology set out below.

8.7.2 The value of a heritage asset (its heritage significance) is guided by its designated status but is derived also from its heritage interest which may be archaeological, architectural, artistic or historic (NPPF Annex B, Glossary) (Ref 9). Each identified heritage asset can be assigned a value in accordance with the criteria set out in **Table 8-1**. Using professional judgement and the results of consultation to be carried out as part of the assessment, heritage assets will be assessed on an individual basis and regional variations and individual qualities will be taken into account where applicable to assign the value.

Table 8-1 Criteria for assessing the value of heritage assets

Asset Value	Description
High	World Heritage Sites Scheduled Monuments Grade I and II* listed buildings Registered battlefields Grade I and II* registered parks and gardens Conservation areas of demonstrable high value Non-designated heritage assets (archaeological sites, historic buildings, monuments, parks, gardens or landscapes) that can be shown to have demonstrable national or international importance Well preserved historic landscape character areas, exhibiting considerable coherence, time-depth or other critical factor(s)
Medium	Grade II listed buildings Conservation areas Grade II registered parks and gardens Non-designated heritage assets (archaeological sites, historic buildings, monuments, park, gardens or landscapes) that can be shown to have demonstrable regional importance Averagely preserved historic landscape character areas, exhibiting reasonable coherence, time-depth or other critical factor(s) Historic townscapes with historic integrity in that the assets that constitute their make-up are clearly legible
Low	Locally listed buildings

Asset Value	Description
	Non-designated heritage assets (archaeological sites, historic buildings, monuments, park, gardens or landscapes) that can be shown to have demonstrable local importance Assets whose values are compromised by poor preservation or survival of contextual associations to justify inclusion into a higher grade Historic landscape character areas whose value is limited by poor preservation and/or poor survival of contextual associations
Very Low	Assets identified on national or regional databases, but which have no archaeological, architectural, artistic or historic value Assets whose values are compromised by poor preservation or survival of contextual associations to justify inclusion into a higher grade Landscape with no or little significant historical merit

8.7.3 Having identified the value of the heritage asset, the next stage in the assessment will be to identify the level and degree of impact to an asset arising from the Proposed Development. Impacts may arise during construction, operation and/or decommissioning and can be temporary, reversible, or permanent. Impacts can occur to the physical fabric of the asset or affect its setting. The contribution of the setting to the value of any affected assets will be subject to assessment.

8.7.4 The level and degree of impact (impact rating) will be assigned with reference to a four-point scale as set out in **Table 8-2**. The assessment of the level and degree of impact will be made in consideration of any Proposed Development design mitigation (embedded mitigation). If no impact is identified, no impact rating will be given, and no resulting effect reported.

Table 8-2 Factors influencing the assessment of magnitude of impacts

Magnitude of Impact	Description of impact
High	Changes to most or all key components of the asset, such that it is totally altered or destroyed, resulting in a comprehensive impact upon its overall value; and/or Comprehensive alteration, including the total loss or complete restoration, of elements of an asset's setting that cause a fundamental change in our ability to understand and appreciate its heritage interests; thereby resulting in a comprehensive impact upon its overall value.

Magnitude of Impact	Description of impact
Medium	Changes to many key components of the asset, such that it is significantly altered or modified, resulting in a noticeable impact upon its overall value; and/or Changes to the setting of an asset which noticeably affect our ability to understand and appreciate its heritage interests, resulting in a noticeable impact upon its overall value.
Low	Changes to some key components of the asset, such that it is slightly altered, resulting in a slight impact on its overall value; and/or Changes to the setting of an asset that slightly alter our ability to understand and appreciate its heritage interests, resulting in a slight impact upon its overall value.
Very Low	Very minor changes to key components of an asset, resulting in no real change upon its overall value; and/or Changes to the setting of an asset that have little effect on our ability to understand and appreciate its heritage interests, resulting in no real change upon its overall value.

8.7.5 An assessment to classify the effect, having taken into consideration any embedded mitigation, will be determined using the matrix set out in **Table 8-3** guided by the methodology set out in **Chapter 6: Environmental Impact Assessment Methodology** of this EIA Scoping Report (**Table 6-3**).

8.7.6 The overall effect on the asset is determined by consideration of the value of the asset (**Table 8-1**) and the magnitude of the impact (**Table 8-2**), with a level of professional judgment included in the determination which may be informed by consultation with stakeholders.

Table 8-3 Assessment of significance of effects

Magnitude of Impact	Value of Heritage Asset			
	High	Medium	Low	Very Low
High	Major	Major	Moderate	Minor
Medium	Major	Moderate	Minor	Negligible
Low	Moderate	Minor	Negligible	Negligible
Very Low	Minor	Negligible	Negligible	Negligible

8.7.7 Major and moderate effects will be considered significant. Within the NPS EN-1 (Ref 5) and NPPF Chapter 20 (Ref 9), impacts affecting the value of heritage assets are considered in terms of whether any potential effect amounts to a positive effect, harm, substantial harm or total loss of significance. There is no direct correlation between the classification of effect

as reported in the ES and the level of harm caused to heritage significance in accordance with the NPS. A harm statement will be provided in the DCO documentation assessing the degree of harm to impacted designated heritage assets (and non-designated archaeological assets of equivalent value to a scheduled monument).

8.7.8 Pursuant to NPS EN-1, Paragraph 5.9.33 (Ref 5), any harmful impact to the significance of a designated heritage asset should be weighed against the public benefit of the Proposed Development, whilst Regulation 3 of the Infrastructure Planning (Decisions) Regulations 2010 (Ref 70) requires the Secretary of State to have regard to the desirability of preserving a listed building or its setting. In all cases, the determination of the level of harm to the significance of the asset arising from development impact is one of professional judgement and will be undertaken adopting a precautionary approach.

8.7.9 This baseline assessment will be undertaken in accordance with guidance set out by the CIfA and Historic England, in particular the Standard and Guidance for Historic Environment Desk-Based Assessment (Ref 80) and the Code of Conduct (Ref 77).

8.7.10 Principles of Cultural Heritage Impact Assessment in the UK (Ref 78) is a guide to good practice in cultural heritage impact assessment published jointly by the ISEP (formerly IEMA), the IHBC and the CIfA. The document provides guidance on understanding cultural heritage assets and evaluating the consequences of change and will be considered when undertaking the assessment.

Desk-Based Assessment

8.7.11 A cultural heritage Desk-Based Assessment (DBA) will be prepared in accordance with industry standards and best practice guidelines (Ref 80), and with reference to any statutory consultation responses received as part of the EIA Scoping Opinion. The DBA will inform the cultural heritage chapter of the ES and will form an appendix to the ES. The DBA, alongside the results of agreed evaluation surveys (see **Paragraph 8.7.15 and Paragraph 8.7.16** below), will confirm whether additional surveys are required to better determine the nature, extent and origin of archaeological remains within the construction footprint of the Proposed Development.

Desk-Based Sources

8.7.12 Sources of information that will be consulted include:

a. National Heritage List for England (NHLE) database (Ref 81);
b. Formal searches of the Somerset Historic Environment Record (SHER) including the Historic Landscape Characterisation (HLC) data if available;
c. Various online resources including the British Geological Survey (BGS) Geology of Britain Viewer (Ref 82) and the local planning portal for the Local Plan and other planning information;
d. Available LiDAR and aerial photography;

e. Published and unpublished literature (including a detailed review of reports for previous fieldwork carried out within or in proximity to the Scoping Site Boundary);
f. Existing geotechnical data;
g. Documentary, cartographic and other resources as deposited within the local Archives and Local Studies Library; and
h. Local Planning Authority Plans, Guidance and Lists.

Walkover Survey

8.7.13 As part of the desk-based assessment, a walkover survey will be undertaken including visual assessment of key known archaeological and built heritage assets within the Scoping Site Boundary.

8.7.14 A site visit to inspect the potential effects on the settings of key assets that may be affected by the Proposed Development will also be undertaken to the Study Areas.

Additional Surveys

8.7.15 The desk-based research will also be supported by a programme of archaeological investigation. A geophysical survey of the Energy Park and selected infrastructure ground work locations will be undertaken to establish the potential for the presence of below-ground archaeological remains. The scope of geophysical survey will be agreed with the SWHT HES. It is anticipated that the survey will be undertaken within areas of archaeological potential that will be subject to construction ground disturbance that are suitable for survey and where land access can be obtained.

8.7.16 Further archaeological evaluation may be required, the scope of which will be informed by the DBA, the results of the geophysical survey and ongoing consultation with SWHT HES. Such evaluation, where required, may include, but is not limited to:

a. Potential monitoring of geotechnical ground investigations to establish the geoarchaeological baseline conditions and to assess the potential for deposits containing Palaeoenvironmental data to be present; and
b. Targeted archaeological trial trench evaluation, where appropriate, to confirm selected results of the geophysical survey, characterise the nature, extent and preservation level of archaeological remains in order to understand their heritage value, and to inform an appropriate mitigation response.

8.8. Limitations and Assumptions

8.8.1 It is assumed that sufficient access will be available to undertake any archaeological surveys and evaluations required to inform the assessment. The scope of any such surveys and evaluations will be informed by the findings of the DBA, the results of the geophysical survey and consultation with SWHT HES. Where undertaken, the results will be incorporated within the ES. In the event that access is not available, professional judgement will

be used, based on available research and data, to assess the archaeological potential of the area.

8.8.2 It is assumed that the data provided by external sources are accurate.

8.9. Summary of Elements Scoped In and Out

8.9.1 A summary of the elements scoped in and out of the cultural heritage assessment is presented in **Table 8-4**.

Table 8-4 Elements scoped in and out of the cultural heritage assessment

Element	Scoped In / Scoped Out	Reasoning
Construction		
Designated heritage assets, non-designated heritage assets, previously unrecorded archaeological remains, Historic Landscape Character	Scoped in	To provide an assessment of impacts on designated and non-designated heritage assets, potential buried archaeological remains, including physical impacts, and changes to their setting or their character.
Operation		
Designated heritage assets, non-designated built heritage assets and Historic Landscape Character	Scoped in	To provide an assessment of impacts on designated and non-designated built heritage assets, where changes to their setting or character may occur due to operational aspects such as noise and lighting from above ground infrastructure of the Proposed Development.
Non-designated buried heritage assets, including previously unrecorded archaeological remains	Scoped out	No impacts on buried archaeological remains are anticipated during the operational phase of the Proposed Development, as any such impacts would have occurred and been appropriately mitigated during the construction phase.
Decommissioning		
Designated and non-designated heritage assets, previously unrecorded archaeological remains and Historic Landscape Character	Scoped out	Potential impacts during decommissioning are not anticipated to be any greater than those assessed at construction and operation. The Outline Archaeological Mitigation Strategy (OAMS) will consider appropriate mitigation to offset potential impacts upon buried archaeological remains during decommissioning. The land will be

Element	Scoped In / Scoped Out	Reasoning
		returned to its former use following decommissioning.

9. Ecology and Biodiversity

9.1. Introduction

9.1.1 This chapter sets out the proposed approach to the assessment of likely significant ecology and biodiversity effects associated with the construction, operation (and maintenance), and decommissioning phases of the Proposed Development. It identifies the proposed assessment methodology and embedded mitigation measures that will be considered within the Environmental Statement (ES).

9.1.2 To inform this chapter of the EIA Scoping Report, a Preliminary Ecological Appraisal (PEA) has been undertaken which consisted of three components:

a. A desktop study data review was completed in March 2026;
b. A walkover survey of accessible areas of land within which the Proposed Development will be located (the Energy Park and some Connection and Access Infrastructure Corridors (CAIC)), to record the habitats using UKHab methods (Ref 83), see **Figure 9-5: Habitats within the Scoping Site Boundary**; and
c. A protected species scoping survey (carried out alongside the walkover survey, above), to inform the likelihood of the habitats within the Energy Park supporting protected species and other species of conservation importance.

9.1.3 This chapter is supported by the following appendices:

a. **Appendix 9-1: UK National Site Network Site Descriptions;**
b. **Appendix 9-2: Statutory Designated Site Descriptions; and**
c. **Appendix 9-3: Arboricultural Assessment Methodology.**

9.1.4 This chapter is supported by the following figures:

a. **Figure 9-1: Sites within the UK National Site Network;**
b. **Figure 9-2: Statutory Designated Nature Conservation Sites;**
c. **Figure 9-3: Location of Priority Habitats;**
d. **Figure 9-4: Local Record Centre Protected and Priority Species Records;** and
e. **Figure 9-5: Habitats within the Scoping Site Boundary.**

9.2. Characterising the Baseline

9.2.1 Within this chapter, the following terminology is used when referring to the geographic areas within which assessments will be made (the extent of these geographic areas depends on the receptor and nature of the impact which is discussed in **Paragraph 9.2.6** and **Table 9-6**).

Study Area

9.2.2 The ecological Study Area has been defined to provide sufficient information to establish the baseline conditions relevant to the Proposed Development and to identify ecological features that could potentially be affected.

9.2.3 The extent of the Study Area varies according to the ecological feature and the potential impact pathways associated with the Proposed Development and is based on the typical maximum distances expected by statutory consultees based on previous experience of similar developments of this extent. The Study Area therefore comprises a number of geographical areas, informed by relevant guidance, the characteristics of the Proposed Development, the distribution and ecology of relevant species and habitats, and professional judgement.

9.2.4 For designated sites and protected and notable species, desk study information has been obtained within the distances set out below. These areas have been used to identify features that may require consideration within the assessment and to inform the subsequent definition of the relevant Zone of Influence (ZoI) and feature-specific survey area.

9.2.5 The Study Area and ZoI reflect standard good practice and are informed by published guidance (Ref 84) and professional judgement.

9.2.6 The Study Area within which data were searched and collated through a desk study is within the Scoping Site Boundary and up to:

a. 10 km for Habitat Sites (formerly European Sites) within the UK National Site Network, extended to 20 km where birds with extensive foraging ranges (e.g., Golden Plover Pluvialis apricaria) are noted as a qualifying feature and 30 km from any Special Areas of Conservation (SAC) where bats are noted as the, or one of, the qualifying features. In addition, a search beyond these distances was undertaken to determine whether the Scoping Site Boundary is hydrologically connected to any sites within the UK National Site Network;
b. 10 km for Ramsar sites;
c. 5 km for statutory designated sites for their biodiversity value at a national level, (e.g. Sites of Special Scientific Interest (SSSIs), National Nature Reserves (NNRs)), extended to 6 km for those designated for bats. In addition, for the purposes of potential air quality impacts, consideration beyond this distance will be given where a designated site is identified as being within 200 m of the Affected Road Network for which the IAQM screening criteria for construction traffic are exceeded, if appropriate (refer to Chapter 15: Traffic and Access);
d. 2 km for non-statutory designated sites for their biodiversity value, e.g. Local Wildlife Sites (LWSs). In addition, for the purposes of potential air quality impacts, consideration beyond this distance will be given where a designated site is identified as being within 200 m of the

Affected Road Network for which the IAQM screening criteria for construction traffic are exceeded, if appropriate;

e. 2 km for ancient woodland, veteran and ancient trees and priority habitats;
f. 2 km for records (from the preceding ten years) of protected and notable species, and 6 km for bats. Protected and notable species are those listed under:
    i. Schedules 1 (birds), 5 (animals, excluding birds) or 8 (plants) of the WCA (Ref 85);
    ii. Schedules 2 (animals) or 5 (plants) of The Conservation of Habitats and Species Regulations 2017 (Ref 86);
    iii. Section 41 (S41) of the NERC Act (Ref 87) which lists Species of Principal Importance (SPI) and Habitats of Principal Importance (HaPI) for nature conservation in England;
    iv. Other habitats and species, such as those included in national, regional or local Red Data Books and Lists (assessed on a case-by-case basis); and
g. 2 km for any applications for European Protected Species Licences (EPSL) (e.g., Great Crested Newt *Triturus cristatus*) excluding bats which require 6 km.

Zone of Influence

9.2.7 The ZoI is the area over which ecological features may be affected by changes as a result of the Proposed Development and associated activities. The ZoI was based on the following criteria, proportionate to the Proposed Development's potential to impact on each feature:

a. The nature of the proposed development (a ground mounted solar photovoltaic (PV) array generating station and associated development), and the potential for effects at all development stages (construction, operational (including maintenance) and decommissioning);
b. The nature of the current land use and habitats in the vicinity, their connectivity (e.g. through hedgerows, rhynes or grassland margins), and how they may be used by different species;
c. The presence and assemblages of species which may be in the area, identified during the desk study and based on the location of the Proposed Development; and
d. The different habitats, behaviours and preferences of different species that could be affected, and how these vary both spatially and seasonally.

9.2.8 Through review of likely impacts of the Proposed Development, results of the desk study and the ZOI, the scope of field surveys was then defined.

Survey Area

9.2.9 The Survey Area is the area within which field survey work was, or will be, undertaken which is specific to a given species, group of species or habitat (see **Table 9-6**).

9.3. Legislation, Planning Policy Context and Guidance

Legislation

9.3.1 Legislation, planning policy and guidance relating to ecology and nature conservation (including designated sites, priority habitats and protected or notable species) and pertinent to the Proposed Development is outlined below:

International conventions

a. Ramsar Convention on Wetlands of International Importance especially as Waterfowl Habitat (Ref 88).

UK and England Legislation

a. Wildlife and Countryside Act 1981 (as amended) (Ref 85);
b. The Conservation of Habitats & Species Regulations 2017 (As amended) (Ref 86) including amendments introduced through the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 (Ref 89). These Regulations provide protection for habitats and species of principal importance and retain the requirements previously derived from the Habitats Directive and Birds Directive;
c. Environment Act 2021 (Ref 18);
d. Biodiversity Gain Requirements (Irreplaceable Habitat) Regulations 2024 (Ref 90);
e. Countryside and Rights of Way (CRoW) Act 2000 (Ref 91);
f. The Natural Environment and Rural Communities (NERC) Act 2006 (Ref 87);
g. Protection of Badgers Act 1992 (Ref 92);
h. The Hedgerows Regulations 1997 (Ref 93);
i. Wild Mammals (Protection) Act 1996 (Ref 94);
j. Salmon and Freshwater Fisheries Act 1975 (Ref 95);
k. The Eels (England and Wales) Regulations 2009 (Ref 96); and
l. The Invasive Alien Species (Enforcement and Permitting) Order 2019 (Ref 97).

European and International Context

9.3.2 The following legislation and policy instruments have informed the development of domestic nature conservation legislation and remain relevant as the basis of several protections retained within UK law:

a. Habitats Directive – Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (Ref 98);

b. Birds Directive - Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds (Ref 99);
c. Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy ('The Water Framework Directive') (Ref 100), later transposed into UK Statutory Instruments as The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017 (Ref 101); and
d. Regulation (EU) 1143/2014 of the European Parliament and of the Council on the prevention and management of the introduction and spread of invasive alien species (Ref 102).

9.3.3 The above legislation will be referenced when identifying potential constraints to the Proposed Development, design options and mitigation. Compliance with the above legislation may require obtaining relevant protected species licences prior to the implementation of the Proposed Development.

Habitat Regulations Assessment

9.3.4 As part the of environmental assessment of the Proposed Development, it is necessary to consider whether the Proposed Development is likely to have a significant effect on any sites forming the UK National Site Network (formerly European sites), namely Special Areas of Conservation (SACs), and, Special Protection Areas (SPAs). These sites are afforded protection under the Conservation of Habitats and Species Regulations 2017 (as amended). Additionally, listed or proposed Ramsar sites which are designated under international convention are also included. Although Ramsar sites are not part of the network of designated sites, they are included under the National Planning Policy Framework (Ref 103) in England and paragraph 5.4.5 of the Overarching NPS for Energy (EN-1) (Ref 5) extends to Ramsar sites (and proposed Ramsar sites) the same level of protection as UK National Site Network sites.

9.3.5 A Habitats Regulations Assessment (HRA) will therefore be undertaken to identify any potential impact pathways between the Proposed Development and internationally designated sites and to determine whether likely significant effects could arise, either alone or in combination with other plans and projects.

9.3.6 The HRA will consider whether the Scoping Site Boundary includes any areas of functionally linked habitat, i.e., where areas outside the boundary of a Habitats Site may support qualifying features and contribute to the achievement of the site's conservation objectives.

9.3.7 A Stage 1 HRA Screening report will be prepared by the Applicant. Where potential likely significant effects cannot be screened out, the Applicant will undertake a Stage 2 assessment for the DCO Application to inform Appropriate Assessment and any necessary avoidance or mitigation measures required to protect the integrity of designated sites.

National Planning Policy

9.3.8 The following National Policy Statements (NPS) have been considered in identifying potential ecology and biodiversity effects and informing the proposed scope of the assessment:

a. Overarching National Policy Statement for Energy (EN-1) (December 2025) (Ref 5), with reference to Sections 4.3, 4.6, and 4.7 in relation to assessment principles and Section 5.4 for the consideration of general impacts in relation to biodiversity and geological conservation;
b. National Policy Statement for Renewable Energy Infrastructure (EN-3) (December 2025) (Ref 6), with reference to paragraphs 2.10.67 to 2.10.84 for policies that will inform the methodology for the assessment of impacts on biodiversity and ecology; and
c. National Policy Statement for Electricity Networks Infrastructure (EN-5) (December 2025) (Ref 7), with reference to Sections 2.4, 2.5, 2.9 and 2.11 for informing assessment principles.

Other Policy and Guidance

9.3.9 Other relevant national policy includes the National Planning Policy Framework (NPPF) (August 2026) (Ref 9), with particular reference to Chapter 19 (Conserving and enhancing the natural environment).

9.3.10 Relevant local planning policy includes:

a. Sedgemoor Local Plan 2011-2032 (February 2019) (Ref 11) with particular reference to Policy S4 (Sustainable development principles), Policy D2 (Promoting high quality and inclusive design), Policy D4 (Renewable or low carbon energy and heat generation projects), Policy D20 (Biodiversity and geodiversity), Policy D21 (Ecological networks), Policy D22 (Trees and woodland), Policy D23 (Bat consultation zones), and Policy D29 (Protection and enhancement of existing green infrastructure resources);
b. Somerset Local Nature Recovery Strategy (LNRS) (March 2026) (Ref 105);
c. Somerset Pollinator Action Plan, November 2018 (Ref 106);
d. ‘Wild Somerset’ The Somerset Biodiversity Strategy, May 2008 (Ref 107);
e. Towards a Climate Resilient Somerset – Somerset’s Climate Emergency Strategy, November 2020 (Ref 47); and
f. North Somerset and Mendip Bats Special Area of Conservation (SAC) Supplementary Planning Document Version 2 (Ref 108).

Relevant Guidance

9.3.11 Other guidance documents relevant to the assessment of the impacts of the Proposed Development on biodiversity, are:

a. The Chartered Institute for Ecology and Environmental Management (CIEEM) Guidelines for Ecological Impact Assessment in the UK and

Ireland Terrestrial, Freshwater, Coastal and Marine (the CIEEM guidelines) (Ref 84);

b. Environmental Improvement Plan 2025 (Ref 21);
c. Biodiversity 2020: A strategy for England's Wildlife and Ecosystem Services (Ref 109);
d. BRE National Solar Centre Biodiversity Guidance for Solar Developments (Ref 110);
e. Natural England (NE) and Department for Environment, Food and Rural Affairs (DEFRA) Guidance: Protected species and development: advice for local planning authorities (Ref 111);
f. The Joint Nature Conservation Committee (JNCC) UK Biodiversity Action Plan (BAP) list of priority habitats and species (Ref 112), succeeded by the JNCC UK Biodiversity Framework (Ref 113);
g. The International Union for Conservation of Nature (IUCN) Red List of Threatened Species (Ref 114);
h. IUCN Mitigating biodiversity impacts associated with solar and wind energy development: Guidelines for project developers (Ref 115);
i. NE's evidence review of the impacts of solar farms on birds, bats and general ecology 2016 (NEER012) (Ref 116);
j. NE's Technical Information Note TIN101 Solar parks: Maximising Environmental Benefits (Ref 117);
k. The Guidelines for the Selection of Biological Sites of Special Scientific Interest (SSSI) (Ref 118);
l. State of Nature 2023 report (Ref 119); and
m. Somerset Local Wildlife Sites and Local Geological Sites Manual Policies and Procedures for the Identification and Designation of Wildlife Sites, January 2010 (Ref 120).

9.3.12 Technical guidance that has been used to define the survey methods for habitats and species is included in **Table 9-6** and will be included in the methods section of the relevant technical appendices, submitted with the ES chapter.

9.4. Consultation

9.4.1 Consultation as part of the EIA process will be undertaken following submission of this EIA Scoping Report with statutory parties including the Internal Drainage Board, Natural England, Somerset Council biodiversity officers and the Environment Agency, as well as other non-statutory interested parties. Agreement on the scope and methodology of surveys necessary to inform the assessment, potential ZoIs as defined by the CIEEM Guidance (Ref 84), and the Important Ecological Features (IEFs) to be considered as part of the assessment will be sought.

9.5. Baseline Conditions

9.5.1 This section describes the baseline environmental characteristics for the Proposed Development and surrounding areas with specific reference to ecology and biodiversity within the Scoping Site Boundary and Study Area.

Sources of Information

9.5.2 Somerset Environmental Records Centre (SERC) were contacted in March 2026 to obtain pre-existing ecological information on the location of non-statutory designated sites and for records of priority habitats, protected and notable species and Invasive and Non-Native Species (INNS) from the preceding ten years in order to help characterise the baseline context of a site and provide valuable background information that would not be captured by site surveys alone.

9.5.3 Online data resources that were reviewed for information within the relevant Study Areas include:

a. Records as provided by Somerset Environmental Records Centre (SERC) (Ref 121);
b. The Multi-Agency Geographic Information Centre (MAGIC) (Ref 122), to identify the location (and details) of sites statutory designated for their biodiversity value, Priority Habitats; for any granted European Protected Species Licence applications or agri-environment scheme;
c. NE's Ancient Woodland (England) inventory (Ref 123) for the location of ancient woodland;
d. Woodland Trust's ancient tree inventory (Ref 124), for details of ancient, veteran or notable trees;
e. Ordnance Survey data and pathfinder mapping (Ref 125), for locations of waterbodies, and other habitat features;
f. The Ramsar Sites Information Service (RSIS) website (Ref 126) for site information and designation details of any Ramsar's identified within the relevant Study Area (refer to Paragraph 9.2.6 of this chapter);
g. The NE website (Ref 127) for information on sites statutory designated for their biodiversity value and to confirm reasons for designation and their condition;
h. NE's Impact Risk Zones for SSSI (Ref 128) to determine if the Proposed Development may influence any SSSI or trigger the impact risk zones;
i. Defra and Environment Agency (EA) Ecology and Fish Data Explorer (Ref 129) for aquatic species records of fish, macroinvertebrate and macrophytes;
j. Defra and EA Catchment Data Explorer (Ref 130) for data on WFD water bodies and water catchments; and
k. National Biodiversity Network Atlas database (NBN Atlas) for notable species records (NB: only records with licences allowing for commercial use (OGL, CCO and CC-BY) were interrogated (Ref 131).

Statutory Designated Sites

9.5.4 Statutory sites that are designated for their biodiversity value were identified through a review of the MAGIC (Ref 122) website. UK National Site Network sites within 10 km and 20/30 km (for qualifying birds and bats features) of the Scoping Site Boundary are identified below and in **Table 9-1** and further described in **Appendix 9-1: UK National Site Network Site Descriptions**.

9.5.5 Within the 10 km Study Area (see Paragraph 9.2.6), eight UK National Site Network sites have been identified.

9.5.6 Within 20 km of the Scoping Site Boundary, one further UK National Site Network site is present for which birds with an extensive foraging range are a qualifying feature.

9.5.7 Within 30 km of the Scoping Site Boundary three further UK National Site Network sites are present for which bats are a qualifying feature. However, the Proposed Development is not within any of these three bat consultation zones.

9.5.8 Designation details are taken from citation documents, published online by Natural England. The locations of UK National Site Network sites are presented in **Figure 9-1: Sites within the UK National Site Network**.

Table 9-1 UK National Site Network sites within 10 km of the Scoping Site Boundary and within 20 km/30 km for which birds and/or bats are a qualifying feature

Site name	Summary of qualifying features	Approximate distance (kilometres (km)) and direction from closest point of the Scoping Site Boundary
Somerset Levels and Moors Ramsar	• Wetland habitats • Wetland invertebrates • Bewick's swan *Cygnus columbianus bewickii* (non-breeding) • Northern lapwing *Vanellus Vanellus* (non-breeding) • Eurasian teal *Anas crecca* (non-breeding)	0.15 km southeast
Somerset Levels and Moors SPA	• Bewick's swan (non-breeding) • Eurasian teal (non-breeding) • European golden plover (non-breeding) • Northern lapwing (non-breeding) • Waterbird assemblage	0.15 km southeast
Severn Estuary Ramsar	• Bewick's swan (non-breeding) • Common shelduck *Tadorna tadorna* (non-breeding) • Gadwall *Anas strepera* (non-breeding) • Dunlin *Calidris alpina* (non-breeding) • Common redshank *Tringa totanus*; (non-breeding) • Greater white-fronted goose *Anser albifrons albifrons* (non-breeding) • Waterbird assemblages	1.7 km west
Severn Estuary SPA	• Bewick's swan (non-breeding) • Common shelduck (non-breeding)	1.7 km west

Site name	Summary of qualifying features	Approximate distance (kilometres (km)) and direction from closest point of the Scoping Site Boundary
	• Gadwall (non-breeding) • Dunlin (non-breeding) • Common redshank (non-breeding) • Greater white-fronted goose (non-breeding) • Waterbird assemblages	
Severn Estuary SAC	Annex I habitats (primary) • Estuaries • Mudflats and sandflats not covered by seawater at low tide • Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) • Annex II Habitats (qualifying) • Sandbanks which are slightly covered by sea water all the time • Reefs Annex II Species (primary) • Sea lamprey • River lamprey • Twaite shad	1.7 km west
Mendip Limestone Grasslands SAC	Annex I Habitats (primary) • Semi-natural dry grassland and scrubland facies on calcareous substrates *Festuco-Brometalia* (*important orchid sites) Annex I Habitats (qualifying) • European dry heaths • Caves not open to public	2.67 km north (Within the North Somerset and Mendip Bats SAC greater horseshoe Consultation Zones B & C, and lesser horseshoe Consultation Zone C (Ref 108))

Site name	Summary of qualifying features	Approximate distance (kilometres (km)) and direction from closest point of the Scoping Site Boundary
	• Tilio-Acerion forests of slopes, screes and ravines Annex II species (qualifying) • Greater horseshoe bat *Rhinolophus ferrumequinum*	
Mendip Woodlands SAC	Annex I Habitats (primary) • Tilio-Acerion forests of slopes, screes and ravines	5.69 km northeast
North Somerset & Mendip Bats SAC	Annex I Habitats (primary) • Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco-Brometalia)* (*important orchid sites) • *Tilio-Acerion* forests of slopes, screes and ravines Annex I Habitats (qualifying) • Caves not open to the public Annex II species (primary) • Lesser horseshoe bat • Greater horseshoe bat	6.07 km northeast (Within the North Somerset and Mendip Bats SAC greater horseshoe Consultation Zones B & C, and lesser horseshoe Consultation Zone C (Ref 108))
Exmoor and Quantock Oakwoods SAC	Annex I Habitats (primary) • Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles Annex I habitats (qualifying) • Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)* Annex II species (primary) • Barbastelle Annex II species (qualifying)	15.90 km southwest, designated for barbastelle and Bechstein's (Not within the consultation zone (Ref 132))

Site name	Summary of qualifying features	Approximate distance (kilometres (km)) and direction from closest point of the Scoping Site Boundary
	• Bechstein's bat • Otter	
Hestercombe House SAC	Annex II species (primary) • Lesser horseshoe bat	16.29 km southwest, designated for lesser horseshoe (Not within the consultation zone (Ref 133))
Mells Valley SAC	Annex I habitats (qualifying) • Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco-Brometalia)* (*important orchid sites) • Caves not open to the public Annex II species (primary) • Greater horseshoe bat	25.34 km east, designated for greater horseshoe (Not within the consultation zone)
Chew Valley Lake SPA	Qualifying features: • Northern shoveler (non-breeding) The SPA also supports birds with extensive foraging ranges though of conservation concern, though they are not qualifying features of the SPA they are notably mentioned in the citation (e.g., lesser black-backed gull)	17.38 km northeast

9.5.9 There are fourteen statutory designated sites at a national level within the 5 km Study Area, and a description of these designated sites is presented in **Table 9-2** and **Appendix 9-2: Statutory Designated Site Descriptions**. Designation details are taken from citation documents, published online by Natural England (Ref 127). The locations of statutory designated sites are presented in **Figure 9-2: Statutory Designated Nature Conservation Sites**.

9.5.10 Natural England's SSSI Impact Risk Zone (England) website (Ref 128) indicates that the Proposed Development falls within an Impact Risk Zone associated with solar PV array developments and their associated infrastructure, such as pylons or overhead cables. The potential for effects on nationally designated sites will therefore be considered as part of the assessment, and consultation will be undertaken with Natural England to confirm the scope of any assessment and survey requirements.

Table 9-2 Statutory designated sites at a national level within 5 km of the Scoping Site Boundary

Statutory designated site name	Summary of designation characteristics	Approximate distance (km/metres (m)) and direction from closest point of the Scoping Site Boundary
Site of Special Scientific Interest (SSSI)		
Tealham and Tadham Moors SSSI	• Wet fescue/rye-grass swards, species-rich examples of mire-type communities, hedges, hedgerow trees, scrub, mixed woodland • Heronry • Over-wintering and passage migrant waders and waterfowl and breeding birds • Otter	0.15 km east
Catcott Edington and Chilton Moors SSSI	• Part of grazing marsh and ditch systems of the Somerset Levels and Moors • Diverse invertebrate fauna including water beetles • Hedges and hedgerow trees • Over-wintering and passage migrant waders and waterfowl and breeding birds • Other vertebrate species: otter, grass snake *Natrix helvetica* and common frog *Rana temporaria*	0.71 km west
Bridgwater Bay SSSI	• Intertidal mudflats, saltmarsh, shingle beach and grazing marsh intersected by a complex network of freshwater and brackish rhynes • Internationally and nationally important numbers of over-wintering and passage migrant waders and waterfowl • Diverse invertebrate fauna • Ecologically linked to the Somerset Levels	1.70 km west
Crook Peak to Shute Shelve Hill SSSI	• Ancient and secondary semi-natural broadleaved woodland, unimproved calcareous grassland, and acidic dry dwarf-shrub heath. • Nationally rare and notable plant species.	2.67 km north

Statutory designated site name	Summary of designation characteristics	Approximate distance (km/metres (m)) and direction from closest point of the Scoping Site Boundary
	• Greater horseshoe bats.	
Shiplate Slait SSSI	• Unimproved calcicolous grassland, dwarf-shrub, mosaics of calcicolous grassland and scrub and woodland	3.21 km north
Westhay Heath SSSI	• Nationally rare fen community, including a diverse assemblage of breeding and wintering birds and the presence of a nationally rare breeding bird species. • Otters, grass snake and common frog • Breeding harvest mice *Micromys minutus*	4.17 km southeast
Berrow Dunes SSSI	• Salt marsh, fore, grey and yellow dunes, stable dune grassland, dune slacks, scrub and a freshwater lagoon. • Rich invertebrate • Breeding birds with a local distribution in Somerset	4.36 km northwest
Shapwick Heath SSSI	• Former raised bog • Terrestrial and aquatic invertebrates	4.36 km southeast
Westhay Moor SSSI	• Former raised bog • Terrestrial and aquatic invertebrates • Nationally important breeding bird community • Wintering and breeding waterfowl • Otter, grass snake and common frog	4.46 km east
Cheddar Reservoir SSSI	• Large numbers of wildfowl, regionally important • Over-wintering diving ducks, coots and grebes and dabbling ducks • Migrant waders and terns use the reservoir as a feeding and roosting station	4.51 km northeast

Statutory designated site name	Summary of designation characteristics	Approximate distance (km/metres (m)) and direction from closest point of the Scoping Site Boundary
Axbridge Hill and Fry's Hill SSSI	• Nationally important botanical site • Wide range of butterfly species. • Greater horseshoe bat and lesser horseshoe bat • Dormice	4.62 km northeast
National Nature Reserve (NNR)		
Bridgwater Bay NNR	• Part of NNR outside of SSSI supporting legally protected species (see above).	Within the Scoping Site Boundary
Somerset Wetlands NNR	• Six pre-existing national nature reserves • Nationally significant lowland wetland and lowland peat soils. • Nationally and internationally important populations of wildfowl and wading birds.	Within the Scoping Site Boundary, the Huntspill River runs across the CAIC
Mendip NNR	• Two pre-existing NNRs; Ebbor Gorge and Rodney Stoke. • Calcareous grasslands, ancient, wooded ravines and notable geology. • Threatened species include adders *Vipera berus*, dormice, horseshoe bats and skylarks *Alauda arvensis*; and woodland and grassland flora, including endemic whitebeam species, and Somerset's county flower, the Cheddar pink.	2.67 km northeast

Non-Statutory Designated Sites

9.5.11 There are 32 sites that are non-statutory designated for their biodiversity value within 2 km of the Scoping Site Boundary, six of which are located within the Scoping Site Boundary (see **Table 9-3**).

9.5.12 These sites have been designated as Local Wildlife Sites (LWS) for their biodiversity value at a county level. However, all LWSs are assumed to be primarily designated for their habitats with supporting value to a wide variety of protected and important species.

9.5.13 The locations of these non-statutory designated sites are unable to be presented on a figure due to data licensing restrictions implemented by SERC.

Table 9-3: Non-statutory designated sites within 2 km of the Scoping Site Boundary

Non-statutory designated site name	Designated site description	Approximate distance (km) and direction from the Scoping Site Boundary
River Brue LWS	Site with legally protected species.	Within the Scoping Site Boundary
Brent River LWS	Drain with colony of legally protected species.	Within the Scoping Site Boundary
Blackford Moor LWS	Rhyne with rich assemblage of vascular plants.	Within the Scoping Site Boundary
Borrow Pit, Puriton LWS	Lake with extensive reed beds.	Within the Scoping Site Boundary
Stoning Pound Field South and Stoning Pound Rhyne LWS	Vascular plant species-rich rhynes with legally protected fauna and semi-improved grassland.	Within the Scoping Site Boundary
Puriton Rhynes and Ponds LWS	Rhyne network, ponds and reed beds with legally protected species.	Within the Scoping Site Boundary
Moor View Fields LWS	Unimproved grassland with rhyne system.	Adjacent to the Scoping Site Boundary
Puriton Meadows LWS	Unimproved grassland and scrub-lined disused railway.	0.22 km west
Isleport Business Park Ponds LWS	Pond with legally protected species.	0.39 km west
North Mead Drove Fields LWS	Species rich rhynes and damp grassland used by wetland birds.	0.41 km west
Puriton Cowslip Field LWS	Unimproved calcareous grassland with rhyne.	0.66 km west
Puriton Ash Ground LWS	Species rich ash-tip.	0.69 km west
Woolavington Road and Fields North LWS	Semi-improved grassland, rush pasture and reedbeds.	0.72 km west
Highbridge Pits LWS	Disused brick pits now reed beds and open water.	0.78 km west
South Drain LWS	Rhyne network with rare invertebrates and legally protected species.	0.83 km east

Non-statutory designated site name	Designated site description	Approximate distance (km) and direction from the Scoping Site Boundary
Bristol Bridge Ponds LWS	Two disused brick pits with reedbeds and herb rich margins; ornithological interest.	1.01 km west
Knoll Farm Field LWS	Unimproved Calcareous grassland with semi-improved grassland.	1.12 km west
Upper Battleborough Farm LWS	Steeply sloping unimproved species rich calcareous grassland.	1.16 km west
Brent Knoll (National Trust) LWS	Unimproved calcareous grassland, scrub, and broadleaved woodland.	1.25 km west
Brentwood Fields LWS	Steep herb-rich fields and scrub.	1.25 km west
Battleborough Fields LWS	Unimproved grassland and semi-improved grassland with scrub, ponds and a permanently wet ditch; unimproved neutral grassland.	1.35 km west
Brook's Pill Rhyne LWS	Section of Rhyne with legally protected species present.	1.35 km northwest
Upper Combe Plantation LWS	Broadleaved woodland (part ancient) with bare earth tracks.	1.41 km southeast
River Axe LWS	Site with legally protected species.	1.41 km east
Pawlett Mead Drove Fields LWS	Unimproved neutral grassland.	1.47 km west
New Ground Culvert LWS	Ancient semi-natural broadleaved woodland.	1.62 km southwest
Coombe Lane LWS	Species rich unimproved neutral grassland, with some semi-improved areas and small area of woodland.	1.65 km east
Leavey's Field LWS	Unimproved neutral and marshy grassland.	1.71 km east
Batch Road Fields LWS	Semi- improved ridge and furrow grassland with a small pond and permanently wet ditches.	1.71 km west

Non-statutory designated site name	Designated site description	Approximate distance (km) and direction from the Scoping Site Boundary
Apex Gardens LWS	Leisure park with reed fringed ponds providing habitat for protected and notable birds.	1.73 km west
Brent Knoll Wet Field LWS	Herb-rich wet grassland.	1.82 km west
Little Wall Lane LWS	Rhyne with legally protected species.	1.96 km south

Ancient Woodland, Veteran, and Ancient Trees

9.5.14 The desk study, using Natural England's Ancient Woodland (England) Inventory (Ref 123), identified no ancient woodland within 2 km of the Scoping Site Boundary. However, Upper Combe Plantation LWS and New Ground Culvert LWS report ancient semi-natural woodland within 2 km of the Scoping Site Boundary.

9.5.15 A review of the Ancient Tree Inventory (Ref 124) indicates that there is one veteran tree within the Scoping Site Boundary, a common yew located in Chapel Allerton. There are a further three notable or veteran trees outside of the Scoping Site Boundary and within the 2 km Study Area.

9.5.16 Further survey of trees will be undertaken in areas where trees could be affected by the Proposed Development, as defined through the iterative design process, to determine the location of any veteran or notable trees not recorded in the Inventory. This will be coordinated with the arboricultural surveys described below.

Arboricultural Surveys

9.5.17 Arboricultural surveys will be undertaken to inform the detailed design stage of the Proposed Development. The proposed survey methodology is set out in **Appendix 9-3: Arboricultural Assessment Methodology**.

Habitats

9.5.18 A walkover survey of accessible areas of the Energy Park, carried out as part of the PEA (see Paragraph 9.1.2), identified that the majority of habitat within the Energy Park is modified and other neutral grassland, with the field margins comprised of native hedgerows and rhynes. A review of aerial imagery of the proposed CAIC, as part of the desk study, identified that the habitat within this area is also likely to be these grassland types. UKHab surveys within the Scoping Site Boundary have been started in the CAIC to confirm the habitat types (see **Table 9-6**).

9.5.19 The grasslands in the Energy Park are predominantly MG6 *Lolium perenne – Cynosurus cristatus* (other neutral grassland) and MG7 *Lolium perenne* (modified grassland) communities, with localised MG10 *Juncus effusus – Holcus lanatus* rush-pasture National Vegetation Classification (NVC) communities (Ref 134). The sward is generally species-poor, reflecting grazing and silage management. Occasional relict floodplain meadow species are present, including pepper-saxifrage *Silaum silaus* and meadow barley *Hordeum secalinum*.

9.5.20 Many of the agricultural drainage rhynes in the Energy Park support characteristic wetland flora, including common water-plantain *Alisma plantago-aquatica*, frogbit *Hydrocharis morsus-ranae* and water violet *Hottonia palustris*, and provide suitable habitat for notable aquatic invertebrates. Water quality is good in most rhynes, although vegetation was locally reduced due to shading from adjacent hedgerows.

9.5.21 There are two small areas of transitional wetland along field grips (shallow surface trenches), which connect into adjacent rhynes. These grips include a

transition from f2f - Other wetlands to f2e – Reedbeds. Two areas of reedbed are dominated by common reed *Phragmites australis*, with scattered rushes. The 'other wetland' connected to one of the reedbeds is dominated by rushes, sedges and forbs which transition into the surrounding grassland following the hydrological gradient along the grip. This wetland has affinities to M23 *Juncus effusus/acutiflorus – Galium palustre* rush-pasture, although *Juncus inflexus* replaces *J. effusus/acutiflorus*.

9.5.22 There is an extensive network of native hedgerows across the Scoping Site Boundary, providing good habitat connectivity to habitats in the wider landscape. These hedgerows are; however, mostly homogenous in structure and species mix, with hawthorn and blackthorn *Prunus spinosa* dominating, and generally managed by occasional intense flailing practice.

9.5.23 Peat deposits have been modelled by the England Peat Map to be present across discrete areas of the Scoping Site Boundary (Ref 135, Ref 136, Ref 143) and adjoining moorlands, with agricultural drainage, historic extraction, and land management, reducing the size and function of the deposits. The England Peat Map (Ref 143) reports that "*The most difficult areas to map have been in the lowlands, where survey data is harder to gather and where more peat has been modified through historic intensive agricultural use*." No peat-forming or peat-indicative habitats have been identified onsite, to date.

9.5.24 Priority habitats (HaPI) under Section 41 of the NERC Act 2006 (Ref 87) present, or potentially present (pending further survey) within the Scoping Site Boundary that were identified at the time of writing this EIA Scoping Report (see also **Table 9-6**), include:

a. Coastal and floodplain grazing marsh (CFGM);
b. Native hedgerows;
c. Broadleaved, Mixed and Yew Woodland;
d. Reedbeds;
e. Rivers; and
f. Standing open water/ponds/lakes.

9.5.25 These habitats have potential to support a range of protected and notable species.

9.5.26 Outside of the Scoping Site Boundary, but within the 2 km Study Area, the MAGIC website (Ref 122) also identified the presence of the following HaPI:

a. CFGM;
b. Native hedgerows;
c. Broadleaved, Mixed and Yew Woodland;
d. Rivers;
e. Standing open water/ponds/lakes;
f. Lowland fens;
g. Purple moor grass and rush pasture;
h. Lowland meadows;
i. Lowland calcareous grassland;
j. Mudflats;

k. Coastal saltmarsh; and
l. Traditional orchard.

9.5.27 The majority of the Study Area is mapped as CFGM within the Natural England Priority Habitat Inventory. UKHab surveys have predominantly classified the overlaying grassland habitat as modified grassland and other neutral grassland habitats within the Energy Park and CAIC. However, grassland classification alone is not determinative of CFGM status and only a small proportion of the remaining national CFGM resource supports semi-natural grassland. The key classification requirements defining CFGM are linked to floodplain hydrology, water level management, ditch networks and management, through grazing or cutting. Whether the grassland qualifies as CFGM will be confirmed through further survey and consultation with Natural England, and will be reported within the ES and Outline Biodiversity Gain Plan.

9.5.28 Consultation as part of the EIA process will be carried out following submission of this EIA Scoping Report with statutory parties with regards to the presence of CFGM in the Scoping Site Boundary, see **Section 9.4**.

9.5.29 Water Framework Directive (WFD) water bodies that have potential to be impacted directly or indirectly by the proposed construction works within the Study Area are outlined below (**Table 9-4**).

Table 9-4 Water Framework Directive (WFD) water bodies within the Study Area

Water Body	WFD Water Body ID	Ecological Status	Operational Catchment
Mark Yeo	GB108052021250	Moderate	Brue and Axe
Shipham Rhyne (Trib of Brue/Cripps)	GB108052021510	Moderate	
Brue - conf with North Drain to Tidal Limit	GB108052021260	Moderate	
Axe - Cocklake to Brean Cross Sluice	GB109052021570	Poor	
Pitland Rhyne - source to conf R Axe	GB109052021530	Moderate	
North Drain	GB108052021200	Moderate	
Huntspill	GB108052021210	Moderate	
South Drain	GB108052021181	Moderate	
King's Sedgemoor Drain – Henley Sluice to mouth	GB10805202250	Moderate	Parrett

Species

Desk Study

9.5.30 The desk study identified SERC records of the following protected or notable species that are present within the 2 km Study Area of the Scoping Site Boundary, within the last 10 years as shown in **Table 9-5** below.

Table 9-5: Protected and/or notable species records within the Study Area

Taxa	Number of records	Distance of closest record from Scoping Site Boundary
Vascular plant and lower plant	Total: 355 Individual species: 88	Eighty-eight species found within the Scoping Site Boundary including: • Seven species of Principal Importance (SPI) (Section 41); • Thirteen species listed on the Somerset Local Biodiversity Action Plan (LBAP); • Eight species on national Red List categories; and • Sixteen species listed as SERC-Notable.
Fungi	None	Not applicable.
Invertebrates	Total: 31 Individual species: 26	Twenty-four species found within the Scoping Site Boundary including: • Seventeen SPI (S41); • Seventeen species listed on the Local Biodiversity Action Plan (LBAP); • Three species on national Red List categories (RL-NT/RL-DD); • Five species listed as SERC-Notable; and • One species listed under the EC Habitats Directive (HDir2).
Great crested newts	Total: 56	Four records within the Scoping Site Boundary.
Common amphibians	Total: 73 Individual species: 4	Three species found within the Scoping Site Boundary including common toad *Bufo bufo*, smooth newt *Lissotriton vulgaris and* common frog *Rana temporaria.*
Common reptiles	Total: 2 Individual species: 1	Both records are of grass snake found within the Scoping Site Boundary.
Bats	Total: 314 Individual species: 13 (minimum)	At least nine species found within the Scoping Site Boundary including common pipistrelle *Pipistrellus pipistrellus*, soprano pipistrelle *Pipistrellus pygmaeus*, Nathusius' pipistrelle *Pipistrellus nathusii*, noctule

Taxa	Number of records	Distance of closest record from Scoping Site Boundary
		Nyctalus noctula, serotine *Cnephaeus serotinus (*formerly *Eptesicus serotinus),* brown long-eared bat *Plecotus auritus*, barbastelle, greater horseshoe bat and lesser horseshoe bat.
Birds	Total: 149 Individual species: 64	Twenty-nine species found within the Scoping Site Boundary including: • Two species listed on Annex I of the EC Birds Directive; • Five species listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended); • Seven SPI (S41); • Eight species on the national Red List categories (RL-NT/RL-DD); • Eleven species listed on the LBAP; and • Sixteen species listed as SERC-Notable (defined as species which are statutory protected, are of national conservation concern, are an SPI, and are of local/county rarity within Somerset).
Otters	Total: 21	Seven records within the Scoping Site Boundary.
Water voles	Total: 10	Four records within the Scoping Site Boundary.
Badgers	Total: 21	Nine records within the Scoping Site Boundary.
Hedgehog	Total: 4	Four records within the Scoping Site Boundary.
Brown hare	Total: 1	One record ~485 m from the Scoping Site Boundary.
Fish	None	Not applicable.
Macroinvertebrates	Total: 2 Individual species: 1	Both records of zebra mussel *Dreissena polymorpha* are within the Scoping Site Boundary (an invasive species).
Invasive non-native species	Total: 47 Individual species: 10	Six records within the Scoping Site Boundary including American mink *Neogale vison,* Canadian waterweed *Elodea canadensis,* Himalayan balsam *Impatiens glandulifera,* Nuttall's waterweed *Elodea nuttallii,* water fern *Azolla filiculoides* and zebra mussel.

9.5.31 Several of the species recorded during the desk study are offered full or part protection under the Wildlife and Countryside Act 1981 (Ref 85) and/or are listed as SPI under Section 41 of the NERC Act (Ref 87). Full details of these species and their legal status and conservation value will be provided in the Ecology and Nature Conservation chapter of the ES.

9.5.32 Non-native plant species listed under Schedule 9 of the Wildlife and Countryside Act 1981 (Ref 85) are those that continue to pose a conservation threat to native biodiversity and habitats, as such it is illegal to plant or to otherwise encourage or cause these plants to grow in the wild.

9.5.33 The desk study, above, indicated the presence of protected and, or notable species, although no records were returned in the Study Area for:

a. Hazel dormouse: there are an abundance of native hedgerows forming an extensive habitat corridor network across the Scoping Site Boundary. Dormice could utilise these hedgerows for commuting, foraging, and nest building, with some connectivity to woodland found in adjacent areas. There are records of dormice presence within Axbridge Hill and Fry's Hill SSSI and Mendip Woodlands SAC, which are within approximately 5 km of the Scoping Site Boundary. As per the updated mitigation guidelines (Ref 137), landscape-scale functional connectivity (provided by the linear habitat features in the Scoping Site Boundary) can permit dormice to colonise network linked habitats, especially due to increased evidence of sub-optimal linear features supporting larger populations than previously known. However, regular flooding within the Scoping Site Boundary may limit suitability for hibernating dormice. Due to suitable connected matrix of linear features, presence is possible; hence, dormice are scoped in on a precautionary basis for assessment, with a targeted survey effort proposed; and
b. Eurasian beaver *Castor fiber*: while there are no records of the Eurasian Beaver within 2 km of the Scoping Site Boundary, their distribution is expanding in Somerset, with known activity along the River Brue which runs through the Proposed Development (Ref 138); hence, beavers are scoped in for assessment.

Field Surveys

9.5.34 Review of ecological data within the Study Area enabled the identification of specific areas requiring ecological survey (Survey Area) (see **Table 9-6**) which are specific to a given species, group of species or habitat. The Survey Area defined for each receptor reflects standard good practice and are informed by published guidance for each ecological feature (see **Table 9-6**), consideration of potential impact pathways and professional judgement.

9.5.35 **Table 9-6** presents details of the identified surveys, methods and survey periods that have commenced or will be undertaken within the relevant Survey Area. The extent of the Survey Area varies according to the ecological feature in question and applies a targeted approach to areas where likely significant effects are anticipated as a result of the Proposed Development. Accordingly, the Survey Area that will be used in the assessment will ensure sufficient data is gathered to meet any design

iterations, which may change the likely ZoI used to undertake the impact assessment.

9.5.36 The data gathered from these surveys will be used to inform the final assessment presented in the ES. These surveys will also inform any European Protected Species licences (where required). As part of the DCO Application for the Proposed Development any required licences will be prepared in draft for advisory comment from Natural England.

Table 9-6 Ecological surveys that have been, or will be, undertaken to characterise the baseline within the Scoping Site Boundary

Survey	Survey method	Survey Area	Justification for Survey Area	Status of survey and survey timing	Survey results
UKHab Survey, including Habitat Condition Assessment for Biodiversity Net Gain (BNG)	Walkover following the standard UKHab method v2.0 (Ref 83). A habitat condition assessment will be undertaken for the purpose of BNG. CAIC will be surveyed to UKHab-level 3 only whilst optionality of cable route remains to identify key ecological constraints to inform design.	Scoping Site Boundary and up to 50 m, where access is available.	The proposed Survey Area captures habitats at risk of direct and indirect impacts from the Proposed Development and will inform BNG. The desk-based assessment of habitats within 50 m will flag potential indirect impacts on adjacent priority habitats and inform the potential presence/absence of protected and notable species, informing the future survey scope where impacts are likely to occur.	Completed walkover March-September 2026 (Energy Park). Further surveys proposed in September-November 2026 and March-June 2027 (Energy Park and CAIC).	The Energy Park is predominantly modified grassland used for grazing, bounded by rhynes and native hedgerows. Additional habitats include rural trees, other neutral grassland, other broadleaved woodland, mixed and bramble scrub, cereal crops, temporary grass and clover leys; and standing open water/ ponds.
Terrestrial Habitat and Flora: Phase 2 botanical/NVC Survey	Quadrat surveys will be carried out on grassland, wetland habitats and field boundaries in line with guidance on notable species	Targeted areas within the Scoping Site Boundary.	The Survey Area focuses on areas with potential to be impacted by the Proposed Development, based on the desk study and UKHab survey.	Reconnaissance in May-June 2026 to refine the Spring UKHab survey, particularly grassland indicators more readily detectable	Results pending.

Survey	Survey method	Survey Area	Justification for Survey Area	Status of survey and survey timing	Survey results
	(Ref 139, Ref 140, Ref 141)			than during the April walkover. Further surveys may be required to support mitigation and enhancement proposals and will continue in 2027.	
Hedgerows	Hedgerows will be surveyed in accordance with the methodology as outlined in DEFRA's Hedgerow Survey Handbook (Ref 142), to assess their 'importance' against the Wildlife and Landscape Criteria, detailed in the Hedgerows Regulations (Ref 93).	Targeted areas within the Scoping Site Boundary, following micro-siting and scheme design.	The majority of hedgerows are unlikely to be directly impacted following scheme design iterations and micro-siting, which are yet to be undertaken. Hedgerows outside of the Scoping Site Boundary will not be impacted.	Surveys proposed April-October 2027, pending scheme design.	Results pending.
Aquatic habitat and species surveys including for any invasive	An aquatic scoping survey comprising a desk-based assessment of	Up to 2 km from the Scoping Site Boundary for the desk study and up to	Up to 250 m from the Scoping Site Boundary is an appropriate Survey Area to determine any potential	Aquatic scoping surveys were undertaken in May - June 2026.	Aquatic scoping surveys identified numerous aquatic

Survey	Survey method	Survey Area	Justification for Survey Area	Status of survey and survey timing	Survey results
non-native species (potentially including pond Predictive System for Multimetrics (PSYM), macrophytes, macroinvertebrates and fish surveys). and Modular River Physical Habitat Survey (MoRPh)	available aquatic ecology data and a walkover survey will inform site selection for further surveys. Selected waterbodies likely to be impacted will be surveyed and assessed using standard methodologies for aquatic macrophytes (Ref 144), aquatic macroinvertebrates (Ref 145), Fish (Ref 146) and PSYM specifically for ponds (Ref 147). MoRPh required for the purpose of BNG (Ref 148 and Ref 149).	250 m for field survey where access is available.	impacts arising from the Proposed Development both upstream and downstream (the desk study will assess a wider 2 km area).	Further aquatic scoping surveys are proposed in October - November 2026 to include remaining areas of the Energy Park as well as the CAIC. Where required, the following surveys will be undertaken: Macroinvertebrate surveys: October-November 2026, and March- May 2027. Fish surveys: March-May 2027. Aquatic macrophyte surveys: June-September 2027. MoRPh surveys: March- May 2027.	habitats across the Energy Park in 2026. No species surveys have been conducted at the time of writing this report.

Survey	Survey method	Survey Area	Justification for Survey Area	Status of survey and survey timing	Survey results
Terrestrial invertebrates scoping survey	A walkover survey to identify areas of likely greater importance to terrestrial invertebrates, focusing on habitats suitable for species such as small heath *Coenonympha pamphilus* and wall *Lasiommata megera* (Ref 150, Ref 151.) recorded within or adjacent to the Scoping Site Boundary.	Targeted areas within the Energy Park.	Surveying habitat within the Energy Park only is appropriate, acknowledging that habitats that have the potential to be permanently impacted are within this area. No surveys are proposed within the CAIC due to the temporary nature of the works and lack of impact pathways during construction and operation.	Species-specific timings to be confirmed.	None to date.
Bats – Daytime Bat Walkover (DBW) Survey including Ground Level Tree Assessment (GLTA)	Habitats were subject to a DBW survey and GLTA in accordance with The Bat Conservation Trust Best Practice Guidance (Ref 152).	Relevant features within and up to 10 m from the Scoping Site Boundary for temporary impacts and 20 m for permanent impacts.	Information on trees with roosting potential will inform design, buffers to avoid direct impacts on potential roosts and will define the scope for roost surveys. Habitats will also be assessed for bat foraging and commuting suitability, including connectivity with the wider landscape.	March-present in the Energy Park. Surveys in the remaining areas of the Energy Park and CAIC will be conducted throughout 2026 and 2027.	Most of the Energy Park has been surveyed, with most trees having no suitability for bats. Approximately 247 trees with Potential Roosting Features (PRFs) have been scoped for further surveys to determine roost type and species

Survey	Survey method	Survey Area	Justification for Survey Area	Status of survey and survey timing	Survey results
					presence, where impacts are anticipated.
Bats – Aerial Tree Inspection (ATI)	An aerial tree inspection will be completed of PRF trees in accordance with standard survey guidance (Ref 152).	Trees within the Energy Park where potential impacts cannot be mitigated under precautionary working methods.	Due to the temporary nature of the works and sympathetic design, it is anticipated that impacts to potential roosts are likely to be avoided and that any further survey work, if required, is likely to be restricted to a small number of individual trees.	Surveys proposed May - September in 2027.	None to date.
Bats – structures Preliminary Roost Assessment (PRA)	A PRA was carried out on structures in accordance with standard survey guidance (Ref 152).	Structures within the Scoping Site Boundary or directly adjacent to, where potential impacts cannot be mitigated under precautionary working methods.	Due to the temporary nature of the works and design, it is anticipated that impacts to potential roosts are likely to be avoided and that any further survey work, if required, is likely to be restricted to a small number of individual structures.	Completed March-August 2026.	Seven structures were assessed within the Scoping Site Boundary. Five had moderate roosting suitability, one had high suitability, one had negligible suitability.
Bats – emergence surveys	Where any proposed works to trees (where unsafe to climb) and structures with bat roost potential have been confirmed, in	Features with bat roost suitability within the Scoping Site Boundary that will be impacted by the Proposed Development (i.e. if the design cannot	To inform bat species assemblages and pre-construction licensing.	Where required, these will be undertaken between May and September in 2027.	None to date.

Survey	Survey method	Survey Area	Justification for Survey Area	Status of survey and survey timing	Survey results
	accordance with standard survey guidance (Ref 152), emergence surveys will be required to determine entry/exit points, roost type, and a count of individuals and species present prior to ES submission.	avoid the loss of trees/structures) and where not buffered by 30 m.			
Bats – hibernation surveys	In accordance with standard survey guidance (Ref 152). Hibernation surveys will be required to determine presence/absence of hibernating bats in structures.	Structures with bat hibernation roost suitability within the Scoping Site Boundary that will be impacted by the Proposed Development or within at least 10 m from.	Structures at least 10 m outside the construction footprint of the Proposed Development can be omitted from survey where no direct impacts (death or injury) and no indirect impacts (vibration, noise, or lighting disturbance) is anticipated. To date, only structure B5 was identified to have hibernation suitability, identified during the PRA.	Where required, further survey will be carried out between November 2026 and March in 2027.	None to date.
Bats – Night-time Bat Walkover (NBW)	Walked transect routes to monitor bat activity (foraging and commuting), with	Eleven NBWs spread across sections of the Energy Park to provide a	NBWs have been designed to provide a representative sample of habitats across the Energy Park where permanent works risk impacts	Energy Park surveys completed in spring, summer,	Full analysis of Spring and Summer 2026 data is ongoing; however, several bat species were recorded using

Survey	Survey method	Survey Area	Justification for Survey Area	Status of survey and survey timing	Survey results
	each transect surveyed once in spring, summer and autumn. The survey method is based upon published guidance (Ref 152).	representative sample of bat activity. NBWs within the CAIC will be restricted to areas with anticipated loss, degradation, or significant disturbance of suitable foraging and commuting habitat.	on roosting, commuting and foraging bats. Survey work within the temporary works areas of the CAIC will be designed to focus on areas where the works risk significantly impacting the local bat population; for example, localised cumulative hedgerow loss.	and autumn 2026. Surveys of bat activity in the CAIC, will be undertaken in spring, summer, and autumn 2027. This includes two NBWs where habitat loss is expected and are geographically distinct from the Energy Park.	commuting and foraging along boundary, including barbastelle, and greater and lesser horseshoe bats. Following spring surveys, NBWs were extended from two to three hours to capture later horseshoe bat activity.
Bat – static detector deployment	Bat detectors will be deployed in accordance with standard survey guidance (Ref 152). Detectors will record continuously for a minimum of five consecutive nights per location per month in suitable weather conditions.	Eleven static detectors have been deployed along key linear features, watercourses, and high-value foraging/commuting areas within the Scoping Site Boundary that will be directly or indirectly impacted by the Proposed Development.	Static detector deployment provides automated continuous sampling across different habitat zones to assess levels of bat activity, species composition, and spatial/temporal utilization across the site to inform impact assessment.	Deployments will be undertaken monthly between April and October in 2026/7 (covering spring, summer, and autumn activity periods).	Full analysis of Spring and Summer 2026 data is ongoing; however, several bat species were recorded including barbastelle, and greater and lesser horseshoe bats.

Survey	Survey method	Survey Area	Justification for Survey Area	Status of survey and survey timing	Survey results
		Additional statics will be deployed in CAIC areas where habitat loss is expected and where they are geographically distinct from the Energy Park areas.			
Great Crested Newt – HSI, eDNA, population surveys	The desk study will identify waterbodies to carry out a Habitat Suitability Index (HSI) (Ref 153) and scope in accessible waterbodies for Environmental DNA (eDNA) survey (Ref 154). Alternatively, the District Level Licensing (DLL) scheme may be adopted. Traditional population surveys including egg searches, torch	HSI (and eDNA/population surveys): within the Energy Park and within 250 m of the Scoping Site Boundary, where no significant barriers (e.g. rivers and major roads) are present to movement, and access is permitted.	With reference to published guidance, habitats within and up to 250 m of the Scoping Site Boundary could constitute significant foraging areas, hibernation or resting sites for Great Crested Newt (Ref 155).	HSI and eDNA surveys will be undertaken between April and June 2027. The need for traditional population surveys will be determined by the adoption of DLL.	None to date.

Survey	Survey method	Survey Area	Justification for Survey Area	Status of survey and survey timing	Survey results
	surveys and bottle trapping will be conducted on ponds with positive or inconclusive eDNA results.				
Reptiles	No surveys are proposed for reptiles at present; however, incidental sightings will be recorded during other surveys.	N/A	The habitats within the Scoping Site Boundary are sub-optimal for reptiles, with only common reptiles expected to be present. Suitable habitat is present within and adjacent to the Scoping Site Boundary and will be largely retained by the Proposed Development, so there are no likely significant effects, as any impacts could be managed through precautionary working methods during construction using standard guidance (Ref 156, Ref 157).	N/A	Grass snakes have been observed during other surveys. Assessing the desktop records and habitat suitability, it is likely that only grass snake, slow worm, and common lizard are present.
Wintering birds (including farmland birds and over-wintering waterbirds)	Surveys for wintering birds are based on standard walkover count methods (Ref 158, Ref 159). Surveys cover predefined	Scoping Site Boundary and up to 250 m from the Scoping Site Boundary.	Standardised survey zones for assessing impacts of development on wintering bird populations align with established disturbance distances. Published guidance on noise and visual	Monthly wintering bird surveys have been completed between October 2025 and March 2026. A second season of	Surveys are ongoing; however preliminary findings include populations of wintering lapwing within the Energy Park.

Survey	Survey method	Survey Area	Justification for Survey Area	Status of survey and survey timing	Survey results
	transect routes across accessible areas, with species-specific or vantage point methods applied where required. Monthly nocturnal surveys will be undertaken to establish the use of the Survey Area by wintering wading birds and other SPA-associated waterbirds. Surveys will focus primarily on ducks, including teal and mallard, and waders, including lapwing and golden plover, with owls and other nocturnal bird species also recorded where encountered.	For species of higher sensitivity or conservation value (e.g. over-wintering SPA/Ramsar waterbird species), the Survey Area may be extended up to 500 m, access permitting or where viable from adjacent land.	disturbance distances for non-breeding waders and waterfowl was used to define the Survey Area (Ref 160).	surveys will be completed in 2026/7. Nocturnal surveys will be undertaken between October 2026 and March 2027	Assemblage of winter birds, including other WCA Schedule 1 species (Ref 85) are also present within the Energy Park Schedule 1: Crossbill *Loxia curvirostra,* Firecrest *Regulus ignicapilla,* Fieldfare *Turdus pilaris*, Redwing *Turdus iliacus*, and Merlin. Further survey results are pending completion in the winter of 2026/7.

Survey	Survey method	Survey Area	Justification for Survey Area	Status of survey and survey timing	Survey results
Breeding birds (including farmland birds)	Surveys for breeding birds are based on a standard territory mapping method for surveying breeding birds (Ref 161) and were adapted where necessary to include species-specific methods (as detailed in 'Bird Monitoring Methods' (Ref 162) for other species, as required.	Scoping Site Boundary and up to 50 m from the Scoping Site Boundary, focussing the surveys on the Energy Park where habitat loss is anticipated. For species of greater conservation value and/or higher sensitivity to potential noise or visual disturbance, where any such species are recorded, the Survey Area will be extended up to 250 m from the Scoping Site Boundary, access permitting.	Standardised survey zones for assessing the impacts of development on bird populations do not exist; however, the Survey Area provides information on the breeding birds within the area immediately surrounding and contiguous with the Scoping Site Boundary, where birds may potentially be adversely affected. Published guidance (Ref 163) on disturbance distances for specially protected species e.g. those listed on Schedule 1 of the WCA (Ref 85) was used to define the Survey Area for any such species likely to be present.	Surveys of breeding birds in the Energy Park have been undertaken between March and August 2026 for the general breeding bird assemblage and to record any late-breeding species. Surveys in the CAIC, will be undertaken in targeted areas where habitat loss or disturbance is anticipated in the appropriate season in 2026/7, where access is permitted.	Assemblage of breeding birds, including WCA Schedule 1 species (Ref 85) and SPI (Ref 87) are present within the Energy Park Schedule 1: Cetti's warbler, Fieldfare *Turdus pilaris*, Kingfisher, Redwing *Turdus iliacus*, Barn owl, Marsh harrier, Merlin, Peregrine *Falco peregrinus,* Goshawk *Accipiter gentilis.* Other SPI species: Bullfinch *Pyrrhula pyrrhula*, Corn bunting *Emberiza calandra*, Dunnock *Prunella modularis*, Herring gull *Larus argentatus*, House sparrow *Passer domesticus*, Linnet *Linaria cannabina*, Lesser redpoll *Acanthis cabaret*, Reed bunting, Skylark, Starling *Sturnus vulgaris*, Song

Survey	Survey method	Survey Area	Justification for Survey Area	Status of survey and survey timing	Survey results
					thrush *Turdus philomelos*, and Curlew.
Barn Owls	Three-stage assessment following best practice guidance (Ref 164): Stage 1 (Scoping): Desk study and field inspection to identify broad habitat features suitable for supporting barn owl foraging, roosting or nesting. Stage 2 (Investigative Inspection): classify locations as Potential Nest Sites (PNS), Active Roost Sites (ARS), or Temporary Rest Sites (TRS) Stage 3 (Nest Verification Surveys):	Scoping Site Boundary and up to 250 m from the Scoping Site Boundary, access permitting. Suitable foraging/commuting habitat will be assessed up to 250 m where relevant and PNS and ARS will be assessed up to 250 m from the Scoping Site Boundary, access permitting.	The survey buffer aligns with published best-practice guidance (Ref 164). Barn Owls typically forage within 1 km to 2 km of their breeding/roosting sites during the breeding season. The survey area accounts for fragmentation of potential foraging habitat. The 250 m Study Area for PNS and ARS will allow for assessment of any potential disturbance.	Stage 1 & 2 surveys are underway within the Energy Park. Stage 3 active breeding checks and Stage 1 & 2 surveys in the CAIC and buffer areas will continue through 2027, where access is permitted.	There has been confirmed presence of one breeding pair within the Energy Park. Surveys are still ongoing at the time of writing this report.

Survey	Survey method	Survey Area	Justification for Survey Area	Status of survey and survey timing	Survey results
	Targeted, detailed investigation, during the breeding season (mid-June to late July)				
INNS	The location and stand size of INNS species will be recorded during other ecological surveys, particularly during UKHab surveys and surveys along watercourses.	Scoping Site Boundary and a zone of 50 m (where visible from within the Scoping Site Boundary or accessible).	As per guidelines (Ref 165), INNS will be recorded within the Scoping Site Boundary and to a maximum of 50 m due to the presence of watercourses across the Scoping Site Boundary.	In progress. Any time of year, but April to September is the optimal period for recording INNS plants.	Himalayan balsam *Impatiens glandulifera* has been identified within the Energy Park.
Riparian mammals (water vole, otter, beaver, and the INNS American mink)	A Habitat Suitability Assessment will determine the suitability of each watercourse or water body for riparian mammals. Watercourses and water bodies, deemed suitable for riparian mammals (Ref	Water vole: All waterbodies and watercourses, proposed to be a crossed, within the Scoping Site Boundary, and up to 10 m beyond where access is permitted, identified as potentially suitable for water vole.	With reference to published guidance, surveying riparian habitats using the aforementioned distance parameters is sufficient to determine presence or absence of riparian mammals.	Desk-based scoping has been undertaken across the Scoping Site Boundary in August 2026. Water vole and otter surveys will be undertaken in September 2026 and May 2027.	None to date.

Survey	Survey method	Survey Area	Justification for Survey Area	Status of survey and survey timing	Survey results
	166, Ref 167 and Ref 168) (as identified during the Habitat Suitability Assessment) will then be surveyed for evidence of riparian mammals, following standard guidance for surveying water vole (Ref 166, Ref 167), otter (Ref 169, Ref 170), and beaver (Ref 171, Ref 172). Any evidence of American Mink will also be recorded, using these survey methods.	Otter: Where suitable habitat is present for holts and resting sites, surveys will extend up to 200 m upstream and downstream, where accessible. Woodland within 200 m of watercourses will also be checked for otter holts. Beaver: Targeted surveys will extend 20 m from the bank and at least 2 km upstream and downstream of any known beaver signs.		Beaver surveys will be undertaken in Winter 2026/27 and Spring 2027.	
Dormice	A habitat suitability assessment and nut search will be carried out during a walkover survey. Where suitable habitats are present and could	Within targeted areas of the Scoping Site Boundary that have been assessed as Good habitat quality or higher and could be affected by the Proposed	Habitats of lower habitat quality will be omitted from further surveys as they are deemed largely unsuitable to support dormice populations.	Habitat suitability assessments and nut searches will commence in Autumn of 2026, with the subsequent nest tube checks	None to date.

Survey	Survey method	Survey Area	Justification for Survey Area	Status of survey and survey timing	Survey results
	be affected by the Proposed Development (e.g. loss or severance of hedgerows that cannot be avoided through reasonably practicable design), standard nest tube surveys and footprint tunnels will be conducted in accordance with guidance (Ref 173).	Development (Ref 173).		taking place monthly from April to November 2027.	
Badger	A walkover survey, searching for signs of badger activity following standard survey guidance (Ref 174, Ref 175). Identified setts that could be impacted (i.e. within 30 m of the construction zone) may need to undergo further surveys, including	Within the Scoping Site Boundary and to a maximum of 50 m from the Scoping Site Boundary, where access is permitted.	With reference to published guidance, 50 m beyond the Scoping Site Boundary is an appropriate Survey Area as it covers the 30 m distance of avoidance around setts at which direct or indirect effects on Badger setts could occur.	Scoping of high-suitability areas across the Energy Park and CAIC will continue in 2026/7 alongside phase 2 surveys of previously identified setts.	Numerous badger setts and additional field signs identified around the Energy Park, largely associated with boundary features.

Survey	Survey method	Survey Area	Justification for Survey Area	Status of survey and survey timing	Survey results
	sett monitoring and bait marking.				
Other SPI mammals (such as Hedgehog *Erinaceus europaeus*, Brown Hare *Lepus europaeus* and Harvest Mouse)	No formal surveys have, or will be, undertaken for such species. Observations will be recorded when noted during other ecological surveys.	The land within the Scoping Site Boundary.	The survey approach is appropriate, acknowledging that any potential impacts (such as habitat loss) are within the Scoping Site Boundary itself.	In progress. Observations can be noted at any time of year.	Brown hares have been observed within the Scoping Site Boundary. No observations of other SPI mammals recorded. The habitat within the Scoping Site Boundary could support hedgehog, and harvest mouse. Hence, their presence will be assumed and assessed as appropriate.

Future Baseline

9.5.37 The current ecological baseline is considered to represent the future baseline for the purposes of the assessment, in the absence of the Proposed Development. This assumes that the existing agricultural land management will continue and that the broad character of habitats and species assemblages will remain similar.

9.5.38 The distribution, abundance and condition of habitats and species may vary over time in response to changes in land management and wider environmental factors. These factors will be considered where relevant when undertaking the assessment.

9.6. Potential Effects and Mitigation

Potential Effects

Construction (to commence in 2030)

9.6.1 Impacts on ecological features during construction of the Proposed Development (including construction of compounds, access tracks (including vehicle movements), installation of Solar PV arrays (and mounting structures), installation of interconnecting cables and connection to the grid, via the CAIC (noting this may be either through trenched cabling or overhead lines (OHL)) potentially include:

a. Habitat loss – direct impacts associated with changes in land use resulting from the construction of the Proposed Development, for example temporary works associated with vegetation clearance (e.g. for site compounds and access), installation of buried cables, and permanent land-take (mainly grazing fields) associated with the installation of components such as Solar PV arrays and OHL towers;
b. Fragmentation of populations or habitats – indirect impacts due to the Proposed Development potentially dividing a habitat, group of related habitats, site or ecological network, or the creation of partial or complete barriers (e.g. where any watercourses may be crossed) to the movement of species, with a consequent impairment of ecological function;
c. Disturbance – indirect impacts resulting from a change in baseline conditions (e.g., light, noise, vibration and human activity) that result in individuals or populations of species changing behaviour or range to reduce exposure to disturbance;
d. Habitat degradation – direct or indirect impacts resulting in the reduction in the condition of a habitat and its suitability for some or all of the species it supports, for example changes in chemical water quality, air quality (e.g., dust emissions), soil water retention due to compaction from heavy machinery, soil erosion, cable trenching severing root systems, increased shading limiting undergrowth, increased sedimentation and dust deposition, or changes in surface flow or groundwater;
e. Species injury and/or mortality – direct impacts on species populations associated with mortalities due to construction activities, for example vegetation removal, site traffic; and

f. Introduction and, or, spread of invasive species, due to the movement of personnel, equipment and plant machinery, potentially facilitating the introduction of invasive species.

Operation and Maintenance (to commence in 2032)

9.6.2 Impacts on ecological features during operation (and maintenance) of the Proposed Development may include:

a. Potential avoidance by species using the Scoping Site Boundary, due to indirect impacts through, for example, noise displacement of breeding birds due to the presence of Solar PV arrays;
b. Disturbance or displacement of sensitive species, such as visual or noise disturbance due to operational maintenance activities;
c. Disturbance or displacement of sensitive species (e.g. fish) caused by Electro-Magnetic Fields (EMF) created by buried electric high voltage cables during operation. This will be further explored if the Proposed Development design interacts with watercourses containing migratory fish species.
d. Polarised light pollution from the dark solar panels can mislead aquatic invertebrates such as mayflies, caddisflies, and dragonflies into laying eggs directly onto the panels potentially leading to localised population decline and disrupting the wider food chain;
e. Fragmentation of habitats causing a barrier effect to some species, restricting commuting routes and habitat connectivity across the Scoping Site Boundary and the wider landscape due to fencing and cable trenching;
f. Habitat enhancements and potential for wetland creation within ecological mitigation areas secured as part of the Proposed Development.

Decommissioning (assumed to be 2072)

9.6.3 Impacts on ecological features during decommissioning of the Proposed Development are likely to be the same as those during the construction phase. Field surveys would be required in advance of decommissioning to define the ecological baseline at the time of decommissioning and to ensure that impacts on ecological features are identified, avoided and, or, mitigated. Upon decommissioning, the above-ground physical infrastructure will be removed and the Scoping Site Boundary returned to landowners in same the condition as before the start of construction.

Design, Avoidance, and Mitigation

9.6.4 Compliance with planning policy in the NPS EN-1 (Ref 5) and the NPPF (Ref 9) requires that the Proposed Development considers and applies a mitigation hierarchy, requiring the highest level to be applied, where practicable. The mitigation hierarchy presented below, based on the NPPF and CIEEM (Ref 84) principles of avoidance, mitigation, and compensation is also fundamental to BNG and there are three sequential steps that must be taken throughout the lifecycle of a proposed development, where there is potential for impacts on relevant ecological features:

a. Avoidance– actions taken to avoid causing impacts to the environment prior to beginning development (e.g. moving part of the Proposed Development to a different location).
b. Mitigation (and minimisation) – measures taken to reduce the duration, intensity, extent and/or likelihood of the unavoidable environmental impacts caused by the Proposed Development (e.g. adapting the Proposed Development design to minimise impacts).
c. Compensation – actions taken to repair environmental degradation or damage following unavoidable impacts caused by the Proposed Development and/or

measures taken as a last resort to offset residual adverse effects that cannot be avoided, minimised and/or restored.

9.6.5 The design for the Proposed Development will include consideration of IEFs and will incorporate, where reasonably practicable, measures to avoid or reduce the potential for adverse effects on these, in accordance with the mitigation hierarchy and relevant planning policy. The measures that will be identified and adopted include those that are inherent to the design of the Proposed Development and those that can realistically be expected to be applied as part of environmental best practice, or as a result of legislative requirements.

9.6.6 Proposed embedded mitigation measures relevant to ecology and nature conservation are identified below.

9.6.7 The Proposed Development will be designed so that impacts upon HaPI (e.g. woodland, hedgerows, arable margins, waterbodies and watercourses) are avoided or reduced, where reasonably practicable with compensation provided where necessary and proportionate, in line with the mitigation hierarchy and BNG requirements. This also includes seeking to avoid impacts during construction to ancient woodland, veteran trees, and other HaPIs found within 2 km of the Scoping Site Boundary through pollution control measures set out in the Outline CEMP.

9.6.8 The following habitats would be retained where reasonably practicable as part of the Proposed Development:

a. Water bodies (including ponds);
b. Watercourses (except for access and crossing points);
c. Hedgerows (except for access and crossing points); and,
d. Woodland.

9.6.9 The Proposed Development will aim to avoid, protect and retain notable habitats and species where practicable, all of which will be included in the design. This will include consideration of the following offsets where appropriate and reasonably practicable:

a. 10 m from watercourses and water bodies, to protect riparian and aquatic habitats and species (such as riparian mammals) that are present;
b. 15 m from any woodland features;
c. 5-10 m from hedgerows without trees, noting that there may be small incursions into hedgerows to facilitate access, fencelines and the grid

connection cables. Where practicable, retained individual trees and trees occurring within hedgerows will be protected as per British Standard BS: 5837 Trees in relation to design, demolition and construction – Recommendations (Ref 176). Fencing, as appropriate, will be included around working areas to protect above-ground vegetation and below-ground root systems; and,

d. The Proposed Development will, where practicable, avoid laying cabling directly on the channel bed of watercourses and will install cables at a depth, to be determined through detailed design, that seeks to avoid warming or EMF effects on fish.

9.6.10 These offsets may be revised and increased from these receptors, following further surveys, to reflect any species-specific requirements.

9.6.11 The Proposed Development will also aim to avoid, protect and retain protected or notable species, where practicable, including:

a. Retaining badger setts, with a minimum undeveloped zone of 30 m from the sett (dependent on the activity); and,
b. Retaining trees with the potential to support roosting bats, with a minimum undeveloped zone concordant with the Root Protection Area (RPA) of the tree and dependent on the bat roost categorisation;
c. Retaining structures with the potential to support roosting bats, with a minimum undeveloped zone of 30 m with sensitive lighting, dependent on the bat roost categorisation.

9.6.12 The Proposed Development will, where practicable, minimise or remove potential indirect impacts to statutory and non-statutory designated sites, through best practice construction methods. These best practice construction measures will be set out within an Outline Construction Environmental Management Plan (CEMP), secured through the DCO, to reduce the effect of potentially harmful impacts on IEFs, in compliance with relevant legislation. The Outline CEMP will detail and formalise measures that will be implemented prior to and during construction of the Proposed Development to mitigate construction-related effects on IEFs. A detailed CEMP will be produced in accordance with the Outline CEMP following DCO consent to implement the measures outlined in the Outline CEMP for the Proposed Development.

Enhancements

9.6.13 With the incorporation of enhancements into the Proposed Development design, there are likely to be beneficial effects following completion of the Proposed Development that will ensure no net loss of habitats and will provide an overall net gain in biodiversity, ensuring compliance with legislation and planning policy relating to this. These beneficial effects are likely to include:

a. Increases in permanent grassland habitat of greater floristic diversity than modified grassland and arable farmland, increasing invertebrate assemblages and abundance;
b. Increased ecological connectivity across the Scoping Site Boundary and into the wider area, through planting of trees and hedgerows;

c. Potential to contribute to nature recovery strategies in Somerset;
d. Areas of habitat creation, such as fields and margins that provide permanent (and undisturbed) nesting and foraging habitats for farmland birds, small mammals and reptiles;
e. Potential increases in abundance and distribution of species, due to lack of human disturbance and changes in habitat (such as agricultural practices) within the Energy Park; and
f. Indirect beneficial impacts through a possible reduction of agricultural chemical inputs to watercourses/reduction in pesticide use on crops within the local area resulting in an increase in invertebrate abundance and diversity.

Biodiversity Net Gain (BNG)

9.6.14 As of the 02 November 2026 a 10% Biodiversity Net Gain (BNG) becomes a mandatory requirement for NSIPs in England (Ref 178). An Outline Biodiversity Gain Plan and BNG Boundary Plan informed by appropriate baseline surveys and use of Defra's Statutory Biodiversity Metric Tool (Ref 177) will be submitted at ES stage. A Biodiversity Net Gain Feasibility Technical Note will be submitted to the Planning Inspectorate and relevant stakeholders during the pre-application stage, detailing the outline approach to BNG including constraints, opportunities and indicative results.

9.7. Assessment Methodology

9.7.1 The assessment of potential effects as a result of the Proposed Development (construction, operation (and maintenance) and decommissioning) on ecology and nature conservation will be undertaken using the methodology set out below.

Assessment Criteria

9.7.2 The approach used for the EcIA will be undertaken in accordance with best practice guidance, issued by the CIEEM (the CIEEM guidelines) (Ref 84).

9.7.3 The aims of the assessment will be to:

a. Identify (from a combination of desk-based study and field survey work) and evaluate any IEFs, which include designated sites, priority habitats, protected species and INNS, that are present and might be impacted by the Proposed Development (both those likely to be present at the time works begin and those predicted to be present at a set time in the future), placing their relative nature conservation importance into geographic context, which is then used to define the IEFs that need to be considered further;
b. Identify the changes or perturbations predicted to result as a consequence of the Proposed Development (i.e., the potential impacts) that could potentially affect IEFs (either directly or indirectly) and their conservation designations and contribution to local (and if appropriate county, regional and national) biodiversity. Established best-practice, legislative requirements or other incorporated design measures to minimise or avoid impacts are also described and are considered;

c. Describe and quantify the likely effects (positive or negative) on IEFs and whether these may be significant (considering impacts avoidance design measures and management activities);
d. Set out what steps will be taken to adhere to legal requirements relating to the relevant ecological features concerned;
e. Develop, where practicable, measures to avoid or reduce any predicted significant effects, in conjunction with other elements of the design (including mitigation for other environmental disciplines) and if necessary, includes measures to compensate for effects on IEFs, where the level of detail provided is proportionate to the scale of the development and the complexity of its potential impacts; and
f. Report any residual effects of the Proposed Development and where enhancement and net gains in biodiversity (i.e., BNG) are included.

9.7.4 It is not necessary in the assessment to address all habitats and species with potential to occur in the relevant Study Areas. Instead, the focus is on those that are "*relevant*" i.e., IEFs that are potentially affected by the Proposed Development. This does not mean that efforts should not be made, where practicable and appropriate, to safeguard wider biodiversity including any combined and cumulative effects.

Determining Importance

9.7.5 To support a focused assessment, there is a need to determine the scale at which the relevant IEFs are of value. The value (or sensitivity, as termed elsewhere within the EIA), of each relevant IEF has been defined with reference to the geographical level at which it matters, informed through relevant planning policy and legislation which is important in demonstrating how the Proposed Development will comply with statutory requirements and policy objectives for biodiversity, in accordance with Section 4.3 and 4.7 of the CIEEM guidelines (Ref 84).

9.7.6 Species populations are valued based on their size, recognised status (such as through published lists of species of conservation concern and designation of BAP status) and legal protection. For example, bird populations exceeding 1% of published data for national populations are considered of national importance (and therefore of high sensitivity).

9.7.7 In assigning values to species populations, it is important to consider the status of the species in terms of any legal protection. However, it is also important to consider other factors such as its distribution, rarity, population trends and the size of the population which would be affected. For example, whilst the Great Crested Newt is protected as a European protected species under the relevant legislation and therefore conservation of the species is of significance at an international level, this does not mean that every population of Great Crested Newt is internationally important. It is important to consider the population in its context. Therefore, in assigning values to species, the geographic scale at which they are important has been considered. The assessments of value rely on the professional opinion and judgement of experienced ecologists and will be set out clearly in the ES.

9.7.8 Plant communities are assessed both in terms of their intrinsic value and as habitat for protected species whose habitat is also specifically protected and

for species of nature conservation concern which are particularly associated with them.

9.7.9 Due regard will also be paid to the legal protection afforded to species during the development of mitigation and compensation measures to be implemented for the Proposed Development. For European protected species, such as Great Crested Newt, there is a requirement that the Proposed Development should not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range.

9.7.10 For the purposes of the assessment, only ecological features of at least Local importance are considered as IEFs that require assessment for potential significant effects. Whilst consideration of impacts at all geographic scales is important, features of less than Local importance (i.e. of Site importance) are common and widespread (therefore of no local value) and are not legally protected or included within local planning policy. The CIEEM guidelines (Ref 84) make it clear that there is no need to "*carry out detailed assessment of ecological features that are sufficiently widespread, unthreatened and resilient to proposed development impacts and will remain viable and sustainable*".

9.7.11 Assessing the value of features requires consideration of both existing and future predicted baseline conditions. Therefore, the description and valuation of ecological features will take account of any likely changes, such as trends in the population size or distribution of species which may arise either naturally through habitat changes or as a result of increased conservation effort, likely changes to the extent of habitats and the effects of other developments or land use changes.

9.7.12 A summary of the value (sensitivity) of ecological features and the geographical frames of reference used in the assessment, based on Section 4.7 in the CIEEM guidelines (Ref 84), is presented in **Table 9-7.**

Table 9-7 Summary of sensitivity of ecological features, according to geographic context

Sensitivity (Value)	Geographic Frame of Reference	Examples
Very High	International and European	Sites included in the UK National Site Network, such as SACs (including candidate SACs), SPAs (including potential SPAs), normally within the geographic area of Europe. Ramsar sites (including proposed sites), which are designated under international convention are also included. Areas of habitat that would meet the selection criteria for inclusion in the UK National Site Network or as a Ramsar site. Species occurring in numbers approaching that of international importance (i.e., >1% of a biogeographic population) that would meet the

Sensitivity (Value)	Geographic Frame of Reference	Examples
		selection criteria for inclusion in the UK National Site Network or as a Ramsar site. Qualifying species connected to a SAC (such as bats or birds). Irreplaceable habitats such as ancient/veteran trees.
High	UK or National (Great Britain), but considering the potential for certain ecological features to be more notable (of higher value) in England, with context relative to Great Britain as a whole	Statutory designated sites, protected through national legislation, such as a SSSI or NNR. HaPI, considering factors such as its size, distribution and the size of the habitat which would be affected. This includes irreplaceable habitats such as ancient woodland and ancient or veteran trees. Species occurring in numbers approaching that of national importance (i.e., >1% of the UK population) that would meet the relevant SSSI selection criteria (Ref 118).
Medium/ High	Regional (Southwest)	Species, including SPI, occurring in numbers of greater geographical importance than within the county of Somerset but does not reach the threshold to be of National importance.
Medium	County (Somerset)	Non-statutory designated sites, such as LWSs. HaPI not representing a nationally important habitat but recognised as a habitat which would or may fulfil the criteria for selection as an LWS. Species occurring in numbers approaching that of county or district importance (i.e., >1% of the county or district (if known) population).
Low	Local (the Scoping Site Boundary and up to 2 km from the Scoping Site Boundary)	Areas of habitat that do not meet criteria for selection as LWS in Somerset but are considered to enrich the local area. Species of conservation interest (e.g. SPI, red-listed or legally protected species) that are common and widespread but contribute to the local biodiversity.
Negligible	The Site (the Scoping Site Boundary)	Species that are common and widespread and are not legally protected or included within local planning policy (e.g. Field Vole *Microtus agrestis*). Areas of habitat that are widespread and of no local value (such as a fenceline or hard standing).

Characterising Ecological Impacts and Effects

9.7.13 In accordance with Section 1.21 in the CIEEM guidelines (Ref 84), the terminology used within the assessment will draw a clear distinction between the terms 'impact' and 'effect'. For the purposes of the EcIA these terms are defined as follows:

a. Impact – actions resulting in changes to an ecological feature. For example, construction activities of a development removing a hedgerow; and
b. Effect – outcome to an ecological feature from an impact. For example, the effects on a dormouse population from the loss of a hedgerow.

9.7.14 When describing potential impacts (and where relevant the resultant effects) consideration is given to the following characteristics likely to influence this:

a. Positive or negative - i.e., is the change likely to be in accordance with nature conservation objectives and policy and is that change:
    i. Positive - a change that improves the quality of the environment, or halts or slows an existing decline in quality e.g., increasing the extent of a habitat of conservation value; or
    ii. Negative - a change that reduces the quality of the environment e.g., destruction of habitat.
b. Spatial extent - the spatial or geographical area or distance over which the impact or effect may occur under a suitably representative range of conditions;
c. Magnitude - the 'size', 'amount' or 'intensity' and 'volume' of an impact - this is described on a quantitative basis where possible;
d. Duration - the time over which an impact is expected to last prior to recovery or replacement of the resource or feature. Consideration has been given to how this duration relates to relevant ecological characteristics such as a species' lifecycle. However, it is not always appropriate to report the duration of impacts in these terms. The duration of an effect may be longer than the duration of an activity or impact;
e. Timing and frequency - i.e., consideration of the point at which the impact occurs in relation to critical life-stages or seasons; and
f. Reversibility - i.e., is the impact temporary or permanent:
    i. A temporary impact is one from which recovery is possible or for which effective mitigation is both possible and enforceable. Temporary impacts for BNG are temporary losses of habitat that are restored to their original condition within two years.
    ii. A permanent effect is one from which recovery is either not possible or cannot be achieved within a reasonable timescale i.e., the 40-year lifespan of the Proposed Development (in the context of the feature being assessed).

9.7.15 Combined, these characteristics form the magnitude criteria for effects of the Proposed Development on IEFs as summarised in **Table 9-8.**

Table 9-8: Magnitude criteria for impacts and effects

Magnitude	Magnitude Criteria
High	Changes to the ecological feature pre-development (baseline) condition that almost always have an effect (positively or negatively) on its integrity or conservation status. Such changes may be long-term, permanent and/or irreversible.
Medium	Changes to the ecological feature baseline condition that in some circumstance may affect (positively or negatively) its integrity or conservation status. Although such changes may be long-term, they are potentially reversible.
Low	Changes to the ecological feature baseline condition that do not usually affect the baseline condition and are often short-term and/or reversible.
Very Low	There is no noticeable change to the ecological feature baseline condition

Significance Criteria

9.7.16 For each ecological feature, only those characteristics relevant to understanding the ecological effect of the Proposed Development and determining the significance are described. The determination of the significance of effects has been made based on the predicted effect on the structure and function, or conservation status, of relevant IEFs, as follows:

a. Not significant means that there is minor or negligible effect on structure and function, or conservation status; and
b. Significant means that the structure and function, or conservation status is affected (either adversely or beneficially).

9.7.17 Sections 5.24 to 5.26 of the CIEEM guidelines (Ref 84) state that effects should be determined as significant (a significant effect) when: *"an effect that either supports or undermines biodiversity conservation objectives for 'important ecological features' or for biodiversity in general. Conservation objectives may be specific (e.g., for a designated site) or broad (e.g., national/local nature conservation policy) or more wide-ranging (enhancement of biodiversity). Effects can be considered significant at a wide range of scales from international to local. A significant effect is an effect that is sufficiently important to require assessment and reporting so that the decision maker is adequately informed of the environmental consequences of permitting a proposed development. In broad terms, significant effects encompass impacts on structure and function of defined sites, habitats or ecosystems and the conservation status of habitats and species (including extent, abundance and distribution)".*

9.7.18 Using this information and professional judgement, it is determined whether the effects will be 'significant' or 'not significant' on the structure and integrity of site or ecosystems or conservation status of habitats and, or species of each ecological feature and the impact significance is determined at the appropriate geographical scale, as presented in **Table 9-7.**

9.7.19 There are several approaches for determining the significance of effects on ecological features. Whilst the CIEEM guidelines (Ref 84) recommend the avoidance of the use of the matrix approach for categorisation (major, moderate and minor), in order to provide consistency of terminology within this chapter and comparison with other disciplines, the terminology used in the CIEEM guidelines for impact assessment have been translated into the classification of effects scale, as outlined in **Table 9-9**, which remain consistent with the CIEEM guidelines. This provides a consistent and transparent framework across the EIA while retaining the underlying CIEEM approach to ecological impact assessment. The final significance of effects will therefore be determined using professional judgement and the principles set out in the relevant CIEEM guidelines, rather than by application of the matrix in isolation.

9.7.20 As a rule, major and moderate effects are considered to be significant, whilst minor and neutral/negligible effects are considered to be not significant. However, professional judgement will be applied, including taking account of whether the effect is permanent or temporary, its duration and frequency, whether it is reversible, and/or its likelihood of occurrence.

Table 9-9: Significance criteria for impacts and effects

Effect Classification Terminology	Equivalent CIEEM Terminology
Major beneficial (Positive)	1) Beneficial effect on structure/function or conservation status at a regional, national or international level; and 2) The extent, magnitude, frequency, and/or timing of an impact positively affects the integrity or key characteristics of the resource.
Moderate beneficial (Positive)	1) Beneficial effect on structure/function or conservation status at a county level; and 2) The extent, magnitude, frequency, and/or timing of an impact positively affects the integrity or key characteristics of the resource.
Minor beneficial (Positive)	1) Beneficial effect on structure/function or conservation status at a local level; and 2) The extent, magnitude, frequency, and/or timing of an impact does not affect the integrity or key characteristics of the resource.
Negligible	No effect on structure/function or conservation status.
Minor adverse (Negative)	1) Adverse effect on structure/function or conservation status at a local level; and 2) The extent, magnitude, frequency, and/or timing of an impact does not affect the integrity or key characteristics of the resource.
Moderate adverse (Negative)	1) Adverse effect on structure/function or conservation status at a county level; and

Effect Classification Terminology	Equivalent CIEEM Terminology
	2) The extent, magnitude, frequency, and/or timing of an impact negatively affects the integrity or key characteristics of the resource.
Major adverse (Negative)	1) Adverse effect on structure/function or conservation status at a regional, national or international level; and 2) The extent, magnitude, frequency, and/or timing of an impact negatively affects the integrity or key characteristics of the resource.

9.8. Limitations and Assumptions

General

9.8.1 Baseline ecological surveys are ongoing, and these surveys may highlight new IEFs with potential to be significantly affected that have not been identified (or considered not to be significant) at this stage of the assessment. These would be discussed on a case-by-case basis with the local authorities and Natural England as appropriate.

Desk study

9.8.2 The aim of a desk study is to help characterise the baseline context of a Proposed Development and provide valuable background information that would not be captured by a single site survey alone. Information obtained from the desk study is dependent upon people and organisations having made and submitted records for the area of interest. As such, a lack of records for a particular habitat or species does not necessarily mean that the habitats or species do not occur in the Study Area. Likewise, the presence of records for particular habitats and species does not automatically mean that these still occur within the area of interest or are relevant in the context of the Proposed Development.

9.8.3 As part of the desk study, aerial photography and 1:2500 Ordnance Survey mapping was examined to attempt to identify all ponds and other waterbodies within 500 m of the Scoping Site Boundary. The process could not guarantee to definitively identify all ponds present but is reasonable within the limits (i.e. access to ponds and resolution of aerial photography) of available data. The field survey provides ground truthing and will record any ponds within the Survey Area that may have been missed in the desk study.

Field surveys

9.8.4 The PEA surveys were undertaken between March and September 2026, resulting in variation in growing-season conditions and agricultural management, which may have affected species and habitat feature detectability. Water levels and aquatic habitat characteristics within the managed ditch and rhyne network also varied seasonally. A proportion of the walkover surveys were undertaken during and following a prolonged period of dry weather during the summer of 2026. As such, watercourses and

wetland features appeared to be dry or supporting lower water levels than may have typically been present under usual weather conditions. These limitations were mitigated through repeat observations, subsequent species-specific surveys and professional judgement to establish a robust baseline and are not considered likely to have materially affected the habitat classifications or overall conclusions.

9.8.5 Habitats within the 50 m buffer of the Energy Park were mapped at a high-level using field observations, aerial imagery and desk-study information to provide ecological context. This did not include the same level of detail collected within the development boundary, such as full species lists, detailed habitat descriptions or BNG condition assessments. Habitat classifications and boundaries within the buffer are therefore indicative and may require verification if future design changes or impact pathways extend into these areas.

9.8.6 UKHab Walkover surveys mapping to Level 3 have begun in the CAIC from September 2026. Less detailed habitat surveys are being undertaken in these areas as impacts to habitats are anticipated to be less significant, and a high level of optionality to the route remains. These walkover surveys are identifying key ecological constraints to be considered in the design process. When the cable route is more refined, these areas will be revisited for a full PEA where likely effects on habitats are expected to inform an EcIA.

9.8.7 It is possible that the presence of certain bird species has been missed during the surveys due to their cryptic nature or low numbers limiting the opportunities for sightings. The survey methodology ensures that all land within the Survey Area is visited by a surveyor, so the likelihood of under-recording species has been reduced to a minimum, but some still may have been missed.

9.8.8 It is also possible that over the course of the winter period that the abundance and species of birds using the land in the Survey Area varies slightly from that which was recorded during the surveys, however, each vantage point location was surveyed for six hours each month across the winter months as well as all land within the Survey Area covered during the transect surveys each month which allows for an extensive coverage and set of results from surveys.

9.9. Summary of Elements Scoped In and Out

9.9.1 The potential impacts of the Proposed Development on biodiversity are set out in **Paragraphs 9.6.1 to 9.6.3**. The ecological features scoped into the assessment are presented in **Table 9-10**. The assessment will consider the potential impacts identified above on the ecological features identified below.

Table 9-10: Elements scoped in and out of the ecology and nature conservation assessment.

Ecological Element	Scoped In/Scoped Out
Statutory designated sites at an International	**Scoped In** Potential likely significant effects associated with the loss, fragmentation or degradation of functionally linked

Ecological Element	Scoped In/Scoped Out
(European) level (UK National Site Network sites)	habitat supporting qualifying features of the following sites cannot yet be excluded and will be assessed further. • Somerset Levels and Moors Ramsar; • Somerset Levels and Moors SPA; • Severn Estuary Ramsar; • Severn Estuary SPA; • Severn Estuary SAC; • Exmoor and Quantock Oakwoods SAC; • Mendip Limestone Grasslands SAC; and, • North Somerset & Mendip Bats SAC. The UK National Site Network sites have been identified within the relevant screening distances of the Proposed Development and will be considered within the proposed HRA Screening Report. Any additional sites within 200 m of the Affected Road Network will also be included in the assessment, once determined.
	Scoped out • Chew Valley Lake SPA; • Mendip Woodlands SAC; • Hestercombe House SAC; and, • Mells Valley SAC. These UK National Site Network sites have been screened out on the basis of the absence of a credible ecological pathway. This is due to the separation distance, the absence of direct habitat overlaps, the lack of hydrological connectivity, and the nature of the Proposed Development as a solar development.
Statutory designated sites of National importance	**Scoped In** • Tealham and Tadham Moors SSSI; • Catcott Edington and Chilton Moors SSSI; • Bridgwater Bay SSSI; • Crook Peak to Shute Shelve Hill SSSI; • Shiplate Slait SSSI; • Westhay Heath SSSI; • Berrow Dunes SSSI; • Shapwick Heath SSSI; • Westhay Moor SSSI; • Cheddar Reservoir SSSI; • Axbridge Hill and Fry's Hill SSSI; • Bridgewater Bay NNR; • Somerset Wetlands NNR; and • Mendip NNR.

Ecological Element	Scoped In/Scoped Out
	Any additional sites within 200 m of the Affected Road Network will also be included in the assessment, once determined.
Non-statutory designated sites	**Scoped In** Thirty-two non-statutory designated sites within the 2 km Study Area, this list will be re-assessed when the Affected Road Network is known but is likely to include at a minimum the six non-statutory sites within the Scoping Site Boundary. Any additional sites within 200 m of the Affected Road Network will also be included in the assessment, once determined.
Habitats	**Scoped In** Habitats categorised as IEFs. At this stage this includes the HaPI within the ZoI of the Scoping Site Boundary.
	Scoped Out Habitats not categorised as IEFs. Although no formal assessment of non-priority habitats is required due to an absence of legal protection or direction from relevant policy, there will be no direct impact to habitats outside of the Scoping Site Boundary and good practice construction methods are expected to avoid indirect impacts to habitats outside of the Scoping Site Boundary. Therefore, there are no potential impact pathways.
Biodiversity Net Gain	**Scoped In** The ES will follow the mitigation hierarchy and will make a clear distinction between measures that are considered to be mitigation for potential effects and where measures are enhancement compared to the existing baseline conditions. Furthermore, any ecological mitigation proposed for loss of habitat will not be double counted as enhancement.
Terrestrial invertebrates	**Scoped In** Notable terrestrial invertebrate species and assemblages categorised as IEFs.
	Scoped Out Terrestrial invertebrates not categorised as IEFs. The Proposed Development design will seek to avoid those habitats of higher value to terrestrial invertebrates, such as through the retention of most habitats (e.g. woodland, hedgerows and rhynes) within the Proposed Development, avoidance of habitats outside the Proposed Development and following good practice environmental methods during any phase (construction, operation and maintenance and decommissioning) of the Proposed Development.

Ecological Element	Scoped In/Scoped Out
Aquatic macroinvertebrates	**Scoped In** Notable aquatic macroinvertebrate species and assemblages categorised as IEFs.
	Scoped out Aquatic macroinvertebrates not categorised as IEFs. The Proposed Development design will seek to avoid those habitats of higher value to aquatic macroinvertebrates, such as through the retention of most habitats (e.g. ponds, watercourses and rhynes) within the Proposed Development, avoidance of habitats outside the Proposed Development and following good practice environmental methods during any phase (construction, operation and maintenance and decommissioning) of the Proposed Development.
Aquatic macrophytes	**Scoped In** Notable aquatic macrophyte species and assemblages categorised as IEFs.
Fish	**Scoped In** Notable fish species and assemblages categorised as IEFs.
Great crested newt and other amphibians	**Scoped In** Great crested newt scoped in as there are four records within the Scoping Site Boundary. There is suitable habitat for great crested newt with the Proposed Development, including potential breeding ponds.
	Scoped Out Other amphibians not categorised as IEFs based, including common frog, common toad and smooth newt. Observations of these species will be recorded during other ecological surveys. Embedded mitigation secured within the Outline CEMP submitted as part of the DCO, will minimise the risk of injury or killing of such species (where present) during construction.
Reptiles	**Scoped In** Common species of reptiles are scoped-in for construction-phase only, impacts are proposed to be managed through precautionary working methods in the Outline CEMP with no targeted survey. Adder is excluded due to lack of suitable habitat.
	Scoped Out Rare species of reptiles (e.g., Smooth snake *Coronella austriaca* and sand lizard *Lacerta agilis*).
Breeding and non-breeding birds	**Scoped In** Bird species categorised as IEFs. Protected and notable bird species have been identified within the Study Area,

Ecological Element	Scoped In/Scoped Out
	some of which are qualifying features of the scoped in statutory designated sites.
Barn owls	**Scoped In** Barn owls and their nests have been identified within the Energy Park.
Bats	**Scoped In** Roosting and foraging/commuting bats have been identified within the Study Area, some species of which are qualifying features of the scoped in statutory designated sites.
Riparian mammals	**Scoped In** Otter and water vole have been scoped in for further survey to determine presence/absence. Due to records of beavers using the River Brue and other areas in Somerset as well as the hydrological connectivity of the site to the wider landscape, beaver presence within the Proposed Development is possible.
Hazel dormice	**Scoped In** Suitable habitat for dormice is present within the Scoping Site Boundary, with the Proposed Development being well-connected to further suitable habitat across the wider landscape. Dormice are recorded within Axbridge Hill and Fry's Hill SSSI, however connectivity to the Scoping Site Boundary is limited by the River Axe and Cheddar Yeo. Dormice are therefore scoped in on a precautionary basis; to be reviewed as the design develops.
Badger	**Scoped In** Badger have been identified within the Energy Park.
Other SPI mammals, including brown hare, hedgehog and harvest mouse	**Scoped In** Mammal species categorised as IEFs. Brown hare has been identified within the Energy Park. Hedgehog and harvest mouse have the potential to be present, based on the habitat within the Scoping Site Boundary; therefore, the species will be assumed to be present and assessed as such. Incidental records of these species will be recorded during other ecological surveys and any required mitigation measures formalised in the Outline CEMP secured as part of the DCO requirements
INNS	**Scoped In** Himalayan balsam has been identified within the Energy Park. Other INNS may also be present.

10. Water Environment

10.1. Introduction

10.1.1 This chapter sets out the proposed approach to the assessment of likely significant effects on the water environment (surface water, groundwater, hydromorphology, water resources and flood risk) during construction, operation (and maintenance) and decommissioning phases of the Proposed Development. It identifies the proposed assessment methodology and embedded mitigation measures that will be considered within the Environmental Statement (ES).

10.1.2 This chapter is supported by the following figures:

a. **Figure 10-1: Main river nomenclature**;
b. **Figure 10-2: Surface water features and their attributes**;
c. **Figure 10-3: Groundwater features and their attributes**;
d. **Figure 10-4: Fluvial and tidal flood risk**;
e. **Figure 10-5: Surface water flood risk areas**;
f. **Figure 10-6: Artificial and reservoir flood risk**;
g. **Figure 10-7: Superficial geology**;
h. **Figure 10-8: Bedrock geology**;
i. **Figure 10-9: Water Framework Directive (WFD) surface and transitional waterbodies;**
j. **Figure 10-10: Sensitive sites**;
k. **Figure 10-11: Nutrient neutrality screening assessment: CORINE existing land use**; and
l. **Figure 10-12: Nutrient neutrality screening assessment: CROME existing crop map.**

10.1.3 This chapter is supported by the following appendices:

a. **Appendix 10-1: Nutrient Neutrality Screening Assessment**.

10.1.4 There are interrelationships with other disciplines. Therefore, this chapter should also be read in conjunction with the following chapters:

a. **Chapter 9: Ecology and Biodiversity**, particularly aquatic ecology and assessment of ponds, which are not considered here to avoid double counting of effects; and
b. **Chapter 17: Other Environmental Topics**, particularly the assessment of contaminated land in Ground Conditions.

10.2. Study Area

10.2.1 A Study Area of 1 kilometre (km) from the Scoping Site Boundary has been considered to identify water features that could reasonably be affected by the Proposed Development. This Study Area is shown on all figures, apart from **Figure 10-1: Main river nomenclature**.

10.2.2 The 1 km Study Area is based on professional judgment and is an accepted distance for a water environment and flood risk Study Area for proposed

developments of this type to identify features that might be impacted. However, given that water quality and flood impacts may propagate downstream, the assessment also considers a wider Study Area where relevant, which extends as far downstream as a potential impact may influence the quality or quantity of the water body. This is to ensure that all relevant attributes of potentially affected water features are identified and considered when determining the importance of that feature. Professional judgement has been applied to identify the extent to which such features are considered. The final receptor would be the Severn Estuary, which is WFD designated as the PARRETT transitional water body (ID: GB540805210900), and Severn Lower transitional water body (ID: GB530905415401). The Severn Estuary is connected via the River Parrett which is fed by the River Brue and Huntspill River. The River Axe (WFD designated Axe - Cocklake to Brean Cross Sluice water body (ID: GB109052021570)) takes drainage from the northern part of the Scoping Site Boundary and reaches the Severn Estuary separately from the Parrett.

10.2.3 The Study Area will be updated to reflect the distances set out above, as taken from the final Order Limits for the DCO application.

10.3. Legislation, Planning Policy Context and Guidance

10.3.1 Legislation, planning policy and guidance relating to the water environment and pertinent to the Proposed Development comprises the following:

Legislation

10.3.2 Relevant legislation includes:

a. Environment Act 2021 (Ref 18);
b. Flood and Water Management Act 2010 (Ref 179);
c. Water Resources Act 1991 (Amendment) (England and Wales) Regulations 2009 (Ref 180);
d. Marine and Coastal Access Act 2009 (Ref 181);
e. Land Drainage Act 1991 (Ref 182);
f. Water Resources Act 1991 (Ref 183);
g. Environmental Protection Act 1990 (Ref 184);
h. Salmon and Freshwater Fisheries Act 1975 (Ref 95);
i. Water Environment (Water Framework Directive) (England and Wales) Regulations 2017 (Ref 101);
j. Environmental Damage (Prevention and Remediation) Regulations 2015 (Ref 185);
k. Environmental Permitting (England and Wales) Regulations 2016 (Ref 186);
l. Building Regulations 2010, Document Part H: Drainage and Waste Disposal (updated 2015) (Ref 187);
m. Eels (England and Wales) Regulations 2009 (Ref 96);
n. The Control of Substances Hazardous to Health (Amendment) Regulations 2004 (Ref 188);

o. Control of Pollution (Oil Storage) (England) Regulations 2001 (Ref 189);
p. The Anti-Pollution Works Regulations 1999 (Ref 190);
q. The Water Framework Directive (WFD) (Standards and Classification) Directions 2015 (Ref 191); and
r. The Water Supply (Water Quality) (Amendment) Regulations 2018 (Ref 192).

National planning policy

10.3.3 The following planning policies from relevant National Policy Statements (NPS) have been taken into account as part of identifying the assessment methodology, receptor selection/sensitivity, potential significant environmental effects, and mitigation:

a. The Overarching NPS for Energy (EN-1) (December 2025) (Ref 5) with particular reference to Section 5.8 Flood Risk and Section 5.16 Water Quality and Resources. The Secretary of State needs to satisfy itself that a development proposal has regard to the River Basin Management Plans and meets the requirement of Water Environment (Water Framework Directive) (England and Wales) Regulations 2017 (Ref 101) (including regulation 19 with regard to derogations):
    i. Section 5.8 of NPS EN-1 states that a site-specific Flood Risk Assessment (FRA) should be provided for all energy projects in Flood Zones 2 and 3. For Flood Zone 1, an assessment is required where the site is greater than 1 ha, as is the case with regard to the Proposed Development. Details of the contents required within the FRA is detailed in paragraph 5.8.15. The use of mitigation for surface water runoff should include the use of Sustainable Drainage Systems (SuDS) as detailed in paragraph 5.8.25. NPS EN-1 also includes a section on water quality and resources, namely Section 5.16. This states that applications need to undertake assessment of the existing status of water quality/resources/physical characteristics of the water environment.
    ii. Section 5.16 of NPS EN-1 requires the potential project and cumulative effects on the water environment from new infrastructure developments to be assessed, including groundwater, inland surface water, transitional waters, coastal and marine waters to be considered across construction, operation and decommissioning phases. This should cover impacts on water quality, water resources, physical characteristics, and flood risk, taking into account climate change and future changes in water availability where relevant.
b. The NPS for Renewable Energy Infrastructure (EN-3) (December 2025) (Ref 6) highlights the importance of considering potential impacts on water quality, water resources and flood risk, considering climate change. Paragraph 2.10.76 sets out the requirement for a FRA, and the need for this to consider the impact of drainage, acknowledging the impact will not normally be significant where solar PV panels drain to the existing ground. Paragraph 2.10.77 contains a requirement for

permeable access tracks and the use of localised SuDS to control runoff. Paragraphs 2.10.78 to 2.10.80 set out a hierarchy for impacts on existing drainage systems and watercourses. This states culverting should be avoided and where this is unavoidable, the Applicant is required to demonstrate that no reasonable alternatives exist and where necessary it will only be for the construction period; and

c. The NPS for Electricity Networks Infrastructure (EN-5) (December 2025) (Ref 7) sets out considerations that applications and the Secretary of State should take into account in order to ensure that electricity networks infrastructure is resilient to the effects of climate change. Although NPS EN-5 principally concerns high voltage transmission systems and distribution systems in addition to associated infrastructure, Paragraph 2.3.3 of NPS EN-5 reiterates the requirements set out in NPS EN-1 (Ref 5) that "*future increased risk of flooding would be covered in any flood risk assessment*".

10.3.4 Overall, the NPSs require applications to:

a. Adequately manage pollution risks.
b. Avoid locating potentially polluting activities in the most sensitive locations for groundwater (e.g. Source Protection Zone 1 or close to nationally important drinking water supplies).
c. Look to use water efficiently.
d. Incorporate Sustainable Drainage Systems ('SuDS') unless there is clear evidence that this would not be appropriate.
e. Be supported by an appropriate Flood Risk Assessment where relevant.
f. Use permeable tracks where access tracks need to be provided.
g. Be configured or selected to avoid impacts on existing drainage systems and watercourses where possible; and
h. Avoid culverting existing watercourses/drainage ditches. However, where culverting for access is unavoidable, applicants should demonstrate that no reasonable alternatives exist, and where necessary it will only be in place temporarily for the construction period.

Other Policy and Guidance

10.3.5 Other relevant national planning and guidance includes:

a. The National Planning Policy Framework (NPPF) (2026) (Ref 9): Chapter 5 Meeting the challenge of climate change, Chapter 18 Managing flood risk and coastal change (including Annex F) and Chapter 19 Conserving and enhancing the natural environment;
b. Building Research Establishment (BRE) Digest 365: Soakaway Design (Ref 25);
c. Water UK: Appendix C Design and Construction Guidance (2023 (Ref 194);
d. UK Government Environmental Improvement Plan 2025 (Ref 21);
e. UK Government's 25 Year Environment Plan (Ref 195);
f. UK Government's Plan for Water: Our Integrated Approach for Delivering Clean and Plentiful Water (2023) (Ref 196);

g. The UK Government's Future Water Strategy (2011) (Ref 197);
h. National Standards for SuDS (Ref 198); and
i. Natural England Water Quality and Nutrient Neutrality Advice (2022) (Ref 199).

10.3.6 Relevant local planning policy includes:

a. Sedgemoor District Council Level 1 Strategic FRA (October 2015) (Ref 200);
b. Sedgemoor District Council Level 2 Strategic FRA (January 2009) (Ref 201);
c. Bridgwater Tidal Barrier Sites 4 & 5 Residual FRA (May 2017) (Ref 202);
d. Sedgemoor Local Plan 2011 to 2032 (February 2019) (Ref 11), specifically Policy D1 (Flood risk and surface water management);
e. West of England Sustainable Drainage Developer Guide (Ref 203) (Somerset Council has adopted the West of England guide for the former Sedgemoor area);
f. Somerset Local Nature Recovery Strategy (Ref 105); and
g. Nutrient Neutrality in Somerset Guidance (July 2026) (Ref 204).

Relevant industry guidance

10.3.7 Relevant industry guidance includes:

a. The Planning Practice Guidance (Ref 205), provides guidance for local planning authorities on assessing the significance of water environment effects of projects:
    i. The PPG section for flood risk and coastal change (updated 2025) advises on how to take account of and address the risks associated with flooding and coastal change in the planning process. It outlines a number of main steps to be followed which are designed to ensure that if there are better sites in terms of flood risk, or if a project cannot be made safe, it should not be permitted. These steps include assess flood risk; avoid flood risk; and manage and mitigate flood risk. The guidance states that developers and applicants need to consider flood risk to and from the development site and it is likely to be in their own best interests to do this as early as possible. In addition, the guidance provides detail on the application of the Sequential Test and the Exception Test;
b. The Environment Agency's (EA) Climate Change Allowances (Ref 206) which provides guidance on how to apply climate change allowances to FRAs;
c. Guidance on Pollution Prevention Notes and Construction Industry Research and Information Association (CIRIA) guidance (Ref 207):
    i. CIRIA (2001) Control of Water Pollution from Construction Sites – Guidance for Consultants and Contractors (C532) (Ref 208);
    ii. CIRIA (2006) Control of Water Pollution from Linear Construction Projects – Technical Guidance (C648) (Ref 209);

iii. CIRIA (2023) Environmental good practice on site (5th edition) (C811) (Ref 210);
iv. CIRIA (2016) Groundwater control: design and practice (second edition) (C750) (Ref 211); and
v. CIRIA (2015) The SuDS Manual (C753) (Ref 243);

d. The EA provides their current guidance/position statements on the approach to protection of groundwater (Ref 212). This includes:
   i. Regulatory Position Statement (RPS) A (Risk Based Approach);
   ii. RPS B (Protection of Water Intended for Human Consumption);
   iii. RPS G (Discharge of Liquid Effluents into the Ground); and
   iv. RPS N (Groundwater Resources and Abstraction);
e. The EA provides further guidance on groundwater abstractions and protection through the following:
   i. EA (2007) Hydrogeological impact appraisal for groundwater abstractions. Science Report – SC040020/SR2 (Ref 213);
   ii. EA (2007) Hydrogeological impact appraisal for dewatering abstractions. Science Report – SC040020/SR1 (Ref 214);
   iii. EA (2025) Protect groundwater and prevent groundwater pollution (Ref 215);
   iv. EA (2017) Groundwater protection technical guidance (Ref 216);
f. The Water Framework Directive UK Risk assessment of groundwater-dependent terrestrial ecosystems from the Technical Advisory Group (TAG) (Ref 217), outlines guidance in relation to GWDTEs directly impacted by groundwater;
g. GOV.UK. Oil storage regulations for businesses (Ref 218);
h. GOV.UK. Pollution prevention for businesses (Ref 219); and
i. GOV.UK. Nationally Significant Infrastructure Projects: Advice on the Water Framework Directive (Ref 220).

10.4. Consultation

10.4.1 Consultation as part of the EIA process will be undertaken following submission of this EIA Scoping Report with statutory parties including the Environment Agency (EA), Natural England, Axe Brue Internal Drainage Board (IDB), Somerset Council (including in their role as Lead Local Flood Authority (LLFA)) and Wessex Water, as well as other non-statutory interested parties where relevant.

10.4.2 Additionally, a Freedom of Information (FOI) Request was submitted to the EA on 06 March 2026, to obtain baseline information to inform the water environment, drainage and FRA. The request included further information regarding water resources including licensed and unlicensed (private) water abstractions, water activity permits (i.e. consented discharges) and pollution incidents, hydrogeology (e.g. groundwater levels), hydrology, WFD data and flooding data that is not available online. Somerset Council has also been contacted for details of any private water supplies (PWS).

10.4.3 A response from the EA FOI Request was received on 03 June 2026 and a response from Somerset Council was received on 13 August 2026 regarding the above baseline information. This data has been used to inform the Baseline Conditions in **Section 10.5.**

10.4.4 At the time of writing, a response from local authorities has not yet been received.

10.5. Baseline Conditions

10.5.1 This section describes the baseline environmental characteristics relevant to the Proposed Development and surrounding areas with specific reference to the water environment.

10.5.2 The water environment baseline conditions have been determined by a desk study of available information, and various online data sources including:

a. Ordnance Survey (OS) OpenStreetMap online (Ref 221);
b. Met Office. Climate averages data (Online) (Ref 222);
c. EA Catchment Data Explorer website (Online) (Ref 223);
d. EA Water Quality Explorer website (Online) (Ref 224);
e. EA Main River Network mapping tool (Online) (Ref 225);
f. DEFRA (Department for Environment Food and Rural Affairs) Hydrology Data Explorer website (Online) (Ref 226);
g. British Geological Survey (BGS) Geoindex (Onshore) website (Online) (Ref 227);
h. DEFRA Multi-agency geographical information for the countryside (MAGIC) website (Online) (Ref 122);
i. DEFRA Data Services Platform: Survey Data Download tool (Online) (Ref 228);
j. National River Flow Archive (NRFA) website (Online) (Ref 229);
k. Natural England website for designated sites website (Ref 230);
l. The Cranfield University Soilscape website (Online) (Ref 231);
m. The UK Government's Flood Risk Map for Planning website (Online) (Ref 232);
n. The UK Government's Long Term Flood Risk Map website (Online) (Ref 233);
o. EA's Asset Information and Management System (AIMS) Spatial Flood Defences dataset 2026 (Ref 234);
p. Internal Drainage Board Map (Ref 235); and
q. EA's Statutory Main River Map (online) (Ref 225).

Topography, land use and climate

10.5.3 The Study Area (**Figures 10-1 to 10-10**) is contained within land that is predominantly used for agriculture, mainly for pastoral farming with a small amount of arable land. To the west of the Study Area, Burnham-on-Sea and Highbridge are residential areas. Other residential areas are also located across the south of the Scoping Site Boundary. The M5 and Bristol to Exeter railway line are located along the west of the Study Area.

10.5.4 Based on topographic data on Ordnance Survey (OS) OpenStreetMap mapping, the topography across the Proposed Development and the wider Study Area is relatively flat and consistent throughout, given its location on the coastal fringe of the Bristol Channel.

10.5.5 The Study Area consists of reclaimed land which utilises a complex drainage system, locally referred to as 'rhynes', to ensure suitability for agricultural use and prevention of flooding.

10.5.6 Based on the Met Office Climate Data (Ref 222), the nearest rainfall station is Cannington, approximately 7.3 km southwest of the Study Area. Using data from this weather station for the period 1991-2020, it is estimated that the Study Area experiences approximately 787.02 mm of rainfall per year, with it raining more than 1 mm on approximately 129.53 days per year, which are both low in the UK context. This is relevant to the whole Study Area.

10.5.7 With reference to the information on the Soilscapes website, the majority of the Study Area is underlain by loamy and clayey soils of coastal flats with naturally high groundwater (Soilscape 21), with areas of slightly acidic soil with impeded drainage (Soilscape 8), loamy and sandy soils with naturally high groundwater and peaty surface (Soilscape 23) and lime-rich soil (Soilscape 9).

Hydrogeology

10.5.8 A summary of the geology and associated aquifer designations encountered within the Study Area can be found in **Table 10-1, Figure 10-3: Groundwater features and their attributes, Figure 10-7: Superficial geology and Figure 10-8: Bedrock geology.**

10.5.9 In terms of geology, the BGS Geoindex website (Ref 227) indicates Tidal Flat Deposits (TFD) are the dominant superficial deposits underlying the majority of the Study Area. These TFD are comprised of unconsolidated clay, silt and sands, formed through the rise and fall of the tide.

10.5.10 In the east/southeast of the Study Area, at Westham and south of River Brue, peat is present and extends beyond the Study Area. Peat comprises organic material deposited under waterlogged conditions and typically has a high-water content. Overlying the peat and to the southeast of River Bridge near the boundary of the Study Area, Burtle Formation is mapped and comprises sand and gravel.

10.5.11 Along the River Brue, again near River Bridge, Alluvium is mapped associated with the watercourse.

10.5.12 Superficial deposits are absent in the south of the Study Area between Puriton and Woolavington and in the northeast of the Study Area around Stone Allerton, Ashton, Blackford and along Blackford Road (B3139).

10.5.13 There are nine bedrock formations present within the Study Area. Formations belonging to the Lias Group dominate the underlying geology, principally the Charmouth Mudstone Formation and Langport Member, Blue Lias Formation and Charmouth Mudstone Formation (Undifferentiated). Around the Study Area border, Formations belonging to the Triassic Rocks (Mercia Mudstone Group) are mapped, see **Figure 10-8: Bedrock geology**. The 1:625,000 scale geological group has been provided in Table 10-1 to provide consistency with the geological mapping presented on **Figure 10-8: Bedrock geology**, while the 'Unit' column provides greater geological detail from the 1:50,000 scale BGS GeoIndex layer.

Table 10-1: Aquifer Designations across the Study Area

Stratum	Geological Group (625k)	Unit	Description	Aquifer Designation[3]
Superficial Geology	Alluvium	Tidal Flat Deposits – Clay, silt and sand	Unconsolidated clay, silt and sand	Secondary (Undifferentiated)
	Peat	Peat	Peat	Unproductive Strata
	Raised Marine Deposits (Undifferentiated)	Burtle Formation	Sand and gravel	Secondary A
Bedrock Geology	Lias Group- Mudstone, Siltstone, Limestone and Sandstone	Charmouth Mudstone Formation	Mudstone, limestone, phosphatic, ironstone, paper shales and fine sandy beds	Secondary (Undifferentiated)
	Lias Group- Mudstone, Siltstone, Limestone and Sandstone	Dyrham Formation	Silty and sandy mudstone interbedded with silt or fine-grained sand; beds or doggers of limestone and sandstone	Secondary B
	Lias Group- Mudstone, Siltstone, Limestone and Sandstone	Langport Member, Blue Lias Formation and Charmouth Mudstone Formation (Undifferentiated)	Mudstone and limestone interbedded	Secondary A
	Lias Group- Mudstone, Siltstone,	Blue Lias Formation	Interbedded mudstone	Secondary A

[3] Secondary A Aquifers: permeable layers that can support local water supplies and may form an important source of base flow to rivers.
Secondary B Aquifers: mainly lower permeability layers that may store and yield limited amounts of groundwater through characteristics like thin cracks (called fissures) and openings or eroded layers.
Secondary (undifferentiated) Aquifers: where it is not possible to apply either a Secondary A or B definition because of the variable characteristics of the rock type. These have only a minor value.

Stratum	Geological Group (625k)	Unit	Description	Aquifer Designation[3]
	Limestone and Sandstone		and limestone	
	Lias Group- Mudstone, Siltstone, Limestone and Sandstone	Langport Member and Blue Lias Formation (Undifferentiated)	Mudstone and limestone interbedded	Secondary A
	*Lias Group- Mudstone, Siltstone, Limestone and Sandstone	Westbury Formation and Cotham Member (Undifferentiated)	Mudstone overlain by calcareous mudstone and limestone	Secondary B
	*Lias Group- Mudstone, Siltstone, Limestone and Sandstone	Blue Anchor Formation	Silty mudstones and siltstones with a few thin beds of hard mudstone and siltstone	Secondary B
	**Triassic Rock (undifferentiated) - Mudstone, Siltstone and Sandstone	Mercia Mudstone Group	Mudstone	Secondary B

*Note that the Westbury Formation and Cotham Member (undifferentiated), together with the Blue Anchor Formation, form part of the Triassic succession. However, on the 625k scale geological map, the site falls within an area mapped as the Lias Group in the south. This reflects the small areal extent of the Westbury Formation, Cotham Member and Blue Anchor Formation; and the generalisation inherent in the mapping at this scale.

** The Mercia Mudstone Group is part of the Triassic bedrock succession. Although mapped as Triassic rocks across most of the Study Area, the southernmost part falls within an area shown as the Lias Group on the 625k scale geological map due to the generalised nature of mapping at this scale.

Groundwater levels and flow

10.5.14 There are no EA groundwater monitoring boreholes present within the Study Area (Ref 226). Publicly available borehole records through the BGS Geoindex website (Ref 227) were therefore reviewed to provide information on local groundwater conditions. Groundwater data within the superficial deposits typically recorded water strikes or seepage between 2-8 m below ground level (bgl). BGS borehole ST34NW76, located near Ashland Farm and situated approximately 200 m northwest of the Western Development Area (shown on **Figure 1-2: Zonal Masterplan)**, is a 21 m deep installation

within the superficial deposits and recorded multiple groundwater strikes at 2 m, 2.9 m and 8.2 m bgl. Various BGS boreholes (ST34NW4, situated approximately 300 m north west; ST34NW3, situated approximately 450 m north west of the Western Development Area; ST35SE11, situated approximately 50 m west of the Scoping Site Boundary, south of the Western Development Area; ST35SE9, situated within the north west of the Western Development Area) recorded seepage at approximately 3 m bgl within clay. Another borehole, ST35SE16, located on the M5 near Mudgley Lodge Farm and approximately 300 m north west of the Northern Development Area, recorded water observations between 1.5 m to 5.5 m bgl within the superficial deposits.

10.5.15 Groundwater level information within the bedrock underlying the Study Area is limited. Borehole ST34NE8, located approximately 200 m west of Mark, 500 m southeast of the Central Development Area and 500 m east of the Scoping Site Boundary, recorded a groundwater strike at 8 m bgl within the Charmouth Mudstone Formation, which is described in the borehole log as limestone interbedded with clay bands. Borehole ST45SW151, located near Crickham Elm Farm and approximately 2.6 km east of the Eastern Development Area, encountered groundwater at depths of 6 m, 15 m and 31 m bgl within the Blue Anchor Formation, which is described as mudstone with clay-rich bands. Borehole ST34NW25, located near Bason Bridge and immediately south of the Scoping Site Boundary recorded a resting groundwater level of 2.36 m bgl within the bedrock. In addition, borehole ST35SE16 located adjacent to the M5 near Mudgley Lodge Farm and approximately 300 m northwest of the Northern Development Area, recorded groundwater within the bedrock at approximately 14 m bgl.

10.5.16 Overall, the limited available data indicate that groundwater is present within the bedrock sequence at varying depths, reflecting the heterogeneous nature and variable permeability of the underlying geological units.

10.5.17 Regionally, groundwater is likely to flow in a westerly direction towards the Bristol Channel. Locally, groundwater is likely to be influenced by topography and the presence of an extensive network of drainage ditches and surface watercourses, which may act as local groundwater discharge features where hydraulic connectivity exists.

10.5.18 Groundwater flow within the superficial deposits will predominantly occur within the higher permeability deposits such as sands and gravels. The magnitude and direction of groundwater flow will be influenced by the hydraulic connectivity and lateral continuity of these deposits. Groundwater flow within the low permeability deposits such as clays, silt and peat where present will be restricted, with flow occurring predominantly through pore spaces and localised fractures.

10.5.19 Within the bedrock, groundwater is likely to flow through intergranular and fracture flow due to the low permeability of the mudstone, siltstone and limestone formations. Consequently, flow is often localised and variable.

10.5.20 One east to west trending minor fault with an unspecified downthrow side is mapped on the BGS 1:50000 England and Wales Sheet 280 – Wells – Solid and Drift 1997 map, juxtaposing the Charmouth Mudstone Formation

to the south against the Langport Member and Blue Lias Formation (Undifferentiated), Blue Anchor Formation and Westbury Formation and Cotham Member (Undifferentiated). Four minor northeast to southwest trending faults are also mapped along the northeast Study Area boundary. Faults may locally influence groundwater flow by enhancing or restricting groundwater flow.

Groundwater Dependent Terrestrial Ecosystems

10.5.21 There are two GWDTE within the Study Area and one outside of the Study Area but nearby (**Figure 10-3: Groundwater features and their attributes**). Catcott Edington & Chilton Moors Site of Special Scientific Interest (SSSI) is located approximately 0.7 km southeast of the Proposed Development, at National Grid Reference (NGR) ST 39544 42253, and Tealham & Tadham Moors SSSI, approximately 0.2 km east of the Proposed Development, is located at NGR ST 42013 44800; these two GWDTE's are within the Study Area. Bridgwater Bay SSSI, approximately 1.7 km west of the Study Area, is located at NGR ST 26880 49116.

Flood risk from all sources

10.5.22 Chapter 18 and Annex F of the NPPF (Ref 9) and the 2025 Flood Risk and Coastal Change PPG (Ref 205) advises how the planning process can take account of the risks associated with flooding. The main sources of flooding that are used to steer development at the planning phase are Main Rivers and the sea. The predicted flood risk from these sources is shown on the EA's Flood Map for Planning (Ref 232) which outlines three main zones of risk as follows:

a. **Flood Zone 1 'low probability of flooding'**: Comprises land having a less than 0.1% annual probability of river or sea flooding (all land outside Zones 2, 3a and 3b);
b. **Flood Zone 2 'medium probability of flooding'**: Comprises land having between a 1% and 0.1% annual probability of river flooding; or land having between a 0.5% and 0.1% annual probability of sea flooding (land shown in light blue on the Flood Map for Planning);
c. **Flood Zone 3a 'high probability of flooding'**: Comprises land having a 1% or greater annual probability of river flooding; or Land having a 0.5% or greater annual probability of sea flooding (land shown in dark blue on the Flood Map for Planning); and
d. **Flood Zone 3b 'functional floodplain'**: This zone comprises land where water from rivers or the sea has to flow or be stored in times of flood. The identification of functional floodplain should take account of local circumstances and not be defined solely on rigid probability parameters. Functional floodplain will normally comprise:
    i. Land having a 3.3% or greater annual probability of flooding, with any existing flood risk management infrastructure operating effectively; or
    ii. Land that is designed to flood (such as a flood attenuation scheme), even if it would only flood in more extreme events (such as 0.1% annual probability of flooding).

10.5.23 Table 3 of Annex F of the NPPF PPG dictates what development is suitable within each Flood Zone based upon the level of vulnerability of the development which is replicated in **Table 10-2** below. The vulnerability classification table (Table 2 of Annex F of the NPPF) suggests the Proposed Development is considered to be 'Essential Infrastructure'.

Table 10-2: Flood Risk Vulnerability and Flood Zone 'incompatibility'

Flood Zones	Flood Risk Vulnerability Classification				
	Essential Infrastructure	**Highly Vulnerable**	**More Vulnerable**	**Less Vulnerable**	**Water Compatible**
Zone 1	✓	✓	✓	✓	✓
Zone 2	✓	Exception Test Required	✓	✓	✓
Zone 3a	Exception Test Required	✗	Exception Test Required	✓	✓
Zone 3b	Exception Test Required	✗	✗	✗	✓

Key:

✓ Exception test is not required

✗ Development should be refused

10.5.24 In accordance with Table 3 of Annex F of the NPPF (and **Table 10-2** above), the construction of Essential Infrastructure is permitted in Flood Zones 1 and 2, and an Exception Test is required for Flood Zones 3a and 3b. As well as fluvial and tidal flooding, it is also necessary to consider flood risk from all other sources, including; surface water, groundwater, ordinary watercourses, artificial drainage systems and infrastructure failure, whilst taking into account future climate change.

10.5.25 The baseline flood risk for the Proposed Development from all sources is summarised in the **Table 10-3** below. **Figure 10-4: Fluvial and tidal flood risk** shows the flood zones associated with fluvial and tidal sources while **Figure 10-5: Surface water flood risk areas**, shows the risk from surface water flooding.

Table 10-3 Baseline Flood Risk from All Sources

Flood Risk Source	Flood Risk Level	Comments
Fluvial (Rivers and Sea)	Low-High	A review of the EA Flood Map for Planning (Ref 232) as replicated in **Figure 10-4: Fluvial and tidal flood risk**, indicates the majority of the Scoping Site Boundary is situated within Flood Zones 2 and 3 which appears to

Flood Risk Source	Flood Risk Level	Comments
		be associated with flooding combined from rivers and the sea (both fluvial and tidal impacts). There are some small, isolated areas of the Scoping Site Boundary which are located within Flood Zone 1. It should be noted that the EA Flood Zones do not take into account the presence of flood defences. When reviewing the EA's Long Term Flood Risk Map (Ref 233), which shows flooding from rivers and the sea taking into account flood defences, it shows that the Proposed Development is situated within areas which are considered to have a very low chance of flooding (less than 0.1% AEP) with only a few areas associated with watercourses that have higher risk, i.e. greater than 0.1% AEP. There are 12 Main Rivers that run through the Scoping Site Boundary; the Huntspill River, South Drain, Cripps River, River Brue, New Rhyne, Shipham Rhyne, Mark Yeo, Pillrow Wall Rhyne, Allerton Moor Rhyne, Brent River, Yarrow Yeo Rhyne and Blind Pill Rhyne. There are also many interconnected ordinary watercourses that serve to drain the fields to the Main Rivers. The site topography is relatively flat across the Proposed Development, leading to areas of flood risk being larger but potentially relatively shallow. Hydraulic modelling data has been requested and provided from the EA to confirm the fluvial flood risk across the Proposed Development taking into account the relevant climate change allowances. The available hydraulic modelling does not cover all the watercourses within the Proposed Development; therefore, additional modelling may be required to fully understand current and future flood risk. The approach and methodology of any new hydraulic modelling will be discussed and agreed with by the EA. Details of any new hydraulic modelling will be included within a site-specific FRA at the next stage of assessment.
Tidal	Residual (Overtopping/ Breach event beyond 0.5% AEP)	According to the EA's AIMS dataset (Ref 234), the flood defences in the area consist of a series of flood walls, flow control structures and embankments situated along the coast along with the Bridgwater Tidal Barrier. These have varying Standards of Protection, but the coastal defences typically provide up to a 1 in 200 year (0.5% AEP) standard of protection to inland areas. The flood map for planning indicates that should there be a breach of the coastal flood defences, the majority of the Proposed Development would be vulnerable to the flood extents associated with such an event. Hydraulic modelling data has been provided from the EA to confirm the tidal flood risk across the Proposed

Flood Risk Source	Flood Risk Level	Comments
		Development taking into account the relevant climate change allowances and including the residual tidal risk should tidal defences be breached/overtopped. This will be detailed within a site-specific FRA at the next stage of assessment.
Surface Water	Low-High	From a review of the online surface water spatial planning mapping the risk of surface water flooding across the Scoping Site Boundary ranges from mostly very low to some areas of high risk. The Risk levels for surface water flooding including climate change are presented in **Figure 10-5: Surface water flood risk.** In the north, east and south Site, there are isolated areas at low, medium and high risk of flooding, however, these areas are likely associated with areas of low topography where surface water sits and pools rather than draining away or area associated with ordinary watercourses used as agricultural field drains. Risk means that the area has a chance of flooding of greater than 3.3% each year, and medium risk means that the area has a chance of flooding of between 1% and 3.3% each year. Low risk means that the area has a chance of flooding of between 0.1% and 1% each year, and very low risk means that the area has a chance of flooding of less than 0.1% each year. The mapping indicates the eastern sites include areas of the highest surface water flood risk, associated with flat topography causing overland flow paths to pond up against the eastern side of the Shipham Rhyne Flood Defences.
Ground Water	Low	The Sedgemoor Level 1 SFRA (Ref 200) states there is limited groundwater flooding within the district. The groundwater mapping supports this as the Scoping Site Boundary is not within an area at high risk of groundwater flooding.
Sewers	Low	The Proposed Development is located in primarily rural areas, where sewer flooding is less likely to occur due to the limited presence of sewer networks in such locations. The Sedgemoor Level 1 SFRA supports this conclusion as the DG5 sewer flooding register mapping included in Appendix 2 of the SFRA report shows no historic sewer flooding incidence within or near to the vicinity of the Scoping Site Boundary.
Artificial Sources	Low (Residual)	The closest artificial source of flooding to the site is Cheddar Reservoir. The EA Long Term Flood Risk Map (Ref 233) indicates parts of the Scoping Site Boundary are within areas that are susceptible to reservoir flood risk when there is also flooding from rivers. As shown in **Figure 10-6: Artificial and reservoir flood risk**, the

Flood Risk Source	Flood Risk Level	Comments
		risk is very low when river levels are normal. Residual risk of reservoir flooding is managed by the EA through statutory inspection and maintenance programmes. As such, the likelihood is controlled externally, and the project retains only a residual exposure to this risk.

Surface water features

10.5.26 There is a dense network of drains across the area. These drains are managed by the Axe Brue IDB and EA. When water levels across the area are high, water can be discharged from the drains via pumping stations or via several sluices and outfalls to the sea via the Severn Estuary and Bristol Channel. There is the potential that these drains may become tide locked during high tides, when the high tides of the Bristol Channel prevent the rivers/rhynes from discharging to the sea, thereby affecting the flow, conveyance and water quality. This will be investigated at the next stage of the EIA process when a site walkover will be undertaken.

10.5.27 Without drainage management to control levels there would be insufficient water for irrigation, wet fences or cattle watering in the summer. Given high evapotranspiration in the summer, a source of fresh water fed into the moors is also needed. To achieve this, the rivers are held at a high water level in the summer, also known as the ‘summer pen’, so that water can continue to feed to the top of the rhynes and ditches (Ref 236).

10.5.28 The Study Area is located within the WFD Somerset South and West Management Catchment and the Brue and Axe WFD Operational Catchment (Ref 223). Surface water features in the Study Area, and downstream receptors, are shown on **Figure 10-2: Surface water features and their attributes** and outlined in **Table 10-4**.

10.5.29 Main Rivers are defined according to criteria set under the Water Resources Act 1991 (Ref 183) as usually larger rivers and streams with a potentially significant flood risk associated with this designation. There are 12 Statutory Main Rivers within the Study Area (see **Figure 10-1: Main river nomenclature**), and two Main Rivers (downstream receptors) - the River Axe and River Parrett for which the EA is the regulating authority for flood risk. King’s Sedgemoor Drain is not within the Scoping Site Boundary and does not appear to be hydrologically connected to the Proposed Development therefore is not considered any further. All other watercourses are ‘Ordinary Watercourses’, which are natural or artificial channels, streams, ditches and drains, that are not classified as Main Rivers by the EA. Ordinary Watercourses are primarily the responsibility and managed by the LLFA or Axe Brue IDB. There are numerous Ordinary Watercourses that border each land parcel in the Scoping Site Boundary.

10.5.30 Many of the watercourses in **Table 10-4** have been identified using OS OpenStreetMap mapping. **Table 10-4** provides an overview of the watercourses in the Study Area. Where hydrological connectivity is unclear,

this will be clarified at the next stage of the assessment, through consultation with the IDB, LLFA and the EA, and following a site walkover.

Table 10-4 Surface Water Features within the Study Area or potentially impacted by the Proposed Development

Surface Water Feature	Description	Considered for Assessment?
Huntspill River	The Huntspill River is a Main River and WFD Water Body (Huntspill River Water Body, GB108052021210). The Huntspill River headwaters are South Drain. The Huntspill River flows in a westerly direction through the Study Area to discharge to the River Parrett. The Huntspill River enters the Study Area at NGR ST 36700 43053, flows for approximately 5.5 km and exits at NGR ST 31341 44581.	**Yes** - within Scoping Site Boundary with hydrological potential connectivity to the Proposed Development.
South Drain	The South Drain is a Main River and WFD waterbody (South Drain River Water Body, GB108052021181). The South Drain enters the Study Area at NGR ST 38597 42733 and flows in a westerly direction to join the confluence of the Cripps River and Huntspill River at NGR ST 36700 43053.	**Yes** - within Scoping Site Boundary with hydrological potential connectivity to the Proposed Development.
Cripps River	The Cripps River is a Main River and forms part of the Brue – conf with North Drain to Tidal Limit WFD Water Body (GB108052021260). The Cripps connects the River Brue at Cripps Bridge to the Huntspill River at Gold Corner, flowing in a southerly direction for approximately 2.6 km. The Cripps River is an artificially constructed channel. The river was widened in 1955, and an additional channel was created at its southern end to allow excess water from the Brue to flow into the Huntspill River (Ref 236).	**Yes** - within Scoping Site Boundary with hydrological potential connectivity to the Proposed Development.
River Brue	The River Brue is a Main River and forms part of the Brue – conf with North Drain to Tidal Limit WFD Water Body (GB108052021260). The river is a tributary of the River Parrett and flows across the Study Area in a westerly direction from Burtle to Huntspill.	**Yes** - within Scoping Site Boundary with hydrological potential connectivity to the Proposed Development.
New Rhyne	New Rhyne is a Main River that flows through the south of the Study Area between the River Brue and Shipham Rhyne, from NGR ST 39184 46172 to NGR ST 37723 44937 for approximately 2 km.	**Yes** - within Scoping Site Boundary with hydrological potential connectivity to the Proposed Development.
Shipham Rhyne	Shipham Rhyne is a Main River and WFD River Water Body (GB108052021510). The watercourse is approximately 3 km in length and joins the confluence between the Yarrow Yeo Rhyne and New Rhyne at NGR ST 39185 46173.	**Yes** - within Scoping Site Boundary with hydrological potential connectivity to the Proposed Development.

Surface Water Feature	Description	Considered for Assessment?
Mark Yeo	Mark Yeo is a Main River and WFD River Water Body (GB108052021250). The watercourse flows through the centre of the Study Area in a northern direction for approximately 7.4 km, from approximately ST 37616 48300, where the watercourse flows downstream of Pillrow Wall Rhyne, to where the watercourse exits the Study Area at NGR ST 36276 54642.	**Yes** - within Scoping Site Boundary with hydrological potential connectivity to the Proposed Development.
Pillrow Wall Rhyne	Pillrow Wall Rhyne is the headwaters of Mark Yeo. The watercourse flows north of Mark, approximately 4 km, to join the Mark Yeo watercourse. The Pillrow Wall Rhyne is a Main River and forms part of the Mark Yeo WFD Water Body (GB108052021250).	**Yes** - within Scoping Site Boundary with hydrological potential connectivity to the Proposed Development.
Allerton Moor Rhyne	Allerton Moor Rhyne flows in a northern direction from Shipham Rhyne (west of Chapel Allerton), for approximately 3.4 km. Allerton Moor Rhyne is a Main River and forms part of the Shipham Rhyne WFD Water Body (GB108052021510).	**Yes** - within Scoping Site Boundary with hydrological potential connectivity to the Proposed Development.
Brent River	Brent River is a Main River that flows in a southern direction from NGR ST 34062 48930, parallel to the M5, east of Highbridge, for approximately 3.4 km, where the watercourse discharges into the River Brue.	**Yes** - within Scoping Site Boundary with hydrological potential connectivity to the Proposed Development.
Yarrow Yeo Rhyne	Yarrow Yeo Rhyne is a Main River, situated between Pillrow Wall Rhyne and the confluence of Shipham Rhyne and New Rhyne. Yarrow Yeo Rhyne flows southeast of Mark, to join the confluence at NGR ST 39186 46171.	**Yes** - within Scoping Site Boundary with hydrological potential connectivity to the Proposed Development.
Blind Pill Rhyne	Blind Pill Rhyne is a Main River, which is a tributary of the Mark Yeo watercourse, and is situated within the Brue – conf with North Drain to Tidal Limit WFD Water Body (GB108052021260). The Rhyne flows north, adjacent to the M5 along the western side of the Study Area, for approximately 8.5 km, where it joins the River Brue, southeast of Highbridge.	**Yes** - within Scoping Site Boundary with hydrological potential connectivity to the Proposed Development.
River Parrett	The River Parrett is located on the southwest extent of the Study Area and is a potential downstream receptor of the Proposed Development. The river is a Main River and WFD Transitional Water Body (GB540805210900), within the Parrett Transitional and Coastal (TraC) WFD Operational Catchment. The River Brue discharges to the River Parrett at NGR	**Yes** – outside of the Proposed Development but within 2 km of the Scoping Site Boundary with hydrological potential connectivity to the Proposed Development and

Surface Water Feature	Description	Considered for Assessment?
	ST 30164 47957. The River Parrett drains into Bridgwater Bay and neighbouring Bristol Channel, approximately 14 km west of the Study Area.	is identified as a potential downstream receptor.
River Axe	The River Axe is located to the north of the Study Area and is a potential downstream receptor of the Proposed Development. It is also designated as a WFD River Water Body (Axe – Cocklake to Brean Cross Sluice Water Body (ID: GB109052021570)). The headwaters are Mark Yeo.	**Yes** – outside of the Proposed Development but with hydrological potential connectivity to the Proposed Development and is identified as a potential downstream receptor.
Named Ordinary Watercourses (according to OS OpenStreetMap online)	a) King's Way Rhyne; b) Plash Rhyne; c) Blackford Rhyne; d) Wainbridge & Tile House Rhyne; e) Yarrow Rhyne; f) Withy Pill Rhyne; g) Pyde Rhyne; h) Westhill Rhyne; i) Backlane Rhyne; j) Northwick Rhyne; and k) Numerous other named rhynes that are not listed here but will be identified at the next stage of the assessment.	**Yes** - within Scoping Site Boundary with hydrological potential connectivity to the Proposed Development.
Unnamed Ordinary Watercourses	Numerous unnamed Ordinary Watercourses include drainage ditches and rhynes which border every field parcel within the Scoping Site Boundary.	**Yes** - within Scoping Site Boundary with hydrological potential connectivity to the Proposed Development.

Hydromorphology

WFD classification

10.5.31 The Study Area lies within nine WFD surface water bodies:

a. ‘Mark Yeo’ (ID: GB108052021250);
b. ‘Shipham Rhyne (Trib of Brue/Cripps)’ (ID: GB108052021510);
c. ‘Brue - conf with North Drain to Tidal Limit’ (ID: GB108052021260);
d. ‘Huntspill’ (ID: GB108052021210);
e. ‘North Drain’ (ID: GB108052021200);
f. ‘Axe - Cocklake to Brean Cross Sluice’ (ID: GB109052021570);
g. ‘Pitland Rhyne - source to conf R Axe’ (ID: GB109052021530);
h. ‘South Drain’ – (ID: GB108052021181).; and
i. ‘King's Sedgemoor Drain - Henley Sluice to mouth’ (ID: GB108052021150).

10.5.32 The Proposed Development also has the potential to impact via impact propagation one downstream WFD transitional and coastal (TRaC) water body:

a. ‘PARRETT’ [Estuary] (ID: GB540805210900).

10.5.33 The Study Area extends across one WFD groundwater body ‘Wells’ (ID: GB40902G804700) (Ref 223), which is classified as having Good overall status. Numerous northern land parcels within the Proposed Development are situated within the groundwater body.

10.5.34 The extent of these water body catchments is shown on **Figure 10-9: WFD surface and transitional waterbodies** and **Figure 10-3: Groundwater features and their attributes**, with an overview summary of the current WFD status and classification of the above WFD water bodies is provided in **Table 10-5.**

10.5.35 A preliminary WFD Screening and Scoping Assessment has been undertaken and will be provided to the Environment Agency for discussion prior to ES submission. The preliminary assessment screened in the following five WFD surface water bodies and one WFD groundwater body as potentially being impacted by the Proposed Development:

a. WFD surface water bodies:
   i. ‘Huntspill’ (ID: GB108052021210);
   ii. ‘Mark Yeo’ (ID: GB108052021250);
   iii. ‘Brue - conf with North Drain to Tidal Limit’ (ID: GB108052021260);
   iv. ‘Shipham Rhyne’ (Trib of Brue/Cripps)’ (ID: GB108052021510); and
   v. ‘North Drain’ (ID: GB108052021200).
b. WFD groundwater body:
   i. ‘Wells’ (ID: GB40902G804700).

10.5.36 Under the Water Environment (Water Framework Directive) (England and Wales) Regulations 2017 (Ref 101) the Proposed Development must not cause any deterioration in these classifications or cause prevention of future improvement, otherwise a derogation would be necessary. Opportunities for enhancement should also be considered, where possible,

to support meeting future WFD targets alongside Biodiversity Net Gain and other ecological mitigation.

Table 10-5. WFD water bodies potentially impacted by the Proposed Development (Ref 223)

WFD Water Body	Management Catchment	Operational Catchment	Designation	Status*	
Surface					
Huntspill (ID: GB108052021210)	Somerset South and West	Brue and Axe	Artificial	Overall	Moderate
				Ecology	Moderate (Biological quality elements: high)
				Chemical	Does not require assessment[4]
				Hydromorphology	Not high
				Target Status	Good 2027- Low confidence
Mark Yeo (ID: GB108052021250)	Somerset South and West	Brue and Axe	Artificial	Overall	Moderate
				Ecology	Moderate (Biological quality elements moderate)
				Chemical	Does not require assessment[4]
				Hydromorphology	Not high
				Target Status	Moderate 2015
		Brue and Axe	Heavily modified	Overall	Moderate
				Ecology	Moderate (Biological quality elements poor)

[4] The chemical status of the water body must be classified as good unless the standard for one or more substances is failed, in which case the water body must be classified as failing to achieve good chemical status (Ref 191). For the 2019 assessment of chemical status, the Environment Agency has changed some methods and increased the evidence base. Due to these changes, all water bodies now fail chemical status and this assessment is not comparable to previous years assessments. Thus, under the 2022 Cycle, the statement 'Does not require assessment' is shown for all chemical classification items.
There are four groups of global pollutants (uPBTs) causing these failures. The four groups of global pollutants (known as ubiquitous persistent bioaccumulative substances or uPBTs) that cause the significant change in chemical classification are: polybrominated diphenyl ethers (PBDEs - a group of brominated flame retardants); Mercury; certain Polycyclic aromatic hydrocarbons (PAHs) and Perfluorooctane sulfonate (PFOS) a group of per-and polyfluoroalkyl substances (PFAS) which is being assessed for the first time.

WFD Water Body	Management Catchment	Operational Catchment	Designation	Status*	
Brue - conf with North Drain to Tidal Limit (ID: GB108052021260)	Somerset South and West			Chemical	Does not require assessment[4]
				Hydromorphology	Not high
				Target Status	Good 2027- Low confidence
Shipham Rhyne (Trib of Brue/Cripps) (ID: GB108052021510)	Somerset South and West	Brue and Axe	Artificial	Overall	Moderate
				Ecology	Moderate (Biological quality elements: good)
				Chemical	Does not require assessment[4]
				Hydromorphology	Not high
				Target Status	Good 2027- Low confidence
North Drain (ID: GB108052021200)	Somerset South and West	Brue and Axe	Artificial	Overall	Moderate
				Ecology	Moderate (Biological quality elements: good)
				Chemical	Does not require assessment[4]
				Hydromorphology	Not high
				Target Status	Moderate 2015
Axe - Cocklake to Brean Cross Sluice (ID: GB109052021570)	Somerset South and West	Brue and Axe	Not designated artificial or heavily modified	Overall	Poor
				Ecology	Poor (Biological quality elements: poor)
				Chemical	Does not require assessment[4]
				Hydromorphology	Not high
				Target Status	Good 2027 – low confidence
		Brue and Axe		Overall	Moderate

WFD Water Body	Management Catchment	Operational Catchment	Designation	Status*	
Pitland Rhyne - source to conf R Axe (ID: GB109052021530)	Somerset South and West		Not designated artificial or heavily modified	Ecology	Moderate (Biological quality elements: good)
				Chemical	Does not require assessment[4]
				Hydromorphology	Not high
				Target Status	Moderate 2015
South Drain – (ID: GB108052021181)	Somerset South and West	Brue and Axe	Artificial	Overall	Moderate
				Ecology	Moderate (Biological quality elements: good)
				Chemical	Does not require assessment[4]
				Hydromorphology	Not high
				Target Status	Moderate 2015
King's Sedgemoor Drain - Henley Sluice to mouth (ID: GB108052021150)	Somerset South and West	Parrett	Artificial	Overall	Moderate
				Ecology	Moderate (Biological quality elements: Poor)
				Chemical	Does not require assessment[4]
				Hydromorphology	Not high
				Target Status	Good 2027 – Low confidence
Transitional					
'PARRETT' (ID: GB540805210900)	South West TraC	Parrett TraC	Heavily modified	Overall	Moderate
				Ecology	Moderate (Biological Quality Elements Good)
				Chemical	Does not require assessment[4]
				Hydromorphology	Not high

WFD Water Body	Management Catchment	Operational Catchment	Designation	Status*	
				Target Status	Good 2027- Low confidence
Groundwater					
Wells (ID: GB40902G804700)	South West GW	Wells	N/A	Overall	Good
				Quantitative	Good
				Chemical (GW)	Good
				Target Status	Good 2015

**Surface water body status cycle 3 2022. Groundwater body status cycle 3 2019.*

Water quality

10.5.37 This section sets out the baseline water quality monitoring data that is publicly available pertaining to the Study Area.

10.5.38 Baseline water quality is accessible via the EA's Water Quality Explorer website (Ref 224). Within the Study Area, there are two water quality monitoring stations with data available online. Details of these stations are given in **Table 10-6** and are shown on **Figure 10-2: Surface water features and their attributes.** No new water quality monitoring is being proposed as part of this assessment, however monitoring of watercourses at risk of pollution during the construction phase may be required and this is discussed further in Section 10.7.

Table 10-6 Summary of water quality monitoring stations (Ref 224) relevant to the Proposed Development

Figure ID	Watercourse	Sampling Point	ID	Comment	Summary
WQ1	River Brue	RIVER BRUE BASONBRIDGE	SW-60030166	Within Scoping Site Boundary, north of residential properties in East Huntspill, NGR: ST 34591 45795	Typically monthly sampling of river surface water with 17 samples taken between September 2025 to June 2026, testing for 55 determinands overall. During this time period, pH averaged 7.94, indicating circum-neutral conditions. The 10th percentile dissolved oxygen was 60.35%, indicating a Good to Moderate status against WFD standards (Ref 191).
WQ2	Cripps River	RSN1539 CRIPPS RIVER NEAR LONG MOOR DROVE	SW-RSN1539	Within Scoping Site Boundary, southeast of Highbridge, situated between agricultural fields, NGR: ST	Monthly sampling of river surface water. 10 samples taken between September 2025 to May 2026, testing for 153 different parameters. pH averaged 7.79, indicating a circum-neutral environment. The 10th percentile dissolved oxygen was 62.18%,

Figure ID	Watercourse	Sampling Point	ID	Comment	Summary
				36305 44795	indicating a Good to Moderate status against WFD standards (Ref 191).

10.5.39 In the last five years, there have been two Category 2 (Significant) pollution incidents recorded by the EA, both of which in 2025; one on Black Ditch for which the pollutant was not identified (June 2025), and one on a ditch to the west of Junction 22 of the M5 whereby the pollutant was sewage materials (April 2025). These are shown on **Figure 10-2: Surface water features and their attributes** as P1 and P2 respectively.

Hydrology

10.5.40 Baseline hydrology is accessible via the NRFA website (Ref 229) and DEFRA's Hydrology Data Explorer website (Ref 226).

10.5.41 There are no NRFA flow gauging stations in the Study Area.

10.5.42 There are two DEFRA flow gauging stations and three river level monitoring stations, with data available online, within or closely surrounding the Study Area. Details of these stations are given in **Table 10-7** and are shown on **Figure 10-2: Surface water features and their attributes.** In the case of this Proposed Development, no new flow gauging is being proposed, data will be utilised from the identified monitoring stations.

Table 10-7 Summary of flow (F) and river level (RL) gauging stations (Ref 226) relevant to the Proposed Development

Figure ID	Watercourse	Sampling Point	ID	Comment	Summary
F1	River Brue	Bason Bridge	521191	River flow station within Scoping Site Boundary. North of East Huntspill residential area and south of agricultural land. NGR: ST3459345793.	Daily river flow data from April 2010 to Present. Daily mean flow for the time period August 2025 to August 2026 ranges between 21.449 m^3/s in February 2026 to -

Figure ID	Watercourse	Sampling Point	ID	Comment	Summary
					0.244 m^3/s in June 2026. The negative flow may be due to pumping or tidal influence.
F2	Cripps River	Eastern Moor Bridge	521189	River flow station within Study Area, south of the Proposed Development. Situated within agricultural land on the Cripps River, between the River Brue and Huntspill River. NGR: ST3685244345.	Daily river flow data from April 2011 to Present. Daily mean flow for the time period August 2025 to August 2026 ranges between 0.339 m^3/s in March 2026 to 0 m^3/s in February 2026.
RL1	River Brue	Hackness	521195_FW	River level monitoring station within Study Area, south of the Proposed Development. NGR: ST3323346204.	River level monitoring from August 1993 to Present.
RL2	Huntspill River	Gold Corner	521190_FW	River level monitoring station within Study Area, southeast of the Proposed Development. NGR: ST3672443050.	River level monitoring from November 1992 to Present.

Figure ID	Watercourse	Sampling Point	ID	Comment	Summary
RL3	North Drain	North Drain	521150_FW	River level monitoring station outside the Study Area (< 0.25 km), south of the Proposed Development. NGR: ST3990444849.	River level monitoring from November 1992 to Present.

Water resources, abstractions and discharges

10.5.43 A Freedom of Information (FOI) request was submitted to the EA on 6 March 2026 with regard to any additional records held on abstractions, discharge consents and pollution incidents within and surrounding the Study Area that were not publicly available online.

10.5.44 There are two licensed abstractions within the Study Area, one surface and one groundwater. The surface water abstraction licence is located at the Huntspill River (abstraction licence number: 16/52/011/S/048) at NGR: ST3446043650 and is used for Industrial, Commercial and Public Services. This licence is shown on **Figure 10-2: Surface water features and their attributes** as SW1. A groundwater abstraction licence is located at the borehole on Ashton Farm (abstraction licence number: 16/52/012/G/131), located at NGR: ST41414971 and is used for Agricultural purposes. This licence is shown on **Figure 10-3: Groundwater features and their attributes** as GW1.

10.5.45 There are 67 EA active and consented Water Discharge Environmental Permits within the Study Area with the outlet types varying between Trade, Sewage – not water company, Sewage – water company, Sewage and Trade combined, Agriculture and Miscellaneous. These are shown on **Figure 10-2: Surface water features and their attributes** as D1 to D64. Further details will be provided within the ES.

10.5.46 A request was also made to Somerset Council on 22 July 2026 regarding records held on private/unlicensed abstraction records in the Study Area. A response from Somerset Council was received on 13 August 2026 which confirmed there are no known private water supplies within the Study Area.

10.5.47 The EA's South and West Somerset Abstraction Licensing Strategy (Ref 237) identifies local water resource availability and abstraction constraints within the catchment and may inform the assessment of construction water demand, dewatering activities, groundwater interactions and the licensing requirements of any proposed water abstractions. According to Map 6 (Ref 237), the water resource availability for groundwater within the Study Area is split between areas of ‘Restricted water available’ and ‘less productive aquifer’. For surface water, water is available for abstraction other than at very low flows (i.e. when flows exceed Q95) (Ref 237).

Designated sites and Protections

10.5.48 The following environmentally designated statutory sites are situated within and surrounding the Study Area and can be seen on **Figure 10-10: Sensitive sites**.

10.5.49 The Somerset Levels and Moors Ramsar site and Special Protection Area (SPA) is situated in the south east of the Study Area, approximately 150 m from the Proposed Development at its closest point. This area is a wetland consisting of wet grassland, peat bog, fen and reedbed. It is habitat to rare invertebrates, in particular beetles, and is internationally important for wildfowl in the winter. North Drain, River Brue and South Drain flow through this Ramsar and SPA site however these sites are upstream of the Proposed Development and so will not be impacted hydrologically - assuming at this stage that there will be no material changes to the current management of the land including summer penning of water.

10.5.50 The Somerset Wetlands National Nature Reserve (NNR) is situated within the Proposed Development, and the NNR extends approximately 50 m north and 50 m south of the Huntspill River (**Figure 10-10: Sensitive sites)** therefore is relevant to the importance of the Huntspill River.

10.5.51 The Tealham & Tadham Moors SSSI and Catcott Edington & Chilton Moors SSSI are both located within the Study Area (0.2 km and 0.7 km respectively, from the Proposed Development). The Bridgwater Bay SSSI is located within the wider Study Area, approximately 1.7 km west of the Proposed Development. The locations of these sites are described above at 10.5.21 as all three SSSIs are also designated as GWDTEs. The summer penning of water is believed to be a significant factor supporting the hydrology of these sites. Further information on these designations is provided below.

a. Tealham and Tadham Moors SSSI (Ref 238) forms part of the extensive grazing marsh and ditch systems of the Somerset Levels and Moors. A wide range of grassland types have developed due to the variation in soils and in management practice. 113 aquatic and bankside vascular plant species and invertebrate fauna have been recorded from the field ditches, IDB rhynes and deep arterial watercourses. These habitats provide suitable feeding and nesting sites for a wide range of birds, particularly, large numbers of waterfowl that feed on the wet grasslands. North Drain flows through this SSSI however the SSSI is upstream of the Proposed Development.
b. Catcott, Edington and Chilton Moors SSSI (Ref 239) forms part of the extensive grazing marsh and ditch systems of the Somerset Levels and Moors. Unimproved swards are well represented with many meadows dominated by species-rich mire-type communities. Catcott Heath is noted for its rare vascular plants. 127 aquatic and bankside vascular plant species and a diverse range of invertebrate fauna, have been recorded in the field ditches, IDB-maintained rhynes and deep arterial watercourses. These diverse habitats provide suitable feeding and nesting sites for a wide range of birds. Although South Drain and River Brue flow through this SSSI, the site is upstream of the Proposed

Development and thus will not be impacted hydrologically assuming at this stage that there will be no material changes to the current management of the land including summer penning of water.

c. Bridgwater Bay SSSI (Ref 240) comprises a succession of habitats ranging through extensive intertidal mudflats, saltmarsh, shingle and grazing marsh. The area supports nationally and internationally important numbers of over-wintering and passage migrant waders and waterfowl. Ditches and ponds contain a diverse number of invertebrates, including six nationally rare species and eighteen nationally scarce species. The site is an integral part of the Severn Estuary system and is ecologically connected to the Somerset Levels, which provides alternative winter-feeding grounds for waders and waterfowl. This SSSI is downstream of the Proposed Development but is not thought to be at risk of any significant hydrological effects. However, pollution risks may still apply and thus this site will be considered within the importance grading of the Parrett Estuary to which it is associated.

10.5.52 The Severn Estuary is designated as a Ramsar Site, SPA and Special Area of Conservation (SAC), and is located approximately 1.7 km west of the Proposed Development. Flora and fauna typical of extreme physical conditions are found on this site. The invertebrate communities provide an important food source for passage and wintering waders. The site is of particular importance for nationally important numbers of waterbirds and internationally important numbers of wintering waterbirds. The site is also important for several species of migrating fish via the estuary. The Severn Estuary is downstream of the Proposed Development with input from the Huntspill River but is not thought to be at risk of any significant hydrological effects and it is not proposed to be considered any further by the water environment impact assessment.

10.5.53 The Proposed Development is partially situated within the Brue Nutrient Neutrality Catchment (NNC) in areas along the east of the Study Area (Ref 204).

10.5.54 The designated River Axe Surface Water Drinking Water Safeguard Zone (SWSGZ) and the River Axe – Cocklake to conf Brean Cross Sluice Drinking Water Protected Area (DWPA) underlie an area of northeast of the Study Area (Ref 122), as shown on **Figure 10-2: Surface water features and their attributes**.

10.5.55 There are no designated chalk rivers, bathing waters, Nitrate Vulnerable Zones (NVZ) or Source Protection Zones (SPZ) located within the Study Area.

10.6. Potential Effects and Mitigation

10.6.1 This section sets out the potential effects of the Proposed Development on the water environment, flood risk and drainage.

10.6.2 Mitigation measures relevant to the water environment identified at this stage are set out below and included in **Appendix 1-2: Environmental**

Mitigation and Commitments Register of this EIA Scoping Report, but will be reviewed and developed as the Proposed Development progresses.

Construction

10.6.3 During construction the following adverse impacts have the potential to occur if not mitigated:

a. Pollution of surface water or groundwater may occur due to deposition or spillage of soils, sediments, oils, fuels, or other construction chemicals directly or via uncontrolled site run-off. This may include runoff from concrete works, vehicular access tracks (and associated plant operation), dewatering of excavations or piling, earthworks or from the risk of a 'break-out' event if using Horizontal Directional Drilling (HDD) to install cables beneath a watercourse. Potential water quality impacts maybe influenced by existing reduced flow conveyance where water levels are artificially controlled through sluices, pumping operations, or summer penning, leading to stagnant conditions within the rhynes and limiting downstream flow. Mitigation measures to manage pollution risks, mainly during construction but potentially during operation, will need to consider the hydrology and land drainage management of the receiving water environment.
b. Potential impact on groundwater flow and quantity where dewatering may be required, by locally and temporarily reducing groundwater levels and altering flow direction;
c. Temporary impacts on the hydromorphology of watercourses from open-cut watercourse cable crossings or temporary vehicle access crossings as may be required;
d. Potential impact on surface watercourses associated with drainage, channel modifications or change of flow pathways, including potential scouring of channel beds and banks from increased flows;
e. Potential for subsurface activities such as drilling/foundation installations to impact groundwater quality through the introduction of contaminants through accidental spills/leaks;
f. Potential for installation of subsurface infrastructure to alter the natural groundwater flow regime, redirecting or impeding flow paths;
g. Potential impacts on groundwater resources and local water supplies (licensed and unlicensed abstractions if confirmed);
h. Potential impact on baseflow to watercourses/groundwater dependent features from temporary dewatering of excavations, emplacement of sub-surface structures or changes in hydrology;
i. Changes in surface water runoff due to deposition of silt, sediment in drains, ditches can temporarily impact flood risk and exacerbate localised flooding (e.g. disruption of stream flows during any culvert construction works);
j. Potential impact on flood conveyance routes if materials are stored within the floodplain;
k. Potential change in flood risk as a result of cables crossing any watercourses, depending on the crossing method; and

l. Potential impact on groundwater flood risk whilst laying any underground cables.

10.6.4 It is not anticipated that there would be any potential adverse impacts on groundwater resources or local public water supplies from on-site water supply requirements during construction as it is not currently anticipated there will be any abstractions from surface or groundwater during the construction phase. Water during construction will likely be obtained from the local water company or other suitable commercial source. This may be augmented if necessary, by obtaining water from existing local license abstractions through licence trading and with the Environment Agency's approval. Details will be confirmed at the ES stage.

10.6.5 As above, although the Proposed Development will generate foul waste water during construction it is anticipated that this will be stored within a sealed cesspit/tank for regular pumping out by a suitably licensed waste contractor and taken off-site for disposal at an appropriate waste facility. Thus, there will be no discharges on site and no impact pathway. This will be kept under review as the design of the Proposed Development progresses.

Operation (and maintenance)

10.6.6 During the Proposed Development operational (and maintenance) phase, the following water environment, drainage, and flood risk impacts may occur:

a. Impacts on water quality in watercourses and groundwater from run-off and the potential for accidental spillages from new permanent hardstanding and maintenance activities, assuming surface water run-off ultimately drains to a surface watercourse rather than simply to ground. Potential water quality impacts maybe influenced by existing reduced flow conveyance where water levels are artificially controlled through sluices, pumping operations, or summer penning, leading to stagnant conditions within the rhynes and limiting downstream flow. Mitigation measures to manage pollution risks, mainly during construction but potentially during operation, will need to consider the hydrology and land drainage management of the receiving water environment.
b. Potential for impact on groundwater or surface water from firewater runoff in the event of a fire in the battery energy storage system (BESS) area(s) and/or substation;
c. Potential impacts on surface water hydrology as a result of the Proposed Development. This may also have a subsequent effect on aquatic habitats and water-dependent nature conservation sites;
d. Potential for permanent physical impacts to watercourses if crossings are required for permanent access;
e. Potential alteration, impediment and redirection of the natural groundwater flow regime arising from subsurface infrastructure, foundations and structures, resulting in groundwater mounding up the

hydraulic gradient and reduced groundwater levels down hydraulic gradient;

f. Migration of contaminants and pollutants along preferential pathways created by subsurface infrastructure, including foundations and cables, potentially extending into previously uncontaminated soils, geology and groundwater;
g. Potential impacts on groundwater resources and local water supplies, including potential beneficial effects from reduced irrigation demand, which may improve groundwater flow regimes, particularly during the summer. Impacts on water supply will be assessed further with more information available at ES stage;
h. Risk to groundwater quality from leaks from underground cables if fluid filled cables are used;
i. Potential impacts on the rate and volumes of surface water run-off entering local watercourses and increasing the risk of flooding, including the potential for channelisation from rainfall dripping off the end of panels;
j. If the FRA confirms that the Scoping Site Boundary is located in Flood Zones 2 and 3 associated with fluvial sources, there may be potential change in fluvial flood risk off site and to third parties;
k. Potential flooding of Proposed Development elements such as BESS, substations and panels if not appropriately designed so they are not at risk of flooding from tidal/fluvial sources; and
l. The current arable fields are likely to be treated with fertiliser and pesticides. During the life of the Proposed Development the use of such chemicals would be ceased or reduced which would lead to potential beneficial impacts on the water environment.

10.6.7 Potential impacts on groundwater resources and local water supplies from on-site water supply requirements during operation are not anticipated as it is assumed there will be no abstractions from surface or groundwater during the operation phase. Water is expected to either come from a Mains Connection or from another commercial source brought to site by tanker when required. Details will be confirmed at the ES stage.

10.6.8 As above, although the Proposed Development may generate a small volume of foul waste water from a low number of site staff, it is anticipated that this will be stored within a sealed cesspit/tank for regular pumping out by a suitable licensed waste contractor and off-site disposal at an appropriate waste facility. Thus, there will be no discharges on site and no impact pathway. This will be kept under review as the design of the Proposed Development progresses.

10.6.9 There is a potential risk that heat generated by the buried cables could affect groundwater quality. To prevent overheating or mutual heating effects, the cables are typically spaced approximately 0.3 – 1 m apart. Groundwater within the superficial deposits occurs in laterally discontinuous lenses with limited movement, meaning any thermal effects from the cables would likely remain confined to the immediate area. Further information will be provided in the ES but at this stage, and in keeping with

other similar projects, it is not anticipated that this will result in a significant effect.

Decommissioning

10.6.10 During decommissioning, potential impacts would be similar to the construction phase, although it is anticipated that the power cables may be left in situ beneath watercourses meaning that there would be less excavation works required close to watercourses, unless a non-intrusive method can reasonably be used to remove the cables. This would be confirmed at the ES stage.

10.6.11 There may be a potential risk to groundwater quality from leaks from underground cables should they be left in situ, as well as a risk from deterioration of plastic and metal over extended time periods, and the release of these materials into soil and groundwater.

10.6.12 However, the removal of redundant structures and reinstatement of natural channels could result in beneficial impacts on the hydromorphology of watercourses. There would also be the removal of certain pollution risks, although this will be offset by the assumed resumption of agricultural activity on the site.

Mitigation

10.6.13 Where practicable, mitigation measures will be incorporated into the Proposed Development design and/or how it shall be constructed. Through iterative assessment, potential impacts will be predicted and opportunities to mitigate them identified with the aim of preventing or reducing impacts as far as practicable. This approach provides the opportunity to prevent or reduce potential adverse impacts from the outset. This embedded mitigation/mitigation by design approach will be taken into account when evaluating the significance of the potential impacts of the Proposed Development.

10.6.14 During the construction phase, standard pollution prevention and construction good practices would be adopted to mitigate potential impacts upon the water environment where required and reasonably practicable. Such measures would be included in an Outline Construction Environmental Management Plan (CEMP), which will be prepared as part of the DCO application. The Outline CEMP would be developed into a detailed (or construction issue) Construction Environmental Management Plan (CEMP) by the appointed construction Contractor prior to the start of construction. The CEMP will contain technical appendices such as a Water Management Plan and Emergency Response Plan. In addition, the following mitigations may apply:

a. Monitoring of watercourses at risk of pollution during the construction phase may be required. The scope of which (including any pre-construction baseline) would be agreed with the Environment Agency post-DCO as part of a management plan approach, as has been the case with other DCO applications;

b. At this stage it is assumed that water required for construction would be either connected to mains water supply or otherwise water would be supplied from another commercial source. Water for construction could also be augmented by rainwater harvesting (e.g. for haul road dust suppression), although there may be limitations as to how much can be captured and stored for when it might be needed. No abstractions from groundwater or watercourses are proposed;
c. At this stage, it is also assumed that foul drainage from temporary compounds would be connected to the Public Sewer or otherwise captured by a sealed cesspit or tank for offsite disposal by specialised licensed contractors. No discharges of foul wastewater to surface or groundwater are proposed;
d. Cable crossings of the larger, more important or sensitive watercourses are expected to need to be crossed using non-intrusive techniques beneath the bed at a sufficient depth to avoid future exposure. If HDD is used the works would be controlled by a suitable Drilling Fluid Break-Out Management Plan. Crossings of other drainage features would be risk assessed on a case-by-case basis as the assessment progresses but may include open-cut methods. Consultation with the EA, LLFA and IDB is required to agree the design of any required watercourse crossing structures;
e. Any access crossings of the larger, more important or sensitive watercourses are anticipated to be via a clear span structure. Crossings of other smaller drainage features would be risk assessed on a case-by-case basis as the assessment progresses. Temporary access structures would apply the following hierarchy: (1) use existing; (2) use existing modified as necessary; (3) temporary clear span crossing; (4) suitably designed culvert. Consultation with the EA, LLFA and IDB is required to agree the design of any required watercourse crossing structures;
f. Watercourses affected by open-cut cable crossings or temporary access works are reinstated following construction informed where practicable by a proportionate pre-works riparian and hydromorphological survey, but also taking into account any subsequent improvements that might occur in the interim period;
g. The nature of the Proposed Development means there would be limited physical disturbance of aquifers and groundwater. The need for piling or non-intrusive techniques for permanent above ground infrastructure has yet to be determined but will be confirmed in the ES. As earlier, if HDD is used the works would be controlled by a suitable Drilling Fluid Break-Out Management Plan;
h. Should dewatering be required during construction works, necessary permits and approvals will be obtained prior to works commencing;
i. The results of the FRA will be used to refine potential locations of construction compounds and material/plant storage. These will be located outside of areas susceptible to flooding where possible, and have in place emergency flood response procedures; and

j. Where not disapplied by the DCO and replaced by Protective Provisions there are a number of secondary consents that may be required such as: Flood Risk Activity Permits, Water Discharge Activity Permits, Water Resource Licences, and Land Drainage Consent.

10.6.15 Operational mitigation will include design measures which will be identified at the next stage of assessment and incorporated into the final Proposed Development design, this is likely to include:

a. SuDS will be incorporated to attenuate runoff from the Proposed Development to a rate agreed with the EA and/or the LLFA and IDB, to avoid increasing flood risk, and to reduce the quantities and concentration of diffuse urban pollutants found in runoff. Their design and use would depend on factors, such as site-specific constraints. The use of native grassland under and surrounding the panels to be included to limit the potential for channelisation;
b. Management of fire risk from the BESS will be provided within an Outline Battery Safety Management Plan submitted alongside the DCO Application. This may include the requirement for stored water to suppress a fire (if required) and the drainage design to allow for fire water containment. Consideration of managing the pollution risk from a fire at a substation site will also be included in the ES;
c. The Proposed Development will include design measures to ensure that the Proposed Development does not generate any adverse flood risks to adjacent areas (e.g. appropriate design of watercourse crossings and if the Flood Risk Assessment identifies loss of floodplain storage, appropriate compensation provision);
d. Where possible, surface water will drain from the swale based drainage system to local receiving watercourses via a new ditch, or the piped section will be shortened and the last 10 m section of the outfall route will be open ditch where practicable, unless this affects maintenance of the channel by the IDB;
e. Watercourses will be buffered from permanent new infrastructure, other than where crossings, drainage outfalls or other essential infrastructure are required, which has to be located near to/within watercourses. For Main Rivers, significant ordinary watercourses and watercourses found to support riparian mammals, a buffer width of 10 m will be considered as required and where practicable (as measured from the tops of watercourse embankments indicated by LiDAR). For less significant watercourses and watercourses which are not found to support riparian mammals, this buffer width may be reduced appropriately, and this is subject to further baseline assessment and consultation with statutory consultees and IDBs;
f. At this stage it is assumed that water required for operation and maintenance would be connected to Mains water supply (with agreement from the relevant water utility company or another commercial source). Consultation with Wessex Water is proposed as the design develops. No abstractions from surface or groundwater are proposed.

g. It is also assumed that foul drainage from permanent on-site facilities would be connected to the Public Sewer or otherwise captured by a sealed cesspit or tank for offsite disposal. No discharges of foul wastewater to surface or groundwater are proposed; and
h. The more vulnerable elements of the Proposed Development such as the BESS, substations, Power Conversion Units (PCUs) and panels will be sequentially located to areas of lowest risk of flooding. Where this is not possible, these elements will be designed accordingly with some elements potentially raised above the design flood level including an allowance for freeboard. This will be informed by the FRA.

10.6.16 The decommissioning phase would apply similar design and mitigation measures as the construction phase, although it is anticipated that cables may be left in situ beneath watercourses to avoid the need to have to excavate the channel again and where it is not possible to extract them in another less intrusive way. Standard pollution prevention and construction good practices would be adopted to mitigate potential impacts upon the water environment where required and reasonably practicable. Such measures would be included in a Decommissioning Environmental Management Plan (DEMP). A detailed DEMP would be prepared and agreed with the relevant authorities at the time of Proposed Development decommissioning.

10.7. Assessment Methodology

10.7.1 The assessment of potential effects as a result of the Proposed Development (construction, operation and maintenance and decommissioning) on the water environment will be undertaken using the methodology set out below.

10.7.2 Potential impacts of the Proposed Development on the water environment, drainage, and flood risk will be assessed by:

a. Considering the existing (baseline) status of the water environment within the Scoping Site Boundary and relevant surrounds with respect to flood risk, surface water, groundwater and drainage, following the source-pathway-receptor approach;
b. Identifying potential impacts of the Proposed Development on the water environment, drainage and flood risk during the operational and maintenance, construction and decommissioning phases, as well as cumulative effects;
c. Proposing suitable mitigation measures to be incorporated into the Proposed Development design, construction, operation and maintenance, and decommissioning to offset any adverse impacts (i.e. embedded mitigation); and
d. Reviewing any residual impacts and presenting additional mitigation measures to limit impacts.

Source-pathway-receptor approach

10.7.3 The water environment, drainage, and flood risk impact assessment will be based on a source-pathway-receptor model. For an impact on the water environment to exist the following is required:

a. An impact source (such as the release of polluting chemicals, particulate matter, or biological materials or the loss or damage to all or part of a water body);
b. A receptor that is sensitive to that impact (i.e. water features and the services they support); and
c. A pathway by which the two are linked.

10.7.4 The first phase in applying the Source-Pathway-Receptor model is to identify the causes or 'sources' of potential impact from a development. The impact sources will be identified through a review of the details of the Proposed Development, including the size and nature of the Proposed Development, potential construction, operation (and maintenance), and decommissioning methodologies and timescales. The next step is to undertake a review of the potential receptors, that is, the water environment receptors that have the potential to be affected. Water features including their attributes will be identified through desk study and Site surveys, building on the baseline information provided in this chapter. The last phase of the model is, therefore, to determine if there is a viable exposure pathway or a 'mechanism' linking the source to the receptor. This will be undertaken in the context of local conditions relative to the water receptors within the Study Area, such as topography, geology, climatic conditions and the nature of the impact (e.g. the mobility of a liquid pollutant or the proximity to works that may physically impact a water body).

10.7.5 The assessment of the likely significant effects is qualitative, and will consider the construction, operation (and maintenance), and decommissioning phases, as well as cumulative effects with other developments.

10.7.6 To support the assessment of effects on the water environment some sub-topic specific assessments will be undertaken. These are described in more detail in the following sections.

Water quality assessment

10.7.7 Relevant data has been requested from the EA to supplement the publicly available online data sources described in **Section 10.5** and will be updated at the next stage of the assessment. A site walkover survey will be undertaken by a hydromorphologist and a water resources specialist. This will be to observe surface water features in the Study Area and to make observations about their current condition and character, the presence of existing risks and any potential pathways for construction, operation (and maintenance), and decommissioning impacts as a result of the Proposed Development. Further site surveys may be required as the Proposed Development develops.

10.7.8 The importance of water features will be determined from a holistic review of water feature attributes and does not rely on water quality. This is because water quality is very variable with data lacking or requiring a

considerable amount of data to be collected over long periods of time and at costs that are not commensurate to the value gained for impact assessment purposes. Furthermore, as it is an offence in England to pollute any controlled water the level of mitigation provided to manage pollution risks from a development is independent of the importance of that feature, which is used primarily to determine the significance of the effect to inform appropriate planning decisions.

10.7.9 Therefore, and consistent with numerous other solar scheme DCO applications, water quality impacts will be based on a risk assessment basis that does not require input of raw background water quality data. Water quality data for the watercourses in the area will be drawn from Environment Agency monitoring (see locations in **Figure 10-2: Surface Water Features and their Attributes** and as outlined in **Table 10-6**). No water quality sampling is proposed to support the water environment assessment, however, water quality monitoring is likely to be a feature of proposed mitigation measures. The scope of this can be defined at a later stage but may require data to be collected prior in advance of the commencement of construction, as well as during and potentially for a short period post-completion of construction. Any monitoring will be proportionate and targeted, and agreed with the Environment Agency.

10.7.10 Overall, a qualitative assessment of potential effects on surface water quality from construction, operation (and maintenance) and decommissioning of the Proposed Development will be undertaken. This will consider the risk to surface water features resulting from construction, decommissioning works or future operation and maintenance activity using the source-pathway-receptor approach. Where there is a risk of pollution, mitigation measures will be described with reference to best practice guidance (e.g. Guidance on Pollution Prevention Notes and CIRIA guidance (Ref 207)).

10.7.11 The appropriateness of the surface water drainage measures in terms of providing adequate treatment of diffuse pollutants will be assessed with reference to the Simple Index Assessment Approach described in the SuDS Manual (Ref 243). The Simple Index Approach follows three steps:

a. Step 1 – Determine suitable pollution hazard indices for the land use(s);
b. Step 2 – Select SuDS with a total pollution mitigation index that equals or exceeds the pollution hazard index (for three key types of pollutants: total suspended solids, heavy metals and hydrocarbons); and
c. Step 3 – If the discharge is to a water body protected for drinking water, consider a more precautionary approach.

10.7.12 The SuDS Manual only provides a limited number of land use types and so those selected will be the most suitable for the components of the Proposed Development, based on professional judgement. Where more than one pollution hazard category applies to a component of the Proposed Development, the worst pollution hazard will be selected.

10.7.13 As part of the groundwater assessment, a groundwater risk analysis will be undertaken of each location where there would be trenchless crossings.

This will compare the likely depth of excavation for instance for HDD exit and entry pits or for deep foundations with available estimates of groundwater level at each location.

Hydromorphology

10.7.14 All watercourses that may be crossed either for cable installation or for permanent or temporary access will be surveyed, where possible. However, this may not be possible due to the nature of the site with a dense network of drainage channels, many of which may be ephemeral or may have access or visibility restrictions. In these cases, desk study and proxy sites may be used to determine the character of the water feature at the point of interaction with the Proposed Development.

10.7.15 Using desk study and site information, and alongside other disciplines such as ecology that may be considering the presence of mammal habitat or suitability for aquatic fauna such as fish and macroinvertebrates, all cable and access crossing locations will be qualitatively reviewed. This will be to ensure that where possible impacts are avoided (i.e. by using existing access or non-intrusive cable crossing techniques) or where open-cut or culverts may be proposed that impacts are minimised and adequately mitigated. Where culverts are temporary but will be in place for longer than 6 months they will need to be considered as 'permanent' in terms of mitigation provision. Overall, this assessment will inform the preparation of a Watercourse Crossing Register that can be presented to stakeholders for agreement.

10.7.16 The ES will include a qualitative impact assessment based on the source-pathway-receptor model described earlier and the significance of effect criteria set out later in this section. Where a degree of flexibility needs to be retained, such as where full details of how a watercourse will be crossed in a particular location, the ES will assess a reasonable worst-case scenario to be precautionary. However, through the development of the DCO application appropriate mitigation including consultation with regulators can be secured.

Water Framework Directive (WFD) Assessment

10.7.17 Due to the potential for impacts upon WFD water bodies, a WFD Screening and Scoping Assessment will be undertaken in advance of the ES in keeping with the Planning Inspectorate Advice on the Water Framework Directive (Ref 220).

10.7.18 The preliminary screening and scoping assessment concluded that a full WFD impact assessment would be required; this will be undertaken at the ES phase, where further construction and design information will be available. This assessment will only consider water bodies, parameters and scheme activities that are screened and scoped into the assessment.

10.7.19 This assessment will determine the potential for any non-compliance of the Proposed Development with WFD objectives for affected water bodies, using readily available information and any Site observations. This will include a qualitative examination of the potential construction, operation

(and maintenance), and decommissioning phase impacts of the Proposed Development on relevant WFD hydromorphological, biological and physico-chemical parameters. Depending on the outcomes of the assessment, more detailed investigations may be required, which will be determined in consultation with the EA.

Outline Surface Water Drainage Strategy

10.7.20 The design of surface water drainage systems aims to ensure there will be no increase in flood risk as a result of the Proposed Development, for storms up to and including the 1 in 100 year (1% Annual Exceedance Probability (AEP)) design flood event, with an allowance for climate change.

10.7.21 An Outline Surface Water Drainage Strategy (SWDS) will be prepared as a technical appendix to the Water Environment chapter of the ES to ensure the risk of surface water flooding is not increased as a result of the Proposed Development, including increased land take for new impermeable areas.

10.7.22 For a Proposed Development of this nature, there will be a limited amount of new impermeable areas (typically limited to associated on-site Substation buildings, BESS compounds, Conversion Units, and Sub-Distribution Switchrooms). Internal access tracks within the Solar Arrays will be permeable (Type 3 material or equivalent).

10.7.23 Whilst it is recognised as per NPS EN-3 (Ref 6) that Solar Arrays may alter runoff pathways beneath panel drip lines, the Proposed Development will retain permeable ground conditions across the Solar Arrays and will be designed to maintain existing greenfield runoff rates through appropriate drainage design and SuDS measures.

10.7.24 Careful consideration of the SuDS features, in keeping with local planning policies of Somerset Council and through liaison with the LLFA, Axe Brue IDB, and EA, will be undertaken to ensure that the Outline SWDS adequately attenuates and treats runoff and minimises flood risk to and from the Proposed Development.

10.7.25 A water quality risk assessment of all solar infrastructure will be undertaken using the Simple Index Approach described in The SuDS Manual and also summarised above. This will inform what if any, treatment measures are required to manage the risk from diffuse urban runoff to watercourses or ground.

Flood Risk Assessment

10.7.26 A FRA for the Proposed Development will be prepared as a technical appendix to the Water Environment chapter of the ES.

10.7.27 The FRA will include a review of the current and future flood risk to the Proposed Development from all sources (including surface water, groundwater, tidal and fluvial sources and residual flood risks), in keeping with NPPF guidance (Ref 9), to inform the Proposed Development design

and set out any proposed mitigation requirements, taking into account the future impacts of climate change.

10.7.28 The NPPF includes solar farms as 'Essential Infrastructure', as categorised in Annex F, Table 2: Flood risk vulnerability classification (Ref 9).

10.7.29 With the exception of any above ground infrastructure (e.g. substations, BESS) and temporary works during installation, cable routes are not generally considered in long term flood risk terms. However, the approach to the Sequential and Exception Tests for the Connection and Access Infrastructure Corridors will be clarified with the EA and Somerset Council as required.

10.7.30 The Flood Map for Planning (Ref 232) does not specify whether the flood risk arises from tidal or fluvial sources and instead shows a combined risk from both sources. Reviewing the EA provided Product 6 modelling data and online long term flood risk mapping (Ref 233), the Flood Zones indicated on the Flood Map for Planning at the Study Area appear to be primarily associated with a breach event from tidal sources. Further information will be requested from the EA, Somerset Council (as LLFA) and Axe Brue IDB to confirm the fluvial risk from surrounding watercourses, which will be detailed within a site-specific FRA. Where required and proportionate, hydraulic modelling will be undertaken to understand the risk from fluvial sources within the Proposed Development that haven't previously been identified as being modelled within the Product 6 model data already received.

10.7.31 If the FRA confirms that the Proposed Development is located within modelled flood extents associated with fluvial sources, there may be a requirement for the construction of floodplain compensation and/or mitigation measures, to ensure flood risk is not increased elsewhere and that the Proposed Development remains operational during times of flood. If the flood risk is tidally dominated, this typically does not require compensation; however, mitigation may still be required to protect infrastructure. This will be assessed in detail as part of the FRA.

10.7.32 As the Proposed Development is classified as 'Essential Infrastructure' and the majority of the Scoping Site Boundary is located in areas of Flood Zone 3, and if, after applying the Sequential Test approach, infrastructure must be located in Flood Zone 3a or 3b, the Exception Test is required to be satisfied as part of the FRA. For the Exception Test to be passed allowing development in Flood Zone 3a and 3b, the FRA will be required to demonstrate that the development would be safe for its lifetime, taking into account the effects of climate change, and that any increase in flood risk is outweighed by the benefits of the Proposed Development. This requirement will influence positioning of infrastructure within the Scoping Site Boundary (in particular the BESS and substations) and the heights of solar PV panels.

10.7.33 The Proposed Development benefits from coastal flood defences up to the 1 in 200 year event, including climate change; however, it may still be at residual risk from a defence breach or overtopping. This residual risk will be considered during both the construction and operational phases and

maintenance, with solar PV panels and sensitive electrical equipment being designed accordingly to remain sufficiently operational, or recoverable if the residual risk affects a suitable small area (this will be agreed with the EA as to what is acceptable in terms of panel operation loss during a flood).

10.7.34 As is required for nationally significant infrastructure projects, the Credible Maximum Scenario (CMS) event will be assessed within the FRA. For fluvial flood risk this relates to the Upper End Climate change scenario for the 1% AEP event. For tidal flood risk, this relates to the H++ sea level rise assessment in line with EA guidance, and a maximum 1.9 m rise in sea level to 2100 including a 2 mm per year increase for tidal surge from 2017 (noting the latest UKCP18 extreme sea levels account for storm surge already).

10.7.35 The CMS is a sensitivity test, which does not necessarily require additional mitigation; it is an assessment of how sensitive the Proposed Development is to changes in the climate for different future scenarios. The FRA will assess the CMS to demonstrate the Proposed Development is safe or can be adapted to large-scale climate change over its lifetime.

Water Resources Assessment

10.7.36 At this stage it is assumed that water required for construction and decommissioning would be sourced from a third-party commercial source supplying the construction industry (which may include the local water utility company). For operation and maintenance, when there may only be a small number of staff permanently based on site, connection to the mains water supply may also be an option (with agreement from the relevant water utility company) or alternatively, another commercial source as in the case for during construction. No abstractions from groundwater or watercourses are proposed.

10.7.37 Consultation with the relevant water utility company is proposed as the design develops to determine whether they might be able to supply all phases of the Proposed Development. To support this consultation, a Water Resource Assessment will be prepared setting out the estimated average and peak water demand for each phase of the Proposed Development. This will itemise the water needs for each phase and explain any assumptions that are required at this stage. It will also consider how water use may be minimised or recycled, to reduce overall demand on supplies.

Nutrient neutrality

10.7.38 Somerset Council is the local planning authority which covers the Proposed Development and the wider Study Area. This council area has significant portions of land within which nutrient neutrality has to be demonstrated in order to allow certain developments to proceed due to the unfavourable status of designated habitats sites within their areas. DEFRA MAGIC Map (Ref 122) confirms that areas within the eastern extent of the Proposed Development, are situated within the Brue Nutrient Neutrality Catchment, and on this basis, has been considered further in **Appendix 10-2: Nutrient Neutrality Screening Assessment**.

10.7.39 A Nutrient Neutrality Screening Assessment was undertaken to determine whether the Proposed Development would result in an increase in phosphorus loading into the Brue Nutrient Neutrality catchment. The assessment considered the proportion of the Proposed development located within the catchment and applied a precautionary approach regarding future land management and infrastructure assumptions.

10.7.40 The assessment identified an existing phosphorus load of 26.93 kilograms of phosphorous (kgP)/year and a proposed phosphorus load of 26.80 kgP/year. Resulting in a net phosphorus budget of -0.13 kgP/year. As the assessment demonstrated a net reduction in phosphorus loading, the Proposed Development is considered phosphorus neutral and would not result in an increase in phosphorus inputs to the Somerset Levels and Moors Ramsar Site. The full Nutrient Neutrality Screening Assessment, including phosphate budget calculator outputs and supporting assumptions is provided in **Appendix 10-2: Nutrient Neutrality Screening Assessment**.

Determining the significance of effects

10.7.41 The significance of effects will be determined using the principles of the guidance and criteria set out in the Design Manual for Roads and Bridges (DMRB) LA113 Road Drainage and the Water Environment (Ref 241) adapted to take account of hydromorphology. This can be applied to all development types and represents a robust and nationally accepted criteria widely applied to solar DCO applications for the determination of potential effects on the water environment.

10.7.42 The criteria that will be used to determine receptors importance are presented in **Table 10-8.**

10.7.43 In accordance with the phases of the methodology, there are three phases to the assessment of effects on water environment, drainage, and flood risk as follows:

a. A level of importance (negligible to very high) is assigned to the water resources receptor from **Table 10-8** and is based on a combination of attributes (such as water supply, biodiversity, recreation) and on receptors to flood risk based on the vulnerability of the receptor to flooding (i.e. as shown in **Table 10-8,** essential infrastructure would be very high importance, to water compatible development which would be of low importance);

b. The magnitude of potential change (classed as negligible, minor, moderate or major adverse/beneficial) is determined based on the criteria listed in **Table 10-9** and the assessor's knowledge of the Proposed Development. Embedded or standard mitigation measures are considered in the initial assessment, but any other mitigation is not considered until the assessment of residual effects. The magnitude of change will be determined considering the likelihood of the effect occurring. The likelihood of an effect occurring is based on a scale of certain, likely or unlikely, as defined in DMRB LA 113 (Ref 241).

Likelihood has been considered in the case of water resources only, as likelihood is inherently included within the flood risk assessment; and

c. A comparison of the importance of the resource and magnitude of the change (for both potential and residual impacts) results in an assessment of the overall significance of the effect on the receptor using the matrix presented in **Table 10-10**. The significance of each identified effect (both potential and residual) will be classed as very large, large, moderate, slight or neutral and either beneficial or adverse significance.

Table 10-8 Criteria to Determine Receptor Importance (adapted from DMRB LA 113 (Ref 241).

Importance	General Criteria	Examples			
		Surface Water	**Groundwater**	**Hydromorphology**	**Flood Risk**
Very High	The receptor has little or no ability to absorb change without fundamentally altering its present character, is of very high environmental value, or of international importance.	Watercourse having a WFD classification as shown in a River Basin Management Plan (RBMP) and Q95 ≥ 1.0 m^3/s. Site protected/designated under UK habitat legislation (SAC, SPA, SSSI, Water Protection Zones, Ramsar site). Species protected by UK legislation. Critical social or economic uses (e.g. public water supply and navigation).	SPZ 1. Principal aquifer providing a regionally important resource and/or supporting a site protected under UK legislation. Groundwater locally supports GWDTE. Water abstraction: >1,000 m^3/day.	Unmodified, near to or pristine conditions, with well-developed and diverse geomorphic forms and processes characteristic of river and lake type.	Essential Infrastructure or highly vulnerable development.
High	The receptor has low ability to absorb change without fundamentally altering its present character, is of high environmental value, or of national importance.	Watercourse having a WFD classification as shown in a RBMP and Q95 < 1.0 m^3/s; Species protected under UK habitat legislation. Critical social or economic uses (e.g. water supply and navigation). Important social or economic uses such as water supply, navigation or mineral extraction.	Principal aquifer providing locally important source supporting river ecosystem; SPZ 2; Groundwater supports GWDTE; Water abstraction: 500-1,000 m^3/day.	Conforms closely to natural, unaltered state and will often exhibit well-developed and diverse geomorphic forms and processes characteristic of river and lake type. Deviates from natural conditions due to direct and/or indirect channel, floodplain, bank modifications and/or catchment development pressures.	More vulnerable development.
Medium	The receptor has moderate capacity to absorb change without significantly	Watercourses not having a WFD classification shown in a RBMP and Q95 >0.001 m^3/s. May be designated as a local	Secondary Aquifer providing water for agricultural or industrial use with	Shows signs of previous alteration and/or minor flow/ water level regulation but still retains some natural features	Less vulnerable development.

Importance	General Criteria	Examples			
		Surface Water	**Groundwater**	**Hydromorphology**	**Flood Risk**
	altering its present character, has some environmental value or is of regional importance.	wildlife site and support a small/ limited population of protected species. Limited social or economic uses.	limited connection to surface water SPZ 3. Water abstraction: 50-499 m^3/day.	or may be recovering towards conditions indicative of the higher category.	
Low	The receptor is tolerant of change without detriment to its character, is low environmental value, or local importance.	Watercourses not having a WFD classification shown in a RBMP and Q95 <0.001 m^3/s. Low aquatic fauna and flora biodiversity and no protected species. Minimal economic or social uses.	Generally Unproductive Strata. Water abstraction: <50 m3/day.	Substantially modified by past land use, previous engineering works or flow/ water level regulation. Watercourses likely to possess an artificial cross-section (e.g. trapezoidal) and will probably be deficient in bedforms and bankside vegetation. Watercourses may also be realigned or channelized with hard bank protection or culverted and enclosed. May be significantly impounded or abstracted for water resources use. Could be impacted by navigation, with associated high degree of flow regulation and bank protection, and probable strategic need for maintenance dredging. Artificial and minor drains and	Water compatible development.

Importance	General Criteria	Examples			
		Surface Water	**Groundwater**	**Hydromorphology**	**Flood Risk**
				ditches will fall into this category.	
Negligible	The receptor is resistant to change and is of little environmental value	Not applicable.	Not applicable.	Not applicable.	Not applicable.

Table 10-9 Magnitude of Change Criteria (adapted from DMRB LA 113 (Ref 241)

Magnitude of Change	Description
Major Adverse	Results in a loss of attribute and/or quality and integrity of the attribute.
Moderate Adverse	Results in impact on integrity of attribute, or loss of part of attribute.
Minor Adverse	Results in some measurable change in attribute's quality or vulnerability.
Negligible	Results in impact on attribute, but of insufficient magnitude to affect the use or integrity.
Minor Beneficial	Results in some beneficial impact on attribute or a reduced risk of negative impact occurring.
Moderate Beneficial	Results in moderate improvement of attribute quality.
Major Beneficial	Creation of new attribute or major improvement of attribute quality.
No change	No loss or alteration of characteristic, features of elements; no observable impact in either direction.

10.7.44 The importance of the receptor (**Table 10-8**) and the magnitude of change (**Table 10-9**) are determined independently from each other and are then used to determine the overall significance of effects (**Table 10-10**). Options for mitigation will be considered and secured where possible to avoid, minimise and reduce adverse impacts, particularly where significant effects may have otherwise occurred. The residual effects of the Proposed Development with identified mitigation in place will then be reported. Effects of moderate or major are considered significant in EIA terms.

10.7.45 Where effects are assessed as being 'slight or moderate' professional judgement will be applied to determine whether the effect is significant or not.

Table 10-10 Matrix for Assessment of Significance of Effects (DMRB LA 104 (Ref 242)

Importance of Receptor (Table 10-8)	Magnitude of Change (Table 10-9				
	Major	Moderate	Minor	Negligible	No Change
Very High	Very large	Large or very large	Moderate or large	Slight	Neutral
High	Large or very large	Slight or moderate	Slight or moderate	Slight	Neutral
Medium	Moderate or large	Moderate	Neutral or slight	Neutral or slight	Neutral

Importance of Receptor (Table 10-8)	Magnitude of Change (Table 10-9				
	Major	Moderate	Minor	Negligible	No Change
Low	Slight or moderate	Slight	Neutral or slight	Neutral or slight	Neutral
Negligible	Slight	Neutral or slight	Neutral or slight	Neutral	Neutral

10.7.46 The following significance categories will be used for both potential and residual effects:

a. **Beneficial**: A beneficial/positive effect on the quality of a water resources receptor; or
b. **Adverse**: A detrimental/negative effect on the quality of a water resources receptor.

10.8. Limitations and Assumptions

10.8.1 The location and layout of certain elements of infrastructure (including the Connection and Access Infrastructure Corridors, construction methodologies and mitigation), have not yet been determined. This is of particular importance when considering the scoping in/out of receptors. It is assumed that the protection of water environment receptors would be taken into account within the iterative design process, including the choice of crossing methodology and use of best practice methodologies for construction.

10.8.2 There are no known PWS identified within the Study Area at the time of writing, therefore no PWS receptors will be considered further at the ES stage unless an updated FoI request identifies new PWS receptors. These receptors and water feature attributes would be considered as further assessment is undertaken.

10.8.3 Visual surveys will be undertaken of accessible water/drainage features to inform the outline Surface Water Drainage Strategy, impact assessment and WFD assessment. However, it may not be possible to survey all significant locations (such as crossing locations) or structures due to access constraints or visibility issues (e.g. dense vegetation). Where this is the case, a survey close to the area of interest will be attempted and this data used as a proxy. In addition, some watercourses may be small, ephemeral and flow only intermittently, and these may not be identified in the field or observed when flowing.

10.8.4 Hydraulic modelling data has been requested from the EA to understand fluvial and tidal flood risk (including breach scenarios) within the Study Area. There are watercourses within the Scoping Site Boundary that do not appear to have hydraulic modelling associated with them. Hydraulic modelling may therefore need to be undertaken as part of the FRA. Discussions with the EA are ongoing and the outcomes and any additional modelling will be included within the FRA.

10.8.5 Other than the site walkover survey, the FRA and outline Surface Water Drainage Strategy will be based on desktop assessments and best available site layout proposals in line with good practice. Where available, topographical data will be used to support the FRA and outline Surface Water Drainage Strategy. In the absence of topographical data, LiDAR data will be used to inform the FRA and the outline Surface Water Drainage Strategy.

10.8.6 It is assumed that foul wastewater generated from the Proposed Development would be managed appropriately but would not be discharged to ground or a watercourse in any phase of development. Options may include connecting to the nearest available public sewer or, where this is not possible, wastewater would be collected in a self-contained independent non-mains domestic storage and/or treatment system. This alternative for example, could be a sealed cesspit or tank. Any wastewater collected on site by these tanks would be regularly managed and disposed of under contract with a registered recycling and waste management contractor, according to environmental legislation.

10.8.7 It is assumed there will be no abstractions from surface or groundwater during the construction phase, with water brought onto site for use during construction from a commercial source (that may include water obtained from the local water utility company). Details will be confirmed at the ES stage.

10.8.8 Groundwater level data for the Study Area is limited. Further understanding of groundwater levels across the Scoping Site Boundary will be ascertained from information requests to the EA.

10.8.9 At this stage, it is assumed that there will be no material changes to the current management of the land including use of sluices, pumping and summer penning of water.

10.8.10 Construction depths, methodology and materials are currently unknown.

10.9. Summary of Elements Scoped In and Out

10.9.1 A summary of the elements scoped in and out of the assessments relating to the water environment is presented in **Table 10-11.**

Table 10-11 Elements scoped in and out of the Water Environment assessment

Element	Scoped In/ Scoped Out	Reasoning
Construction		
Water supply	Scoped In	Details of proposals for water supply will be included in the ES, in keeping with the requirements of the NPSs. However, no potential impacts on groundwater/surface water receptors or local water supplies are predicted. This is because it is proposed that water will not be abstracted

Element	Scoped In/ Scoped Out	Reasoning
		from any receptors but will be obtained from already licenced sources, which may vary. This will be kept under review.
Hydromorphology	Scoped In	Potential for impacts to hydromorphology of water bodies due to construction of the Proposed Development (e.g. due to access track structures and cable crossings).
Surface water	Scoped In	Potential pollution risk impacts due to construction of the Proposed Development on surface water features and their attributes. This includes Statutory Main Rivers and Ordinary Watercourses located within the Scoping Site Boundary and downstream receptors (where impacts may be indirect).
	Scoped Out	Impact from foul drainage on the basis that no discharges to surface watercourses are proposed.
Nutrient neutrality	Scoped Out	A screening assessment demonstrated a net reduction in phosphorus loading between the existing and proposed land uses; the Proposed Development is considered phosphorus neutral and would not result in an increase in phosphorus inputs to the Somerset Levels and Moors Ramsar Site. The full Nutrient Neutrality Screening Assessment, including phosphate budget calculator outputs and supporting assumptions is provided in **Appendix 10-2: Nutrient Neutrality Screening Assessment.**
Groundwater	Scoped In	Potential for impacts due to construction, operation and decommissioning of the Proposed Development on aquifers, licensed and PWS (if confirmed) and GWDTEs.
	Scoped Out	Impact from foul drainage on the basis that no discharges to ground are proposed.
Flood risk, including drainage	Scoped In	Potential for impacts on flood risk from all sources within the Proposed Development, downstream on watercourses and on surface water runoff.
Operation		

Element	Scoped In/ Scoped Out	Reasoning
Water supply	Scoped In	Details of proposals for water supply will be included in the ES, in keeping with the requirements of the NPSs. However, no potential impacts on groundwater/surface water receptors or local water supplies are predicted. This is because it is proposed that water will not be abstracted from any receptors but will be obtained from already licenced sources, which may vary. This will be kept under review.
Hydromorphology	Scoped In	Potential for permanent impacts to hydromorphology of water bodies due to the implementation of the Proposed Development (e.g. due to access track structures and cable crossings).
Surface water	Scoped In	Potential for impacts due to operation of the Proposed Development on surface water features and their attributes. This includes Statutory Main Rivers and Ordinary Watercourses both located within the Scoping Site Boundary and downstream receptors (i.e. indirect impacts).
	Scoped Out	Impact from foul drainage on the basis that no discharges to surface watercourses are proposed.
Nutrient neutrality	Scoped Out	A screening assessment demonstrated a net reduction in phosphorus loading between the existing and proposed land uses; the Proposed Development is considered phosphorus neutral and would not result in an increase in phosphorus inputs to the Somerset Levels and Moors Ramsar Site. The full Nutrient Neutrality Screening Assessment, including phosphate budget calculator outputs and supporting assumptions is provided in **Appendix 10-2: Nutrient Neutrality Screening Assessment.**
Groundwater	Scoped In	Potential for impacts due to construction, operation and decommissioning of the Proposed Development on aquifers, licensed and private water supplies and GWDTEs.
	Scoped Out	Impact from foul drainage on the basis that no discharges to ground are proposed.

Element	Scoped In/ Scoped Out	Reasoning
Flood risk, including drainage	Scoped In	Potential for impacts on flood risk from all sources within the Proposed Development, downstream on watercourses and on surface water runoff.
Decommissioning		
Water supply	Scoped In	Details of proposals for water supply will be included in the ES, in keeping with the requirements of the NPSs. However, no potential impacts on groundwater/surface water receptors or local water supplies are predicted. This is because it is proposed that water will not be abstracted from any receptors but will be obtained from already licenced sources, which may vary. This will be kept under review.
Hydromorphology	Scoped In	Potential for impacts to hydromorphology of water bodies due to decommissioning of the Proposed Development (e.g. due to access track structures and cable crossings). However, removal of redundant structures and reinstatement of natural channels could result in beneficial effects.
Surface water	Scoped In	Potential for impacts due to decommissioning of the Proposed Development on surface water features and their attributes. This includes Statutory Main Rivers and Ordinary Watercourses located within the Scoping Site Boundary and downstream receptors (i.e. indirect impacts). Removal of the solar development will take away pollution risks, although this will be offset by the assumed resumption of agricultural activity on the site.
	Scoped Out	Impact from foul drainage on the basis that no discharges to surface watercourses are proposed.
Nutrient neutrality	Scoped Out	A screening assessment demonstrated a net reduction in phosphorus loading between the existing and proposed land uses; the Proposed Development is considered phosphorus neutral and would not result in an increase in phosphorus inputs to the Somerset Levels and Moors Ramsar Site. The full Nutrient Neutrality Screening Assessment, including

Element	Scoped In/ Scoped Out	Reasoning
		phosphate budget calculator outputs and supporting assumptions is provided in **Appendix 10-2: Nutrient Neutrality Screening Assessment.**
Groundwater	Scoped In	Potential for impacts due to construction, operation and decommissioning of the Proposed Development on aquifers, licensed and private water supplies and GWDTEs.
	Scoped Out	Impact from foul drainage on the basis that no discharges to ground are proposed.
Flood risk, including drainage	Scoped In	Potential for impacts on flood risk from all sources within the Proposed Development, downstream on watercourses and on surface water runoff.

11. Landscape and Visual

11.1. Introduction

11.1.1 This chapter sets out the proposed approach to the assessment of likely significant landscape and visual effects associated with the construction, operation (and maintenance), and decommissioning phases of the Proposed Development. It identifies the proposed assessment methodology and embedded mitigation measures that will be considered within the ES.

11.1.2 The Landscape and Visual Impact Assessment (LVIA) will be undertaken by Chartered Members of the Landscape Institute (CMLI), with experience of energy and other infrastructure projects of a similar scale and complexity to the Proposed Development.

11.1.3 The LVIA will:

a. Present an overview of relevant legislation, policy and guidance;
b. Describe the LVIA methodology, define key assessment terms, and set out any assumptions and limitations relevant to the assessment of landscape and visual effects;
c. Summarise the outcomes of consultation with relevant stakeholders.
d. Describe the measures to mitigate adverse landscape and visual effects that will be incorporated into the design and construction planning of the Proposed Development;
e. Describe the landscape and visual baseline within the LVIA study area and assess the sensitivity of landscape and visual receptors to the Proposed Development; and
f. Assess the magnitude and significance of the residual landscape and visual effects of the Proposed Development on the receptors assessed during its construction, operation (and maintenance) and decommissioning phases.

11.1.4 This chapter is supported by the following figures:

a. **Figure 11-1: Landscape and Visual Study Area**;
b. **Figure 11-2: Landform**;
c. **Figure 11-3: Landscape Designations and PRoW**;
d. **Figure 11-4: Landscape Character**; and
e. **Figure 11-5: ZTV and Preliminary Viewpoint Locations**.

11.2. Study Area

11.2.1 The purpose of the landscape and visual Study Area is to identify the geographic area across which there is the potential for significant landscape and visual effects during the construction, operation (and maintenance), and decommissioning phases of the Proposed Development.

11.2.2 **Figure 11-1: Landscape and Visual Study Area** shows the Scoping Site Boundary and the proposed LVIA Study Area (which is defined by a 6 km offset from the Scoping Site Boundary).

11.2.3 The Study Area extends across the relatively low-lying, drained agricultural and widely settled landscape surrounding the Scoping Site Boundary and includes the Mendip Hills National Landscape (MHNL) 2.7 km to the north-east.

11.2.4 It is accepted practice within LVIA that the extent of the Study Area is defined by the potential visual envelope arising from the Proposed Development based upon Zone of Theoretical Visibility (ZTV) modelling of the proposals, desk-based study, and fieldwork.

11.2.5 A 6 km Study Area from the Scoping Site Boundary is considered appropriate to cover the likely geographic extent of effects which could be significant or material to the decision-making process (hereafter referred to as the 'Study Area'). This was informed by a preliminary ZTV, modelled on the maximum parameters of the proposed (operational) solar array (**Figure 11-5: ZTV and Preliminary Viewpoint Locations**), as well as preliminary site visits and a review of key policy and guidance documents. It is also considered that a 6 km extent would be sufficient to accommodate associated infrastructure detailed in **Chapter 3: The Proposed Development** (i.e. BESS, substations and overhead lines (OHLs)). The 6 km Study Area will be reviewed once the exact locations of associated infrastructure have been confirmed.

11.2.6 Further ZTV modelling of the Proposed Development will be undertaken as the project progresses and reviewed/refined in consultation with statutory consultees as detailed in **Section 11.4**. It is not anticipated that significant effects would arise as a result of the Proposed Development beyond the 6 km Study Area, due to the distance and intervening landform, built form and vegetation.

11.3. Legislation, Planning Policy Context and Guidance

11.3.1 Legislation, planning policy and guidance relating to the landscape and visual assessment and pertinent to the Proposed Development comprises:

Legislation

Levelling-up and Regeneration Act 2023 (LURA)

11.3.2 Section 245 (Protected Landscapes) (Ref 244) amends the duty on relevant authorities in respect of their functions which affect land in National Parks, National Landscapes, and the Norfolk and Suffolk Broads (collectively referred to as Protected Landscapes) in England.

11.3.3 Relevant authorities must now 'seek to further' the statutory purposes of Protected Landscapes. This replaces the previous duty on relevant authorities (in Section 85 of the Countryside and Rights of Way (CRoW) Act 2000) to 'have regard to' their statutory purposes.

National Planning Policy

National Policy Statements

11.3.4 The Overarching National Policy Statement (NPS) for Energy EN-1 (December 2025) (Ref 5) sets out the Government's policy for delivery of major energy infrastructure and will be the primary basis for decision-making.

11.3.5 NPS for Renewable Energy Infrastructure EN-3 (December 2025) (Ref 6) is the primary decision-making policy document for the Secretary of State on nationally significant onshore renewable electricity generating stations in England and Wales.

11.3.6 In addition, NPS for Electricity Networks Infrastructure EN-5 (December 2025) (Ref 7) is also relevant to the assessment.

11.3.7 Key relevant sections of the NPS in relation to LVIA are as follows:

a. EN-1: Section 5.10 Landscape and Visual;
b. EN-3: Paragraphs 2.10.32 - 2.10.37 - *Public rights of ways* and 2.10.85 – 2.10.93 *Landscape, visual and residential amenity*; and
c. EN-5: Paragraphs 2.9.7 – 2.9.20 Landscape and Visual Impact.

Other Policy and Guidance

11.3.8 Relevant aspects of the National Planning Policy Framework (NPPF, August 2026) (Ref 9) will be addressed within the LVIA, including those relating to sustainable development (Chapter 4), design (Chapter 14), and the natural environment (Chapter 19).

11.3.9 Particular consideration will be given to Policy N4 (Protected Landscapes) of the NPPF which covers landscape matters, including development within the setting of nationally designated landscapes. It is assessed that the Scoping Site Boundary will be located within the setting of MHNL.

11.3.10 Other relevant national planning and guidance include:

a. Planning Practice Guidance (PPG) Design: process and tools, 2019 (Ref 246) that sets out the characteristics of well-designed places in reference to the National Design Guide;
b. Design and Placemaking Planning Practice Guidance: consultation document (Ref 247) that is relevant if published at the time of writing the ES;
c. PPG Light Pollution, 2019 (Ref 248) that sets out advice on artificial lighting;
d. PPG Natural Environment, 2025 (Ref 249) that sets out guidance for protecting and enhancing the natural environment;
e. PPG Renewable and Low Carbon Energy, 2023 (Ref 250) that provides guidance on planning considerations; and
f. Guidance for relevant authorities on seeking to further the purposes of Protected Landscapes, 2024 (Ref 251) (DEFRA) that sets out how the Protected Landscape duty is intended to operate, including functions outside a Protected Landscape.

11.3.11 Relevant local planning policy guidance is set by the local authority, Somerset Council, which became a Unitary Authority on 1st April 2023, bringing together four former districts (Mendip, Sedgemoor, Somerset West

and Taunton, and South Somerset). Somerset Council is in the process of preparing Somerset Local Plan which will cover the period from 2025 to 2045 and has undergone Scoping Consultation (19th June to 9th August 2026) (Ref 10). Until Somerset Local Plan is adopted, local plans of former districts continue to apply.

Sedgemoor Local Plan 2011-2032, adopted 2019

11.3.12 The Sedgemoor Local Plan 2011-2032 (Ref 11) sets out the planning strategy for the former Sedgemoor District and is in use while the Somerset Local Plan is being prepared. Policies relevant to landscape and visual matters are as follows:

a. Strategic Policy S5 Mitigating the Causes and Adapting to the Effects of Climate Change;
b. CO1 Countryside;
c. MIP1 Major Infrastructure Proposals;
d. D2 Promoting High Quality and Inclusive Design;
e. D4 Renewable or Low Carbon Energy and Heat Generation projects;
f. D19 Landscape;
g. D22 Trees and Woodland; and
h. D25 Protecting Residential Amenity.

Planning, Implementing and Maintaining Landscape Schemes on Development Sites (August 2023)

11.3.13 The guidance, published by Somerset Council[5] (Ref 252), assists in producing an appropriate landscape scheme that is required to enhance and integrate new development into the landscape.

Wedmore Neighbourhood Plan, 2019

11.3.14 The Neighbourhood Plan (Ref 16) guides development within the Wedmore Parish and its policies take precedence over non-strategic policies in Sedgemoor Local Plan, where there is any conflict.

11.3.15 Policies relevant to Landscape and Visual:

a. Policy WED4 – Natural Environment; and
b. Policy WED5 – Design.

North Somerset: Core Strategy, 2017; Development Management Policies Sites and Policies Plan Part 1, 2016

11.3.16 The northern extent of the Study Area within the MHNL lies within North Somerset Council. Policies from North Somerset Core Strategy (Ref 253) relevant to landscape and visual matters and the National Landscape are:

a. Policy CS5: Landscape and the historic environment.

[5] This guidance appears under the Sedgemoor Area on Somerset Council website and is accessible through the Landscape and Planning webpage.

11.3.17 Relevant Development Management Policies Sites and Policies Plan Part 1 (Ref 254):

a. Policy DM11: Mendip Hills Area of Outstanding Natural Beauty (AONB).

North Somerset Local Plan 2041 Pre-submission Plan (Reg 19)

11.3.18 Once adopted, the emerging Local Plan (Ref 10) will replace the current development plan which comprises the Core Strategy, Site Allocations Plan and Development Management Policies. Policies relevant to landscape and visual matters and the National Landscape are:

a. Policy DP39: Mendip Hills National Landscape.

Mendip Hills National Landscape Management Plan 2025-2030 (Adopted August 2026)

11.3.19 The Management Plan (Ref 256) sets out the National Landscape's (NL) special qualities and provides a framework to support its protection, enhancement and enjoyment in line with an agreed vision.

11.3.20 Special qualities are defined as:

a. The dark skies, tranquillity, sense of remoteness, and naturalness of the area;
b. The distinctive limestone ridges and scarp slopes, rising from the Somerset Levels and Moors;
c. Views towards the Mendip Hills and the distinctive hill line. The views out, and panoramas, including across the Severn Estuary to Wales, the Somerset Levels and Moors, and the Somerset Coast;
d. A sparsely populated plateau, with settlements of Mendip stone largely confined to the spring line;
e. The diverse and visible geology that ranges from Devonian to Jurassic in a relatively small area, […] including the iconic Cheddar Gorge;
f. Caves, for their wildlife, geological, archaeological importance, including Aveline's Hole the oldest cemetery site in Britain, and Goughs Cave one of the most important Palaeolithic sites in Europe that provides a breeding site for Lesser and Greater Horseshoe bats
g. The limestone aquifer supplying water to the reservoirs of Cheddar, Chew Valley, and Blagdon lakes, and providing habitats of local and international importance for birds with Chew Valley Lake designated a Special Protection Area for bird species;
h. The Chew Valley and the Yeo Valley - a farmed landscape with distinctive hedgerow patterns and hedgerow trees, providing interconnected semi-natural habitats;
i. Dry stone walls that criss-cross the plateau farmlands grazed by sheep, beef and dairy cattle are a key feature of the karst landscape and provide a unique habitat for wildlife corridors;
j. Steep south-facing slopes of flower-rich, limestone grasslands;

k. Ancient woodland and wooded combes on the north and south slopes;
l. A landscape tracing human settlement dating back 500,000 years; and
m. A landscape enabling people to experience the special qualities of the MHNL through a wide range of interests and outdoor pursuits and activities.

11.3.21 Whilst there is no specific Position Statement on setting published by the MHNL; the setting of the MHNL is referred to in the MHNL Management Plan, which states at paragraph 6.1.3.2 that the essential character of the MHNL and its setting must be *"conserved and enhanced"* and in paragraph 6.5.3.9 that *"….The impact of development on the protected landscape and the special qualities of the Mendip Hills NL would need to be carefully considered, and where supported would require appropriate, and acceptable mitigation measures."* Development along the NL's southern boundaries is noted to have a potential impact on the MHNL's setting and special qualities as referred to in paragraph 6.5.3.9.

11.3.22 The Mendip Hills AONB Partnership has previously published a Position Statement on Solar Photovoltaic (PV) Development (Ref 257) which gives guidance on landscape and visual matters for solar PV arrays within the Mendip Hills or in views to and from the designated landscape. Dark Night Skies in the Mendip Hills – National Landscape Statement, January 2022 provides guidance on development within the setting of the MHNL with regards to light pollution (Ref 258)

Relevant Industry Guidance

11.3.23 Guidance relevant to landscape and visual matters includes:

a. Guidelines on Landscape and Visual Impact Assessment, 3rd edition (GLVIA3) (Landscape Institute and IEMA, 2013) (Ref 259);
b. An Approach to Landscape Character Assessment (Natural England, 2014) (Ref 260);
c. Technical Information Note 05/2017: Townscape Character Assessment (Landscape Institute, 2017, revised April 2018) (Ref 261);
d. Technical Guidance Note 2/19 Residential Visual Amenity Assessment (Landscape Institute, 2019) (Ref 262);
e. Technical Guidance Note 06/19 Visual Representation of development proposals (Landscape Institute, 2019) (Ref 263);
f. Technical Guidance Note 02/21: Assessing landscape value outside national designations (Landscape Institute, 2021) (Ref 264); and
g. Technical Guidance Note 01/24 Notes and Clarifications on Aspects of Guidelines for Landscape and Visual Impact Assessment Third edition (GLVIA3) (Landscape Institute 2024) (Ref 265).

11.4. Consultation

11.4.1 Consultation will be undertaken following submission of this EIA Scoping Report with LVIA consultees including Somerset Council, North Somerset Council, MHNL Partnership and Natural England.

11.5. Baseline Conditions

11.5.1 This section describes the landscape and visual baseline for the Scoping Site Boundary and Study Area, the extents of which are shown on **Figure 11-1: Landscape and Visual Study Area**.

The Scoping Site Boundary

11.5.2 The Scoping Site Boundary occupies the settled, low-lying agricultural landscape between the M5 motorway and the gently rising land around Chapel Allerton and Blackford to the east. The northernmost extent of the Scoping Site Boundary reaches Rooks Bridge and the southernmost part extends to the northern edge of Woolavington. Several settlements are located within this area, namely Mark, Mark Causeway, Northwick and a number of scattered rural properties along local lanes.

11.5.3 The landscape within and immediately surrounding the Scoping Site Boundary displays many of the key characteristics of the host landscape character types (LCT 10, LCT11, and LCT 12) that are described within the Somerset Landscape Character Assessment (Ref 269); notably the field pattern defined by ditches and rhynes, predominantly pastoral land use, open landscape with low vegetation and settlement focused on higher-lying ground, away from the lower-lying levels.

Study Area

11.5.4 The Study Area extends up to 6 km from the Scoping Site Boundary (**Figure 11-1: Landscape and Visual Study Area**) and is influenced by the local landform, which largely determines the local land use.

11.5.5 A large part of the Study Area lies within LCT 10 Levels and LCT 11 Peat and Clay Moors and comprises an open landscape with predominantly pastoral land use and prevailing floodplain grazing marsh character, fields defined by ditches and rhynes, low vegetation and a rectilinear pattern of drainage channels and drove roads, which form field boundaries. Settlement comprises scattered farms and individual dwellings along local roads.

11.5.6 To the north, the plain rises sharply in the form of the partially wooded Mendip Hills limestone escarpment with spring line settlements at its foot – Bleadon, Compton Bishop, Axbridge and Cheddar. The elevated locations within the MHNL comprise Open Access Land and offer long-distance views over the Study Area.

11.5.7 Settlements are largely concentrated on low ridgelines in the eastern and southern parts of the Study Area within LCT 12 Limestone Lowland Hills referred to as the Wedmore and Polden Hills respectively. The eastern ridgeline comprises Stone Allerton, West and Middle Stoughton, Blackford, Wedmore and Mudgley. Whilst to the south, land rises gently towards another local ridgeline with a string of settlements of Catcott, Edington,

Chilton Polden, Cossington, Woolavington and Puriton along its northern edge.

11.5.8 The M5 motorway intersects the Study Area in a north-south direction. The predominantly level landscape to the west is dominated by Brent Knoll (LCT 12 Limestone Lowland Hills), with the remains of an Iron Age hillfort which is accessible through a network of Public Rights of Way (PRoW) and Open Access Land. Its elevated location offers long-distance views over the Study Area.

11.5.9 There is a high degree of intervisibility between the Scoping Site Boundary and the elevated locations within the Study Area. The M5 corridor, existing transmission line associated with the relatively new T pylons from Hinkley Power Station, existing solar farms and the Gravity Smart Campus edging Puriton introduce industrial and infrastructure elements to the landscape.

PRoW, Access Land and National Cycle Network

11.5.10 Public access relevant to the Scoping Site Boundary and Study Area is shown on **Figure 11-3: Landscape Designations and PRoW**.

National Trails and Promoted Routes

11.5.11 Long-distance routes occur within the MHNL in the northern part of the Study Area:

a. The West Mendip Way follows the ridgeline and offers extensive views over the low-lying landscape to the south and distant landmarks such as Brent Knoll and Glastonbury Hill; and
b. The Strawberry Line runs along the former course of the Cheddar Valley Railway Line and follows the National Cycle Route 26 between Cheddar and Axbridge. The route is also used as a local cycle path.

PRoW

11.5.12 The Scoping Site Boundary contains a sparse network of PRoW which largely follows the course of drainage ditches and field boundaries.

11.5.13 Within the Study Area, the PRoW network becomes denser around existing settlements, especially on the low ridgelines within LCT 12. An assessment of effects on views experienced by visual receptors from these PRoW will be included in the LVIA.

Access Land/ Parks and Gardens

11.5.14 Two areas of Open Access Land are located within the Study Area:

a. Access Land within MHNL – around Crook Peak, Compton Hill, Wavering Down, Shute Shelve Hill and Fry's Hill; and
b. The summit of Brent Knoll.

11.5.15 Highbridge Garden of Remembrance is a Grade II Registered Park and Garden in Highbridge, located approximately 1.1 km west of the Scoping Site Boundary.

National and Local Cycle Routes

11.5.16 There are three National Cycle Routes within the Study Area:

a. Route 3 – runs through the Study Area north from Bridgwater to Cossington where it turns east along the local ridgeline. This route passes through Chilton Polden, Edington, and Catcott as it continues east;
b. Route 33 – starts in Cossington and runs north through the southern part of the Scoping Site Boundary before it continues to Highbridge and further north along the coast; and
c. Route 26 – enters the Study Area at Cheddar and Axbridge as it crosses the MHNL.

11.5.17 Local cycle paths within the Study Area include:

a. The Bittern Trail – between Avalon Marshes Centre on the south-eastern edge of the Study Area to Glastonbury.

Road and Rail

11.5.18 The following major transport routes are located within the Study Area:

a. The M5 motorway – runs north-south adjacent to the western Scoping Site Boundary;
b. The A38 – runs north from Bridgwater parallel and to the west of the M5, then it crosses the motorway and runs east between East Brent and Axbridge close to the northern Scoping Site Boundary;
c. The A39 – runs east-west, from M5 Junction 23 at Puriton towards Glastonbury; and
d. The Exeter-Bristol Great Western Railway main line runs north-south to the west of the M5 corridor. The ZTV indicates partial visibility along sections of the route.

Relevant Landscape Designations

11.5.19 The Proposed Development is not located within a nationally or locally designated landscape. Furthermore, there are no Conservation Areas within the Scoping Site Boundary.

11.5.20 The southern extent of the MHNL is located approximately 2.7 km north east from the Scoping Site Boundary and within the proposed Study Area. The Scoping Site Boundary lies within the setting of the MHNL. The LVIA will include an assessment of effects of the Proposed Development on the natural beauty and special qualities of the NL as a result of changes to its setting. These are as shown on **Figure 11-3: Landscape Designations and PRoW**.

11.5.21 There are several Conservation Areas located within the Study Area:

a. Weare (1.9 km to the north-east);
b. Stone Allerton (0.5 km to the east);
c. Wedmore (3.4 km to the east);
d. Loxton (3.2 km to the north); and
e. Christon (4.6 km to the north).

Published Landscape Character Assessments

National Character Area Appraisals

11.5.22 The Scoping Site Boundary, and the majority of the Study Area, are located within Natural England's National Character Area (NCA) 142 Somerset Levels and Moors. This is described as a "…*landscape of rivers and wetlands, artificially drained, irrigated and modified to allow productive farming."* (Ref 266). The land within the Scoping Site Boundary and the Study Area is representative of the key characteristics described, notably the lowland grazing fields divided by ditches, diverse geology of hills, susceptibility to flooding, scarce settlement, straight droves and causeways, and the north-south M5 corridor.

11.5.23 The elevated areas around Wedmore (to the east) and Woolavington (to the south of the Scoping Site Boundary) lie within NCA 143 Mid Somerset Hills. This NCA is described as being characterised by "…*low hills and ridges rising out of the Somerset Levels and Moors*" which also has a "*strong wooded feel from hedgerows and small woods*." (Ref 267).

11.5.24 The northern part of the Study Area extends into NCA 141 Mendip Hills. This landscape is described as *"…rising abruptly from the flat landscape of the Somerset Levels and Moors to the south*" (Ref 268) and features a karst landscape with complex underground caves, gorges, dry valleys, sinkholes, and fast-flowing springs. Key characteristics include the treeless hilltops and villages concentrated along the springline at the foot of the scarp slopes. The description also notes significant views outwards in all directions as well as views of the Mendips from the surrounding landscape, *"particularly the rapid ascent of the southern scarp from the Levels and Moors."* (Ref 268).

Somerset Landscape Character Assessment, 2024

11.5.25 The Somerset Landscape Character Assessment (Ref 269) provides an update to the former district landscape character assessments of Mendip, Sedgemoor, Taunton Deane, West Somerset, and South Somerset. The Scoping Site Boundary includes three Landscape Character Types (LCTs) and several Landscape Character Areas (LCAs) – refer to **Figure 11-4: Landscape Character** and **Figure 11-2: Landform**.

a. LCT 10 Levels forms a single LCA and contains the Northern, Western and Eastern Development Areas as well as parts of the wider Study Area to the north and south. LCT10 is described as a *"low-lying wetland landscape, strongly influenced by the ancient field pattern created by the rhynes and ditches."* (Ref 270);

b. LCT 11 Peat and Clay Moors is described as a *"low-lying wetland landscape, strongly influenced by a linear field pattern.*" (Ref 271) LCA 11a contains the Central and Southern Development Areas and parts of the wider Study Area to the east and south-east;

c. LCT 12 Limestone Lowland Hills is described as an "*elevated, rolling landscape of long ridges and isolated knolls"* (Ref 272) and comprises isolated islands of higher ground: LCA 12a covers Brent Knoll, LCA 12b covers the local ridgeline around Stone Allerton,

Blackford and Wedmore and includes the eastern parts of the Scoping Site Boundary; and LCA 12e covers the local ridgeline around Cossington and Woolavington;

d. The Mendip Hill escarpment north of Axbridge lies within LCT 2 Wooded Limestone Slopes, which is characterised by "*steep scarp slopes, occasionally incised by gorges and combes"* (Ref 273), LCA 2a; and
e. The westernmost parts of the Study Area extend into LCT 9 Dunes and Beaches, LCA 9b and LCT 8 Salt Marsh and Mudflats (LCT 8 contains only one LCA), which covers the estuarine landscape/seascape around Burnham-on-Sea and associated marine receptors.

North Somerset Council Landscape Character Assessment Supplementary Planning Guidance, 2018

11.5.26 At a district-scale assessment (Ref 274), the northern extent of the Study Area, within the MHNL, includes the following LCAs:

a. LCA A5: Bleadon Moor, located approximately 2.5 km north of the Scoping Site Boundary, covers land between the MHNL and the River Axe. The LCA is characterised by mixed agricultural use, very little settlement and intermittent vegetation;
b. LCA B2: Lox Yeo River Floodplain is located approximately 3.0 km north of the Scoping Site Boundary at Sevier Road bridge over the M5. The LCA comprises a narrow band of land following the route of the Lox Yeo River as it cuts through the MHNL;
c. LCA E1: Mendip Ridges and Combes is approximately 3.2 km north of the Scoping Site Boundary, comprising the limestone ridges within the MHNL; and
d. LCA J1: Lox Yeo Rolling Valley Farmland lies approximately 3.2 km north of the Scoping Site Boundary. The LCA comprises a pastoral rolling landscape formed by the Lox Yeo River.

Visual Amenity

11.5.27 A preliminary ZTV (**Figure 11-5: ZTV and Preliminary Viewpoint Locations**) has been generated to illustrate the theoretical visibility of solar panels in an indicative layout within the Scoping Site Boundary.

11.5.28 The preliminary ZTV models the maximum height parameters of the solar panels (at 4.5 m high). At this stage other elements of the Proposed Development have not been included in the ZTV, as their location within the Scoping Site Boundary has yet to be determined. As further details of the Proposed Development are available, additional ZTV modelling will be undertaken to inform the iterative assessment and design process. A ZTV of the Proposed Development for submission will also be prepared and presented in the ES.

11.5.29 As illustrated, localised variations in landform, the extent of vegetation cover and distribution of built development influence the extent of theoretical visibility of the Proposed Development as modelled. This is confirmed

through observations made during preliminary site work, which indicate that the extent of actual visibility would be less than indicated by the preliminary ZTV due to the effects of localised landform, vegetation and structures not modelled into the ZTV.

11.5.30 Preliminary field survey indicates that views towards the Scoping Site Boundary from relatively lower lying farmland are influenced by localised variations in landform and the presence of built infrastructure and vegetation. Where present, these features filter views to the Scoping Site Boundary. In more open areas, direct views into and across the Scoping Site Boundary are possible.

11.5.31 Elevated locations within the MHNL to the north of the Scoping Site Boundary offer long-distance views over the Study Area. Areas adjacent to the M5 (Northern and Western Development Areas) which comprise large fields and sparse boundary vegetation are directly visible, while areas with smaller fields and more substantial boundary vegetation are visible only partially (Eastern and Southern Development Areas). The existing transmission line associated with the relatively new T pylons from Hinkley Power Station is visible in the landscape, as are the scattered settlements.

11.5.32 To the east, the land rises gently, forming a local ridgeline where several small settlements are located: Stone Allerton, West and Middle Stoughton, Blackford, Wedmore and Mudgley. The preliminary ZTV does not indicate visibility beyond this local ridgeline. Nyland Hill and Cheddar Reservoir are prominent landmarks on the eastern edge of the Study Area; however, the ZTV indicates very limited visibility of such features.

11.5.33 To the south, the land rises gently towards another local ridgeline with a string of settlements of Catcott to Puriton. The preliminary ZTV indicates that there would be no visibility of the Proposed Development beyond this local ridgeline.

11.5.34 To the west, views from Brent Knoll are far-reaching, overlooking the flat landscape below. Like views from the MHNL, parts of the Scoping Site Boundary with large fields and sparse boundary vegetation are more visible than smaller fields with more mature vegetation.

11.5.35 Existing solar farms and the existing transmission line are clearly visible alongside large-scale industrial areas on the edge of Highbridge. Movement along the M5 motorway is visible from both the elevated locations and within the low-lying landscape within the Scoping Site Boundary.

11.5.36 To the east, the extent of theoretical visibility is illustrated as extending beyond the proposed Study Area. However, the preliminary site assessment indicates that beyond approximately 6 km from the Scoping Site Boundary, visibility reduces due to the screening effects of intervening vegetation, built development and landform.

Visual Receptors

11.5.37 **Figure 11-5: ZTV and Preliminary Viewpoint Locations** illustrates the locations of the proposed representative and specific viewpoints that will inform the LVIA.

11.5.38 Representative viewpoints are used as 'samples' upon which to base judgements about the nature, magnitude and significance of effect on visual receptors. All the proposed representative viewpoints are publicly accessible and selected to be representative of the views that would be experienced by a wide range of visual receptors e.g. residents, motorists, pedestrians on national and local walking routes, cyclists and visitors to accessible land, parks and greenspaces.

11.5.39 Specific viewpoints refer to those locations where a particular view of the landscape is a prominent and distinctive element. These can include 'designed' views, typically within historic landscapes, and highly attractive viewpoints that are locally promoted or draw visitors, such as the proposed specific viewpoint at Brent Knoll.

11.5.40 The location of representative and specific viewpoints will be reviewed during the iterative design and assessment process and agreed with the LVIA consultees.

11.5.41 A photograph of the existing view from each of the representative and specific viewpoints will be included in the ES and annotated in accordance with the Landscape Institute Type 1 Images. Subject to agreement with LVIA consultees, Type 3 photowire visualisations will also be prepared and presented in the ES LVIA.

11.5.42 **Table 11-1** presents details of the proposed representative and specific viewpoints (VP) which will be included in the ES.

Table 11-1 Proposed Representative *Viewpoints*

VP No.	Viewpoint Location	Distance/ Direction	Visual receptor	Grid Reference	
				X	Y
1	West Mendip Way	5.5 km north	PRoW users, residents on Roman Road, visitors to MHNL	334896	157448
2	Crook Peak	3.2 km north	PRoW users, visitors to MHNL	338746	155828
3	Webbington Road, New Town	3.6 km north	Residents within New Town, road users	341011	154878
4	Brent Knoll	1.4 km north-west	PRoW users, visitors to Brent Knoll	334135	150885
5	Pill Road, Rooks Bridge	Within parts of Scoping Site Boundary	Residents within Rooks Bridge, road users, PRoW users	336750	152031

VP No.	Viewpoint Location	Distance/ Direction	Visual receptor	Grid Reference	
				X	Y
6	Tarnock, Footpath AX 2/10	0.6 km north-east	Residents within Tarnock, PRoW users	338573	152651
7	Quarrylands Lane, Badgworth	0.5 km north-east	Residents within Badgworth, road users	339607	151952
8	Allerton Cricket Club, Chapel Allerton	0.5 km east	Residents Chapel Allerton, users of recreation grounds, road users	340559	150438
9	Vole, Footpath AX 17/24	Within Scoping Site Boundary	PRoW users, road users, residents in scattered properties around Vole	336756	150512
10	Puddy's Lane, Watchfield	Within Scoping Site Boundary	Residents within Watchfield, road users	334568	147731
11	Northwick Road, Northwick	Within Scoping Site Boundary	Residents within Northwick, road users	336420	148390
12	Perry Road, Blackford Moor	Within Scoping Site Boundary	Users of local roads, PRoW users	339369	148712
13	Blackford, Footpath AX 27/57	0.7 km east	Residents within Blackford, PRoW users, road users	340828	148007
14	Southwick Road	Within Scoping Site Boundary	Users of local roads, residents in scattered properties within Mark Moor	337335	146530
15	Kid Gate Drove	0.7 km south-east	Users of local roads, PRoW users	340033	146124
16	Mark Road/ Footpath AX 23/8	1.0 km south-east	Users of local roads, PRoW users, residents in scattered properties around Chilton Moor	338780	144510

VP No.	Viewpoint Location	Distance/ Direction	Visual receptor	Grid Reference	
				X	Y
17	Merry Lane	0.12 km west	Residents in and around East Huntspill, caravan park visitors, road users	335380	145441
18	B3141 Bridge over the Huntspill River	Within Scoping Site Boundary	Road users, residents in scattered properties around Cote	334520	143688
19	Bristol Road, Pawlett	3.3 km west	Residents in Pawlett, road users	330130	142828
20	Woolavington Road	0.3 km south-west	Residents between Puriton and Woolavington, road users	333740	141625
21	Bell Lane, Cossington	1.7 km south	Residents within Cossington, road users, National Cycle Path users	336045	140835
22	Catcott, Footpath BW 6/11	4.7 km south-east	Residents within Catcott, PRoW users	339610	140179

11.5.43 In addition, illustrative viewpoints may also be included but are locations not proposed at this stage of the assessment process. Illustrative viewpoints will be selected and referenced in the ES LVIA to further 'illustrate' observations and judgements made for instance the nature of vegetation screening a particular location.

11.6. Potential Effects and Mitigation

11.6.1 This section sets out the potential landscape and visual effects associated with the Proposed Development, including landscape character, visual receptors and designated landscapes, and the embedded mitigation measures that will be incorporated.

11.6.2 Measures relevant to landscape and visual at this stage are included in **Appendix 1-2: Environmental Mitigation and Commitments Register** of this EIA Scoping Report.

Construction

11.6.3 It is understood that construction will be over a continuous period and a reasonable worst-case scenario for the construction programme will be assessed and presented in the ES. The final details of the construction programme will be dependent on the detailed layout design and potential environmental constraints on the timing of construction activities.

11.6.4 Landscape and visual effects during the construction phase are likely to be short term and temporary. The nature of the effects during the construction phase would be different from the operational development, and are likely to include:

a. Physical effects to the fabric of the Scoping Site Boundary associated with the clearance of vegetation, creation of temporary trenching, earth works, soil stripping and stockpiling;
b. Views of moving construction plant/vehicles as well as of compounds, storage areas and security fencing; and
c. Views of artificial lighting, including associated with moving vehicles, task and safety lighting within working areas and within and around offices, compounds and other structures within the Scoping Site Boundary.

Operation and Maintenance

11.6.5 Once operational, the Proposed Development has the potential to result in adverse and potentially significant effects on the predominantly rural landscape and visual receptors, including residents within nearby settlements and properties, motorists using public highways, walkers using PRoW, long-distance recreational trails and Open Access Land. Please refer to **Chapter 3: The Proposed Development** and **Table 3-1** for details of the Proposed Development and associated components.

11.6.6 Whilst the Proposed Development would be decommissioned at the end of the proposed 40-year operation (and maintenance) phase, due to the length of the operational (and maintenance) phase, effects once vegetation matures are considered to be long-term and reversible. Planting proposals would, where practicable, be designed to avoid the need for removal during any maintenance or replacement activities.

11.6.7 During the early part of this operational (and maintenance) phase, the effects are likely to be at their greatest. Over time, the scale of effects may reduce for receptors as on-site or offsite vegetation matures to gradually screen or filter views of the Proposed Development. The landscape features would be subject to ongoing management through a Landscape and Ecological Management Plan (LEMP) to ensure the screening effects of the on-site vegetation are achieved during the operational (and maintenance) phase.

Potential Landscape Effects

Effects on Landscape Fabric

11.6.8 Effects on the fabric of the landscape will be limited to the Scoping Site Boundary area. This would include the introduction of solar arrays and OHL into the currently agricultural landscape. The evolving design informed by preliminary landscape analysis aims for the sensitive distribution of individual

project components with regard to landscape and visual sensitivity. Where possible, existing boundary vegetation would be retained and strengthened by new landscape planting, comprising parts of a landscape mitigation strategy.

Effects on Landscape Character

11.6.9 Effects on landscape character are assessed to arise from the change in land use from agricultural fields to the Proposed Development comprising solar panels, substations, OHL and underground cables.

11.6.10 Based upon preliminary analysis, the potential for significant effects on landscape character is considered unlikely to extend beyond the Study Area (**Figure 11-1: Landscape and Visual Study Area**). At a greater distance, the Proposed Development would be visible, but the character and qualities of the landscape would remain.

11.6.11 During the early part of the operational (and maintenance) phase (years 1-5), the effects are likely to be at their greatest. Over time, it is assessed that the effects on landscape character are likely to reduce as proposed vegetation matures to gradually screen or filter views.

11.6.12 **Figure 11-4: Landscape Character** shows the relevant Landscape Character Types and Areas. The Somerset Landscape Character Assessment LCAs identified above will form the reporting units within the LVIA chapter for the assessment of effects on landscape character.

Potential Visual Effects

11.6.13 Preliminary analysis indicates that visual effects are likely to arise as a result of views of the Proposed Development by a range of visual receptors to varying degrees from:

a. Public highways and transport routes within or adjacent to the Scoping Site Boundary;
b. Local public footpaths within the Scoping Site Boundary and wider landscape context;
c. Promoted Routes within the MHNL;
d. Residents in settlements within the Scoping Site Boundary and Study Area; and
e. Recreational users of Open Access Land within the MHNL and Brent Knoll.

11.6.14 It is assessed that the Proposed Development has the potential to result in significant adverse visual effects for visual receptors in close proximity to the Scoping Site Boundary. Views from locations at greater distances from the Scoping Site Boundary would also be possible, however, they would be moderated by the intervening distance, vegetation and built form.

11.6.15 Existing vegetation and proposed mitigation would provide a degree of screening to views from within the low-lying areas, however, taller components, such as the substations and OHL would likely remain visible above the vegetation in views from more open locations.

Effects on Designated landscapes

Effects on the Special Qualities and Setting of the MHNL

11.6.16 As illustrated by the Preliminary ZTV and confirmed during the initial field survey there is the potential for views of the Proposed Development from locations within the MHNL, and for views towards the MHNL from within and in proximity to the Scoping Site Boundary. As outlined above the Scoping Site Boundary will be within the setting of the MHNL.

11.6.17 The LVIA will 'scope in' and assess the potential effects of the Proposed Development on the natural beauty and special qualities of the MHNL and identify potential measures to mitigate adverse effects through the planning and design process. The ES will describe how the design of the Proposed Development has sought to avoid and minimise effects on the special qualities of the MHNL.

Decommissioning

11.6.18 The Proposed Development is anticipated to have an operational lifespan of approximately 40 years, during which components would be maintained and replaced as required to ensure continued effective operation (refer to **Chapter 3: The Proposed Development)**. Planting proposals as described in **Section 11.6.6** would, where practicable, remain in place post operation. Decommissioning methods, including the treatment of underground cabling, would be informed by prevailing policy and best practice, with works undertaken in phases and the land within the Scoping Site Boundary reinstated to its original use.

11.6.19 Similar to the construction phase, the decommissioning phase has the potential to result in temporary adverse landscape effects due to the machinery, activity, alterations to landform and vegetation patterns. Views of decommissioning activities also have the potential to result in temporary adverse visual effects, given the change in the composition of views. The effects are expected to be the same or lower than during construction, due to the screening effect of mature vegetation established as part of landscape mitigation. Please refer to details about decommissioning in **Chapter 3: The Proposed Development**.

Mitigation

11.6.20 Significant effects will be avoided, minimised or reversed where possible through the embedded mitigation. The following design principles and considerations have been informed by initial optioneering exercises including an initial landscape and visual analysis and site visit and have guided the site layout for the EIA Scoping Report as follows:

a. Limiting light spill through the orientation of temporary buildings and siting away from sensitive visual receptors where reasonably practicable;
b. Where reasonably practicable retain existing vegetation including roadside vegetation and hedgerows along field boundaries;
c. Strengthening existing vegetation through appropriate management and new native planting, following guidance from the published Somerset Landscape Character Assessment;

d. Implementation of mitigation planting and landscape proposals as early as possible in the construction programme; and
e. Setting back solar panels, substations, and BESS from most sensitive receptors, such as settlements and dwellings.

11.6.21 This approach to mitigation measures will be further tested and developed through an iterative design and assessment process and through consultation. Details of measures to mitigate effects will be included in an Outline Construction Environmental Management Plan (CEMP), Outline Operational Environmental Management Plan (OEMP), Outline Decommissioning Environmental Management Plan (DEMP), and Outline Landscape and Ecological Management Plan (LEMP) that would be secured through DCO requirements.

11.7. Assessment Methodology

11.7.1 Landscape and Visual Impact Assessment (LVIA) is a tool used to identify and assess the significance of and the effects of change resulting from development on both the landscape as an environmental resource and people's views and visual amenity.

11.7.2 The assessment of potential effects as a result of the Proposed Development (construction, operation (and maintenance) and decommissioning) on landscape fabric[6], landscape character and Visual receptors and designated landscapes will be undertaken according to the best practice and guidance published by the Landscape Institute (Guidelines for Landscape and Visual Impact Assessment, GLVIA3 (Ref 259)). Other best practice guidance will be used to inform the assessment of receptor sensitivity, preparation of photopanels, and visualisations.

11.7.3 The LVIA will be undertaken by chartered landscape architects and provide a review of the baseline condition within the proposed Study Area and assess its sensitivity to change in terms of landscape value and susceptibility criteria. The magnitude of change arising from the Proposed Development in terms of scale, extent and duration criteria will also be assessed. The significance of landscape and visual effects will be determined through a combination of receptor sensitivity and magnitude criteria during the construction, operation (and maintenance) and decommissioning phases. The findings of the LVIA will be supported by relevant figures, visualisations and technical appendices.

Determining Significant Effects

11.7.4 Effects assessed as Major or Major-Moderate will be considered 'Significant effects' that are *"likely to influence the eventual decision*" whilst those assessed as Slight or below will be 'Not Significant' and *"of lesser concern"*

[6] Landscape fabric comprises of a number of local landscape features within the site which may be physically impacted by the Proposed Development. Landscape features are *"particularly prominent or eye-catching elements in the landscape, such as tree clumps, church towers or wooded skylines OR a particular aspect of the project proposal*". This extract is taken from the Glossary of GLVIA (Ref 259), page 156.

(GLVIA3, para 3.35). Effects assessed as Moderate will be potentially significant and professional judgement will be applied to determine whether such effects are deemed 'Significant' or 'Not Significant' supported by clear justification and reasoning, which is a deviation from **Chapter 6: Environmental Impact Assessment Methodologies** general methodology on significance. The LVIA follows GLVIA3 and is based on a tried and tested approach at Examination and on other solar DCOs.

Night-Time Effects and Lighting

11.7.5 During the construction and decommissioning phases, the Proposed Development will require temporary lighting, which would be designed as far as reasonably practicable to minimise any light spill and sky glow and will not be continuously lit. Lighting is likely to be limited to core construction working hours, with the exception of any security lighting that is likely to be sensor operated.

11.7.6 During the operation (and maintenance) phase, the Proposed Development will generally remain unlit except for at substations and potentially at other pieces of critical infrastructure, where manually operated or motion-detection lighting utilised for operational and security purposes will likely be deployed.

11.7.7 The lighting of the Main Substation and BESS would be in accordance with Health and Safety requirements, particularly around any emergency exits. Otherwise, lighting sensors for security purposes will be implemented as required.

11.7.8 No visible lighting would be required along the perimeter fencing of the arrays and Infra-Red (IR) lighting would be provided by the security system to provide night vision functionality for the CCTV.

11.7.9 The lighting design would seek to limit any impacts on sensitive receptors, as secured through the Outline OEMP. A separate Lighting Impact Assessment (LIA) has therefore been scoped out of the LVIA chapter on the basis of good working practices during construction/decommissioning and restricted emergency lighting during the operation (and maintenance) phase.

Residential Visual Amenity Assessment

11.7.10 Views from individual properties are a private rather than a public concern and will be assessed within a separate Residential Visual Amenity Assessment (RVAA) as an appendix to the LVIA chapter. The assessment will be based upon the guidance within the Landscape Institute's Technical Guidance Note 02/19, *Residential Visual Amenity Assessment (RVAA)* which notes in para 1.6:

"It is not uncommon for significant adverse effects on views and visual amenity to be experienced by people at their place of residence as a result of introducing a new development into the landscape. In itself, this does not necessarily cause particular planning concern. However, there are situations where the effect on the outlook / visual amenity of a residential property is so great that it is not generally considered to be in the public interest to permit such conditions to occur where they did not exist before."

11.7.11 Initial landscape and visual analysis and site visit together with optioneering exercises will inform layout design. Set backs from the nearest settlements and individual properties will be developed as the design progresses. The potential for effects on residential visual amenity will be considered through the RVAA.

11.7.12 The scope of residential properties to be included within the RVAA will be determined by reference to the ZTV, fieldwork and the evolving design, following the approach in TGN 02/19, and will be agreed with the LVIA consultees. Beyond the properties identified, the Proposed Development may be visible, but it is unlikely that it would result in any overbearing effects such that living conditions would be affected to an unacceptable degree.

Cumulative Effects

11.7.13 The ES will present an assessment of the Cumulative Effects and Inter-Project Cumulative Effects arising from the additionality of Proposed Development in conjunction with other operational, under-construction and in-planning/consented energy developments located within the Study Area. The LVIA will scope in the cumulative effects during the operation (and maintenance) phase which are likely to be significant and scope out the cumulative effects during the construction and decommissioning phases which are unlikely to be significant.

11.7.14 The cumulative assessment would follow the process advocated within the Planning Inspectorate's guidance on Nationally Significant Infrastructure Projects: Advice on Cumulative Effects Assessment, 2024 (Ref 32). This will include the Stage 1 review of the long list of potential committed development projects and the Stage 2 short list of those projects which are likely to result in perceptible cumulative effects as part of a proportionate assessment.

11.8. Limitations and Assumptions

11.8.1 The baseline conditions of the Scoping Site Boundary and the surrounding landscape described in the above sections has been informed by desk-study and fieldwork undertaken between March and July 2026 as part of the preliminary optioneering process for the Proposed Development.

Further Desk Studies

11.8.2 The baseline conditions of the Proposed Development and its surrounding landscape will be described in relevant sections of the LVIA ES Chapter as required. The desk-based study will be informed by a review of known and published policy/guidance documents available at the time of the assessment and submission.

Future Fieldwork

11.8.3 Further fieldwork will be undertaken during 2026/2027 in accordance with the project programme. Supporting photography will, where practicable, capture “winter” conditions to reflect the period of greatest visibility before

DCO submission as well as summer views. Photographs will be taken from publicly accessible locations.

11.9. Summary of Elements Scoped In and Out

11.9.1 A summary of the elements scoped in and out of this chapter is presented in **Table 11-2**.

Table 11-2 Elements Scoped In and Out of the Landscape and Visual Assessment

Element	Scoped In/Scoped Out
Landscape Receptors	
National Character Areas	
NCA 142 Somerset Levels and Moors, NCA 143 Mid Somerset Hills, NCA 141 Mendip Hills	Scoped out Reason: Due to the availability of more detailed Landscape Character Assessments, NCAs are scoped out of the LVIA chapter.
Somerset Landscape Character Assessment	
LCT 10 Levels	Scoped in Reason: Within Scoping Site Boundary. The Proposed Development would result in effect on this LCT.
LCT 11 Peat and Clay Moors - LCA 11a	Scoped in Reason: Within Scoping Site Boundary. The Proposed Development would result in effect on this LCT.
LCT 12 Limestone Lowland Hills - LCA 12a, LCA 12b, and LCA 12e	Scoped in Reason: Within Scoping Site Boundary. The Proposed Development would result in effect on these LCAs.
LCT 2 Wooded Limestone Slopes - LCA 2a	Scoped in Reason: Within ZTV in the Study Area (MHNL). The Proposed Development would be visible from this LCT/LCA
LCT 9 Dunes and Beaches - LCA 9b	Scoped out Reason: Significant effects are not anticipated as no physical change to the LCA would arise from the Proposed Development. Any views of the Proposed Development would be screened by intervening landform, built form and vegetation.
LCT 8 Salt Marsh and Mudflats (including seascape/marine receptors)	Scoped out Reason: Significant effects are not anticipated as no physical change to the LCA would arise from the Proposed Development. Any views of the Proposed

Element	Scoped In/Scoped Out
	Development would be screened by intervening landform, built form and vegetation.
North Somerset Council Landscape Character Assessment Supplementary Planning Guidance, 2018	
LCA A5: Bleadon Moor	Scoped out Reason: Significant effects are not anticipated as no physical change to the LCA would arise from the Proposed Development. While views may be possible, the distance and intervening vegetation would filter views of the Proposed Development.
LCA B2: Lox Yeo River Floodplain	Scoped out Reason: Significant effects are not anticipated as no physical change to the LCA would arise from the Proposed Development. While views may be possible, the distance and intervening vegetation would filter views of the Proposed Development.
LCA E1: Mendip Ridges and Combes	Scoped in Reason: This LCA covers the south-facing Mendip Hills escarpment and has visibility of the Proposed Development.
LCA J1: Lox Yeo Rolling Valley Farmland	Scoped out Reason: Significant effects are not anticipated as no physical change to the LCA would arise from the Proposed Development. Views from the north-facing slopes are going to be limited or prevented by intervening landform and vegetation.
Designated Landscapes	
Mendip Hills National Landscape	Scoped in Reason: Intervisibility with the Proposed Development. An assessment of effects on the Natural Beauty and Special Qualities of the National Landscape within its setting will be carried out in the LVIA.
Visual Receptors	
Settlements	
Axbridge, Cheddar and Lower Weare	Scoped out Reason: Significant effects are not anticipated. The ZTV indicates limited visibility which has been confirmed by field work.
Weare, Clewer, Cocklake	Scoped out Reason: Significant effects are not anticipated. The ZTV indicates no visibility which has been confirmed by field work.

Element	Scoped In/Scoped Out
Cross and Compton Bishop	Scoped in Reason: Potential effects due to intervisibility with the Proposed Development. Visibility has been confirmed through ZTV and fieldwork.
Rooks Bridge, Tarnock, Biddisham	Scoped in Reason: Potential effects due to intervisibility with the Proposed Development. Visibility has been confirmed through ZTV and fieldwork.
Badgworth, Stone Allerton, Chapel Allerton, Ashton, West Stoughton, Wedmore	Scoped in Reason: Potential effects due to intervisibility with the Proposed Development. Visibility has been confirmed through ZTV and fieldwork.
Walrow, Watchfield, Northwick, Mark, Blackford	Scoped in Reason: Potential effects due to intervisibility with the Proposed Development. Visibility has been confirmed through ZTV and fieldwork.
Bason Bridge, East Huntspill, Cote, Burtle, Westhay	Scoped in Reason: Potential effects due to intervisibility with the Proposed Development. Visibility has been confirmed through ZTV and fieldwork.
Puriton, Woolavington, Cossington, Chilton Polden, Edington, Catcott	Scoped in Reason: Potential effects due to intervisibility with the Proposed Development. Visibility has been confirmed through ZTV and fieldwork.
Brent Knoll, East Brent	Scoped out Reason: Significant effects are not anticipated. Field work has confirmed that views would be largely prevented by intervening vegetation and built form.
Highbridge, Burnham on Sea	Scoped out Reason: Significant effects are not anticipated. The ZTV indicates no visibility which has been confirmed by field work.
PRoW / Long Distance Trails / National Cycle Routes / Open Access Land/Parks and Gardens	
AX 17/13 and AX17/24 that cross the M5 in the northern zone	Scoped in Reason: Potential effects due to visibility of the Proposed Development. Visibility has been confirmed through ZTV and fieldwork.
AX17/30, AX23/15, AX23/5 and AX23/7 running in north-south direction	Scoped in Reason: Potential effects due to visibility of the Proposed Development. Visibility has been confirmed through ZTV and fieldwork.

Element	Scoped In/Scoped Out
AX23/12, AX23/13, AX23/14, AX 12/28 and AX12/33 running in the east-west direction	Scoped in Reason: Potential effects due to visibility of the Proposed Development. Visibility has been confirmed through ZTV and fieldwork.
AX2/13, AX2/14 and AX12/33 east of Kingsway	Scoped in Reason: Potential effects due to visibility of the Proposed Development. Visibility has been confirmed through ZTV and fieldwork.
Dense PRoW close to Watchfield, Mark and Blackford	Scoped in Reason: Potential effects due to visibility of the Proposed Development. Visibility has been confirmed through ZTV and fieldwork.
Dense PRoW around Puriton, Woolavington, Cossington, Chilton Polden, Edington and Catcott	Scoped in Reason: Potential effects due to visibility of the Proposed Development. Visibility has been confirmed through ZTV and fieldwork.
West Mendip Way	Scoped in Reason: Potential effects due to visibility of the Proposed Development. Visibility has been confirmed through ZTV and fieldwork.
Strawberry Line	Scoped out Reason: Significant effects are not anticipated. Field work has confirmed that views would be largely prevented by intervening vegetation and landform.
Access Land within MHNL and Brent Knoll	Scoped in Reason: Potential effects due to visibility of the Proposed Development. Visibility has been confirmed through ZTV and fieldwork.
National Cycle Route 3	Scoped in Reason: Potential effects due to visibility of the Proposed Development. Visibility has been confirmed through ZTV and fieldwork.
National Cycle Route 33	Scoped in Reason: Potential effects due to visibility of the Proposed Development. Visibility has been confirmed through ZTV and fieldwork.
National Cycle Route 26	Scoped out Reason: Significant effects are not anticipated. Field work has confirmed that views would be largely prevented by intervening vegetation and landform.
Highbridge Garden of Remembrance	Scoped out

Element	Scoped In/Scoped Out
(Registered Park and Garden)	Reason: Significant effects are not anticipated. Field work has confirmed that views would be largely prevented by intervening vegetation and built form.
Road and Rail	
The M5 motorway	Scoped in Reason: Potential effects due to visibility of the Proposed Development. Visibility has been confirmed through ZTV and fieldwork.
The A38	Scoped in Reason: Potential effects due to visibility of the Proposed Development. Visibility has been confirmed through ZTV and fieldwork.
The A39	Scoped out Reason: Significant effects are not anticipated. Field work has confirmed that views would be largely prevented by intervening vegetation.
Exeter-Bristol railway line	Scoped out Reason: Significant effects are not anticipated. Field work has confirmed that views would be largely prevented by intervening vegetation.
Other	
Residential visual amenity assessment –Residential properties where there is potential for overbearing effects (to be identified by reference to the ZTV, fieldwork and the evolving design, following TGN 02/19)	Scoped in Reason: Visual effects here have potential to be over the residential visual amenity threshold such that living conditions would be affected to an unacceptable degree.
Residential visual amenity assessment – All other residential properties – beyond the properties identified above it is unlikely that the Proposed Development would result in overbearing effects such that living conditions would be affected to	Scoped out Reason: Beyond the properties identified above, the Proposed Development may be visible but it is unlikely that it would result in any overbearing effects such that living conditions would be affected to an unacceptable degree.

Element	Scoped In/Scoped Out
an unacceptable degree	
Cumulative Assessment (Inter-Project Cumulative Effects)	Scoped in Reason: The Proposed Development would likely result in landscape/visual effects in conjunction with other operational, under-construction and in-planning/consented energy developments located within the 6 km Study Area
Night-Time Effects and Lighting	Scoped out Reason: The lighting design would seek to limit any impacts on sensitive receptors through good working practices during construction and restricted lighting requirements for security and would be secured through the Outline OEMP.

12. Noise and Vibration

12.1. Introduction

12.1.1 This chapter sets out the proposed approach to the assessment of likely significant noise and vibration effects associated with the construction, operation (and maintenance), and decommissioning phases of the Proposed Development. It identifies the proposed assessment methodology and embedded mitigation measures that will be considered within the ES.

12.1.2 This chapter is supported by **Figure 12-1: Noise and Vibration Sensitive Receptors**.

12.2. Study Area

12.2.1 The Study Area has been defined to include sensitive receptors that may be affected by the construction and operation (and maintenance) and decommissioning of the Proposed Development.

12.2.2 The Study Area for construction noise extends to 300 m from the construction works areas, once defined, based on guidance in BS 5228-1 (Ref 275), which advises that construction noise predictions are generally reliable up to this distance.

12.2.3 The Study Area for construction vibration extends 100 m from the construction works areas, once defined. This is based on Design Manual for Roads and Bridges (DMRB) LA 111 (Ref 276), which identifies this distance as appropriate for identifying vibration sensitive receptors.

12.2.4 The Study Area for operational noise from inverters is set at a distance of 500 m from the inverter locations, once confirmed, which is based on experience of inverter noise from previous solar farm projects. Additionally, the Study Area for operational noise extends 1,000 m from the operational BESS and substation locations, once finalised. This reflects the applicability of the ISO 9613-2:2024 (Ref 277) sound propagation methodology.

12.2.5 A 200 m Study Area will be adopted for 400 kV overhead line noise once the location is confirmed. Given the low levels of corona noise typically associated with overhead lines, significant operational noise effects beyond this distance are considered unlikely.

12.2.6 The Study Area for construction traffic noise extends 50 m either side of roads expected to be used by construction traffic, in accordance with DMRB LA111 (Ref 276).

12.2.7 The Proposed Development and surrounding sensitive receptors are illustrated in **Figure 12-1: Noise and Vibration Sensitive Receptors**. The Study Areas will be defined by applying the distances set out above to the relevant construction works areas, operational plant locations and construction traffic routes once these have been confirmed for the DCO application.

12.3. Legislation, Planning Policy Context and Guidance

12.3.1 Legislation, planning policy and guidance relating to the noise and vibration assessment and pertinent to the Proposed Development comprises:

Legislation

12.3.2 Relevant legislation includes:

a. Control of Pollution Act (CoPA) 1974 (Ref 278); and
b. Environmental Protection Act 1990 (Ref 184).

National Planning Policy

12.3.3 The following planning policies from the relevant National Policy Statements (NPS) have informed the proposed assessment methodology and identification of potential significant environmental effects, and mitigation:

a. Overarching National Policy Statement for Energy (EN-1) (December 2025) (Ref 5) sets out national policy for energy infrastructure. Section 5.12 provides planning policy guidance in relation to noise and vibration, with particular reference to Paragraphs 5.12.6 to 5.12.12, in relation to the Applicant's assessment of noise;
b. National Policy Statement for Renewable Energy Infrastructure (EN-3) (December 2025) (Ref 6) identifies in paragraph 2.5.2 that good design should be adopted to mitigate noise. It sets out the potential for impacts relating to noise and vibration generated by construction traffic and transport in paragraphs 2.10.112 – 2.10.118 and operational traffic in paragraphs 2.10.153 to 2.10.154; and
c. National Policy Statement for Electricity Networks Infrastructure (EN-5) (December 2025) (Ref 7), taken together with NPS EN-1, provides the primary basis for decisions taken by the Secretary of State on applications it receives for the categories of nationally significant electricity networks infrastructure included within it. Reference will be made to Section 2.9, specifically paragraphs 2.9.27 to 2.9.44 where relevant which relates to noise from substation equipment.

Other Policy and Guidance

12.3.4 Other relevant national policy and guidance includes:

a. National Planning Policy Framework (August 2026) (Ref 279) contains the government's planning policies relating to noise in Policy P3;
b. The Noise Policy Statement for England (NPSE) (2010) (Ref 280) introduces the concepts of the Lowest Observed Adverse Effect Level (LOAEL) and Significant Observed Adverse Effect Level (SOAEL), which will inform the assessment of potential noise effects; and
c. Planning Practice Guidance Noise (Ref 281) provides guidelines that are designed to assist with the implementation of the noise requirements set out in the NPSE (Ref 280).

12.3.5 Relevant local planning policy includes the Sedgemoor Local Plan 2011 to 2032 (February 2019) (Ref 11), which contains the following relevant policies:

a. Policy D4 (Renewable or low carbon energy and heat generation Projects) states that projects will only be supported if they satisfactorily address potential unacceptable adverse impacts due to noise;
b. Policy D14 (Managing the transport impacts of development) requires an appropriate noise and vibration assessment to support development proposals where there is potential for significant transport impact;
c. Policy D24 (Pollution impacts of development) requires a noise and vibration assessment for a development proposal that may result in a significant adverse impact; and
d. Policy D25 (Protecting residential amenity) states that developments that result in unacceptable impacts to residential amenity for occupants of nearby dwellings would not be supported.

Relevant Industry Guidance

12.3.6 Relevant industry guidance includes:

a. British Standard (BS) 7445-1:2003 – 'Description and measurement of environmental noise – Part 1: Guide to quantities and procedures' (BS 7445) (Ref 282);
b. British Standard (BS) 4142:2014+A1:2019 Methods for Rating and Assessing Industrial and Commercial Sound (BS 4142) (Ref 283);
c. BS 5228:2009+A1:2014 Code of Practice for Noise and Vibration Control on Construction and Open Sites - Part 1 (Noise) (BS 5228-1) (Ref 275) & Part 2 (Vibration) (BS 5228-2) (Ref 284);
d. Calculation of Road Traffic Noise (CRTN) (Ref 285);
e. Association of Noise Consultants (ANC) (2020)BS4142:2014+A1:2019 Technical Note (Ref 286);
f. British Standards Institute (2014), BS 8233:2014 – Guidance on sound insulation and noise reduction for buildings (Ref 287);
g. International Organisation for Standardisation (2024) ISO 9613-2:2024 Attenuation of Sound during Propagation Outdoors – Part 2: Engineering method for the prediction of sound pressure levels outdoors (Ref 277); and
h. Design Manual for Roads and Bridges (DMRB) LA 111 Noise and Vibration (Ref 276).
i. Engineering Recommendation G201: Method for Assessing Electrically Induced Noise from Overhead Lines. Issue 1 (Ref 289).

12.4. Consultation

12.4.1 Consultation will be undertaken following submission of this EIA Scoping Report with Somerset Council and other relevant statutory consultees, as

appropriate. This will include detailed consultation on the Study Area, sensitive receptors, baseline monitoring methodology and the assessment methodology. Consultation responses will be used to inform the scope and methodology of the noise and vibration assessment.

12.5. Baseline Conditions

12.5.1 This section describes the baseline environmental characteristics of the Scoping Site Boundary and surrounding area relevant to the assessment of noise and vibration.

12.5.2 The Scoping Site Boundary comprises predominantly agricultural land. Surrounding land uses include villages and individual or clusters of residential properties, which represent the principal noise and vibration sensitive receptors.

12.5.3 The principal existing sources of noise within the Study Area are road traffic on the M5, located to the west of the Scoping Site Boundary, and the A38, located to the north. Other local roads and agricultural activities also contribute to the baseline environment.

12.6. Potential Effects and Mitigation

12.6.1 This section sets out the potential noise and vibration effects associated with the Proposed Development and the embedded mitigation measures that will be incorporated. Mitigation measures relevant to noise and vibration at this stage are included in **Appendix 1-2: Environmental Mitigation and Commitments Register**.

Construction and Decommissioning

12.6.2 Potential noise and vibration effects during construction and decommissioning may arise from site preparation, earthworks, plant installation, substation construction, cable laying and construction traffic associated with the Proposed Development**.**

12.6.3 Construction and decommissioning traffic on the local road network may result in temporary increases in noise levels. For the construction phase these effects will be managed, where necessary, through measures set out in the Outline CEMP and Outline Construction Traffic Management Plan (CTMP), which may include routing and, where required, timing of deliveries. For the decommissioning phase, an Outline Decommissioning Environmental Management Plan (DEMP) will be developed.

12.6.4 Road traffic can cause vibration; however, DMRB LA 111 (Ref 276) states: "*operational vibration is scoped out of the assessment methodology as a maintained road surface will be free of irregularities as part of project design and under general maintenance, so operational vibration will not have the potential to lead to significant adverse effects*". Whilst this quote relates to the assessment of a highway scheme, it is relevant as it provides information that significant vibration effects would only be generated by traffic movements on a road with an irregular surface. It is assumed that Somerset Council maintain good quality conditions for roads used to access the

Scoping Site Boundary. Therefore, no significant construction traffic vibration effects are expected, and an assessment of construction and decommissioning traffic vibration has been scoped out of the assessment, as HGV traffic on maintained public highways is not expected to generate perceptible vibration at nearby buildings.

Operation and Maintenance

12.6.5 Principal operational noise sources comprise the BESS, inverters and transformers, and substations.

12.6.6 The Grid Connection may comprise either underground cables or overhead lines at 132 kV and/or 400 kV. Underground cables will not generate perceptible noise at the ground surface. Noise from a 400 kV overhead line may be perceptible at nearby receptors, particularly during periods of wet weather.

12.6.7 The Inter-Array Connections may also include 132 kV and/or 33 kV overhead lines. However, noise emissions from conductors operating at these voltages are not expected to create perceptible levels of noise and an operational noise assessment is proposed to be scoped out.

12.6.8 Solar PV panels, mounting structures and cabling do not generate operational noise. Tracker motors may be fitted to Solar PV panels; however, noise emissions from tracker motors are very low and unlikely to be perceptible outside the Scoping Site Boundary.

12.6.9 Maintenance activities are infrequent, short-lived, use light plant, and are no worse than construction or typical agricultural activity. As such, an assessment of maintenance noise is scoped out.

12.6.10 Operation (and maintenance) vibration is not anticipated, as vibration generated by plant such as cooling fans will not be perceptible beyond the Scoping Site Boundary. Operation (and maintenance) vibration is therefore proposed to be scoped out of the assessment.

12.6.11 Operational traffic associated with site staff and routine maintenance is expected to be minimal and is not anticipated to result in material changes in road traffic noise.

Mitigation

Construction and Decommissioning

12.6.12 Construction activities will be undertaken in accordance with a CEMP, which will be substantially in accordance with the Outline CEMP, and decommissioning activities will be undertaken in accordance with a DEMP, which will be substantially in accordance with the Outline DEMP. Both the Outline CEMP and Outline DEMP will incorporate Best Practicable Means (BPM), as defined by the Control of Pollution Act 1974 (Ref 278), to minimise noise and vibration effects.

12.6.13 The Outline CEMP and Outline DEMP will incorporate recognised good practice measures in accordance with BS 5228-1 (Ref 275) and BS 5228-2 (Ref 284), measures may include, where reasonably practicable:

a. Appropriate routing of construction traffic on public roads and along access tracks;
b. Drop heights of materials will be minimised;
c. Plant and vehicles will be sequentially started up rather than all together;
d. Plant will always be used in accordance with manufacturers' instructions. Care will be taken to site equipment away from noise-sensitive areas. Where possible, loading and unloading will also be carried out away from such areas; and
e. Regular and effective maintenance by trained personnel will be undertaken to keep plant and equipment working to manufacturer's specifications.

Operation and Maintenance

12.6.14 As the design of the Proposed Development develops, embedded mitigation will be incorporated to minimise operational noise, where required. This may include the siting of noise-generating plant away from sensitive receptors, the specification of low-noise equipment, and the use of acoustic enclosures, screening or silencers, where necessary to avoid significant adverse effects and, where reasonably practicable, to mitigate and minimise other adverse effects.

12.7. Assessment Methodology

12.7.1 The assessment methodology has been developed with reference to recognised national standards and guidance and will be refined as the Proposed Development design progresses.

12.7.2 The assessment will consider the potential effects of the Proposed Development during the construction, operation (and maintenance) and decommissioning phases on noise and vibration sensitive receptors within the Study Area. Baseline noise surveys will be undertaken to establish the existing acoustic environment. The assessment will then identify the principal sources of noise and vibration, predict future noise and vibration levels, identify embedded mitigation measures and determine the significance of any likely effects.

12.7.3 With regard to potential noise effects, the NPSE (Ref 280) sets definitions for 'significant adverse effects' and 'adverse effects' using the concepts:

a. Lowest Observed Adverse Effect Level (LOAEL) – the level above which adverse effects on health and quality of life can be detected; and
b. Significant Observed Adverse Effect Level (SOAEL) – the level above which significant adverse effects on health and quality of life occur.

Construction and Decommissioning Noise and Vibration

12.7.4 Construction and decommissioning noise will be assessed using the methodology set out in BS 5228-1 (Ref 275), with significance determined having regard to the principles of NPSE (Ref 280). Construction vibration will

be assessed using the methodology set out in BS 5228-2 (Ref 284). The assessment will consider the nature, duration and location of construction activities, the types of plant and equipment to be used, and the proximity of noise and vibration sensitive receptors.

12.7.5 With reference to the NPSE, the LOAEL and SOAEL thresholds are set in **Table 12-1** below.

Table 12-1 Thresholds of potential effects of construction and decommissioning noise at residential buildings

Time Period	Threshold Value ($L_{Aeq,T}$ dB)	
	LOAEL	SOAEL
Weekdays (07:00 – 19:00) Saturday (07:00 – 13:00)	65	75
Evening (19:00 – 23:00) Weekends (13:00–23:00 Saturdays and 07:00–23:00 Sundays)	55	65
Night (23:00 – 07:00)	45	55

12.7.6 **Table 12-2** details Peak Particle Velocity (PPV) levels (a standard measure of vibration effects) and their potential effect on humans based on guidance from BS 5228-2 (Ref 284).

12.7.7 Assessment criteria are presented in **Table 12-2.**

Table 12-2 *Thresholds of potential effects of construction and decommissioning vibration (human response)*

Effect Level	PPV Vibration Level	BS 5228-2 Description of Impact
LOAEL	0.3 mm/s	Vibration might be just perceptible in residential environments.
SOAEL	1.0 mm/s	It is likely that vibration of this level in residential environments will cause complaint, but it can be tolerated if prior warning and explanation has been given to residents.

At receptors where vibration levels above the SOAEL are predicted, further consideration of whether an effect is significant will be undertaken using professional judgement, taking account of the duration and frequency of the effect, as well as the time of day that the effect would be experienced.

12.7.8 In addition to human annoyance, building structures may be damaged by high levels of vibration. The levels of vibration that may cause building damage (as set out in Annex B of BS 5228-2 (Ref 284)) are far in excess of those that may cause annoyance. Consequently, if vibration levels are controlled to those specified by annoyance, then it is highly unlikely that buildings will be damaged by demolition and construction vibration.

Construction and Decommissioning Traffic Noise

12.7.9 Construction and decommissioning traffic noise will be assessed with reference to the short-term assessment criteria from table 3.54b of DMRB LA 111 (Ref 276). The assessment will consider changes in traffic flows on roads used by construction traffic and the potential effects on nearby noise-sensitive receptors. The significance of any effect will be determined using professional judgement, taking account the absolute level of road traffic noise, and the duration and frequency of the change in traffic noise.

12.7.10 Assessment criteria are presented in **Table 12-3**.

Table 12-3 Construction and decommissioning traffic noise assessment criteria

Magnitude of Impact	Magnitude Criteria
Negligible	≥ 0 dB and < 1 dB
Minor	≥ 1 dB and < 3 dB
Moderate	≥ 3 dB and < 5 dB
Major	≥ 5 dB

Operational Noise

Solar Farm Noise

12.7.11 Operational noise associated with the Proposed Development will be assessed in accordance with BS 4142:2014+A1:2019 (Ref 283). The assessment will be informed by baseline noise surveys and operational plant noise data and will predict operational noise levels at representative sensitive receptors to determine the potential for adverse effects. Where appropriate, the assessment will be undertaken in accordance with BS 4142:2014+A1:2019, including consideration of the context in which the sound occurs.

12.7.12 Where appropriate, supporting guidance, including BS 8233 (Ref 287), the Association of Noise Consultants (ANC) BS 4142:2014+A1:2019 Technical Note (Ref 286), and the World Health Organization (WHO) Guidelines for Community Noise (Ref 288), will be used to inform the assessment.

12.7.13 The assessment criteria for noise from fixed plant installations are summarised in **Table 12-4**.

Table 12-4 Operational noise assessment criteria

Effect Level	Rating Level (External) at Receptor, $L_{Ar,Tr}$	
	Daytime (07:00-19:00) and Evening (19:00-23:00)	**Night-time (23:00-07:00)**
LOAEL	Less than or equal to the typical background level ($L_{A90,T}$) – minimum of 35 dB $L_{Ar,Tr}$	Less than or equal to the typical background level ($L_{A90,T}$) – minimum of 30 dB $L_{Ar,Tr}$
SOAEL	Greater than 10 dB above the background noise level – minimum of 45 dB $L_{Ar,Tr}$	Greater than 10 dB above the background noise level – minimum of 40 dB $L_{Ar,Tr}$

Overhead Line Noise

12.7.14 Noise from the proposed overhead line will be assessed using in accordance with the Stage 2 methodology set out in Method for Assessing Electrically Induced Noise from Overhead Lines (Ref 289). Predicted noise levels at representative receptors will be compared with relevant assessment criteria to determine the significance of effects.

12.8. Limitations and Assumptions

12.8.1 The noise and vibration assessment will be based on the information available at the time of writing. The following assumptions have been made:

a. Baseline noise surveys will be undertaken to characterise the existing acoustic environment. Reasonable endeavours will be made to obtain representative baseline noise measurements at, or in close proximity to, identified sensitive receptors. However, the selection of monitoring locations will be subject to obtaining suitable and secure locations for unattended equipment, access permissions, and health and safety requirements for survey personnel. Where monitoring in close proximity to sensitive receptors is not practicable, proxy monitoring locations may be used. In such instances, justification will be provided to demonstrate that the selected proxy locations are representative of the acoustic environment experienced at the relevant sensitive receptors.

b. Although environmental noise levels vary over time (for example due to variations in source levels and levels of activity, and meteorological effects on sound propagation), surveys will be undertaken in accordance with relevant standards and guidance to establish a representative baseline. The proposed unattended period of a minimum of seven days is considered appropriate to reduce uncertainty associated with temporal and diurnal variations in noise levels;

c. The detailed design of the Proposed Development is still being developed. Accordingly, construction plant, programme and operational plant specifications used in the assessment will be based

on the best available design information and will be refined as the design progresses;

d. Noise and vibration effects during decommissioning are anticipated to be similar to, or lower than, those during construction. The construction assessment will therefore be considered representative of the decommissioning phase; and
e. Construction and operational noise predictions will be undertaken using recognised prediction methodologies and representative source data in accordance with the relevant British Standards.

12.9. Summary of Elements Scoped In and Out

12.9.1 A summary of the elements scoped into and out of the noise and vibration assessment is presented in **Table 12-5**.

Table 12-5 Elements scoped in and out of the noise and vibration assessment

Element	Scoped In / Scoped Out	Reasoning
Construction		
Noise and vibration levels associated with construction works	Scoped in	Temporary noise and vibration emissions from construction works may adversely impact on sensitive receptors.
Construction traffic noise	Scoped in	Temporary noise from construction traffic movements may adversely affect receptors near public roads that are part of construction traffic routes.
Construction traffic vibration	Scoped out	It is assumed that Somerset Council will maintain good quality conditions for highways used to access the Proposed Development. Therefore, an assessment of construction traffic vibration has been scoped out.
Operation		
Operational solar farm noise	Scoped in	Permanent operational noise emissions from Proposed Development infrastructure, including inverters, transformers, BESS units and substations, may adversely affect nearby sensitive receptors.
Operational 33 kV and 132 kV overhead line noise	Scoped out	Operational noise from 132 kV and/or 33 kV overhead lines associated with the Inter-Array Connections, as emissions from conductors operating at these voltages are not expected to

Element	Scoped In / Scoped Out	Reasoning
		result in perceptible noise at nearby sensitive receptors.
Operational 400 kV overhead line noise	Scoped in	Operational noise emissions from the 400 kV Grid Connection overhead line may be perceptible at nearby sensitive receptors.
Operational traffic noise	Scoped out	Operational traffic flows would be minimal and not sufficient to result in a 1 dB increase in noise, which would require a 25% increase in traffic.
Vibration from the operation of the Proposed Development	Scoped out	No plant that would generate perceptible levels of vibration is part of the Proposed Development and, as such, there will be no associated operational vibration effects. It is proposed that operational ground-borne vibration is scoped out of any further assessment.
Maintenance noise	Scoped out	Maintenance activities are infrequent, short-lived, use light plant, and are no worse than construction or typical agricultural activity.
Decommissioning		
Noise and vibration levels associated with decommissioning works	Scoped in	Temporary noise and vibration emissions from decommissioning works may adversely impact on sensitive receptors.
Decommissioning traffic noise	Scoped in	Temporary noise from decommissioning traffic movements may adversely affect receptors near public roads that are part of decommissioning traffic routes.
Decommissioning traffic vibration	Scoped out	It is assumed that Somerset Council will maintain good quality conditions for highways used to access the Proposed Development. Therefore, an assessment of decommissioning traffic vibration has been scoped out.

13. Socio-economics, Tourism and Recreation

13.1. Introduction

13.1.1 This chapter sets out the proposed approach to the assessment of likely significant effects on socio-economics, tourism and recreation during the construction, operation (including maintenance) and decommissioning phases of the Proposed Development. It identifies the proposed assessment methodology and embedded mitigation measures that will be considered within the ES.

13.1.2 This chapter is supported by **Figure 13-1: Study Area for Socio-economic Receptors.**

13.2. Study Area

13.2.1 The potential economic and employment impacts of the Proposed Development, both temporary and permanent, will be considered in relation to a principal economic area. This comprises Somerset and adjoining local authority areas from which construction and operational workers, businesses and suppliers are anticipated to be drawn, having regard to Local Planning Authority boundaries, typical travel time from the Proposed Development, and relevant demographic and economic data.

13.2.2 The Study Area for socio-economic receptors (residential properties, local businesses, visitor attractions relevant for tourism, farming businesses, community facilities, open space, recreational assets and development land) reflects receptors that could be directly or indirectly affected by the Proposed Development.

13.2.3 The Study Area for direct effects comprises the area within the Scoping Site Boundary, including the Energy Park and Connection & Access Infrastructure Corridors, and any receptors which extend beyond the Scoping Site Boundary where they are contiguous.

13.2.4 The Study Area for indirect effects principally comprises the area within 500 m of the Scoping Site Boundary, with a wider 2 km buffer from the Scoping Site Boundary used for community facilities, educational establishments, healthcare facilities, recreational assets, public rights of way (PRoW), tourism assets and visitor accommodation, where the potential zone of influence extends beyond the immediate vicinity of the Proposed Development. This area is shown in **Figure 13-1: Study Area for Socio-economic Receptors**. The Study Area will be reviewed and refined, where necessary, as the Proposed Development evolves and the DCO Site Boundary is defined.

13.3. Legislation, Planning Policy Context and Guidance

13.3.1 There is no applicable legislation specific to the assessment of socio-economics. Planning policy and guidance relating to socio-economics, tourism and recreation and pertinent to the Proposed Development comprises the following:

National Planning Policy

13.3.2 The following National Policy Statements (NPS) have been considered in identifying potential socio-economic, tourism and recreation effects and informing the proposed scope of the assessment:

a. Overarching National Policy Statement for Energy (EN-1) (December 2025) (Ref 5) with particular reference to paragraphs 4.1.5 and 4.1.6 in relation to adverse effects and benefits, paragraph 4.3.1 in relation to requirements for the content of an Environmental Statement, paragraph 4.3.2, Section 5.11 in relation to land use and Section 5.13 in relation to socio-economics; and
b. National Policy Statement for Renewable Energy Infrastructure (EN-3) (December 2025) (Ref 6), which, where applicable sets out the additional consideration of socio-economic impacts associated specifically with solar photovoltaic generation schemes and highlights the need to consider effects on PRoW. Paragraph 2.10.61 references the socio-economic benefits of retaining site infrastructure after the operational life of a solar farm, such as retaining pathways through the site.

Other Policy and Guidance

13.3.3 Other relevant national planning policy and guidance includes:

a. The National Planning Policy Framework (NPPF) (August 2026) (Ref 9) with particular reference to Chapter 7: Building a strong, effective economy and Chapter 11: Facilitating the sustainable use of minerals; and
b. The UK's Modern Industrial Strategy (June 2025) (Ref 335) outlines ambitions to increase productivity and drive growth, one way this is highlighted is through Clean Growth; to lead the world in the development, manufacture and use of low carbon technologies.

13.3.4 Relevant local planning policy includes:

a. Somerset Minerals Plan, Development Plan Document up to 2030, as adopted in February 2015 (Ref 12);
b. Waste Core Strategy, Development Plan Document up to 2028, as adopted February 2013 (Ref 13);
c. Sedgemoor Local Plan 2011-2032 (Adopted February 2019) (Ref 11) with particular reference to Policy D13 (Sustainable Transport and Movement), Policy D15 (Economic Prosperity), Policy D17 (Tourism), Policy D28 (Health and Social Care), and Policy D29 (Green Infrastructure). Until they are replaced by one or more Development Plan documents for the newly formed Somerset unitary authority, existing Development Plans of the former councils will remain in place for the relevant geographical areas of Somerset. The Proposed

Development is contained within the area of the former district of Sedgemoor; and

d. Somerset Economic Prosperity Strategy 2025-2045, as adopted in July 2025 (Ref 336) which sets out Somerset's long-term vision for economic growth, investment, productivity, skills development and business competitiveness.

Relevant Industry Guidance

13.3.5 Relevant industry guidance includes the Institute of Sustainability and Environmental Professionals (ISEP) guidance Social Impact Assessment in Environmental Impact Assessment in the UK and Ireland (Ref 337). The guidance provides a framework for the identification, assessment and evaluation of social effects arising from development proposals, including effects on communities, wellbeing, quality of life, accessibility, recreation and local services. The guidance has been used to inform the proposed scope and methodology for the socio-economics, tourism and recreation assessment.

13.4. Consultation

13.4.1 Consultation will be undertaken as part of the EIA process following submission of this EIA Scoping Report. Responses received from the Planning Inspectorate, Somerset Council and other relevant consultees will be reviewed and used, where appropriate, to inform the scope and methodology of the socio-economics, tourism and recreation assessment.

13.4.2 In addition, engagement with Somerset Council and other relevant stakeholders will be undertaken, where appropriate, to inform baseline data collection and identify any local socio-economic, tourism or recreation issues that should be considered within the assessment.

13.5. Baseline Conditions

13.5.1 This section describes the baseline characteristics of the Study Area and surrounding area relevant to the assessment of socio-economic, tourism and recreation effects.

13.5.2 The potential impacts arising from the Proposed Development will be assessed relative to the baseline conditions and benchmarked against regional and national standards where appropriate. The key indicators and measures used to characterise the Study Area will be established for:

a. Population and deprivation (including skills and qualifications);
b. An overview of the local economies;
c. The local labour markets; and
d. Land use (excluding agricultural land quality).

13.5.3 A high-level summary of baseline conditions has been presented in the following paragraphs, based upon review of the following documents:

a. Office for National Statistics (ONS), (2026); Population estimates - local authority based by single year of age (Ref 338);

b. Ministry of Housing, Communities and Local Government, (2025); English indices of deprivation (Ref 339);
c. ONS (2025); Gross Value Added (Balanced Approach) 2023 (Ref 340);
d. ONS (2026); Annual Population Survey (January 2025 to December 2025) and (April 2025 to March 2026) (Ref 341);
e. ONS (2026); Claimant Count by sex and age (June 2026) (Ref 342);
f. ONS (2025); Business Register and Employment Survey 2024 (Ref 343); and
g. ONS (2025); Population projections – local authority based by single year of age (Ref 344).

13.5.4 The Proposed Development is located within the area administered by Somerset Council (unitary authority). This section will therefore establish the baseline conditions relative to this area in comparison to the wider South West region, and England and Wales.

Population and Deprivation

13.5.5 Based on ONS Population Estimates data, the usual resident population of Somerset has grown from 548,792 in 2015 to 590,972 in 2025 representing an increase of 7.7%. The increase in Somerset is lower than that recorded in the South West (8.0%) but higher than that recorded across England and Wales as a whole (7.1%) (Ref 338).

13.5.6 In terms of deprivation, Somerset is ranked 134th out of England's 296 local authority areas, where a rank of one represents the most deprived authority. Of all Lower layer Super Output Areas (LSOAs)[7] in Somerset, 9.4% are ranked amongst the 20% most deprived LSOAs nationally, while 16.8% of LSOAs in Somerset are ranked amongst the 30% least deprived (Ref 339).

Local Economy and Labour Market

13.5.7 According to ONS Regional gross value added (balanced) data (Ref 340), Gross Value Added (GVA) per head in 2023 was lower in Somerset (£26,692 per head of population at current basic prices) than in the South West region (£31,999) and across England as a whole (£36,632).

13.5.8 The ONS regional GVA data shows that in 2023, the GVA of the construction industry in England was approximately £133.2 billion, with GVA per head for workers being approximately £102,649. In 2023, the GVA of the construction industry in Somerset was approximately £1.1 billion with GVA per head for workers being approximately £64,353.

13.5.9 In 2025, the Annual Population Survey (Ref 341) showed that 44.4% of usual residents aged 16 to 64 in Somerset hold degree-level qualifications (Regulated Qualifications Framework (RQF) Level 4 or above), which is lower than the rate recorded in the South West region (46.5%), and across England and Wales (47.9%). In Somerset, 5.6% of the population hold no

[7] Areas made up of groups of output areas (Oas), usually four or five. LSOAs comprise between 400 and 1,200 households and have a usually resident population between 1,000 and 3,000 persons.

qualifications, compared with 4.5% in the South West, and 6.2% across England and Wales.

13.5.10 The Annual Population Survey recorded that, between April 2025 to March 2026, the number of people of employment age (16- to 64-year-olds) was 325,200 in Somerset. The economic activity rate (defined as the proportion of the population aged 16 to 64 who are economically active) was 80.5% in Somerset, lower than in the South West (81.8%), but higher than the rate in England and Wales as a whole (79.3%).

13.5.11 The Annual Population Survey, covering the period from April 2025 to March 2026, recorded the unemployment rate for working-age residents (16- to 64-year-olds) as 2.8% in Somerset, lower than the unemployment rate across the South West (3.4%) and England and Wales (4.7%). The claimant count (as a proportion of residents aged 16 to 64 years), recorded in June 2026 (Ref 342), was 2.6% in Somerset, which is lower than the rates across the South West (2.8%) and England and Wales as a whole (4.0%).

Employment

13.5.12 In 2024, the Business Register Employment Survey (Ref 343) showed that the broad industrial groups that employ the most people in Somerset are the Health sector (14.3%) followed by Manufacturing (11.1%). The Health sector in Somerset represents a smaller proportion of employment than in the South West (14.9%) although it remains a higher proportion than in England and Wales (13.9%).

13.5.13 The mining, quarrying and utilities broad industrial group (which includes employment from the generation of energy) represents 1.8% of employment by number of jobs in Somerset which is higher than in the South West (1.4%) and across England and Wales (1.2%). Employment in the construction industry is 5.7% in Somerset, higher than both averages in the South West (5.0%) and England and Wales (4.9%).

Land use Receptors including farming businesses

13.5.14 The Scoping Site Boundary is mostly used for agricultural purposes, being characterised by a pattern of small fields across multiple agricultural landholdings interspersed by hedgerows, ditches and local roads.

Residential Properties

13.5.15 There are a small number of rural residential properties and farmhouses within the Connection & Access Infrastructure Corridors, but no residential receptors are located within the Energy Park boundary.

13.5.16 Nearby residential receptors to the Scoping Site Boundary include (but are not limited to) isolated farms and rural properties as well as the town of Highbridge, the villages of East Huntspill, Blackford, Stone Allerton, East Brent, Brent Knoll, Mark, West Huntspill, Badgworth, Woolavington, and Weare. There are also a number of smaller hamlets within the 2 km Study Area.

Community Facilities

13.5.17 There are no community facilities within the Scoping Site Boundary.

13.5.18 There is a total of 14 schools within the 2 km Study Area. The closest schools to the Scoping Site Boundary are Sedgemoor Manor School (330 m), and the Mark Church of England VC First School (360 m) both in the village of Mark, and Woolavington Village Primary (370 m) within the village of Woolavington.

13.5.19 The closest primary healthcare facilities to the Scoping Site Boundary are the Woolavington Branch Surgery (300 m) in the village of Woolavington, the Brent Area Medical Centre (1.4 km) in the village of East Brent, and Highbridge Medical Centre within the town of Highbridge (1.7 km).

13.5.20 Other community facilities within the 2 km of the Scoping Site Boundary include 20 community centres/village halls, 21 churches, 10 pre-schools, and one railway station, the Highbridge & Burnham Railway Station, approximately 800 m from the Scoping Site Boundary within the town of Highbridge.

Business Premises

13.5.21 Other than farming businesses, there is one business within the Scoping Site Boundary. Woof Hall Dog Field, a private dog exercise facility, is located entirely within the Connection & Access Infrastructure Corridors.

13.5.22 The types of business premises located within 500 m of the Scoping Site Boundary and within or adjacent to nearby settlements include automotive and transport; construction, building & property services; manufacturing & industrial; waste, recycling & environmental services; retail & consumer goods; hospitality, food & drink; leisure, health & personal services; and property & storage premises.

Development Land

13.5.23 Development land includes allocated, consented and committed development sites within and adjacent to the Scoping Site Boundary.

13.5.24 With regard to mineral safeguarding areas, mineral consultation areas, waste safeguarding areas or transport safeguarding areas, there are no known development land allocations within the Scoping Site Boundary itself.

13.5.25 The Gravity Enterprise Zone development site is located within the Scoping Site boundary between the villages of Puriton and Woolavington. The site is being developed as a major strategic employment location and benefits from a Local Development Order. The development will include a large-scale battery manufacturing facility as well as additional businesses and organisations located on the site forming the wider smart campus. Initial groundworks began during 2024 and further development will continue in phases as the project progresses (Ref 345).

13.5.26 A detailed review of development land within and adjacent to the Scoping Site Boundary, will be undertaken during preparation of the ES.

Recreation and Open Space

13.5.27 In respect of recreational routes, there is a network of PRoW which are found in and around the Scoping Site Boundary and provide connectivity for walkers, cyclists, and equestrians between adjacent settlements. Overall, 14 public footpaths and 11 bridleways are within the Scoping Site Boundary, with there being additional walking routes and bridleways within the 2 km Study Area. More information on PRoWs is provided in **Chapter 15: Transport and Access**.

13.5.28 The only other open space or recreational asset identified within the Scoping Site Boundary is National Cycle Network (NCN) Route 33, which crosses the Connection & Access Infrastructure Corridors.

13.5.29 Open spaces within 2 km of the Scoping Site Boundary include the Marconi Dr Play Area, Highbridge Recreation Ground, East Huntspill FC Playing Field, Badgworth Village Playground, East Brent Playground, Rosewood Green Park, Apex Leisure Park, Cossington Park, and Stilling Close Play Area. Recreational assets within the Study Area include Ridgemoor Swimming Pool, Mark Moor Bowling Club, and the Wall Eden Adventure Centre.

13.5.30 A number of open spaces within the 2 km Study Area are designated under the policies of the Sedgemoor Local Plan 2011-2032 (Ref 11). These include four open areas protected from development comprising the Village Green at Brent Road, The Glebe Field, Land southwest of the Old Rectory, as well as the combined open space of Land at Overbrook, Manor Farm and Sleepy Hollow. The 2 km Study Area also contains over 30 formal recreational outdoor spaces including Allerton Cricket Ground, Mark Cricket Club, East Huntspill Cricket Club, East Huntspill Playing Field, Somerset Court Cricket Ground, Burnbridge Wanderers Junior Football Club, Southwell Gardens Playing Field. In addition, there are over 70 informal recreational outdoor spaces within the 2 km Study Area such as Newton Lake, Brent Knoll, and the Isleport Business Park Ponds.

Visitor Accommodation

13.5.31 There is no visitor accommodation located within the Scoping Site Boundary. There are a number of accommodation facilities within 2 km including 20 holiday homes, eight B&Bs, 20 hotels, and seven caravan parks/campsites. Baseline information on wider visitor and workforce accommodation supply and demand will be provided within the ES, proportionate to the likely effects and drawing on available data, including consideration of existing and projected demand associated with Hinkley Point C and the Gravity Enterprise Zone where information is available.

Tourism

13.5.32 As noted in the Somerset Economic Prosperity Strategy 2025-2045 (Ref 336), tourism activities in the local area are centred around the coastline and natural landscapes as well as cultural and heritage assets. There are no tourism/visitor attractions within the Scoping Site Boundary. Notable visitor attractions in the Study Area include the Ashton Windmill, located within 890 m of the Scoping Site Boundary, and the Brent Knoll Iron Age Hillfort, located approximately 1.3 km north west of the Scoping Site Boundary. Although not

within the Study Area, the Mendip Hills National Landscape is a notable visitor attraction approximately 2.7 km to the northeast. Berrow Beach is the closest beach and is located approximately 5 km from the Scoping Site Boundary and outside the Study Area.

Future Baseline

13.5.33 The population projections for local authorities based by single year of age (Ref 344) forecast that the population of Somerset will increase from 577,091 in 2022 to 606,823 in 2030, representing growth of 5.2%. This projected increase is lower than that forecast for the South West (6.2%) and England as a whole (5.4%) over the same period.

13.5.34 There is uncertainty regarding the future baseline of existing local land uses, except where future land uses are known through planning permissions, planning applications or local plan allocations. Therefore, for the purposes of this assessment, the future baseline for local land uses (including residential properties, local businesses, farming businesses, open space, community facilities, visitor attractions and development land) is assumed to remain broadly consistent with the existing baseline conditions described above, unless identified development proposals indicate otherwise.

13.5.35 Notably, the proposed Gravity Enterprise Zone located between the villages of Puriton and Woolavington would within the Scoping Site Boundary. The development is expected to create up to 4,000 direct jobs, alongside thousands of additional opportunities through suppliers and supporting businesses (Ref 345). Battery production is planned to begin in phases, with the site expected to become fully operational in the early 2030s.

13.6. Potential Effects and Mitigation

13.6.1 This section sets out the potential effects of the Proposed Development on socio-economics, tourism and recreation.

13.6.2 Relevant mitigation measures identified at this stage are included in **Appendix 1-2: Environmental Mitigation and Commitments Register** of this EIA Scoping Report.

13.6.3 The Proposed Development may generate a range of socio-economic effects, some of which would be temporary, whilst others would be permanent. Where information is available, the assessment is expected to consider how sustainable the jobs are, including any contribution to Net Zero skills. For the purposes of the ES, due consideration will be given by this chapter of the EIA Scoping Report to the effects for each phase of the Proposed Development as set out below.

Construction and Decommissioning

13.6.4 Potential effects under consideration during the construction and decommissioning phases are as follows:

a. Temporary employment during the construction and decommissioning phases;

b. Gross Value Added during the construction and decommissioning phases;
c. Indirect economic effects associated with the use of local labour, supply chains and support services within the local, regional and national economy;
d. Potential effects on local visitor accommodation provision, taking account of accommodation supply, demand and occupancy levels;
e. Effects on the tourism industry in the local area, considering the effect on visitor attractions;
f. Potential temporary and/or permanent effects arising from land take on residential properties, local businesses, farming businesses, community facilities, open space, PRoW, recreational routes and development land; and
g. Potential temporary and/or permanent adverse changes to accessibility of residential properties, local businesses, farming businesses, visitor attractions, community facilities, open space, PRoW or recreational routes, or development land.

Operation

13.6.5 Potential effects under consideration during the operational phase are as follows:

a. Creation of long-term employment opportunities associated with the operation and maintenance of the Proposed Development;
b. Indirect economic effects associated with the use of local labour, supply chains and support services within the local, regional and national economy;
c. Effects on the tourism industry in the local area, including potential effects on visitor attractions;
d. Potential effects arising from land use change on residential properties, local businesses, farming businesses, community facilities, open space, PRoW, recreational routes and development land; and
e. Potential changes to the accessibility of residential properties, local businesses, farming businesses, visitor attractions, community facilities, open space, PRoW, recreational routes and development land.

Mitigation

13.6.6 Embedded mitigation measures will be included in the design where practicable to help avoid, prevent or reduce effects on socio-economic resources and receptors. Further details of specific measures relevant to amenity effects on private assets will be set out in relevant chapters of the ES. The topics relevant to amenity effects that are identified in this EIA Scoping Report include: **Chapter 11: Landscape and Visual**, **Chapter 12: Noise and Vibration**, **Chapter 14: Agriculture and Soils**, **Chapter 15: Transport and Access** and **Chapter 17: Other Environmental Topics** (particularly Section 17.1 Air Quality).

13.6.7 Measures to control dust and noise will be set out in an Outline Construction Environmental Management Plan (CEMP), Outline Operational Environmental Management Plan (OEMP) and an Outline Decommissioning Environmental Management Plan (DEMP) to be submitted as part of the DCO Application. Visual effects are expected to be addressed through design and landscaping as set out in **Chapter 11: Landscape and Visual**.

13.6.8 To manage the impacts of construction traffic on the highway network, a detailed Construction Traffic Management Plan (CTMP) will be in place (in accordance with the Outline CTMP which will be submitted as part of the DCO Application). It will set out management measures for traffic routing, timing and access to the Proposed Development.

13.6.9 An Outline PRoW Management Plan (PRoWMP) is proposed, setting out measures for minimising impacts on the PRoW network during the construction, operational, and decommissioning phases. Where temporary diversions are needed, the Outline PRoWMP is expected to set out signage and advance notice. It is expected that any temporary diversions of PRoWs implemented during the construction phase will be monitored to ensure that they are suitable and well-maintained for use.

13.7. Assessment Methodology

13.7.1 The assessment methodology has been informed by relevant planning policy and industry guidance, including the NPSs, the NPPF, PPG, and ISEP guidance 'Social Impact Assessment in Environmental Impact Assessment in the UK and Ireland'. Baseline information will be derived from publicly available datasets, planning policy documents, land use information and site-specific data, as appropriate.

Assessment of Effects (Including Significance)

13.7.2 An assessment of effects will be undertaken to consider the impact of the Proposed Development on the baseline socio-economic conditions. The methodology will entail:

a. Assessment of the likely scale, permanence and significance of effects associated with socio-economic receptors; and
b. An assessment of the potential cumulative effects with other schemes within the surrounding area.

13.7.3 The assessment of potential socio-economic effects will use policy thresholds and expert judgement to assess the scale and nature of the effects of the Proposed Development against baseline conditions. For socio-economics, there is no accepted definition of what constitutes a significant (or not significant) socio-economic effect. However, it is recognised that effects are categorised based on the relationship between the scale (or magnitude) of effect and the sensitivity (or value) of the affected resource or receptor.

13.7.4 As such, the socio-economic effects will be assessed based on:

a. Consideration of sensitivity to effects: the assessment takes account of the qualitative (rather than quantitative) 'sensitivity' of each receptor

and, in particular, their ability to respond to change based on recent rates of change and turnover (if appropriate);

b. Magnitude of change: this entails consideration of the size of the impact on people or business within the context of the area in which the impacts would be experienced; and

c. Scope for adjustment or mitigation: the socio-economic study is concerned in part with economies. These adjust themselves continually to changes in supply and demand, and the scope for the changes brought about by the Proposed Development to be accommodated by market adjustment will therefore be a criterion in assessing significance.

13.7.5 The sensitivity of socio-economic, tourism and recreation receptors will be assessed as high, medium, low or very low.

13.7.6 The criteria for assessing and classifying levels of socio-economic receptor sensitivity used within the assessment are defined in **Table 13-1**, based on professional judgement.

Table 13-1 Socio-economic Receptors Sensitivity Criteria

Sensitivity	Definition
High	Businesses, individuals, groups of individuals, or other receptors possessing substantial economic, social and/or community value. These receptors are considered likely to incur some material loss or gain as a result of potential changes in the environment, with limited potential for substitution.
Medium	Businesses, individuals, groups of individuals, or other receptors possessing some economic, social and/or community value. These receptors are considered likely to incur a material loss or gain as a result of potential changes in the environment, with potential for substitution.
Low	Businesses, individuals, groups of individuals, or other receptors possessing some economic, social and/or community value. These receptors are not considered likely to incur any loss or gain as a result of potential changes in the environment.
Very Low	Businesses, individuals, groups of individuals, or other receptors possessing limited economic, social and/or community value. These receptors are not considered likely to incur any loss or gain as a result of potential changes in the environment.

13.7.7 The magnitude of the socio-economic impacts associated with the Proposed Development will be assessed as being high, medium, low or very low. These terms are defined in **Table 13-2**.

Table 13-2 Socio-economic Receptors Magnitude Criteria

Magnitude	Definition
High	An impact that would be likely to result in total loss of an individual receptor or permanent changes to baseline conditions for a large number of businesses, individuals or groups of individuals.
Medium	An impact that would be very likely to result in partial changes to baseline conditions for a moderate number of businesses, individuals or groups of individuals.
Low	An impact that would be likely to result in minor changes to baseline conditions for a small number of businesses, individuals or groups of individuals.
Very Low	An impact that would be likely to result in little or no change to baseline conditions for businesses, individuals or groups of individuals.

13.7.8 The following criteria in **Table 13-3** will be applied to assess the effects on visitor attractions (tourism), and recreation and open space.

Table 13-3 Tourism and Recreation Sensitivity Criteria

Sensitivity	Definition
High	Amenity or land use is of high importance and rarity with limited potential for substitution or access to alternatives.
Medium	Amenity or land use is of medium importance and rarity with moderate potential for substitution or access to alternatives.
Low	Amenity or land use is of low importance and rarity with alternatives available.
Very Low	Amenity or land use is of very low importance and rarity with alternatives available.

13.7.9 The assessment of visitor attractions, recreation and open space will consider direct impacts arising from changes to access, availability, value, quality and amenity. Where appropriate, the assessment will also consider the combined influence of effects identified within other environmental topics, including noise and vibration, transport and landscape and visual effects. **Table 13-4** identifies the magnitude of impact criteria which will be used to assess the impacts on tourism and recreation.

Table 13-4 Tourism and Recreation Magnitude Criteria

Magnitude	Definition
High	An impact that permanently or long term affects the integrity and value of a facility or land use; or that considerably enhances the value and quality of a facility or land use.

Magnitude	Definition
	In cases of indirect effects on amenity of users, this will equate to where three or more moderate or major significance residual effects are identified with at least two effects being of major significance on a receptor from across the following environmental topics findings: noise, transport, or landscape and visual.
Medium	An impact that causes a noticeable negative effect on the value of a facility or land use, but where its recovery is possible with no permanent or long-term impacts; or an impact that leads to some noticeable improvement in key characteristics and features of the facility or land use. In cases of indirect effects on amenity of users, this will equate to where two or more moderate or major significance residual effects are identified with at least one effect being of major significance on a receptor from across the following environmental topics findings; noise, transport, or landscape and visual.
Low	An impact that has some negative effect on the value of a facility or land use, but a recovery is expected in the short-term with no change to its integrity; or an impact that has some beneficial impact on the attributes of the facility or land use. In cases of indirect effects on amenity of users, this will equate to where two residual effects which are not worse than moderate in significance are identified on a receptor from across the following environmental topics findings; noise, transport, or landscape and visual.
Very Low	An impact which is a very small loss or benefit from baseline conditions where the change is barely distinguishable, approximating to a “no change” situation. In cases of indirect effects on amenity of users, this will equate to either where only one moderate or major significance residual effect is identified on a receptor from across the following environmental topics findings; noise, transport, or landscape and visual, or where all of these findings are minor adverse or negligible.

13.7.10 As part of the assessment, the likely effects on land use arising from the construction, operation (including maintenance) and decommissioning of the Proposed Development will be considered.

13.7.11 The assessment aims to be objective and quantifies effects as far as possible. However, some effects can only be evaluated on a qualitative basis. Effects are defined as follows:

a. Beneficial classifications of effect indicate an advantageous or beneficial effect on an area, which may be minor, moderate, or major in effect;

b. Negligible classifications of effect indicate imperceptible effects on an area;
c. Adverse classifications of effect indicate a disadvantageous or adverse effect on an area, which may be minor, moderate or major in effect; and
d. No effect classifications indicate that there are no effects on an area.

13.7.12 Significance will be determined using **Table 13-5** and professional judgement, with reference to **Chapter 6: Environmental Impact Assessment Methodology, Table 6-3**. Socio-economic, tourism and recreation effects reflect the relationship between the sensitivity of the affected receptor and the magnitude of the change, as set out in **Table 13-5.** The different levels of effect significance are defined below:

a. Negligible: very little change from baseline conditions. The change will be barely distinguishable and approximating to a no change;
b. Minor: a small number of receptors are beneficially or adversely affected. The effect will make a small measurable positive or negative difference on receptors at the relevant area(s) of effect;
c. Moderate: a noticeable number of receptors are beneficially or adversely affected. The effect will make a measurable positive or negative difference on receptors at the relevant area(s) of effect; and
d. Major: a large number of receptors are beneficially or adversely affected. The effect will make a measurable positive or negative difference on receptors at the relevant area(s) of effect.

Table 13-5 Impact Assessment and Effect Significance

Sensitivity Of Receptor	**Magnitude Of Change**			
	High	**Medium**	**Low**	**Very Low**
High	Major	Major	Moderate	Minor
Medium	Major	Moderate	Minor	Negligible
Low	Moderate	Minor	Negligible	Negligible
Very Low	Minor	Negligible	Negligible	Negligible

13.7.13 Those effects which are found to be moderate or major are considered to be ‘significant’ and those which are minor or negligible are ‘not significant’. This is subject to professional judgement, as set out in **Chapter 6: Environmental Impact Assessment Methodology**, paragraph 6.6.10.

13.7.14 Duration of effect is also considered, with more weight given to reversible long-term or permanent changes than to short term temporary ones. For the purposes of this assessment, and in line with **Chapter 6: Environmental Impact Assessment Methodology,** 6 paragraph 6.5.3, short term effects are considered to be of one year or less (generally associated with the activities associated with construction and decommissioning phases), medium term effects of one to five years, and long-term effects of five or more years (associated with the operational phase).

13.7.15 Employment and GVA effects will consider the temporary and long-term impact on a principal economic area defined based on consideration of local authority area boundaries and a typical travel time from the Scoping Site Boundary. The Ministry of Housing, Communities and Local Government (MHCLG) Appraisal Guide will be applied to assess direct, indirect and induced impacts (Ref 346).

13.7.16 The assessment of effects on recreational facilities, including PRoW, will consider direct impacts arising from any closure, loss or diversion. Effects on development land will consider direct (land-take) and indirect (access) impacts on the delivery of development proposals or allocations both within and adjacent to the Scoping Site Boundary.

13.7.17 Health and wellbeing effects from changes to jobs, community facilities, open space and PRoW will be reported in this chapter, using the human health baseline from Section 17.3 within **Chapter 17: Other Environmental Topics**. Older and disabled people will be treated as having greater sensitivity.

13.7.18 The assessment will consider potential effects on farm businesses arising from land take, disruption to agricultural operations, severance of landholdings, changes to access arrangements and implications on operations. The assessment will draw on landownership information, agricultural land use data and engagement with affected landowners and occupiers, where available.

13.7.19 Effects on community identity, structure and way of life will be assessed qualitatively, drawing on baseline information on community characteristics, and local services, together with consideration of the scale, duration and distribution of construction activities.

13.7.20 Visitor accommodation effects will be assessed using available quantitative and qualitative evidence on accommodation supply, demand and the anticipated workforce requirements, together with consideration of potential implications for local communities.

13.8. Limitations and Assumptions

13.8.1 Where landowners agree, information on current land use and employment will be used; otherwise, published data and professional judgement will be applied.

13.9. Summary of Elements Scoped In and Out

13.9.1 A summary of the elements scoped in and out of the socio-economics, tourism and recreation assessment is presented in **Table 13-6**.

Table 13-6 Elements Scoped In and Out of the Socio-economics, Tourism and Recreation Assessment

Element	Scoped In / Scoped Out
Employment, economic growth	Scoped in: There is potential for the creation of employment, training and apprenticeship opportunities

Element	Scoped In / Scoped Out
and training (construction, operation and decommissioning)	during the construction, operation (including maintenance) and decommissioning phases of the Proposed Development.
Recreation and open space (including PRoW) (construction, operation and decommissioning)	Scoped in: There may be effects on the use of and the accessibility of recreational routes (including PRoW)beyond the Scoping Site Boundary.
Private assets (construction, operation and decommissioning)	Scoped in: There is potential for effects on the accessibility and amenity of residential properties, businesses and community facilities within and beyond the Scoping Site Boundary.
Development land (construction, operation and decommissioning)	Scoped in: As set out with Section 13.5, development land is located within the Scoping Site Boundary.
Community identity, structure and way of life (construction and decommissioning)	Scoped in: There are potential for effects on community identity and social cohesion within settlements closest to the Proposed Development. These effects will be assessed qualitatively, drawing on baseline information on community characteristics, and local services, together with consideration of the scale, duration and distribution of construction activities.
Visitor Accommodation (construction, and decommissioning)	Scoped in: Construction activities may generate temporary effects on local communities through changes in demand for visitor accommodation, services and facilities.
Tourism (construction, operation, and decommissioning)	Scoped in: There are some visitor attractions within 2 km of the Scoping Site Boundary, and as such the tourism economy and its receptors have the potential to experience effects arising from the Proposed Development.
Farming businesses (construction, operation, and decommissioning)	Scoped in: Farming businesses located within the Energy Park and Connection & Access Infrastructure Corridors may experience temporary or permanent changes in land use and agricultural operations. There is therefore potential for likely significant effects on farming businesses arising from the Proposed Development.

14. Agriculture and Soils

14.1. Introduction

14.1.1 This chapter sets out the proposed approach to the assessment of likely significant effects on Agriculture and Soils during construction, operation (and maintenance) and decommissioning phases of the Proposed Development. It identifies the proposed assessment methodology and embedded mitigation measures that will be considered within the Environmental Statement (ES).

14.1.2 This chapter is supported by the following figures:

a. **Figure 14-1: Predictive Agricultural Land Classification (ALC)**; and
b. **Figure 14-2: Soil Associations**.

14.2. Study Area

14.2.1 The Study Area for Agriculture and Soils is the Scoping Site Boundary, including the Energy Park and the Connection & Access Infrastructure Corridors. No buffer is applied when describing the Study Area, as the impacts to Agriculture and Soils only occur on the land that is directly impacted by the Proposed Development. The Study Area will be reviewed and refined, where necessary, as the Proposed Development evolves and the DCO Site Boundary is defined.

14.2.2 It is noted that to provide additional context to the discussion of agricultural land within the ES, the impacts are based on the scale of loss of any Best and Most Versatile (BMV) agricultural land, which will also be considered in the wider (Regional) context of the Somerset Council area.

14.3. Legislation, Planning Policy Context and Guidance

14.3.1 Legislation, planning policy and guidance relating to Agriculture and Soils and pertinent to the Proposed Development comprises:

Legislation

14.3.2 The Environment Act 2021 (Ref 18) establishes a statutory framework for environmental protection and improvement, including soil health, requiring the Secretary of State to set legally binding targets and prepare Environmental Improvement Plans aimed at conserving and enhancing natural resources, including soils.

National Planning Policy

14.3.3 The following planning policies from relevant National Policy Statements (NPS) have been taken into account as part of identifying the assessment methodology, receptor selection/sensitivity, potential significant environmental effects, and mitigation:

a. Overarching National Policy Statement for Energy (EN-1) (December 2025) (Ref 5), including paragraphs 4.6.13, 4.7.2, 5.11.12, 5.11.15 and 5.11.34 in the Land Use, Including Open Space, Green Infrastructure, and Green Belt section and 5.11.23 under mitigation;
b. NPS for Renewable Energy Infrastructure (EN-3) (December 2025) (Ref 6) Section 2.10, including paragraphs 2.10.20, 2.10.21, 2.10.26 in agricultural land and land type and paragraph 2.10.73 (Ref 3); 2.10.137, 2.12.62 and 2.12.63 to minimise impacts on soils; and
c. NPS for Electricity Networks Infrastructure (EN-5) (December 2025) (Ref 7) paragraph 2.9.26.

Other Policy and Guidance

d. The National Planning Policy Framework (NPPF) (2026) (Ref 9). Chapter 19 on Conserving and enhancing the natural environment; and
e. Environmental Improvement Plan (EIP) 2025 (Ref 21) for managing, improving, and protecting soil responsibly while making Britain a clean energy superpower.

14.3.4 Relevant local planning policy includes:

a. Sedgemoor Local Plan 2011 to 2032 (Ref 11), Policies S4: Sustainable Development Principles, D4: Renewable or Low Carbon Energy and Heat Generation projects and D20: Biodiversity and Geodiversity.

Relevant Industry Guidance

14.3.5 Relevant industry guidance includes:

a. The Land Use Framework for England (Ref 290);
b. The Guidelines for grading the quality of agricultural land JP069 DEFRA (2025) (Ref 291);
c. Natural England's Guide to Assessing Development Proposals on Agricultural Land 2021 (Ref 292);
d. The DEFRA Construction Code of Practice for the Sustainable Use of Soils on Construction Sites (2009) (Ref 293) which provides advice on the use and protection of soil in construction projects, including the movement and management of soil resources;
e. The British Society of Soil Science (BSSS) Guidance Document 3: Working with Soil - Guidance Note on Benefitting from Soil Management in Development and Construction (2022) (Ref 294);
f. The Institute of Environmental Management and Assessment (IEMA) (now ISEP) guidance document 'A New Perspective on Land and Soil in Environmental Impact Assessment' (Ref 295);
g. The Institute of Quarrying (IoQ) Good Practice Guide for Handling Soils in Mineral Workings (Ref 296);
h. The ISEP guidance for Solar PV on Agricultural Land (2025) (Ref 297);

i. Planning Practice Guidance ('PPG') for the Natural Environment (Ref 298) and the Agriculture Act 2020 (Ref 299);
j. Clean Power 2030 Action Plan (Ref 22) to deliver clean power by 2030 in a nature positive way; and
k. Solar Energy UK (2024) Solar Farms and Agricultural Land (Ref 300).

14.4. Consultation

14.4.1 No consultation has been undertaken to date specifically to inform the assessment of Agriculture and Soils. Consultation has not been proposed because mapping data of Predictive - Agricultural Land Classification (ALC) indicates that there is no BMV land present within the Scoping Site Boundary. Surveys undertaken at ES stage will confirm the presence/absence of BMV land and if any is identified consultation will be undertaken with the relevant stakeholders.

14.5. Baseline Conditions

14.5.1 This section describes the baseline environmental characteristics of the Scoping Site Boundary and surrounding areas relevant to the assessment of Agriculture and Soils.

14.5.2 The following sources of published information will be used to establish the baseline environment for soils and agricultural land within the ES:

a. Predictive ALC Map 1:250,000 for England (2026) that includes the subdivision grade 3 land according to current ALC guidelines (Ref 301). Maps can be consulted in the MAGIC DEFRA platform (Ref 122);
b. Cranfield University (2015). Research to develop the evidence base on soil erosion and water use in agriculture: Final Technical Report (Ref 302);
c. Cranfield University (2026) LandIS - Soilscapes viewer and NATMAP. (Ref 303); and
d. Met Office (1989) Climatological Data for Agricultural Land Classification (ALC) (Ref 304).

Agricultural Land

14.5.3 The ALC is the standard method for classifying the quality of agricultural land in England and Wales. Land is assessed according to its versatility, productivity and workability, based upon interrelated parameters including climate, relief, soil characteristics and drainage. These factors form the basis for classifying agricultural land into five grades (Grade 3, divided into Subgrades 3a and 3b), ranked from excellent (Grade 1) to very poor (Grade 5).

14.5.4 Predictive Agriculture Land Classification Map is a strategic scale (1:250,000 user scale) agricultural land classification map for England that includes the subdivision grade 3 land according to current ALC guidelines (Ref 301) and provides an indication of land quality, including the extent and distribution of any BMV agricultural land within the Scoping Site Boundary.

14.5.5 Predictive mapping of ALC grades indicates that there is no BMV land in the Scoping Site Boundary as shown in **Figure 14-1: Predictive Agricultural Land Classification** and within **Table 14-1.** Predictive ALC data (2026) indicates predominantly Grade 3b with small parts of Grade 4 mapped in the north and north east.

Table 14-1 Area of Agricultural Land by Predictive ALC Grade within the Scoping Site Boundary (based on Predictive ALC data (2026))

ALC Grade	Area (ha)	Area (%)
Grade 1	0	0
Grade 2	0	0
Grade 3a	0	0
Grade 3b	2740.59	98.56
Grade 4	24.50	0.88
Grade 5	0.25	0.01
Non-agricultural	12.05	0.43
Urban	3.27	0.12
Grand Total	2780.67	100

Soils

14.5.6 The published soils data for the Study Area is taken from Soil Survey of England and Wales (Ref 303) 1:250,000 mapping NATMAP. The soils data, represented by soil associations, is presented in **Figure 14-2: Soil Associations** within the Scoping Site Boundary.

14.5.7 The soils within the Scoping Site Boundary are derived from marine alluvium, fen peat and Jurassic and Cretaceous clay. These are mainly calcareous clayey soils, naturally wet and with slightly impeded drainage. **Table 14-2** shows that Newchurch 2 is the dominant soil association, which is flat land with groundwater controlled by ditches and pumps, and a risk of flooding in places. Downholland 1 is similar to Newchurch 2 but is susceptible to wind erosion, while Evesham 1 experiences local landslips and features irregular terrain.

14.5.8 The soils within the Scoping Site Boundary can be further characterised by Soilscapes (Ref 303), with, Soilscape 21 being predominant. Soilscape 21 is defined as a *"loamy and clayey soil of coastal flats with naturally high groundwater".* These soils are lime-rich and moderately fertile, making the land well suited to permanent grassland and winter cereal cultivation in Somerset and Avon. Potassium and magnesium levels are generally satisfactory for crop development; however, phosphorus is often low when poorer-quality grassland is converted to arable production. Manganese deficiency can also occur on Newchurch soils.

Table 14-2 Area of Soil Associations within the Scoping Site Boundary

Soil Association	Description	Area (ha)	Area (%)
814c Newchurch 2	Loamy and clayey soils of coastal flats with naturally high groundwater	2333.09	83.90
851a Downholland 1	Loamy and sandy soils with naturally high groundwater and a peaty surface	323.65	11.64
411a Evesham 1	Lime-rich loamy and clayey soils with impeded drainage	115.08	4.14
Lake	Lake or water body	8.20	0.29
343d Sherborne	Shallow, well-drained, brashy, calcareous, clayey soils over limestone	0.64	0.02
Grand Total		2780.67	100

14.6. Potential Effects and Mitigation

14.6.1 This section sets out the potential effects of the Proposed Development on Agriculture and Soils and the embedded mitigation measures that will be incorporated. Mitigation measures relevant to Agriculture and Soils identified at this stage are included in **Appendix 1-2: Environmental Mitigation and Commitments Register**.

14.6.2 The Agriculture and Soils assessment will consider the construction and decommissioning phases of the Proposed Development. Effects during the operational (including maintenance) phase are scoped out, as no significant effects on agricultural land and soil resources are anticipated during the operational phase.

14.6.3 Details of each of these phases are set out in **Chapter 3: The Proposed Development** of this EIA Scoping Report. The Proposed Development may generate a range of effects, some temporary, whilst others would be permanent.

14.6.4 The assessment will consider the following receptors within the Study Area:

a. Agricultural land quality, including best and most versatile land; and
b. The soil resources and the potential for disturbance/damage or improvement through changes in land management.

Construction and Decommissioning

14.6.5 The disturbance of soil resources may occur from the trafficking by vehicles or through soil removal, handling, storage, and subsequent reinstatement.

14.6.6 For both the construction phase and decommissioning phase (to a lesser degree), activities that will cause soil disturbance to and potentially impact upon soil resources include the following:

a. Stripping and stockpiling of topsoil and subsoil, storage and reinstatement;
b. Ground excavation;
c. Trenchless crossing techniques such as Horizontal Direction Drilling (HDD);
d. Stockpiling materials;
e. Levelling ground;
f. Cable trenching and excavations for OHL foundations;
g. Construction of the Haul Road and Construction Access Tracks; and
h. Vehicle movements onsite.

14.6.7 This disturbance may result in the impairment of soil function, quality and resilience. This effect comprises such changes as:

a. Compaction and smearing (damage to soil structure);
b. Mixing of distinct soil horizons (e.g. topsoil with subsoil) reduces their potential reuse;
c. Mixing of distinctive soil types;
d. Damage or removal of vegetation layer and loss of ecosystem services; and
e. Changes in the soil fertility.

14.6.8 Where soil excavation is required, e.g., during the construction of Substations and underground Connections, topsoil will be stripped and stored on site.

14.6.9 The solar photovoltaic (PV) mounting structures are piled and do not require prior soil removal.

14.6.10 It is anticipated that all soil resources will be retained onsite and not exported for reuse elsewhere. Good practice handling and storage of soil resources during construction will ensure that soils are suitable for reuse in site restoration without diminution of soil quality. The SMP will ensure that practices to be avoided, such as the mixing of topsoil and subsoil or the mixing of soils of differing types, are not permitted.

14.6.11 The topsoils and subsoils would be stripped and stored separately. Storage locations may be identified in the Outline Soil Management Plan (SMP), see paragraph 14.6.17 below, but are more likely to be deferred until the detailed SMP is produced post-consent, prior to construction. For Underground Cables (UGC)/Overhead Line (OHL) connections, soils would be stored temporarily adjacent to the cable trench and the excavations for the overhead line foundations. The soil profile would be reinstated upon completion of construction and decommissioning (with all soil management and handling in line with Defra's Construction Code of Practice (Ref 293) allowing the original agricultural land use to resume and land quality (ALC grade) to be maintained.

14.6.12 Some areas of agricultural land within the Proposed Development will undergo temporary changes where soils will be sealed due to the foundations of infrastructure, such as BESS and OHL. However, further permanent land-use change will occur in areas of ecological enhancement where trees and

hedgerows are planted to create habitat. These areas may be retained after the Energy Park has been decommissioned, subject to the agreed restoration strategy and landowner agreements. The operational life of the Proposed Development is anticipated to be up to 40 years. Once the Proposed Development ceases to operate, it will be decommissioned.

14.6.13 It is expected that the above-ground infrastructure (PV panels, mounting structures, inverters, transformers, switchgear, BESS, buildings, and fencing) will all be removed during decommissioning, with mounting structure piles totally removed and concrete pads cut at a practical level below the ground level to allow for farming following reinstatement. Buried cables may be left in situ, depending on prevailing industry practice at the time, but they would be sufficiently deep not to impede cultivation and would therefore not have a permanent effect on agricultural land.

Operation (and maintenance)

14.6.14 Agricultural and soil impacts during the operation (and maintenance) phase will be less than those of the construction phase of the Proposed Development:

a. Occasional movements of maintenance vehicles may lead to localised compaction, especially during wet conditions, resulting in temporary loss of soil structure and reduced drainage capacity;
b. Temporary land-use change taken from the BESS site, control building, Main Substation, Collector Substations, OHL foundations and PCU would result in the loss of small areas where the soil is sealed; and
c. Periodic maintenance such as panel repair, inverter replacement, vegetation control or cable inspections may cause small-scale disturbance of soils, localised trafficking and temporary removal of vegetation.

14.6.15 The land underneath and around the solar PV mounting structures would be sown to establish permanent vegetation cover with the planting mixture established during the EIA. The Applicant will explore how this vegetation is managed during the operational (and maintenance) phase of the Energy Park; options may include animal grazing and/or mechanised management. Although cattle grazing is unlikely, there is potential for other forms of grazing.

14.6.16 The effects of the Proposed Development, throughout operation (and maintenance), would create a temporary land-use change from agricultural to non-agricultural, where the BESS site, control building, Main Substation, Collector Substations, OHLs foundations and PCUs are located until decommissioning. Land occupied by hardstanding during operation (and maintenance) would be reinstated at decommissioning.

Mitigation

14.6.17 Mitigation measures are embedded in good-practice soil resource management, delivered through a Soil Management Plan (SMP). The SMP aims to maintain both the quantity and quality of soil resources. An Outline SMP will be submitted with the DCO Application.

14.6.18 The short-term temporary loss of agricultural land during construction of the Proposed Development and any maintenance works during operation (and maintenance) cannot be avoided. Through ongoing consultation with landowners, measures will be taken to minimise impacts to the surrounding land and farming operations.

14.6.19 The permanent loss of agricultural land due to the Proposed Development will be limited to areas designated for habitat creation for ecological enhancement. Areas designated for planting trees and hedgerows are expected to remain after the Proposed Development is decommissioned. The loss of this land from agriculture cannot be mitigated, but there are other environmental benefits from the change of land use. Therefore, any areas of habitat creation that are retained after decommissioning will be considered in line with the restoration strategy.

14.6.20 Where UGC is installed within the Connection and Access Infrastructure Corridor, it would be below the depth of agricultural cultivation, with restored backfilled soils (see **Chapter 3: The Proposed Development**). This is sufficient to allow farming activities after reinstatement.

14.6.21 The potential for continued agricultural use within the Proposed Development during operation (and maintenance) by using the land as pasture for animal grazing will be explored by the Applicant. If established, the loss of agricultural land would be avoided. The density of grazing and its seasonality would be considered alongside any ecological requirements and managed to avoid negative effects to soil resources and secure positive outcomes for animal welfare. Should opportunities for grazing arise during operation of the Proposed Development, appropriate grazing management measures would be implemented through the OEMP to support the protection of soil resources and delivery of ecological objectives.

14.6.22 Embedded mitigation measures to protect soil resources will be incorporated into the design of the Proposed Development such that they inform the layout of the and/or how it would be constructed. Through iterative assessment, potential impacts will be predicted and opportunities to mitigate them identified with the aim of preventing or reducing impacts as much as possible. This approach provides the opportunity to prevent or reduce potential adverse impacts from the outset.

14.6.23 Industry standard guidance/current best working practice set out in the Construction Code (Ref 293) and the Good Practice Guide for Handling Soils (Ref 296) will be followed with respect to soil workings throughout the construction, operation (and maintenance), and decommissioning phases of the Proposed Development, secured through the SMP.

14.6.24 To minimise the risk of soil erosion within the Scoping Site Boundary, existing grass cover would be maintained, and new permanent grassland mix cover would be created (grassland mix dependent upon any habitat creation requirements). This cover would be maintained for the lifetime of the Proposed Development and would protect the soil surface from the effects of surface run-off. Any areas where vegetation cover was damaged and/or the bare soil surface was visible would be reseeded. Additionally, individual

angled solar panels would be installed with rain gaps to allow water to disperse more evenly.

14.6.25 The site is primarily used for pastoral farming, specifically cattle grazing, which could continue across the Connection and Access Infrastructure Corridor following the installation of UGC and land reinstatement, or around OHL infrastructure where operational requirements allow.

14.6.26 Although cattle grazing is unlikely to be possible within the operational Energy Park, there is potential for other forms of animal grazing. The proposed land management regime has the potential to deliver environmental benefits, including improvements to soil resources through reduced agricultural intensity and enhanced vegetation cover beneath the Solar PV panels. The extent of environmental benefits will depend on the grassland management required to meet the ecological objectives for the Proposed Development.

14.6.27 Environmental benefits are expected to arise from an increase in soil organic matter (SOM) content, resulting from the lack of regular disturbance by cultivation and potential inputs from grazing livestock. An increase in SOM content is delivered by sequestering carbon dioxide from the atmosphere, contributing to mitigation of climate change. Increase in SOM content is also associated with improvements to soil structure, which would also result in positive effects on other soil properties, such as water infiltration rates and water holding capacity (which contributes to flood alleviation), microbial diversity and activity. Increased SOM would also increase the soil buffering capacity, reducing the frequency of liming. It is also possible that the subsoil structure would be improved owing to deep root systems of the permanent grassland vegetation and increased earthworm activity (promoted by lack of disturbance and ample plant food source), stimulating the aggregation of soil particles.

14.6.28 Any potential impacts would be mitigated through industry standard measures, which will be outlined in the ES and included in the Outline SMP and Outline Construction Environmental Management Plan (CEMP), to be submitted with the DCO Application.

14.7. Assessment Methodology

14.7.1 This section describes the methodology proposed for the assessment of effects on Agriculture and Soils, including the criteria for the determination of the importance of the receptor and the magnitude of change from baseline conditions.

14.7.2 The assessment will consider the potential effects of the Proposed Development on soils and agricultural land during the construction and decommissioning phases, as set out in **Table 14-7**.

14.7.3 The sensitivity of the Scoping Site Boundary is determined by the ALC grade, with ALC grades 1 and 2 recognised as very high sensitivity. The ISEP guidelines provide threshold areas for the permanent sealing of land or land quality downgrading. Long-term temporary development, such as that of

the Proposed Development, has a low impact magnitude, in accordance with the ISEP guidance (Ref 295).

14.7.4 Land-use changes for hardstanding areas will result in a temporary loss of soil functions for the operational lifetime of the Proposed Development. As there is non-BMV land, reinstatement is anticipated, and effects will not be considered permanent.

14.7.5 The Predictive ALC mapping indicates there is no BMV land within the Scoping Site Boundary; therefore, the permanent loss of agricultural land due to the Proposed Development will be limited to areas designated for ecological enhancement and habitat creation. Areas designated for planting trees and hedgerows are expected to remain after the Proposed Development is decommissioned and will be considered as part of the restoration strategy. Surveys undertaken at ES stage will confirm the presence/absence of BMV land and assessment updated should any BMV is identified.

14.7.6 The assessment will be undertaken in consideration of ISEP's guidance document 'A New Perspective on Land and Soil in Environmental Impact Assessment' (Ref 295). With reference to Section 9: Assessing Impacts on Land and Soil.

ALC Soil Survey

14.7.7 An ALC soil survey will be undertaken for the land within the Energy Park to determine the ALC quality of the land. The survey scope, including sampling density and extent, will be designed having regard to site-specific conditions and the design of the Proposed Development.

14.7.8 Land take for the BESS site, control building, Main Substation, Collector Substations, OHL foundations and PCU, may, dependent on survey results, be assessed as if these represent a permanent downgrading of agricultural land quality because reinstatement to the same ALC grade may not be maintained following the localised sealing of soil resources. Nonetheless, the proposal is for reinstatement, such that the only non-decommissioned reduction in cropped agricultural land would be for the establishment of trees and hedgerows.

14.7.9 The assessment of ALC and soil resources along the Connection and Access Infrastructure Corridors will still be assessed using the desktop data from sources referenced in the Baseline Conditions section.

14.7.10 An ALC survey is not currently proposed within the Connection and Access Infrastructure Corridors for UGC installation and temporary access works, because the impact is temporary and the soil will be reinstated to its existing condition. If an OHL is taken forward, the need for survey at foundation locations will be considered once the alignment is confirmed. Therefore, the land will be available for a return to agriculture shortly after its reinstatement. The Predictive ALC data will inform the EIA, but sampling will be committed to in the Outline SMP during detailed design, once routing of the Connections is confirmed. These soil surveys will inform soil handling techniques in the detailed SMP.

Sensitivity Criteria

Agricultural Land Classification

14.7.11 ISEP guidance (Ref 295) provides guidance on receptor sensitivity for both soil resource and soil functions, with agricultural land quality being included, referred to as the soil function of 'biomass production' (the growing of food, fibre and fuel).

14.7.12 **Table 14-3** below summarises the ISEP suggested sensitivity of receptor for agricultural land.

14.7.13 The ISEP guidance on assessing land and soil in EIA clarifies that the guidance on assessing the magnitude of impact (**Table 14-4**) applies to 'hard development', which includes permanent sealing or sterilisation of agricultural land. For instance, the change of agricultural land to trees or woodland does not fall under these definitions and professional judgement will be exercised regarding the assessment of effects of tree planting. This aligns with current Government initiatives to encourage farmers to incorporate trees on farmland.

Table 14-3 Sensitivity Criteria for Agricultural Land

Sensitivity/Value	Value Criteria
Very high	ALC Grade 1 & 2
High	ALC Subgrade 3a
Medium	ALC Subgrade 3b
Low	ALC Grade 4 & 5
Negligible	As for low sensitivity, but with only indirect, tenuous and unproven links between sources of impact and soil functions.

Table 14-4 Magnitude of Change: Agricultural Land Resource

Magnitude of Change	ISEP Criteria
Major	Permanent Loss of over 20 ha
Moderate	Permanent Loss of 5 to 20 ha
Minor	Permanent Loss of less than 5 ha
No Change/Negligible	No Discernible Loss of Agricultural Land

Soil Resources

14.7.14 The ISEP guidance provides suggested sensitivity and magnitude criteria for a range of other soil functions such as ecological habitat and archaeology, which are covered within **Chapter 9: Ecology and Biodiversity** and **Chapter 8: Cultural Heritage**. The development of agricultural land can impact the soil resource beyond the loss of agricultural resources.

14.7.15 Assessing the sensitivity of soil resources to damage (i.e. resistance and resilience of the soil environment, not the importance of the land for agricultural use) is recognised as being complex as soil resources provide a range of functions (ecosystem services), such as supporting plant growth (including food and other crops), water filtration and regulation (role in flood control), nutrient transformation (e.g. role in the nitrogen cycle), carbon storage and sequestration, and supporting biodiversity. The sensitivity criteria for soil resources are therefore based on the susceptibility to damage, both temporarily and permanently, when handled.

14.7.16 It is recognised within the ISEP guidance that some soils are more sensitive to damage when handled than others. For example, soils with a high sand fraction are considered low in sensitivity, as the permeable nature of the lighter soils makes natural structural recovery and drainage potential easier to maintain. The field capacity days (FCDs) are also considered. Field capacity (FC) is the amount of water a soil holds after gravity has drained the excess water from large pores and represents the upper limit of plant-available water. FCD is the number of days the soils are at FC.

14.7.17 The soil resources sensitivity and magnitude criteria given in **Table 14-5** and **Table 14-6** relate to soil disturbance from development activities, including soil stripping, storage, and respreading, and to structural degradation of soil caused by the passage of plants. These are the activities that present the greatest risk of soil degradation in the construction, operation (and maintenance), and decommissioning of a solar farm.

14.7.18 Magnitude of change criteria used to inform the assessment of effects to agricultural land and soil resources adopt the same criteria and are presented in **Table 14-5** and **Table 14-6.** These are taken from Table 3 of the ISEP guidance. These consider the magnitude (or scale) of change from current baseline conditions.

Table 14-5 Sensitivity of Soil Resources

Sensitivity/Value	Example Criteria
Very High	Disturbing heavy textured soil in plastic condition Disturbing deep peat (>1 m), carbon-rich or priority peatland
High	Disturbing medium-textured soil in plastic condition Disturbing shallow peat/organo-mineral peat soils.
Medium	Disturbing heavy to medium textured soil in friable condition Disturbing heavily degraded peat or peat-derived soils
Low	Disturbing light-textured soil in friable condition Disturbing residual or remnant peat soils are extensively oxidised and mineralised, and no longer functioning as a carbon store or hydrological unit.

Table 14-6 Magnitude of Change Criteria: Soil Resources

Magnitude of Change	Example Criteria
Major	Disposal of topsoil or loss of productive functional capacity, e.g. land contamination (Adverse), or Permanent improvement in productive functional capacity > 20 ha (Beneficial)
Moderate	Loss of topsoil for agricultural production but retained for beneficial reuse, or degradation of productive capacity, e.g. puddled topsoil (Adverse) or Permanent improvement in productive functional capacity 5 to 20 ha (Beneficial)
Minor	Loss of subsoil for agricultural production, but retained for beneficial reuse (Adverse) or Permanent improvement in productive functional capacity < 5 ha (Beneficial)
No Change/Negligible	Marginal loss of soil material, e.g. light erosion from construction easement (Adverse).

Crop selection and agricultural production systems

14.7.19 Crop selection and food production are not included in the scope of this assessment. The DEFRA UK Food Security Report 2024 (Ref 305) notes that, with continued growth in output and conducive market conditions, food production levels could be maintained or moderately increased alongside the land use change required to meet our Net Zero and Environment Act targets and commitments.

14.7.20 In 2024, ground-mount solar PV panels covered an estimated 21,200 hectares (52,000 acres), which is around 0.1 per cent of the total land area of the UK (Ref 306). Solar Energy UK (Ref 300) identifies that solar farms currently occupy less than 0.1% of the UK's land. Extrapolating to assume 90 Giga Watts (GW) of solar by 2050 would require 60 GW more ground-mounted solar (Solar Energy UK estimates). Under this scenario, 1% of the total utilised agricultural area of 9 million hectares would be used for solar in 2050.

14.7.21 Farming output varies annually due to weather conditions and productivity gains from improved crop varieties. These fluctuations typically exceed 1%. Consequently, food production levels can be maintained or increased alongside land-use change; therefore, no likely significant effects on food production require further consideration in the EIA.

14.8. Limitations and Assumptions

14.8.1 The vegetation management for the land beneath and around the solar PV panels has not yet been confirmed. The Applicant is currently exploring options through discussions with landowners.

14.8.2 Soil surveys have not yet been undertaken, however, predictive mapping of ALC grades indicates that there is no BMV land, but this requires survey confirmation. **Paragraphs 14.7.7** to **14.7.10** detail the approach to be adopted to derive field survey data.

14.8.3 It is assumed that all soil resources will be retained onsite and not exported for reuse elsewhere. The construction and operation (and maintenance) of the solar mounting structures will not lead to long-term soil degradation or loss. Improvement to soil structure and carbon sequestration in soils over the operational life of the Proposed Development is anticipated.

14.9. Summary of Elements Scoped In and Out

14.9.1 A summary of the elements scoped in and out of the Agriculture and Soils assessment is presented in **Table 14-7.**

Table 14-7 Elements Scoped In and Out of the Agriculture and Soils Assessment

Element	Scoping In / Scoped Out
Agricultural land within the Scoping Site Boundary (construction and decommissioning)	Scoped in – there is potential for land take from agricultural land.
Agricultural land within the Scoping Site Boundary (operation and maintenance)	Scoped out – there is no likely significant effect on agricultural land during operation/maintenance.
Soil resources within the Scoping Site Boundary (construction and decommissioning)	Scoped in – there is potential to impact soil resources in terms of disturbance and damage.
Soil resources within the Scoping Site Boundary (operation and maintenance)	Scoped out – resting the soil from pastoral farming and agricultural operations within the Energy Park will result in benefits to the soil resources, which are unlikely to yield a significant effect.
Crop selection and agricultural production	Scoped out – the topic is considered by the UK Government at the national scale, and land use change is not considered a likely significant effect. DEFRA maintains that food production levels can be maintained or moderately increased alongside the land use change required to meet our Net Zero and Environment Act targets and commitments.

15. Transport and Access

15.1. Introduction

15.1.1 This chapter sets out the proposed approach to the assessment of likely significant effects on Transport and Access during construction, operation (and maintenance) and decommissioning phases, how these effects will be identified and assessed, and how suitable mitigation strategies will be put forward and set out within the Transport and Access chapter of the Environmental Statement (ES).

15.1.2 This chapter is supported by the following figures:

a. **Figure 15-1: Existing Walking, Cycling and Railway Network**; and
b. **Figure 15-2: Bus Routes and Bus Stops**.

15.1.3 This chapter is supported by the following appendices:

a. **Appendix 1-2: Environmental Mitigation and Commitments Register**.

15.2. Study Area

15.2.1 The Proposed Development encompasses a large area of predominantly agricultural land located to the east of Highbridge and the M5 in the administrative area of Somerset Council.

15.2.2 The Study Area includes the extents of the transport, highway and Public Rights of Way (PRoW) network in the vicinity of the Proposed Development as shown in **Figure 15-1: Existing Walking, Cycling and Railway Network**. The Study Area has been defined using professional judgement and experience of other Solar Farm DCO submissions and will include receptors which may be directly or indirectly impacted by the Proposed Development.

15.2.3 Vehicle access points will be provided from the local road network surrounding the Proposed Development. Access requirements associated with construction works and Abnormal Indivisible Loads (AILs) will be identified and assessed as further project details become available. The transport Study Area will also include key links within the surrounding highway network, including the M5 motorway and A38.

15.2.4 Due to constraints within the local road network, the Proposed Development may require the construction of new access tracks to provide access to areas that are not readily accessible from the public highway network. These routes may be temporary or permanent, as required. This may include the temporary reinstatement of sections of the NGET Haul Road used for the erection of the existing T-pylons across the central part of the Scoping Site Boundary.

15.2.5 Further detail on proposed access arrangement and route options to the Proposed Development will be provided in the ES and an associated Transport Assessment Note.

15.2.6 The extent of the Study Area will be agreed with Somerset Council as the Local Highway Authority (LHA) for the Local Road Network (LRN), as well as National Highways (NH) which is responsible for the Strategic Road Network (SRN).

15.2.7 The Scoping Site Boundary, shown in **Figure 1-1: Proposed Development Location Plan**, includes the Energy Park and Connection & Access Infrastructure Corridors. As the design develops, the Grid Connection and Inter-Array Connections, within these corridors, will be defined and these elements will be assessed using the methodology outlined in **Section 15.7**. The transport Study Area shown in **Figure 15-1: Existing Walking, Cycling and Railway Network** will be updated as appropriate.

15.3. Legislation, Planning Policy Context and Guidance

15.3.1 There is no transport specific legislation relevant to the Proposed Development.

15.3.2 Planning policy and guidance relating to Transport and Access and pertinent to the Proposed Development comprises the following:

National Planning Policy

15.3.3 The following planning policies from relevant National Policy Statements (NPS) have been taken into account as part of identifying the assessment methodology, receptor selection/sensitivity, potential significant environmental effects, and mitigation:

a. Overarching National Policy Statement for Energy (EN-1) (2025) (Ref 5);
b. National Policy Statement for Renewable Energy Infrastructure (EN-3) (2025) (Ref 6); and
c. National Policy Statement for Electricity Networks Infrastructure (EN-5) (2025) (Ref 7).

Other Policy and Guidance

15.3.4 Other relevant national planning and guidance includes:

a. National Planning Policy Framework (NPPF) (2026) (Ref 9); and
b. Department for Transport Circular 01/2022 (Published with National Highways) Strategic road network and the delivery of sustainable development (2022) (Ref 308).

15.3.5 Relevant local planning policy includes:

a. Sedgemoor Local Plan 2011 to 2032 (Ref 11); and
b. Somerset Council Travel Plan Guidance (2026) (Ref 309).

Relevant Industry Guidance

15.3.6 Relevant industry guidance includes:

a. National Planning Practice Guidance 'Travel Plans, Transport Assessments and Statements' (2014) (Ref 310);
b. Institute of Sustainability and Environmental Professionals (ISEP) Environmental Assessment of Traffic and Movement (2023) (Ref 311); and
c. Construction Logistics and Community Safety (CLOCS, Version 5, November 2024) (Ref 312).

15.4. Consultation

15.4.1 Consultation as part of the Environmental Impact Assessment (EIA) process will be undertaken following submission of this EIA Scoping Report with statutory parties including Somerset Council and NH. Agreement will be sought on the following topics:

a. The extent of the Study Area and potential impact on roads in the LRN and SRN;
b. Transport Assessment Note (TAN):
    i. This will be provided instead of a full Transport Assessment and would either be a standalone document or included as an appendix to the ES Transport and Access chapter to minimise duplication of technical content across multiple reports.
c. Outline Construction Traffic Management Plan (CTMP):
    i. This is proposed as a standalone report which will form part of the DCO Application. This document will identify key mitigations and management measures to be implemented during the construction phase of the Proposed Development.
d. Travel Plan (TP):
    i. At this stage, it is not proposed to produce a standalone TP as part of the DCO Application submission, since the construction phase will be expected to be limited to approximately 24-36 months, and the operational (and maintenance) phase would not generate sufficient trips to warrant the creation of a TP. Aspects of a TP related to mitigation measures for construction staff movements during the peak of the construction phase will be included in the Outline CTMP; and
e. Outline PRoW Management Plan (PRoWMP):
    i. This is proposed to be incorporated within the DCO Application submission to set out the details on how PRoW would be managed during the construction, operation (and maintenance) and decommissioning phases (as per NPS EN-3, paragraph 2.10.37).

15.5. Baseline Conditions

15.5.1 This section describes the baseline environmental characteristics for the Proposed Development and surrounding areas with specific reference to Transport and Access.

Existing Highway Network

15.5.2 The Energy Park comprises five Development Areas (the Western, Northern, Central, Eastern and Southern Development Areas), each formed of a number of Arrays, located to the east of M5 Junctions 22 and 23. Connection & Access Infrastructure Corridors link these areas together and to the Point of Connection at the proposed National Grid Woolavington Substation.

15.5.3 The surrounding highway network comprises a mixture of strategic and rural roads, including the M5 motorway, which runs adjacent to the western boundary of the Proposed Development, and the A38, B3139, B3140 and B3141. These routes provide vehicular access to the Scoping Site Boundary and connect the surrounding settlements with the wider regional road network. The M5 motorway represents a key strategic transport corridor in the area, running north-south between Exeter and Birmingham and providing direct connections to Bristol.

15.5.4 It is acknowledged that due to the rural nature of the area within the Study Area, some of the local roads may be subject to restrictions (such as weight restrictions of below 7.5 tonnes or width restrictions). These factors will be considered when reviewing potential routes to minimise the impact of the Proposed Development on local roads.

15.5.5 At present, details relating to the sourcing, origin and delivery of materials and equipment required for the Proposed Development, including the Energy Park, Inter-Array Connection and Grid Connection, have not yet been confirmed. As part of the ES, an access feasibility assessment will be undertaken to determine the potential access route(s) for delivering these components to the Proposed Development via the SRN and LRN.

15.5.6 Traffic surveys, which may include Automatic Traffic Counters and Manual Classified Counts will be commissioned where required. The scope of these surveys will be agreed with the Highway Authority. These surveys will establish baseline traffic conditions on the local road network that may be used by construction traffic associated with the Proposed Development, including the Energy Park, Inter-Array Connection and Grid Connection.

Existing Public Right of Ways

15.5.7 PRoWs within, or close to the Scoping Site Boundary are presented in **Figure 15-1: Existing Walking, Cycling and Railway Network** and are listed within **Table 15-1.**

Table 15-1: PRoW within or close to the Scoping Site Boundary

PRoW	PRoW Type	Within/Near Scoping Site Boundary	End Points	
BW 37/1	Bridleway	Near	West of Darkfield Farm	Bitham Lane
BW 2/44/1	Bridleway	Near	Bitham Lane	Three Corner Batch
BW 28/1	Bridleway	Near	Three Corner Batch	Puriton Hill Road
BW 28/1/1	Restricted Byway	Near	Puriton Hill Road	A39 Puriton Hill
BW 37/12	Footpath	Within	B3141	Pyde Drove (Track)
BW 37/13	Footpath	Within	B3141	Middle Moor Drove
BW 37/2	Footpath	Within	Crancombe Lane	Puriton – Woolavington County Road
BW 13/28	Footpath	Within	Hackness Farm	Cote Corner
BW 13/22	Footpath	Near	East Huntspill	Cote Corner
AX 23/1	Footpath	Within	Mark Church	Yarrow Road
AX 23/3	Footpath	Within	Wainbridge Road	Southwick Road
AX 23/4	Footpath	Within	Green Drove	Mark Causeway
AX 23/5	Bridleway	Within	The Moors	Butt Lake Road
AX 23/6	Footpath	Within	Green Drove	Mark Causeway
AX 23/7	Bridleway	Within	The Moors	Coombe's Drive
AX 23/10	Bridleway	Within	Harp Road	Northwick Road
AX 23/11	Bridleway	Within	Harp Road	Dutch Road
AX 23/12	Bridleway	Within	Kingsway	Binham Moor Drive
AX 23/14	Bridleway	Within	Pillrow Wall	Vole Road
AX 23/2	Footpath	Within	Dutch Road	Puddy's Lane

PRoW	PRoW Type	Within/Near Scoping Site Boundary	End Points	
AX 23/15	Bridleway	Within	Church Street	Mark Yeo
AX 17/24	Footpath	Within	Lakehouse Lane	Vole Road
AX 17/24A	Footpath	Within	Lakehouse Lane	Vole Road
AX 17/30	Bridleway	Within	County Road (near Pillrow Farm)	Prowse Lane (Parish Boundary)
AX 17/12	Footpath	Within	Sandsford Lane, Rooksbridge	Kingsway Road
AX 2/14	Footpath	Within	Kings Way	Hookedmead Lane
AX 12/28	Footpath	Near	Parish boundary north of Bishop's Bow	Western end of Hookedmead Lane
AX 12/32	Bridleway	Near	Corner in Copsewood Lane	Chapel Allerton – Mark Road
AX 12/33	Bridleway	Within	Chapel Allerton – Mark Road	Parish Boundary, Binham Moor Drive
AX 12/35	Bridleway	Within	Parish Boundary, Binham Moor Drive	Allerton Moor Drove
AX 12/13	Footpath	Near	Parish boundary near Blackford Moor Drive	Bishop's Bow
AX 12/13/1	Bridleway	Within	Broadness Bow	Allerton Moor Drove
AX 12/31	Bridleway	Near	Stone Allerton Drove	Broadness Bow
AX 27/57	Footpath	Within	Blackford Church	Mark – Allerton Road
AX 27/81	Footpath	Near	Summerlease Corner	Westham

Existing Walking Facilities

15.5.8 There is limited footway provision on roads within the surrounding area owing to the rural location of the Energy Park.

Existing Cycling Facilities

15.5.9 A network of PRoWs intersects the Scoping Site Boundary, providing connections to the surrounding rural area and nearby settlements including Mark, Yarrow, East Brent, Chapel Allerton and Woolavington. National Cycle Network (NCN) Route 33 also passes broadly east-west through the southern part of the Scoping Site Boundary, providing a dedicated cycling route within the local area. In addition, the local rural road network may provide attractive cycling opportunities due to its rural character. The cycling network is shown in **Figure 15-1 Existing Walking, Cycling and Railway Network** and further details regarding the National Cycle Network connections is provided below:

a. NCN Route 33:
   i. This route runs through the southern part of the Scoping Site Boundary through East Huntspill, providing a connection to Highbridge and Burnham-on-Sea to the west of the M5 and onwards in a northern direction. To the south, NCN Route 33 begins in Cossington, which is located to the east of Woolavington. NCN Route 33 connects to NCN Route 3 to the south for further onward connections.
b. NCN Route 26:
   i. This route is located approximately 3 km to the north-east of the Scoping Site Boundary. It runs through Axbridge from Cheddar and continues northwards towards Congresbury and the vicinity of Clevedon.

15.5.10 The Proposed Development may be relatively accessible via bicycle from some of the smaller nearby villages and towns, including Woolavington, Puriton and Bawdrip.

Existing Equestrian Facilities

15.5.11 There are a limited number of equestrian facilities, including bridleways, located within and in relatively close proximity to the Scoping Site Boundary, as identified in **Table 15-1**. To the south, these include Bridleways BW 37/1, BW 2/44/1, BW 28/1 and Restricted Byway BW 28/1/1, which run along Bitham Lane and between Woolavington and Puriton.

15.5.12 Further north, bridleways AX 23/5 and AX 23/7 extend to the south of Mark via Green Drove and Coombe's Drove respectively. In addition, AX 23/10 and AX 23/11 run in a west-east direction and intersect with Harp Road in Mark. Further bridleway connections to the north include AX 23/12, AX 23/14, AX 23/15, AX 12/33, AX 12/13/1, AX 12/31, AX 12/32 and AX 17/30, which run between Kingsway, north of Mark, and connect through to Allerton.

15.5.13 In addition, many of the local roads surrounding the Scoping Site Boundary may support equestrian use as they are lightly trafficked due to their rural location.

Existing Public Transport Facilities

Bus

15.5.14 Local bus routes and stops are shown in **Figure 15-2: Bus Routes and Bus Stops**. Bus stops within the Scoping Site Boundary are served by the 66, 67, 753, 754 and 755 services. The 375 service operates through Woolavington, approximately 500 m south of the Scoping Site Boundary, whilst routes FAL and 21 run along A38 Bristol Road. All services, along with a description of their route, the villages they serve and their service frequency, are shown in **Table 15-2.**

Table 15-2: Bus Services

Route No.	Route Description	Approximate Weekday Frequency	First Weekday Service		Last Weekday Service	
			EB	WB	EB	WB
66	Axbridge - Cheddar - Wedmore - Mark - Bridgwater College (via Woolavington, East Huntspill and Mark)	One per day	16:35	07:40	N/A	N/A
67	Burnham-on-Sea – Wedmore (via Woolavington, East Huntspill, Watchfield and Mark)	Three per day	10:00	09:12	13:55	13:15
375	Bristol Bus Station – Bridgwater (via Temple Meads Station, Whitchurch, Pensford, Wells, Glastonbury, Woolavington and Puriton)	Every 90 minutes	08:00	08:17	18:53	17:37
753	Wedmore – Bridgwater (via Watchfield and Mark)	One per day	13:00	09:30	N/A	N/A
754	Wedmore - Weston-super-Mare (via Mark)	One per day	13:45	09:30	N/A	N/A
755	Wedmore – Taunton (via	One per day	14:00	09:30	N/A	N/A

Route No.	Route Description	Approximate Weekday Frequency	First Weekday Service		Last Weekday Service	
			EB	WB	EB	WB
	Woolavington, East Huntspill, Watchfield and Mark)					
FAL	Plymouth City Centre Plymouth Coach Station - Cabot Circus (via A38 Bristol Road)	One per hour	01:00	01:30	21:00	23:30
21	Taunton - Bridgwater - Burnham on Sea	One per hour	05:07	06:57	23:15	22:35

Rail

15.5.15 The nearest public railway stations to the Scoping Site Boundary are Highbridge & Burnham, and Bridgwater, located to the west and south-west respectively. Both stations are served by Great Western Railway (GWR) and provide direct services to Cardiff Central, Bristol Temple Meads and Exeter St Davids. Highbridge & Burnham and Bridgwater stations both offer car parking and drop-off facilities, with step-free access available to all platforms.

Future Baseline Conditions

15.5.16 Since there are currently no known planned or proposed highway schemes in the local area which are anticipated to alter wider traffic movements on the local highway network, it has been assumed that the highway network will remain consistent between the current and future baseline scenarios. However, there are proposed improvements to the strategic road network at the Edithmead Roundabout (A38/M5 Junction 22) that will be undertaken by National Highways. The improvement scheme is intended to address existing peak period congestion, queuing and operational issues at the junction and is not expected to materially affect wider traffic flows or routing assumptions used within the assessment. The assessment will be cognisant of the potential overlap in the construction period with the Proposed Development and works to the roundabout. There are also understood to be proposals for a new Junction 22a on the M5, although this is due for completion in 2035 and so will not be operational prior to the construction of the Proposed Development.

15.5.17 The traffic flows on the surrounding highway network are expected to increase as a result of housing and employment growth. Therefore, projected background traffic growth will be applied to the traffic flows derived from the

baseline traffic surveys to represent conditions during the future baseline (construction peak assessment year).

15.6. Potential Effects and Mitigation

15.6.1 This section sets out the potential effects of the Proposed Development on Transport and Access.

15.6.2 Mitigation measures, identified at this stage, and relevant to this topic are included in **Appendix 1-2: Environmental Mitigation and Commitments Register** of this EIA Scoping Report.

15.6.3 The main transport impacts of the Proposed Development are likely to occur during the construction phase. This is anticipated to include the delivery of major electrical infrastructure (including substation components, BESS units and inverters), construction of inter-array and grid connection cabling, AIL movements and workforce travel.

15.6.4 The operational phase (including maintenance activities) is anticipated to generate very low levels of traffic and is therefore proposed to be scoped out of the detailed transport assessment. Further information on operational and maintenance transport arrangements will be provided within the ES to support this approach. Potential decommissioning effects are expected to be similar in nature to, but of a lesser magnitude than, those associated with the construction phase.

15.6.5 The main considerations arising from the Proposed Development during these phases, and which have the potential to give rise to transport and access effects, are as follows:

a. Increase in LGV and HGV movements;
b. Abnormal Indivisible Loads (AILs);
c. Vehicular travel to and from the Proposed Development by workers; and
d. Change in route connections and amenity for pedestrians, cyclists, and equestrians due to construction of the Proposed Development.

15.6.6 These activities have the potential to result in a range of transport and access effects, including increases in delay to vehicles, pedestrians, cyclists and equestrians associated with construction traffic movements, changes in journey times and network performance, road safety effects, community severance, impacts on non-motorised user amenity, and changes in route accessibility. In accordance with the Impact Assessment Methodology set out in **Section 15.7,** these effects will be assessed in accordance with the 2023 ISEP Guidance ‘Environmental Assessment of Traffic and Movement.’

15.6.7 Whilst some construction workers residing within larger settlements nearby (such as Bridgwater, Burnham-on-sea, Highbridge and Weston-Super-Mare) may travel by public transport (the distance is considered too far to walk), these modes are not expected to constitute a significant proportion of trips.

15.6.8 Similarly, workers living in nearby villages, such as Mark, who may choose to cycle or take the bus to the Energy Park are also not expected to constitute a significant proportion of trips to the Energy Park.

Vehicle Access

15.6.9 The arrangements for access to the Proposed Development, including the locations of access points, to be used during the construction, operation (and maintenance), and decommissioning stages of the Proposed Development will be confirmed in the ES. There will be ongoing consultation with Somerset Council and other relevant stakeholders as the design evolves.

15.6.10 At this stage, it is expected that existing local roads will be utilised wherever practicable, subject to their suitability to accommodate construction traffic, including HGVs and any abnormal indivisible loads. Where required, new temporary or permanent Access Tracks may be provided, including the potential reinstatement of sections of the former NGET Haul Road and associated Construction Access Tracks. Some construction access routes may be removed or reinstated following construction and therefore not be required during operation, except where needed for maintenance or other operational purposes. Any requirements for highway improvements, road widening, visibility enhancements or new access infrastructure will be determined through the ongoing design process and assessed as appropriate within the ES.

15.6.11 Mitigation measures relevant to Transport and Access will also be outlined in the ES.

Constructing and Decommissioning

15.6.12 The shortest expected construction programme will be 24 months, which will offer a worst-case approach in terms of monthly (and therefore daily) construction vehicle trips.

15.6.13 It is currently anticipated that, during the peak construction period (currently assumed to be 2031), there will be a maximum of 480 construction staff per day working on the Proposed Development. Based on the preliminary construction material and equipment requirements, it is anticipated that there could be approximately 150 Heavy Goods Vehicle (HGV) movements (75 HGVs) per day during the peak construction period, based on the most rapid build out. This number is indicative, excludes construction staff transportation and ancillary construction traffic, and is subject to refinement. A small number of Abnormal Indivisible Load (AIL) journeys will be required across the construction phase. Traffic forecasts associated with the above will be provided in the ES for the peak construction phase.

15.6.14 The proposed number of construction vehicle movements and construction staff during the peak of the construction phase will be reviewed and confirmed within the ES.

15.6.15 The decommissioning phase will occur c.40 years in the future, which is outside of a reasonable forecasting timeframe, and therefore will be assessed qualitatively rather than quantitatively. Decommissioning activities and effects will be similar to the construction phase, albeit likely of a lower scale, and will be managed and mitigated as part of the Decommissioning Environmental Management Plan (DEMP).

Operation (and maintenance)

15.6.16 During the operation (and maintenance) phase, the Energy Park will be staffed by a nominal number of staff across the Proposed Development (at this stage, assumed to be up to 17 permanent staff per day), predominantly undertaking day-to-day maintenance tasks and repairs. Staff vehicles and those used for maintenance will primarily be four-wheel drive vehicles and vans, with HGVs rarely accessing the Energy Park during this stage (and if so in low numbers, for example occasional HGV maintenance delivery).

15.6.17 Due to the low level of trips likely to be generated within this stage, and specifically within the network peak hours, significant transport effects are not anticipated. Accordingly, the operational phase is proposed to be scoped out of the assessment of transport effects. Further details of the operational stage transport arrangements will be set out in the ES to support this approach.

Mitigation

15.6.18 Embedded mitigation measures which are to be implemented during the construction and decommissioning phases include:

a. Restriction of HGV movements to certain routes, days of the week and times of the day, where reasonably practicable;
b. Where reasonably practicable, managing working hours to minimise travel during the network peak hours;
c. Positioning of suitably qualified banksmen and/or other temporary traffic management at the Proposed Development access points;
d. Providing road signs and/or markings to increase awareness of the Proposed Development access points; and
e. Undertaking pre-construction and post-construction condition surveys of affected highway routes, where appropriate.

15.6.19 In addition to the above, further mitigation measures may include:

a. Upgrading of routes to accommodate additional and/or larger vehicles;
b. Undertaking vegetation clearance at Proposed Development access points to improve visibility;
c. Encouraging local construction staff to car share through a car share scheme; and
d. Maintaining access to the PRoW network during the construction phase or otherwise providing temporary diversion routes if required.

15.6.20 Potential impacts during the construction phase are typically considered as medium-term, as defined in **Chapter 6: Environmental Impact Assessment Methodology**. The Outline CTMP, to be prepared at ES stage, will include details of the measures that will be employed to support the safe and efficient transport of components, materials and personnel to and from the Proposed Development.

15.7. Assessment Methodology

15.7.1 The assessment of potential effects as a result of the Proposed Development (construction, operation (and maintenance), and decommissioning) on Transport and Access will be undertaken using the methodology set out below.

Sources of Baseline Information

15.7.2 The following sources will be used to inform the assessment methodology:

a. Local travel and network information from rail and bus operators;
b. Personal Injury Collision (PIC - Crash and Collision) data provided by Somerset Council;
c. Ordnance Survey Base Mapping;
d. Highway boundary information from Somerset Council;
e. Mode share data from the 2011 Census (or 2021 data if available and considered appropriate given the context of COVID-19);
f. Industry information from the 2021 Census to identify the number of existing residents who work in the construction industry and live within a defined catchment area of the Proposed Development, to inform the construction worker trip distribution;
g. Traffic count and speed survey data where required (see further below);
h. Traffic growth factors by applying National Transport Model (NTM) adjustments to National Road Traffic Forecast (NRTF) growth factors within the Trip End Model Program (TEMPro), utilising the latest National Trip End Model (NTEM) dataset;
i. Route planning software, such as Google Maps, to inform routing to the Proposed Development (in combination with the above); and
j. A walkover site visit to confirm the highway links and PRoW within the Study Area.

15.7.3 Automatic Traffic Counters and any Manual Classified Counts, if required, will be undertaken to determine the baseline traffic conditions of the surrounding highway network. The proposed traffic survey locations will be identified and shared with Somerset Council, with agreement sought, once the Proposed Development layout and access locations have been sufficiently refined and confirmed, prior to the surveys being commissioned.

15.7.4 In addition, peak hour traffic flows will be identified from historic data held by Somerset Council, traffic survey company databases or DfT count sites if available.

Scenarios

15.7.5 To determine the impact of the Proposed Development, the following scenarios will be considered to inform the assessment of the peak construction phase;

a. Baseline (2026) - AM, PM and Daily traffic flows; and
b. Peak Construction Year (currently assessment to be 2031) With and Without Development - AM, PM and Daily traffic flows.

15.7.6 For the purposes of the EIA, the decommissioning assessment year is considered to be 2072 (40 years from the assumed connection date). This year will not be quantitatively assessed in the ES in terms of the highway impacts assessment as it is considered too far into the future to be able to accurately forecast traffic flows or road layout/network or junction forms. Therefore, it is proposed to adopt the assessment of the construction stage to determine the anticipated worst-case impact of the Proposed Development during its decommissioning stage.

Impact Assessment Methodology

15.7.7 In accordance with 2023 ISEP Guidance Environmental Assessment of Traffic and Movement (Ref 311), the following criteria will be considered:

a. Severance (of communities);
b. Pedestrian Delay (incorporating delay to all non-motorised users);
c. Non-Motorised User Amenity;
d. Fear and Intimidation (on and by road users);
e. Driver Delay (for vehicle drivers and passengers);
f. Road Safety (for vehicle users and pedestrians); and
g. Hazardous/Large Loads.

15.7.8 The following impacts will also be considered:

a. PRoW diversions and closures; and
b. Impacts on groups and locations which may be sensitive to changes in traffic conditions, as outlined in the 2023 ISEP Guidance as 'Affected Parties'.

15.7.9 The assessment of these impacts will consider:

a. Magnitude of change to the baseline;
b. Sensitivity of the affected receptor; and
c. The scale, nature and significance of the effect.

15.7.10 The forecast effects will be classified as short-term, medium-term or long-term, as well as permanent or temporary.

Screening

15.7.11 The 2023 ISEP guidelines set out two rules to screen potential road links into the impact assessment;

a. Rule 1: include highway links where traffic flows will increase by 30% or more, or where the number of HGVs is predicted to increase by more than 30%; and
b. Rule 2: include any other specifically sensitive areas (e.g. accident black spots, conservation areas, hospitals, links with high pedestrian flows etc.) where traffic flows, or HGV flows will increase by 10% or more.

15.7.12 Based on this, links and junctions will not be assessed where there is expected to be a <30% increase in traffic or HGV flows as a result of the

Proposed Development, unless any specifically sensitive receptors are identified through the assessment process.

15.7.13 Additionally, a negligible magnitude of change will be assigned where there is expected to be fewer than 30 additional vehicle trips per hour during each of the development peak hours as a result of the Proposed Development, irrespective of the proportional increase in traffic flows.

Sensitivity

15.7.14 The general criteria for defining the importance or sensitivity of receptors relating to the assessment of Severance, Pedestrian Delay, Non-Motorised User Amenity, and Fear and Intimidation are set out in **Table 15-3** below.

Table 15-3: Sensitivity/Value Criteria for Severance, Pedestrian Delay, Non-Motorised User Amenity, and Fear and Intimidation

Sensitivity/Value	Sensitivity/Value Criteria
High	**Road Links and Junctions**: More than two sensitive uses present (e.g. schools, play areas, care/retirement homes, hospitals, places of worship, historic building) and/or a primarily residential street with properties on both sides of the carriageway. **Walk/Cycle Links including PRoW**: Heavily trafficked highway with on-road pedestrian/cycle route.
Medium	**Road Links and Junctions**: Two sensitive uses present (e.g. schools, play areas, care/retirement homes, hospitals, places of worship, historic building) and/or a large number of residential properties present. **Walk/Cycle Links including PRoW**: Lightly trafficked highway with on-road pedestrian/cycle route.
Low	**Road Links and Junctions** (no more than one of the following): • One sensitive use present (e.g. schools, play areas, care/retirement homes, hospitals, places of worship, historic building); • Many residential properties with direct frontage to highway link being used as construction route; • Pedestrians using footways, PRoW and/or crossings on highway link; and • Cyclists using on-road designated cycle routes along highway link. **Walk/Cycle Links including PRoW**: Heavily trafficked highway with off-road pedestrian/cycle route.
Very Low	**Road Links and Junctions**: No sensitive users or receptors along link, or no more than one of the following: • Few residential properties with direct frontage to the highway link being used as a construction route;

Sensitivity/Value	Sensitivity/Value Criteria
	• Workplaces with direct frontage to highway link being used as construction route; and • Cyclists using off-road designated cycle routes along highway link. **Walk/Cycle Links including PRoW**: Pedestrian/cycle route not running alongside highway, or lightly trafficked highway with off-road pedestrian/cycle route

15.7.15 The general criteria for defining the importance or sensitivity of receptors for the assessment of Driver Delay are set out in **Table 15-4** below.

Table 15-4: Sensitivity/Value Criteria for Driver Delay

Sensitivity/Value	Sensitivity/Value Criteria
High	**Road Links**: Not applicable (captured by assessment of road junctions where applicable as significant queueing and delay effects are more likely to arise where impacts occur across multiple arms of a junction rather than on an individual road link). **Road Junctions**: High queuing (10+ vehicles) on 3+ arms of the junction during the weekday peak hours. For example, a busy roundabout or signalised junction within a built-up area.
Medium	**Road Links**: High queuing (10+ vehicles) on this link, on the approach to junction(s) within the Study Area. **Road Junctions**: High queuing (10+ vehicles) on 1-2 arms of the junction OR moderate queuing (5-9 vehicles) on 3+ arms of the junction during the weekday peak hours. For example, a busy roundabout or signalised junction outside of a built-up area.
Low	**Road Links**: Moderate queuing (5-9 vehicles) on this link, on the approach to junction(s) within the Study Area. **Road Junctions**: Moderate queuing (5-9 vehicles) on 1-2 arms of the junction OR low queuing (3-4 vehicles) on 3+ arms of the junction. For example, a roundabout or signalised junction outside of a built-up area or a busy priority junction within a built-up area.
Very Low	**Road Links**: Low queuing (3-4 vehicles) on this link, on the approach to junction(s) within the Study Area. **Road Junctions**: Low queuing (3-4 vehicles) on 1-2 arms of the junction. For example, a priority junction outside of a built-up area.

15.7.16 The preliminary criteria for defining the importance or sensitivity of road link and road junction receptors for the assessment of Road Safety and Hazardous/Large Loads are set out in **Table 15-5** below.

Table 15-5: Sensitivity/Value Criteria for Road Safety and Hazardous/Large Loads

Sensitivity/Value	Road Safety Criteria	Hazardous/Large Loads Criteria
High	Road Links and Road Junctions: 10+ collisions in five years, or more than three serious and/or one fatal collision in five years.	Road Links and Road Junctions: 5+ serious/fatal collisions (or more than one fatal collision) involving a goods vehicle (>3.5 tonnes) in five years.
Medium	Road Links and Road Junctions: 5-9 collisions (with up to three serious collisions and/or one fatal collision) in five years.	Road Links and Road Junctions: 3-4 serious/fatal collisions (with up to one fatal collision) involving a goods vehicle (>3.5 tonnes) in five years.
Low	Road Links and Road Junctions: 3-4 collisions in five years (with up to one serious collision and no fatal collisions) in five years.	Road Links and Road Junctions: 1-2 serious collisions (with no fatal collisions) involving a goods vehicle (>3.5 tonnes) in five years.
Very Low	Road Links and Road Junctions: Fewer than three collisions (with no serious or fatal collisions) in five years.	Road Links and Road Junctions: No serious or fatal collisions involving a goods vehicle (>3.5 tonnes) in five years.

15.7.17 The collision rate for road links will be calculated and compared with national road safety statistics provided by Department for Transport (Road Safety Open Data) (Ref 313). Receptors which record collision rates notably higher or lower than the national average will be manually reviewed to determine whether their sensitivity requires adjustment.

Magnitude

15.7.18 As identified within the 2023 ISEP guidelines, the magnitude of impact represents the level of change from the baseline conditions. Many of the criteria do not provide specific thresholds by which such impacts can be assessed, and in these cases will be measured qualitatively. An overview of the different magnitudes of impact is set out in **Table 15-6**.

15.7.19 **Severance** is defined in the ISEP guidelines as the *"perceived division that can occur within a community when it becomes separated by major traffic infrastructure. The term is used to describe a complex series of factors that separate people from places and other people. Severance may result from the difficulty of crossing a heavily trafficked road or a physical barrier created by infrastructure".* Severance can also be caused by a full closure of a highway, leading to a requirement for road users to take alternative routes to their destinations. The ISEP guidelines state that changes in traffic flow of 30%, 60% and 90% are typically associated with increasing levels of severance. For the purposes of this assessment, these thresholds have

been used to inform the low, medium and high impact categories presented in **Table 15-6**. However, caution should be observed when applying these thresholds to very low baseline flows which are unlikely to experience severance impacts even with high percentage changes.

15.7.20 **Pedestrian Delay** (incorporating delay to all non-motorised users) concerns the impacts of changes in volume, composition or speed of traffic on the ability of pedestrians to cross roads. The assessment of pedestrian delay serves as a proxy for the delay that other modes of non-motorised users may experience when crossing roads.

15.7.21 **Non-Motorised User Amenity** is broadly defined as *"the relative pleasantness of a journey, and is considered to be affected by traffic flow, traffic composition and pavement width/separation from traffic".* The guidance suggests that a tentative threshold for judging the significance of changes in non-motorised user amenity would be where the traffic flow (or HGV component) is halved or doubled.

15.7.22 **Fear and Intimidation** occur through a combination of traffic flow, speed, proportion of HGVs and the proximity of traffic to people. These indicators are often heightened by a perceived lack of protection or buffers from the highway or through narrow or non-existent footways. The assessment considers each road on a case-by-case basis, however there are thresholds provided in the 2023 ISEP guidelines which are further summarised in **Table 15-7**.

15.7.23 **Driver Delay** relates to incremental increases in traffic. However, traffic delays are only likely to be significant when traffic is already at, or close to, the capacity of the system. As a further consideration, where any temporary road closures or traffic management is likely to be in place to enable the construction of the Proposed Development, any additional potential delay caused by these resultant diversion routes will be reported.

15.7.24 **Road Safety** considers PIC data obtained for the most recent five-year period available at junctions and links along the proposed construction traffic routes. This has been used to assess whether the additional traffic during construction of the Proposed Development would be likely to have a detrimental effect on road safety.

15.7.25 For **Hazardous/Large Loads**, the guidance states that where the number of movements is considered to be significant, risk analysis should be carried out to illustrate the potential for accidents. Appropriate routes for abnormal load movements should be considered, with mitigation strategies to secure safe passage. As part of the Proposed Development, there will be the requirement for abnormal loads which are categorised as Large Loads.

15.7.26 In view of the above, the impacts of Hazardous/Large Loads will be considered, in the form of a qualitative risk assessment to establish the likelihood and extent of such effects. The Outline CTMP, which will be prepared at ES stage, will include details of measures that will be employed to support the safe transport of components to and from the Proposed Development.

15.7.27 **PRoW Diversions and Closures** will be considered on the basis of the type of impact e.g. whether a temporary PRoW closure or diversion is proposed, as well as any increases in pedestrian journey length following a closure/diversion and how long any potential disruption to an existing route would occur for. The assessment will consider indicative thresholds derived based on professional experience.

15.7.28 **Table 15-6** summarises the criteria that will be considered to assess the magnitude of effect, along with the thresholds that will be used to determine whether effects are considered high, medium, low or very low. In accordance with ISEP guidance, a very low magnitude of change has been assigned where there is expected to be fewer than 30 additional vehicle trips per hour during each of the development peak hours as a result of the Proposed Development, irrespective of the proportional increase in traffic flows.

Table 15-6: Magnitude Criteria for Transport and Access (All Assessment Criteria)

Impact	Very Low	Low	Medium	High
Severance	Increase in total traffic flows of below 30% (or increase in HGV flows of below 10%).	Increase in total traffic flows of 30-59% (or increase in HGV flows of 10-39%).	Increase in total traffic flows of 60-89% (or increase in HGV flows of 40-89%).	Increase in total traffic flows or HGV flows of 90% and above.
Pedestrian Delay	The severity of the impact will be determined based on the thresholds identified above for severance.			
Non-Motorised User Amenity	Increase in total traffic flows of below 50%.	Increase in total traffic flows of 50-69%.	Increase in total traffic flows of 70-99%.	Increase in total traffic flows of 100% or above.
Fear and Intimidation	No change in degree of hazard level for daily traffic flows, HGV flows and vehicle speeds (see **Table 15-7** below).	One step change in degree of hazard level (see **Table 15-7** below), but with <400 daily vehicle increase or <500 daily HGV increase.	One step change in degree of hazard level (see **Table 15-7**), but with >400 daily vehicle increase or >500 daily HGV increase.	Two step changes in degree of hazard level based on the degree of hazard scores for daily traffic flows, HGV flows and vehicle speeds (see **Table 15-7** below).
Driver Delay	Increase in total traffic flows of below 30%.	Increase in total traffic flows of 30-59%.	Increase in total traffic flows of 60-89%.	Increase in total traffic flows of 90% and above.
Road Safety	Increase in total traffic flows of below 30% (or increase in HGV flows of below 30%).	Links estimated to experience increases in total traffic flows or HGV flows screening thresholds (30%, or 10% within any specifically sensitive areas) are analysed further on a case-by-case basis.		
Hazardous/Large Loads	Based on the probability of a personal injury accident, categorised as fatal or serious, involving a hazardous/large load, occurring.			

15.7.29 Additional magnitude criteria for Fear and Intimidation based on those outlined in the 2023 ISEP guidelines are provided in **Table 15-7** below.

Table 15-7: Additional Magnitude Criteria for Fear and Intimidation

Criteria	Degree of Hazard			
	Small	**Moderate**	**Great**	**Extreme**
A) Average Hourly Traffic Flow	<600 (0)	600-1,200 (10)	1,200-1,800 (20)	>1,800 (30)
B) Daily HGV Flow	<1,000 (0)	1,000-2,000 (10)	2,000-3,000 (20)	>3,000 (30)
C) Average Speed	<20 mph (0)	20-30 mph (10)	30-40 mph (20)	>40 mph (30)
Total Score (A+B+C)	0-20	21-40	41-70	71+

Significance of Effects

15.7.30 **Table 15-8** shows the matrix used to determine the significance of effect for the impact assessment. Effects predicted to be 'major' or 'moderate' are considered significant whilst effects predicted to be 'minor' or 'negligible' are considered not significant.

Table 15-8: Significance of Effects Matrix (Transport and Access)

Sensitivity or Value of Resource/ Receptor	Magnitude of Change			
	High	**Medium**	**Low**	**Very Low**
High	**Major**	**Major**	**Moderate**	Minor
Medium	**Major**	**Moderate**	Minor	Negligible
Low	**Moderate**	Minor	Negligible	Negligible
Very Low	**Minor**	Negligible	Negligible	Negligible

15.7.31 Duration is considered when assessing the overall significance of residual effects, noting that the ISEP Guidelines state in Paragraph 1.27 that: *"The EIA Regulations also require consideration of whether the anticipated effect is short-term, medium-term or long-term and whether it is permanent or temporary."*

15.7.32 All the Transport and Access effects associated with the construction phase of the Proposed Development would be temporary effects.

15.8. Limitations and Assumptions

15.8.1 The proposed Study Area shown in **Figure 15-1: Existing Walking, Cycling and Railway Network** has not yet been agreed with Somerset Council but is

based on an initial assessment of the local highway network and where the construction phase impacts are most likely to occur. Any changes to the Study Area agreed with Somerset Council and NH will be assessed as part of the ES.

15.8.2 The construction programme will be finalised upon the appointment of a Principal Contractor who will be appointed post-planning consent. As a result, the construction programme details will be derived from assumptions informed by the Applicant's experience.

15.8.3 The locations of suppliers of materials and equipment have not yet been identified; at this stage it is assumed that the majority of deliveries will route to the Proposed Development via the M5 and wider strategic road network.

15.9. Summary of Elements Scoped In and Out

15.9.1 A summary of the elements scoped in and out of this chapter is presented in **Table 15-9**.

Table 15-9 Elements scoped in and out of the Transport and Access assessment

Element	Scoping In/Scoped Out	Reasoning
Impact of the Construction phase of the Proposed Development	Scoped In	The temporary increase in traffic could have potentially significant impacts.
Severance (Construction phase)	Scoped In	The temporary increase in traffic could generate potentially significant impacts on severance.
Driver Delay (Construction phase)	Scoped In	The temporary increase in traffic could generate potentially significant impacts on driver delay.
Pedestrian Delay (Construction phase)	Scoped In	The temporary increase in traffic could generate potentially significant impacts on pedestrian delay.
Non-motorised users amenity (Construction phase)	Scoped In	The temporary increase in traffic could generate potentially significant impacts on pedestrian and cyclist amenities.
Fear and Intimidation (Construction phase)	Scoped In	The temporary increase in traffic could generate potentially significant impacts on fear and intimidation.
Road Safety (Construction phase)	Scoped In	The temporary increase in traffic could generate potentially significant impacts on road safety.

Element	Scoping In/Scoped Out	Reasoning
Hazardous/Large Loads (during the Construction and Decommissioning Phases)	Scoped In	Whilst it is not expected that there will be any hazardous loads associated with the Proposed Development, Large Loads in the form of Abnormal Indivisible Loads (AILs) will be expected. An assessment of the AIL routing to/from the Proposed Development will be undertaken to review the suitability of the network in the vicinity of the Proposed Development.
Impact of the Decommissioning phase of the Proposed Development	Scoped In (Assessed by reference to the Construction phase assessment)	Future traffic flows are uncertain, and the impacts of the decommissioning phase are expected to be no greater than those during the construction phase. It can therefore be confidently concluded that the magnitude of effects will be the same or less than those already determined for the construction phase. The conclusions of effects will be presented in the ES and will state that the significance of effect will be the same or less than the construction phase, however a separate assessment for decommissioning will not be undertaken.
Impact of the Operation (and maintenance) phase of the Proposed Development	Scoped Out	The operation (and maintenance) phase of the Proposed Development is expected to generate only nominal levels of traffic and is therefore unlikely to result in significant transport effects. Accordingly, operation (and maintenance) phase transport effects are proposed to be scoped out of the assessment. Further details of operational transport arrangements, including anticipated vehicle types and trip numbers, will be provided within the ES to demonstrate the appropriateness of this approach.

16. Materials and Waste

16.1. Introduction

16.1.1 This chapter sets out the proposed scope and approach to the assessment of likely significant effects associated with materials and waste during the construction, operation (including maintenance) and decommissioning phases. It identifies the proposed assessment methodology and embedded mitigation measures that will be considered within the Environmental Statement (ES).

16.1.2 The assessment will be undertaken in accordance with the Institute of Sustainability and Environmental Professionals (ISEP) (formerly iEMA) Guide to: Materials and Waste in Environmental Impact Assessment, Guidance for a Proportionate Approach (referred to from herein as the 'ISEP Guidance') (Ref 314).

16.1.3 For the purposes of this EIA Scoping Report, the assessment considers:

a. The consumption of key construction materials; and
b. The generation and management of waste.

16.2. Study Area

16.2.1 There are two Study Areas for the assessment of materials and waste, defined in accordance with the ISEP Guidance (Ref 314): the Study Area and the Expansive Study Area.

Study Area

16.2.2 The Study Area for the assessment of material consumption, waste generation and impacts on safeguarded mineral and waste sites comprises the Scoping Site Boundary (**Figure 1-1: Proposed Development Location Plan**), including any temporary work areas required during construction and decommissioning.

16.2.3 The Scoping Site Boundary is located within the administrative area of Somerset Council, which is the relevant Minerals Planning Authority (MPA) and Waste Planning Authority (WPA).

16.2.4 The Study Area for the DCO application will reflect the final Order Limits.

Expansive Study Area

16.2.5 The Expansive Study Area is used to assess the availability of key construction materials and the capacity of waste management infrastructure that may be used by the Proposed Development. The extent of the Expansive Study Area has been defined in accordance with the ISEP Guidance and reflects the typical supply and management routes for different material and waste streams.

16.2.6 The Expansive Study Area for non-hazardous and inert waste management is the South West of England, reflecting the regional management of these waste streams.

16.2.7 The Expansive Study Area for hazardous waste management is England, reflecting the national approach to hazardous waste treatment and disposal and the limited availability of specialist facilities.

16.2.8 The Expansive Study Area for the supply of key construction materials reflects the typical supply regions for aggregates, concrete, asphalt and steel, in accordance with the ISEP Guidance.

16.3. Legislation, Planning Policy Context and Guidance

16.3.1 The assessment will be undertaken with reference to relevant legislation, planning policy, and guidance relating to the management of materials and waste, comprising:

Legislation

16.3.2 Relevant legislation includes:

a. European Waste Framework Directive (2008/98/EC) (Ref 315) as transposed by the Waste (England and Wales) Regulations 2011 (as amended) (Ref 317);
b. The Environmental Protection Act 1990 (Ref 184);
c. The Hazardous Waste (England and Wales) Regulations 2005 (as amended) (Ref 316);
d. The Waste (England and Wales) Regulations 2011 (as amended) (Ref 317);
e. The Environmental Permitting (England and Wales) Regulations 2016 (as amended) (Ref 186);
f. The Environment Act 2021 (Ref 18); and
g. The Waste (Miscellaneous Amendments) (EU Exit) Regulations 2019 (Ref 318).

National Planning Policy

16.3.3 The following planning policies from the Overarching National Policy Statement for Energy (EN-1) (December 2025) (Ref 5) have informed the proposed assessment methodology and identification of potential significant environmental effects, and mitigation: **Section 5.15** (Resource and Waste Management) sets out those requirements for resource and waste management that should be considered in the applicant's assessment.

Other Policy and Guidance

16.3.4 Other relevant national policy and guidance include:

a. National Planning Policy Framework (August 2026) (Ref 9);
b. National Planning Policy for Waste (2014) (Ref 319);
c. The Waste Management Plan for England (2021) (Ref 320);

16.3.5 Relevant local planning policy includes:

a. Somerset Minerals Plan Development Plan Document up to 2030 (and associated maps) (February 2015) (Ref 12);

b. Somerset Waste Core Strategy Development Plan Document up to 2028 (February 2013) (Ref 13); and

c. Sedgemoor Local Plan 2011 to 2032 (February 2019) (Ref 11):

i. Policy S4 (Sustainable development principles) and Policy S5 (Mitigating the causes and adapting to the effects of climate change) support development that minimises impacts on natural resources and contributes to mitigating climate change causes, by incorporating principles of sustainable construction contributing to waste efficiency and the sustainable sourcing of materials.

ii. Policy D2 (Promoting high quality and inclusive design) requires development to demonstrate that consideration has been given through design and the use of materials to minimise contributions to climate change.

iii. Policy D3 (Sustainability and energy development) encourages sustainable construction techniques that promote the reuse and recycling of materials and waste.

iv. Policy D24 (Pollution impacts of development) requires applications to be supported by a waste assessment where there are reasonable grounds to suggest the development proposal may result in a significant adverse environmental impact.

Relevant Industry Guidance

16.3.6 Other relevant industry guidance includes:

a. Institute of Sustainability and Environmental Professionals (ISEP) Guidance (Ref 314);

b. Planning Practice Guidance (PPG) for Minerals (2014) (Ref 321) and Waste (2015) (Ref 322);

c. Contaminated Land: Applications in Real Environments (CL:AIRE) Definition of Waste: Development Industry Code of Practice (DoWCoP), v2 (2011) (Ref 323);

d. Waste and Resources Action Programme (WRAP) Designing Out Waste: A Design Team Guide for Civil Engineering (Ref 324);

e. Department for Environment, Food & Rural Affairs (Defra) and Environment Agency (2016). Waste Duty of Care Code of Practice (Ref 325); and

f. Defra (2011). Guidance on Applying the Waste Hierarchy. Guidance on Applying the Waste Hierarchy (Ref 326).

16.4. Consultation

16.4.1 Consultation will be undertaken following submission of this EIA Scoping Report with relevant statutory consultees, including Somerset Council and

the Environment Agency, as appropriate. Consultation responses will be used to inform the scope and methodology of the materials and waste assessment.

16.5. Baseline Conditions

16.5.1 This section describes the baseline conditions relating to the availability of key construction materials and waste management infrastructure that may be used by the Proposed Development.

Availability of Key Construction Materials

16.5.2 At this stage, the detailed design of the Proposed Development is still being developed and the quantities of key construction materials required are not yet known. The assessment will therefore consider the availability of the principal construction materials likely to be required, including aggregates, asphalt, concrete and steel.

16.5.3 The availability of these materials has been established using the most recent national and regional datasets available, in accordance with the ISEP Guidance. Baseline data for steel has been considered at a national level, whilst aggregates, asphalt and concrete have been considered at the appropriate regional level.

16.5.4 **Table 16-1** summarises the baseline availability of the key construction materials within the relevant Study Areas.

16.5.5 It is anticipated that most construction materials will be sourced from local or regional suppliers where practicable, with nationally sourced materials used where appropriate. The final sourcing strategy will be confirmed as the design develops.

Table 16-1 Availability of Key Construction Materials (Baseline)

Materials	UK Availability (million tonnes, year)	Regional Availability (million tonnes, year)	Baseline Data Year	Data description
Steel	16	Not applicable. Steel will be assessed at the national level.	2024	UK's Steel Requirement 2014-2024. UK Steel Statistics 2025 (Ref 327) latest available data
Crushed rock	Not applicable. These materials will be assessed	26.3 (South, includes the East of England, London, South East and South West)	2024	Minerals and mineral product sales in Great Britain. Profile of the UK

Materials	UK Availability (million tonnes, year)	Regional Availability (million tonnes, year)	Baseline Data Year	Data description
Sand and gravel	at the regional level.	2.9 (South West)	2024	Mineral Products Industry – 2025 Edition. (Ref 328) latest available data
Asphalt		2.5 (South West)	2024	
Ready-mixed concrete (million tonnes converted from m3 using a density of 2.4 t/m3)		3.84 (South West)	2024	

16.5.6 Potential recycled contents for the main construction materials are outlined in **Table 16-2**. These "*good practice*" rates are derived from the Waste & Resources Action Programme (WRAP) Designing Out Waste Tool for Civil Engineering (Ref 324).

Table 16-2: Potential Recycled Content

Material Type	Potential Recycled Content (% by weight)
Concrete	16
Asphalt	25
Aggregates	50
Steel reinforcement	100
Structural steel	60

Landfill Capacity

16.5.7 Baseline information on landfill capacity has been obtained from the Environment Agency's 2024 Waste Summary Tables for England (Ref 329). In accordance with the Expansive Study Area defined in Section 16.2, non-hazardous and inert landfill capacity has been considered at the South West regional level, whilst hazardous landfill capacity has been considered at the national level.

16.5.8 **Table 16-3** summarises the available landfill capacity within the relevant Study Areas.

Table 16-3: Landfill Capacity in the South West region (2024)

Landfill Type	South West Landfill Capacity (000s m3)	England Landfill Capacity (000s m3)
Hazardous merchant	Not applicable. Hazardous waste assessed at the England level	9,167
Non-hazardous with Stable Non-reactive Hazardous Waste (SNRHW) cell	1,395	Not applicable. Non-hazardous and inert waste assessed at the regional level
Non-hazardous	5,898	
Inert	8,657	
Total non-hazardous and inert	**15,950**	**9,167**

Waste Management Infrastructure

16.5.9 The ISEP Guidance (page 14) (Ref 314) does not identify waste management and recovery facilities as sensitive receptors, as they form part of the waste management system rather than representing a finite resource. Consequently, only landfill capacity has been considered within the baseline, and a detailed inventory of waste management facilities has not been prepared.

Historic and Permitted Landfills

16.5.10 There are no authorised landfill sites located within the Scoping Site Boundary, based on the EA's Permitted Waste Sites – Authorised Landfill Site Boundaries (Ref 330).

16.5.11 One historic landfill site is located within the Scoping Site Boundary (Ref 331). Details of this site are provided in **Table 16-4**.

Table 16-4: Historic Landfill site details

Name of landfill site	Site Address	Site reference	License issued	First input	Waste types
Royal Ordnance Factory	Puriton, Bridgwater, Somerset	WDL/491	31/12/77	31/12/92	Inert, industrial, licenced, household, special

Permitted Waste Sites, Waste Site Applications, and Waste Exemptions

16.5.12 One Permitted Waste Site is located within the Scoping Site Boundary (Ref 331). The site previously operated under a permit for the deposit of waste for recovery (A25), which has since been surrendered.

16.5.13 There are no active waste site applications recorded within the Scoping Site Boundary, as outlined in the EA's waste site applications dataset (Ref 332).

16.5.14 Several waste exemption sites are located within the Scoping Site Boundary (Ref 333). These are primarily associated with existing built development, or use of waste/burning waste on fields and are therefore unlikely to be impacted by the Proposed Development.

Safeguarded Mineral and Waste Sites

16.5.15 There are no safeguarded mineral sites within the Scoping Site Boundary, based on the Somerset Minerals Plan 2030 (Ref 12).

16.5.16 There are no safeguarded waste sites within the Scoping Site Boundary. As outlined above there is one Permitted Waste Site recorded (Ref 332) but the associated permit is now surrendered, and the site is therefore not considered an active safeguarded waste site.

Targets

16.5.17 National policy and guidance seek to maximise the efficient use of materials and minimise waste generation through the application of the waste hierarchy. The Waste Management Plan for England (Ref 320) and the ISEP Guidance (Ref 314) promote the recovery, reuse and recycling of construction and demolition waste wherever practicable.

16.5.18 The UK has consistently exceeded the national target to recover 70% (by weight) of non-hazardous construction and demolition waste established under the European Waste Framework Directive (Ref 315). The Proposed Development will seek to maximise the recovery and reuse of materials and minimise disposal to landfill in accordance with good practice.

16.5.19 Standard, good and best practice recovery rates published by the Waste and Resources Action Programme (WRAP) (Ref 334) will be used to inform the assessment and identify opportunities to maximise resource efficiency during the construction and decommissioning phases.

Future Baseline

16.5.20 There is no publicly available information to enable a robust forecast of future availability of key construction materials by the anticipated construction period of the Proposed Development. Material availability is driven by market demand, production capacity and wider economic conditions. Therefore, the current baseline is considered to provide an appropriate basis for the assessment.

16.5.21 Similarly, there is no reliable basis on which to forecast future landfill capacity. Landfill capacity changes over time as existing space is filled and new landfill sites are permitted.

16.5.22 Accordingly, the current baseline for material availability and landfill capacity is assumed to remain representative for the purposes of the assessment.

16.6. Potential Effects and Mitigation

16.6.1 This section sets out the potential effects associated with materials and waste during the construction, operation (including maintenance) and decommissioning phases of the Proposed Development.

16.6.2 The principal potential effects comprise:

a. the consumption of key construction materials;
b. the generation and management of waste; and
c. changes in available landfill capacity associated with the disposal of waste.

16.6.3 Embedded mitigation measures relevant to materials and waste will be incorporated in the design and delivery of the Proposed Development. Mitigation measures identified at this stage are included in **Appendix 1-2: Environmental Mitigation and Commitments Register** of this EIA Scoping Report**.**

Construction

16.6.4 Construction activities will be undertaken in accordance with an Outline CEMP that will include an Outline Site Waste Management Plan (SWMP), which will include measures to minimise material consumption, maximise the reuse and recycling of materials, and manage waste in accordance with the waste hierarchy. Where practicable, excavated materials will be reused on site via exemption Waste Framework Directive exclusion, Materials Management Plan (MMP) in accordance with the CL:AIRE Definition of Waste: Development Industry Code of Practice (DoW CoP), or environmental permit. This will be confirmed post consent by the Contractor and the approach set out in the CEMP.

Operation and Maintenance

16.6.5 Operation of the Proposed Development will be undertaken in accordance with an Outline OEMP, which will include measures for the management of material and wastes arising from routine maintenance activities.

Decommissioning

16.6.6 Decommissioning will be undertaken in accordance with an Outline DEMP, which will include measures to maximise the reuse and recycling of materials and minimise waste requiring disposal. Where practicable, components of the Proposed Development, including solar PV panels, will be reused or recycled at the end of their operational life.

Mitigation

16.6.7 The Proposed Development will apply the waste hierarchy during construction, operation and decommissioning, seeking to prioritise waste prevention, followed by preparing for reuse, recycling and recovery, with disposal to landfill as the last resort. See **Plate 16-1**.

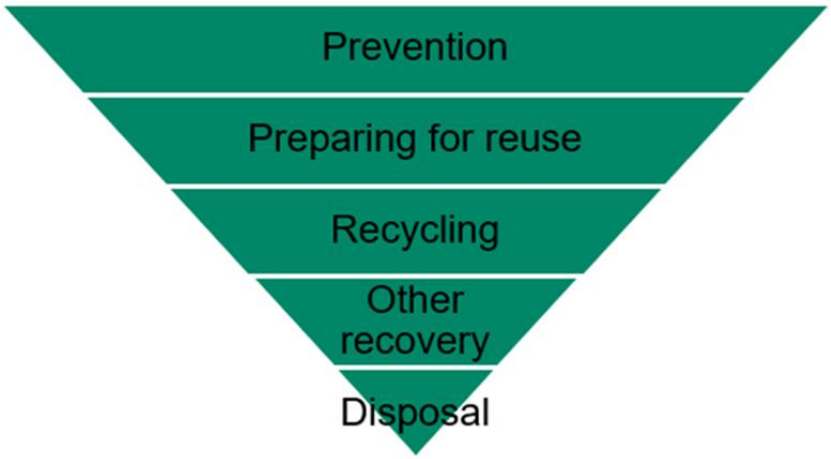


Plate 16-1 The Waste Hierarchy, from Defra's Guidance on Applying the Waste Hierarchy, recreated by AECOM

16.6.8 All waste arising from the Proposed Development will be managed in accordance with the relevant regulations and transported by appropriately licensed carriers to suitably permitted waste management facilities.

16.7. Assessment Methodology

16.7.1 The assessment of potential effects as a result of the Proposed Development (construction, operation and decommissioning) on materials and waste will be undertaken using the methodology set out below.

16.7.2 The ISEP Guidance offers two methods for the assessment of waste. Method W1 – void capacity - has been selected as this is a more detailed methodology and is appropriate for larger and more complex projects (Ref 314).

16.7.3 The sensitive receptors for the assessment of the construction, operational and decommissioning phase materials and waste impacts are:

a. Materials, national and regional availability of key construction materials – as outlined in the ISEP Guidance (Ref 314):

   "*Materials are, in their own right, sensitive receptors. Consuming materials impacts upon their immediate and (in the case of primary material) long-term availability; this results in the depletion of natural resources and adversely impacts the environment*"; and

b. Landfill void capacity in the Expansive Study Area of the South West region (non-hazardous and inert landfill void capacity) and England (hazardous landfill void capacity) – as defined in the ISEP Guidance (Ref 314):

   "*Landfill is a finite resource, and hence – through the ongoing disposal of waste – there is a continued need to expand existing and develop*

new facilities, this requires the depletion of natural and other resources which, in turn, adversely impacts the environment."

16.7.4 The sensitivity of materials relates to the availability and type of construction materials to be consumed by the Proposed Development. The ISEP Guidance (Ref 314) criteria described within **Table 16-5** has been used to determine the sensitivity of materials.

16.7.5 At this scoping stage material receptor sensitivity is determined as "*low*". On balance, the key construction materials required for the construction of the Proposed Development are forecast (through trend analysis and other information) to be generally free from known issues regarding supply and stock. Key materials required for construction and operation are likely to be available comprising a high proportion of sustainable features and benefits (e.g. recycled content).

16.7.6 Potential recycled content for the main construction materials is outlined in **Table 16-2.**

16.7.7 The sensitivity of waste relates to availability of landfill capacity in the absence of the Proposed Development. This is outlined in the ISEP Guidance (Ref 314): "*landfill capacity is recognised as an unsustainable and increasingly scarce option for managing waste*." The sensitivity of landfill capacity is assessed based on a review of historic landfill void capacity trends where available and information from relevant policy documents.

16.7.8 The criteria described within **Table 16-6** and **Table 16-7** have been used to determine the sensitivity of landfill capacity.

16.7.9 As stated in the ISEP Guidance: "*due to uncertainties relating to future technologies and infrastructure, this first edition of the guidance does not incorporate a proposed methodology to assess impacts and effects during decommissioning or end of first life*" (Ref 314). However, the criteria in the ISEP Guidance are applied to decommissioning for the Proposed Development.

16.7.10 At this scoping stage waste receptor sensitivity is determined as "*very high*". It should be noted that a scenario in which no landfill void space is available is deemed to be unrealistic as outlined in the Future Baseline section above, however, since there is no publicly available information on any potential changes to landfill capacity by the time of the construction and operation of the Proposed Development, a worst-case scenario is considered (e.g. landfill capacity is assumed to remain the same but a very considerable reduction in capacity cannot be excluded).

16.7.11 The assessment of materials and waste considers the following:

a. Waste producers have a legal duty of care to manage their waste in accordance with regulations and to ensure that any waste leaving the site where it is generated is transferred to a suitably licensed facility for further treatment or disposal;

b. Facilities transferring, treating or disposing of waste must be either licensed or apply for an exemption from a license, and impacts arising from the operation of waste management facilities are considered as

part of the planning and permitting process for these facilities themselves;

c. As part of their planning function, WPAs are required to ensure that sufficient land is available to accommodate facilities for the treatment of all waste arising in the area, either within the WPA's area, or through export to suitable facilities in other areas; and

d. MPAs are similarly required to ensure an adequate supply of minerals, sufficient to meet the needs of national and regional supply policies, and local development needs.

Methodology for Determining Construction, Operational (and Maintenance), and Decommissioning Effects

Materials

16.7.12 Effects upon materials during construction, operation and decommissioning of the Proposed Development are assessed by:

a. establishing the baseline for national and regional availability of key construction materials by weight;

b. assessing the sensitivity of materials as related to the availability and types of materials to be consumed by the Proposed Development in construction, operation and decommissioning;

c. establishing the quantities of key construction materials required for the construction of the Proposed Development; and

d. comparing the total quantities of key construction materials with the most recent national and regional availability (utilising a percentage approach).

Waste

16.7.13 Effects upon waste during construction, operation and decommissioning of the Proposed Development is assessed by:

a. establishing the baseline landfill void capacity in the expansive Study Areas;

b. assessing the sensitivity of landfill void capacity;

c. establishing the quantities of construction, operation and decommissioning waste to be generated during the construction, operation and decommissioning of the Proposed Development; and

d. comparing the total waste arising from the construction, operation and decommissioning of the Proposed Development against the landfill void capacity (using a percentage approach).

Assessment Criteria

Sensitivity

16.7.14 The sensitivity of materials relates to the availability and type of construction material to be consumed by the Proposed Development. The ISEP Guidance criteria described within **Table 16-5** is used to determine the sensitivity of materials.

16.7.15 The construction assessment will consider the consumption of key construction materials and the generation and management of construction waste. The assessment will:

a. establish the baseline availability of key construction materials and landfill capacity within the relevant Study Areas;
b. estimate the quantities of key construction materials required for the Proposed Development;
c. estimate the quantities and types of construction waste expected to be generated;
d. compare the demand for construction materials and waste requiring disposal against the baseline availability of materials and landfill capacity;
e. identify opportunities to minimise material consumption and waste generation through the application of the waste hierarchy and embedded mitigation measures; and
f. assess the potential for likely significant effects, including cumulative effects where relevant.

Table 16-5: Material Receptor Sensitivity

Sensitivity	Criteria for Materials Receptor Sensitivity
Negligible	On balance, the key materials required for the construction of the Proposed Development are forecast (through trend analysis and other information) to be free from known issues regarding supply and stock. And/or are available comprising a very high proportion of sustainable features and benefits compared to industry-standard materials*.
Low	On balance, the key materials required for the construction of the Proposed Development are forecast (through trend analysis and other information) to be generally free from known issues regarding supply and stock. And/or are available comprising a high proportion of sustainable features and benefits compared to industry-standard materials.
Medium	On balance, the key materials required for the construction of the Proposed Development are forecast (through trend analysis and other information) to suffer from some potential issues regarding supply and stock.

Sensitivity	Criteria for Materials Receptor Sensitivity
	And/or are available comprising some sustainable features and benefits compared to industry-standard materials.
High	On balance, the key materials required for the construction of the Proposed Development are forecast (through trend analysis and other information) to suffer from known issues regarding supply and stock. And/or Comprise little or no sustainable features and benefits compared to industry-standard materials.
Very High	On balance, the key materials required for the construction of the Proposed Development are forecast are known to be insufficient in terms of production, supply and/or stock. And/or Comprise no sustainable features and benefits compared to industry-standard materials.

*Subject to supporting evidence, sustainable features and benefits could include, for example, materials or products that: comprise reused, secondary or recycled content (including excavated and other arisings); support the drive to a circular economy; or in some other way reduce lifetime

16.7.16 The sensitivity of waste relates to availability of landfill capacity in the absence of the Proposed Development. As outlined in the ISEP Guidance "*landfill capacity is recognised as an unsustainable and increasingly scarce option for managing waste*" (Ref 314). The sensitivity of landfill capacity is assessed based on a review of historic landfill void capacity trends where available and information from relevant policy documents.

16.7.17 The criteria described within **Table 16-6** and **Table 16-7** is used to determine the sensitivity of landfill capacity.

Table 16-6: Inert and Non-hazardous Landfill Capacity Sensitivity

Sensitivity	Criteria for Inert and Non-hazardous Landfill Capacity Sensitivity
Negligible	Across construction and/or operation (and maintenance) phases, the baseline/future baseline (i.e. without the Proposed Development) of regional inert and non-hazardous landfill capacity is expected to remain unchanged or is expected to increase through a committed change in capacity.
Low	Across construction and/or operation (and maintenance) phases, the baseline/future baseline (i.e. without the Proposed

Sensitivity	Criteria for Inert and Non-hazardous Landfill Capacity Sensitivity
	Development) of regional inert and non-hazardous landfill capacity is expected to reduce minimally by <1%.
Medium	Across construction and/or operation phases, the baseline/future baseline (i.e. without the Proposed Development) of regional inert and non-hazardous landfill capacity is expected to reduce noticeably by 1-5%.
High	Across construction and/or operation (and maintenance) phases, the baseline/future baseline (i.e. without the Proposed Development) of regional inert and non-hazardous landfill capacity is expected to reduce considerably by 6-10%.
Very High	Across construction and/or operation (and maintenance) phases, the baseline/future baseline (i.e. without the Proposed Development) of regional inert and non-hazardous landfill capacity: • is expected to reduce very considerably (by >10%); • is expected to end during construction or operation; • is already known to be unavailable; or • would require new capacity or infrastructure to be put in place to meet forecast demand.

Table 16-7: Hazardous Landfill Capacity Sensitivity

Sensitivity	Criteria for Hazardous Landfill Capacity Sensitivity
Negligible	Across the construction and/or operation (and maintenance) phases, the baseline/future baseline (i.e. without the Proposed Development) of regional (or where justified, national) hazardous landfill capacity is expected to remain unchanged, or unchanged or is expected to increase through a committed change in capacity.
Low	Across the construction and/or operation (and maintenance) phases, the baseline/future baseline (i.e. without the Proposed Development) of regional (or where justified, national) hazardous landfill capacity is expected to reduce minimally by <0.1%.
Medium	Across the construction and/or operation (and maintenance) phases, the baseline/future baseline (i.e. without the Proposed Development) of regional (or where justified, national) hazardous landfill capacity is expected to reduce noticeably by 0.1-0.5%.
High	Across the construction and/or operation phases (and maintenance), the baseline/future baseline (i.e. without the

Sensitivity	Criteria for Hazardous Landfill Capacity Sensitivity
	Proposed Development) of regional (or where justified, national) hazardous landfill capacity is expected to reduce considerably by 0.5-1%.
Very High	Across the construction and/or operation (and maintenance) phases, the baseline/future baseline (i.e. without the Proposed Development) of regional (or where justified, national) hazardous landfill capacity: • is expected to reduce very considerably (by >1%); • is expected to end during construction or operation; • is already known to be unavailable; or • would require new capacity or infrastructure to be put in place to meet forecast demand.

Magnitude

16.7.18 The magnitude of impact describes the degree of variation from the baseline conditions as result of the Proposed Development. The methodology for assessing the magnitude of impact on materials comprises a percentage-based approach that determines the influence of construction materials use on the baseline national demand from the construction of the Proposed Development. The criteria used to assess the magnitude of impact for materials are provided within **Table 16-8**.

Table 16-8: Materials Magnitude of Impact

Magnitude of Impact	Criteria for Materials Magnitude of Impacts
No change	Consumption of no materials is required.
Negligible	Consumption of no individual material type is equal to or greater than 1% by volume (by weight) of the baseline availability
Minor	Consumption of one or more materials is between 1-5% by volume (by weight) of the baseline availability.
Moderate	Consumption of one or more materials is between 6-10% by volume (by weight) of the baseline availability.
Major	Consumption of one or more materials is >10% by volume (by weight) of the baseline availability.

16.7.19 The methodology for assessing the magnitude of impact for waste comprises a percentage-based approach that determines the influence of waste generation from the construction, operation and decommissioning of the Proposed Development on the baseline landfill capacity. The criteria used to

assess the magnitude of impact for resources and waste are provided within **Table 16-9** and **Table 16-10**.

Table 16-9: Inert and Non-hazardous Waste Magnitude of Impacts

Magnitude of Impact	Criteria for Inert and Non-hazardous Waste Magnitude of Impacts
No change	Zero waste generation and disposal from the development.
Negligible	Waste generated by the development will reduce expansive Study Area landfill capacity baseline by <1%
Minor	Waste generated by the development will reduce expansive Study Area landfill capacity baseline by 1-5%
Moderate	Waste generated by the development will reduce expansive Study Area landfill capacity baseline by 6-10%.
Major	Waste generated by the development will reduce expansive Study Area landfill capacity baseline by >10%.

Table 16-10: Hazardous Waste Management Magnitude of Impact

Magnitude of Impact	Criteria for Hazardous Waste Magnitude of Impacts
No change	Zero waste generation and disposal from the development.
Negligible	Waste generated by the development will reduce expansive Study Area landfill capacity baseline by <0.1%
Minor	Waste generated by the development will reduce expansive Study Area landfill capacity baseline by <0.1-0.5%
Moderate	Waste generated by the development will reduce expansive Study Area landfill capacity baseline by <0.5-1%.
Major	Waste generated by the development will reduce expansive Study Area landfill capacity baseline by >1%.

Significance

16.7.20 **Table 16-11** describes the effect thresholds used in determining the effects and **Table 16-12** shows the significance of the effect.

Table 16-11: Effect Thresholds

Magnitude of Change				
No change	Negligible	Minor	Moderate	Major

		Magnitude of Change				
Sensitivity of Receptor	Very High	Neutral	Slight	Moderate or large	Large or very large	Very large
	High	Neutral	Slight	Slight or moderate	Moderate or large	Large or very large
	Medium	Neutral	Neutral or slight	Slight	Moderate	Moderate or large
	Low	Neutral	Neutral or slight	Neutral or slight	Slight	Slight or moderate
	Negligible	Neutral	Neutral	Neutral or slight	Neutral or slight	Slight

Table 16-12: Significance of Effect

Effect Thresholds	Materials	Waste
Neutral	Not significant	Not significant
Slight		
Moderate	Significant	Significant
Large		
Very Large		

16.8. Limitations and Assumptions

16.8.1 The material and waste scoping has been undertaken based on information available at the time of writing. The following assumptions have been made:

a. the detailed design of the Proposed Development is still being developed. Consequently, estimates of material consumption and waste generation are not confirmed at this stage and will be refined as the design and construction methodology develop; and

b. there is no reliable basis on which to forecast the future availability of key construction materials or landfill capacity. Accordingly, the current baseline is assumed to remain representative for the purposes of the assessment.

16.9. Summary of Elements Scoped In and Out

16.9.1 The following matters are proposed to be scoped out of the materials and waste assessment:

a. waste arising from the extraction, processing and manufacture of construction materials and products, as these activities are managed through separate planning, permitting and supply chain arrangements outside the scope of the Proposed Development;

b. environmental effects associated with the transport, handling, storage and off-site management of waste, which are considered in the relevant technical chapters of the ES (Noise and Vibration, Transport and Access, and Water Environment) and, for Air Quality, in Section 17.1 of **Chapter 17: Other Environmental Topics**;
c. environmental effects associated with the operation of off-site waste management facilities, which are controlled through their own planning and environmental permitting regimes; and
d. direct effects on safeguarded mineral and waste sites, as no safeguarded mineral or waste sites are located within the Scoping Site Boundary.

16.9.2 The consumption of key construction materials and the generation and management of waste during the construction, operation (including maintenance) and decommissioning phases are proposed to be scoped into the assessment.

16.9.3 A summary of the elements scoped in and out of the assessment is presented in **Table 16-13**.

Table 16-13: Elements scoped in and out of the Materials and Waste assessment

Element	Scoped In/Scoped Out
Consumption of key construction materials	**Scoped in:** The assessment will consider the demand for key construction materials and the potential effects on material availability.
Waste generation and landfill capacity	**Scoped in:** The assessment will consider waste generation and the potential effects on available landfill capacity during construction, operation (including maintenance) and decommissioning.
Waste arising from extraction, processing and manufacture of construction materials	**Scoped out:** These activities are outside the scope of the Proposed Development and are managed through separate planning, permitting and supply chain arrangements.
Environmental effects associated with waste transport, storage and off-site management	**Scoped out:** These effects are assessed within the relevant technical chapters of the ES (Noise and Vibration, Transport and Access, and Water Environment) and for Air Quality in Section 17.1 of **Chapter 17: Other Environmental Topics**.
Environmental effects associated with off-site waste management facilities	**Scoped out:** These effects are controlled through the planning and environmental permitting of those facilities.
Effects on safeguarded mineral and waste sites	**Scoped out:** There are no safeguarded mineral or waste sites within the Scoping Site Boundary.

17. Other Environmental Topics

17.1. Air Quality

Introduction

17.1.1 This section considers the potential for likely significant effects on air quality associated with the Proposed Development during the construction, operation (including maintenance) and decommissioning phases. It describes the potential sources of air pollutant and dust emissions, the receptors that may be affected, and the proposed scope of assessment regarding air quality within the Environmental Statement (ES).

17.1.2 This section is supported by **Figure 17.1: Air Quality Monitoring Locations**.

Study Area

17.1.3 For impacts associated with dust from construction activities, the Study Area comprises sensitive human receptors within 250 m of the Scoping Site Boundary and within 50 m of roads expected to be affected by construction traffic, up to 250 m of site access points. For sensitive ecological sites, the Study Area comprises receptors within 50 m of the Scoping Site Boundary and 50 m of routes used by construction vehicles on the public highway, up to 250 m from the site access points. The Study Area is consistent with IAQM guidance (Ref.1).

17.1.4 For impacts associated with emissions from traffic, the Study Area comprises sensitive human and ecological receptors within 200 m of the affected road network.

Legislation, Planning Policy Context and Guidance

17.1.5 Legislation, planning policy and guidance relating to the air quality assessment and pertinent to the Proposed Development is set out as follows.

Legislation

17.1.6 Relevant legislation includes:

a. The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (Ref 2);
b. The Environmental Protection Act 1990 (Ref 184);
c. The Environment Act 1995 (Ref 348);
d. The Air Quality (England) Regulations 2000 (Ref 349);
e. The Air Quality (England) (Amendment) Regulations 2002 (Ref 350);
f. National Air Quality Legislation Originating from the European Union (EU) (Ref.7), including the Air Quality Standards (Amendment) Regulations 2016 (Ref 352);
g. The Environment Act 2021 (Ref 18); and

h. The Environmental Targets (Fine Particulate Matter) (England) Regulations 2023 (Ref 353).

National Planning Policy

17.1.7 The following planning policies from the relevant National Policy Statements (NPS) have informed the proposed assessment methodology and scope:

a. Overarching National Policy Statement for Energy (EN-1) (December 2025) (Ref 5), Section 5.2 sets out planning policy guidance in relation to air quality and emissions, with particular reference to paragraphs 5.2.8 to 5.2.14 which set out the assessment principles; and

b. National Policy Statement for Renewable Energy Infrastructure (EN-3) (December 2025) (Ref 6) paragraphs 2.7.41 to 2.7.44 provide an overview of what should be considered in an assessment of air emissions.

Other Policy and Guidance

17.1.8 Other relevant national policy and guidance includes:

a. The National Planning Policy Framework (August 2026) (Ref 354);

b. Planning Practice Guidance (PPG) on Renewable and Low Carbon Energy (Ref 250);

c. PPG on Air Quality (Ref 355);

d. Clean Air Strategy 2019 (Ref 356);

e. Air Quality Strategy 2023 (Ref 357); and

f. Air pollution and development: advice for local authorities Guidance (Ref 358).

17.1.9 Relevant local planning policy includes the Sedgemoor Local Plan 2011 – 2032 (February 2019) (Ref 11), which contains the following relevant policies:

a. Policy D14 (Managing the transport impacts of development) requires an appropriate air quality assessment to support development proposals where there is potential for significant transport impact; and

b. Policy D24 (Pollution impacts of development) mandates air quality assessments for development that could affect local conditions, ensuring compliance with national standards and requiring mitigation measures where impacts are identified.

Relevant Industry Guidance

17.1.10 Relevant non-statutory industry guidance includes:

a. IAQM Land Use Planning & Development Control (2017) (Ref 359);

b. IAQM Guidance on the assessment of dust from demolition and construction (2024) (Ref 347); and

c. Defra Local Air Quality Management Technical Guidance (2025) (TG22) (Ref 360)

Consultation

17.1.11 Consultation as part of the EIA process will be undertaken following submission of this EIA Scoping Report with statutory parties including Somerset Council.

Baseline Conditions

Existing Pollutant Concentrations

17.1.12 This section describes the baseline air quality conditions within the Scoping Site Boundary and surrounding area.

17.1.13 Somerset Council undertakes routine air quality monitoring across its administrative area (Ref 361). There are no Air Quality Management Areas (AQMAs) within the Scoping Site Boundary or adjacent to it.

17.1.14 In the absence of any published air quality monitoring location within the Study Area, background air pollutant concentrations have been obtained from Defra's 2021-based background maps (Ref 362). **Table 17-1** presents the modelled background air pollutant concentrations for the 2026 baseline year, derived from these data. The predicted annual mean concentrations of NO_2, PM_{10} and $PM_{2.5}$ are well below the relevant air quality objectives.

Table 17-1: Background Air Pollutant Concentrations for the 2026 Baseline Year (derived from Defra 2021-based Background Maps)

Parameter	Annual Mean NO_2 Concentration ($\mu g/m^3$)	Annual Mean PM_{10} Concentration ($\mu g/m^3$)	Annual Mean $PM_{2.5}$ Concentration ($\mu g/m^3$)
Minimum	4.7	9.8	6.0
Maximum	8.9	13.5	6.8
Average	5.7	10.6	6.2

Existing Dust Climate

17.1.15 Existing sources of particulate matter within the Study Area include agricultural activities, road traffic, domestic heating, local energy infrastructure and the long-range transport of airborne particles from outside the Study Area.

17.1.16 The Study Area is predominantly rural and receptors are therefore accustomed to background dust levels typical of a rural environment, including dust generated by agricultural activities such as ploughing, harvesting, baling and vehicle movements on unsealed tracks.

Potential Effects and Mitigation

17.1.17 This section identifies the potential air quality effects associated with the Proposed Development and the basis on which they are proposed to be scoped out of detailed assessment within the ES.

17.1.18 Embedded mitigation measures relevant to air quality are provided in **Appendix 1-2: Environmental Mitigation and Commitments Register** of this EIA Scoping Report.

Construction

17.1.19 During the construction and decommissioning phases, the potential air quality effects associated with the Proposed Development comprise:

a. dust emissions generated by construction activities; and
b. emissions from road vehicles, and Non-Road Mobile Machinery (NRMM).

Potential effect of construction phase dust emissions

17.1.20 Construction activities including the movement and handling of soils and spoil and the movement of construction traffic along Access Tracks (including any potentially reinstated NGET Haul Road) for the Proposed Development is likely to lead to the generation of some short-term airborne dust. The occurrence and significance of dust generated is difficult to estimate and depends heavily upon the nature of the activity being carried out and the meteorological and ground conditions at the actual time and location of the work.

17.1.21 At present, there are no statutory English standards relating to the assessment or control of fugitive dust emissions from construction activities. The emphasis of the regulation and control of construction dust, therefore, is through the adoption of good practice when working on site to mitigate any potential impacts. It is intended that significant adverse environmental effects are avoided at the design stage and through mitigation embedded in management plans where possible, including the use of good working practices to control dust emissions at source.

17.1.22 The IAQM provides guidance for good practice and a framework of approaches for qualitative assessment of risk of dust emissions from construction and demolition activities. The guidance considers the potential for dust emissions from activities to cause a risk to human health (associated with PM_{10}), dust soiling impacts, and ecological impacts (such as physical smothering, and chemical impacts for example from deposition of alkaline materials). The appraisal of risk is based on the scale and nature of activities and on the sensitivity and location of receptors.

17.1.23 The main air quality impacts that may arise during construction phase activities are:

a. Increased dust deposition rates, resulting in amenity impacts due to the perception of the soiling of surfaces and impacts on vegetation;
b. Visible dust plumes, which are evidence of dust emissions;
c. Elevated PM_{10} and $PM_{2.5}$ concentrations in air, that can directly impact human health;
d. An increase in concentrations of airborne particulate (PM_{10} and $PM_{2.5}$ size fractions) and oxides of nitrogen (NOx and NO_2)) due to exhaust emissions from plant used on site (non-road mobile machinery); and

e. The transfer of dusty material from the site to nearby roads, termed 'track-out'.

17.1.24 The construction dust assessment method comprises four steps:

a. Step 1: Establish the sensitivity of the area through determination of the sensitivity of receptors and their distance from construction activities.
b. Step 2: The dust risk assessment step is used to determine the level of good practice control measures required to adequately manage emissions of dust.
c. Step 3: The likely magnitude of the change caused by emissions from construction activities, on air quality, vegetation and ecosystems, is determined and the need for additional site-specific mitigation measures considered with embedded management measures in use.
d. Step 4: The significance of residual effects is described.

17.1.25 The magnitude of likely impacts is described for the Proposed Development for a scenario that includes good practice control measures as embedded mitigation. Additional site-specific mitigation measures will be identified and considered if industry standard good practice control is not adequate to protect specific receptors.

17.1.26 In this case, there are some highly sensitive human health receptors (residential properties) in the Study Area, notably in the periphery of Chapel Allerton, Mark, Yarrow, East Huntspill and Woolavington but also some isolated residential properties and farms in proximity to the Scoping Site Boundary. Potentially sensitive ecological receptors within the Study Area comprise the Somerset Wetlands National Nature Reserve (in particular the Huntspill River each side of the B3141 (The Causeway)) and a number of Local Wildlife Sites.

17.1.27 The Proposed Development will comprise predominantly solar panels, battery storage, underground and overhead cabling and associated infrastructure (including substations) on existing agricultural land. Construction activities are not expected to involve any demolition work. Construction will be limited in scale and will primarily comprise earthworks, installation of the solar PV panels and mounting structures, cabling, and construction of the BESS, substations and Access Tracks, together with trackout.

17.1.28 Taking into account the nature and scale of the Proposed Development and the implementation of embedded good practice mitigation measures (see the Mitigation section below), significant effects from construction dust emissions on amenity, human health and ecological receptors are unlikely.

17.1.29 Construction dust emissions are therefore proposed to be scoped out of the ES.

Potential effects of non-road mobile machinery emissions

17.1.30 The impacts of NRMM related emissions during construction will represent a small source of emissions relative to ambient local conditions in the vicinity

of the Scoping Site Boundary based on the scale of construction that will occur and the number of NRMM that will be required. An assessment of NRMM related emissions is therefore **scoped out**. Suitable mitigation measures for NRMM will be recommended based on advice prescribed in the IAQM guidance (Ref 347) and incorporated into the Outline CEMP.

17.1.31 The measures in the Outline CEMP will seek to reduce emissions of NO_X, PM_{10}, $PM_{2.5}$ and $PM_{2.5}$ precursors as far as is reasonably practicable.

Potential effects of construction phase road traffic emissions

17.1.32 Construction traffic has the potential to generate emissions of nitrogen dioxide (NO_2), PM_{10} and $PM_{2.5}$, which could affect nearby human and ecological receptors. However, based on the current construction assumptions, the total number of vehicle movements generated by the construction of the Proposed Development on each individual road is unlikely to exceed the IAQM screening criteria that would trigger the need for a detailed assessment. Embedded mitigation measures included within the Outline CEMP and Outline Construction Traffic Management Plan (Outline CTMP) will seek to reduce emissions of NO_x, PM_{10} and $PM_{2.5}$ during construction as far as is reasonably practicable.

17.1.33 A standalone assessment of construction traffic emissions is therefore proposed to be scoped out of the ES. Should the construction traffic forecasts exceed the IAQM screening criteria as the design develops, the need for a quantitative assessment will be reviewed and, where necessary, undertaken as part of the ES.

Potential effects of operational phase road traffic emissions

17.1.34 During operation (including maintenance), significant air quality effects are unlikely due to the low frequency of maintenance vehicle movements. The operational phase will not generate significant emissions of local air pollutants. This is consistent with NPS EN-3 (Ref 6) which recognises that operational traffic associated with solar farms is typically limited to occasional maintenance visits, with infrequent heavier vehicle movements for replacement of equipment where required.

17.1.35 Significant air quality effects during operation (including maintenance) are therefore unlikely, and further assessment is proposed to be scoped out of the ES.

Decommissioning

Potential effect of decommissioning phase dust emissions

17.1.36 Decommissioning activities will be similar in nature to the construction phase but of a lower intensity and shorter duration. Consequently, dust emissions will be similar to or lower than those during construction. Embedded mitigation measures included within the Outline Decommissioning Environmental Management Plan (Outline DEMP) will seek to reduce dust emissions as far as is reasonably practicable.

17.1.37 A standalone assessment of decommissioning dust emissions is therefore proposed to be scoped out of the ES.

Potential effect of decommissioning phase road traffic emissions

17.1.38 Decommissioning traffic flows will be similar to or lower than construction traffic and are unlikely to exceed the relevant IAQM screening criteria for a detailed assessment.

17.1.39 A standalone assessment of decommissioning road traffic emissions is therefore proposed to be scoped out of the ES.

Mitigation

17.1.40 Implementation of embedded mitigation measures secured through the Outline CEMP, Outline CTMP, Outline Operation Environmental Management Plan (Outline OEMP) and Outline DEMP will seek to reduce dust generation and air pollutant emissions during construction, operation (and maintenance) and decommissioning, as far as is reasonably practicable.

17.1.41 The Outline CEMP, CTMP, OEMP and DEMP will incorporate recognised good practice measures in accordance with IAQM guidance (Ref 347), as appropriate to the works.

17.1.42 Taking these embedded mitigation measures into account, significant effects on air quality are unlikely during construction or decommissioning. The operational phase (including maintenance) is unlikely to generate significant emissions of local air pollutants or dust, and significant operational or cumulative effects are unlikely to occur.

Assessment Methodology

17.1.43 Based on the current design assumptions and the implementation of embedded mitigation measures, significant air quality effects are unlikely. A standalone air quality assessment is therefore not proposed within the ES.

17.1.44 The need for a detailed air quality assessment will be reviewed as the design develops. Construction traffic associated with the Proposed Development will be screened against the relevant IAQM guidance (Ref 347) to determine whether a quantitative assessment is required.

17.1.45 Should the predicted construction traffic exceed the IAQM screening criteria, a quantitative assessment will be undertaken within the ES. The assessment will:

a. identify sensitive human and ecological receptors within the Study Area;
b. assess the potential effects of construction traffic emissions on local air quality;
c. demonstrate compliance with relevant air quality objectives and applicable guidance;
d. consider cumulative effects with other existing, committed and reasonably foreseeable developments, where relevant; and

e. identify any additional mitigation measures required.

17.1.46 Based on the current design assumptions, construction traffic flows are unlikely to exceed the IAQM screening criteria. The need for a quantitative assessment will be confirmed following completion of the Transport Assessment.

Limitations and Assumptions

17.1.47 The proposed scope is based on the current design assumptions and available construction information. As the design develops, the need for a detailed air quality assessment will be reviewed, particularly if construction traffic is predicted to exceed the relevant IAQM screening criteria.

Summary of Elements Scoped In and Out

17.1.48 **Table 17-2** summarises the proposed scope of the air quality assessment.

Table 17-2: Elements scoped in and out of the air quality assessment

Element	Scoped In / Scoped Out
Construction Phase Dust Emissions	Scoped out: Taking into account the nature and scale of the Proposed Development, the anticipated construction activities, and the implementation of embedded mitigation measures, significant effects arising from construction-phase dust emissions are not anticipated.
Operation (including maintenance) and Decommissioning Phase Dust Emissions	Scoped out: Dust generating activities during the operational and decommissioning phases are anticipated to be similar to, or less than, those associated with the construction phase and will be managed through embedded mitigation measures. Accordingly, significant effects arising from operational and decommissioning-phase dust emissions are not anticipated.
Construction Phase Road Traffic Emissions	Scoped out: Based on the current design assumptions, construction traffic flows are unlikely to exceed the IAQM screening criteria that would trigger the need for a detailed air quality assessment. This will be confirmed following completion of the Transport Assessment.
Operation (including maintenance) Phase Road Traffic Emissions	Scoped out: Operational traffic associated with maintenance activities will be infrequent and is unlikely to give rise to significant air quality effects.
Decommissioning Phase Road Traffic Emissions	Scoped out: Decommissioning traffic flows will be similar to or lower than construction traffic and significant air quality effects are unlikely.
Construction and Decommissioning Phase Non-Road Mobile Machinery Emissions (NRMM)	Scoped out: Emissions from NRMM will represent a minor contribution to local air pollutant concentrations and will be managed through embedded mitigation measures secured within the Outline CEMP and Outline DEMP. There are no risks of significant effects.

17.2. Ground Conditions

Introduction

17.2.1 This section sets out the proposed approach to the assessment of likely significant effects on ground conditions during the construction, operation (and maintenance), and decommissioning phases, how these effects will be identified and assessed, and how suitable mitigation strategies will be put forward within the Environmental Statement (ES).

17.2.2 This section is supported by **Figure 17-2: Ground Conditions Study Area**.

17.2.3 The ground conditions topic focuses on geological designated sites, mineral resources (including Mineral Safeguarding Areas (MSA)/Mineral Consultation Areas (MCA)), and receptors sensitive to land contamination. There are interrelationships between the potential effects on ground conditions and other environmental topics. Therefore, other chapters should also be referred to, as follows:

a. Groundwater, surface water and ecological receptors are discussed within this chapter as they will be assessed as potential receptors to any land contamination. However, groundwater and surface water as strategic resources and/or discharge points, hydrogeological response to dewatering, and flooding are considered in **Chapter 10: Water Environment**. Ecological receptors are considered in more detail in **Chapter 9: Ecology and Biodiversity**;
b. Pollution related impacts from construction, operation and maintenance, and decommissioning of the Proposed Development are considered in **Chapter 10: Water Environment**;
c. Air pollution related impacts from increased dust during construction are also covered in Section 17.1 Air Quality of **Chapter 17: Other Environmental Topics**;
d. Excavated materials and waste management are also covered in **Chapter 16: Materials and Waste**; and
e. Soils and agricultural land are covered in **Chapter 14: Agriculture and Soils**.

Study Area

17.2.4 For the purposes of determining the local baseline conditions with respect to ground conditions, a Study Area extending 250 m from the Scoping Site Boundary will be adopted for geology, land contamination and mineral resources. A hydrogeological Study Area extending 1 km from the Scoping Site Boundary will be adopted for sensitive groundwater receptors.

17.2.5 The Study Area is appropriate to assess the local geological and hydrogeological setting, and any influence that potential land contamination may have within the Scoping Site Boundary or local sensitive receptors.

17.2.6 The Study Area boundaries for ground conditions are presented on **Figure 17-2: Ground Conditions Study Area**.

Legislation, Planning Policy Context and Guidance

17.2.7 Legislation, planning policy and guidance relating to ground conditions and pertinent to the Proposed Development comprises:

Legislation

17.2.8 Relevant legislation includes:

a. Environmental Protection Act 1990 (Ref 184);
b. Water Act 2003 (Ref 363);
c. Water Resources Act 1991 (Ref 183);
d. Building Act 1984 (Ref 364);
e. Environment Act 1995 (Ref 365);
f. Environment Act 2021 (Ref 18);
g. Climate Change Act 2008 (Ref 8);
h. Planning Act 2008 (Ref 1);
i. Water Environment (Water Framework Directive (WFD)) (England and Wales) Regulations 2017 (Ref 101);
j. Environmental Permitting (England and Wales) Regulations 2016 (Ref 186);
k. Waste (England and Wales) Regulations 2011 (Ref 366);
l. Hazardous Waste (England and Wales) (Amendment) Regulations 2016 (Ref 367);
m. Contaminated Land (England) Regulations 2006 (Ref 368);
n. Part C of Schedule 1 of the Building Regulations 2010 (SI 2010/2214) (Ref 369);
o. Anti-Pollution Works Regulations 1999 (Ref 370); and
p. Construction (Design and Management) Regulations 2015 (Ref 371).

National Planning Policy

17.2.9 The following planning policies from relevant National Policy Statements (NPS) have informed the assessment methodology, receptor selection/sensitivity, potential significant environmental effects, and mitigation:

a. Overarching National Policy Statement for Energy (EN-1) (December 2025) (Ref 5):
    i. Paragraph 5.11.17 states that Applicants should ensure that a site is suitable for its proposed use, taking account of ground conditions and any risks arising from land instability and contamination.
    ii. Paragraph 5.11.18 sets out that for developments on previously developed land, applicants should ensure that they have considered the risk posed by land contamination, and where contamination is present, applicants should consider opportunities for remediation where possible.
b. National Policy Statement for Renewable Energy Infrastructure (EN-3) (December 2025) (Ref 6), paragraph 2.10.23 encourages the use of brownfield and previous industrial land for solar PV development and states that applicants should utilise such land where possible.

Other Policy and Guidance

17.2.10 Other relevant national policy and guidance includes:

a. National Planning Policy Framework (August 2026) (Ref 9) - Chapter 19 (Conserving and enhancing the natural environment) is relevant to the Proposed Development. Chapter 16 (Promoting healthy communities) and Chapter 17 (Pollution, public protection and security) are also relevant to contamination.
   i. Policy P2: Ground conditions – provides planning policy guidance in relation to ground conditions. In particular Policy P2 states that sites should be suitable for their proposed use taking into account:
   "a. Ground conditions, including any risks arising from land instability or contamination (whether due to natural hazards or current and former activities such as mining or fuel storage); and
   b. The extent to which any such risks can be mitigated, and the potential impacts on the natural environment arising from remediation."

17.2.11 Relevant local planning policy includes the Sedgemoor Local Plan 2011-2032 (February 2019) (Ref 11), whereby contamination and ground conditions are addressed through a number of district-wide policies. The most relevant are set out below.

   i. Policy D24 (Pollution impacts of development) states that development proposals should not result in unacceptable pollution impacts on people, property, environmental assets or the wider environment.
   ii. Policy D25 (Protecting residential amenity), this is primarily an amenity policy, it can also be relevant where contamination has potential impacts on residents. The policy seeks to ensure development does not result in unacceptable impacts on the amenity of existing or future occupants.

Relevant Industry Guidance

17.2.12 Relevant industry guidance includes:

a. HM Government, Part 2A Contaminated Land Statutory Guidance, 2012 (Ref 372);
b. Environment Agency's online guidance for the management of land contamination 'Land contamination: risk management (LCRM) (Ref 373);
c. British Standard (BS) 10175:2026, Investigation of potentially contaminated sites – Code of practice (Ref 374);
d. BS 8576 (2013), Guidance on investigations for ground gas. Permanent gases and Volatile Organic Compounds (VOCs) (Ref 375);
e. BS 8485:2015+A1:2019, Code of practice for the design of protective measures for methane and carbon dioxide ground gases for new buildings. (Ref 376);

f. Construction Industry Research and Information Association (CIRIA) C665, assessing risks posed by hazardous ground gases to buildings, 2007 (Ref 377);
g. CIRIA C552 Contaminated Land Risk Assessment: A Guide to Good Practice (Ref 378);
h. CIRIA C811 5th Edition 'Environmental Good Practice On Site' 2023 (Ref 379);
i. Contaminated Land: Applications in Real Environments (CL:AIRE), Piling and Penetrative Ground Improvement Methods on Land Affected by Contamination: Guidance on Pollution Prevention (2025) (Ref 380);
j. Building Research Establishment (BRE) series 'Concrete in Aggressive Ground' (2005) (Ref 381);
k. CL:AIRE, Updated Framework for Assessing the Sustainability of Soil and Groundwater Remediation (2025) (Ref 382); and
l. Planning Practice Guidance. Paragraph 013 ID: 5-013-20150327 – 'Renewable and low carbon energy: What are the particular planning considerations that relate to large scale ground-mounted solar photovoltaic farms' (Ref 250).

Consultation

17.2.13 Consultation as part of the Environmental Impact Assessment (EIA) process will be undertaken following submission of this EIA Scoping Report with statutory parties including local councils, the Environment Agency and local geological groups where relevant. This will be to obtain further information on:

a. Potential land contamination sites across the Scoping Site Boundary and within the Study Area; and
b. Information on geological sites (if present) and confirmation that there are no mineral safeguarding or consultation areas.

Baseline Conditions

17.2.14 This section provides a high-level summary of baseline environmental characteristics within the Scoping Site Boundary and surrounding areas with specific reference to ground conditions. This section is also informed (where relevant) by the following reports:

a. CGL, 'Somerset Land – Geotechnical Feasibility Study', Ref. 17840. Dated April 2026 (Ref 383); and
b. CGL, 'Somerset Land – Preliminary Pile Test Report', Ref. 17840. Dated July 2026 (Ref 384).

17.2.15 Note that these reports cover only the Energy Park areas of the Scoping Site Boundary.

Geology

17.2.16 The British Geological Survey (BGS) online geological mapping tools (Ref 385), including the BGS Geology of Britain viewer and BGS memoirs for

sheets 279 (Weston-super-Mare) and 280 (Wells and Cheddar), indicate the geological setting of the Scoping Site Boundary. The Scoping Site Boundary is located within the Somerset Levels and Moors, on the northern side of the Polden Hills, between the villages of Puriton and Woolavington, to the north-west of Bridgwater.

Made Ground

17.2.17 The BGS mapping indicates that Made Ground is likely to be present across parts of the Scoping Site Boundary, reflecting the historical development of the former Royal Ordnance Factory (ROF) Bridgwater (now known as Huntspill Energy Park/Gravity Smart Campus) and associated earthworks, building platforms, roads, and service corridors. The distribution and thickness of Made Ground will be confirmed as part of the proposed Preliminary Risk Assessment (PRA) to be submitted with the ES, through review of historical maps, available site investigation records, and a Groundsure report.

17.2.18 The Huntspill River is an artificial watercourse constructed in 1940 to supply process water to the ROF Bridgwater. It was excavated as a straight channel through the coastal clay belt of the Somerset Levels, with the excavated spoil used to form the river banks and embankments. This artificial ground may therefore be present within or adjacent to the Scoping Site Boundary.

17.2.19 The Geotechnical Feasibility Study (Ref 383) indicates that numerous ponds were shown on historical maps and that the majority have been infilled. Furthermore, former ditches defining field boundaries are also suspected to have been infilled. Other potential Made Ground areas were identified by CGL around existing National Grid T pylons, the M5 motorway and a nearby solar farm (western boundary).

Superficial Deposits

17.2.20 Superficial deposits of Late Pleistocene to Holocene age are expected to underlie the Scoping Site Boundary and surrounding Somerset Levels. These are anticipated to comprise Tidal Flat Deposits (clay, silt and sand), estuarine alluvium, alluvium, peat, and Burtle Beds (clay, silt, sand, and gravel), reflecting the low-lying coastal plain setting within the Scoping Site Boundary. The exact thickness and lateral extent of superficial deposits will be confirmed during the PRA. A summary of limited site investigation information currently available is provided in **Section 17.2.23.**

Bedrock Geology

17.2.21 The bedrock geology in the vicinity of the Scoping Site Boundary is mapped by the BGS as Charmouth Mudstone Formation and Lower Jurassic Blue Lias Formation (part of the Lias Group), comprising alternating limestones and mudstones/shales. In the immediate surroundings, the older Triassic Mercia Mudstone Group is also present within the Polden Hills, and may underlie parts of the Scoping Site Boundary at depth. The bedrock geology beneath the Scoping Site Boundary will be confirmed through the PRA and, where recommended by the PRA, subsequent ground investigation.

Ground Investigation

17.2.22 The Preliminary Pile Test Report (Ref 384) summarised a site investigation carried out across the Energy Park areas of the Scoping Site Boundary. This comprised the following scope of work:

a. 10 no. locations Pile Tension Tests;
b. 5 no. locations Pile Compression Tests; and
c. 2 no. locations Lateral Pile Tests.

17.2.23 The ground conditions encountered, with the recorded depth range was summarised by CGL is as follows:

a. Topsoil: 0.1 – 0.4 m (encountered in all locations);
b. Made Ground: >1.0 m (encountered at one location);
c. Tidal Flat Deposits: >3.5 m (encountered in all locations);
d. Peat: 1.1 – >2.5 m (encountered locally within the Tidal Flat Deposits); and
e. Groundwater: encountered at depths between 1.1 and 2.0 m below ground level (bgl).

Mining

17.2.24 According to the Mining Remediation Authority (Ref 386), the Scoping Site Boundary and Study Area are not located within a Coal Mining Reporting Area. The Somerset Coalfield is located to the east, in the Radstock area, and does not extend beneath the Scoping Site Boundary.

17.2.25 Historical brine/salt extraction from the Mercia Mudstone Group was undertaken at Puriton in the early 20th century (Ref 387). This is not considered to present a current mining-related ground stability risk, but the historical land use will be considered in the PRA.

Geological Sites

17.2.26 According to the Somerset Environmental Records Centre and Somerset Geology Group (Ref 388), there are no Local Geological Sites (LGS) within the Scoping Site Boundary or the immediate Study Area. According to Department for Environment, Food and Rural Affairs (DEFRA) Multi-Agency Geographic Information for the Countryside (MAGIC) mapping (Ref 122), there are no geological Sites of Special Scientific Interest (SSSI) within the Scoping Site Boundary or the Study Area. The absence of geological sites of interest will be confirmed through the consultation described in **Section 17.2.13**.

Mineral Resources

17.2.27 According to the Somerset Minerals Plan 2030 (Ref 12), the Scoping Site Boundary is not located within a Minerals Safeguarding Area (MSA) or Minerals Consultation Area (MCA).

Hydrogeology

17.2.28 According to the BGS/Environment Agency Aquifer Designation dataset (Ref 389), the superficial deposits across the Somerset Levels are typically classified as Secondary Undifferentiated with small areas of Secondary A or Unproductive Strata, dependent on lithology. The bedrock deposits are generally classified as Secondary Undifferentiated with the Lias Group (Blue Lias Formation and Charmouth Mudstone Formation) generally classified as a Secondary A aquifer and the Mercia Mudstone Group typically classified as Unproductive Strata.

17.2.29 There are no known groundwater Source Protection Zones within 1 km of the Scoping Site Boundary; however, this will be confirmed using the Environment Agency's groundwater source protection zone data (Ref 390) during the PRA.

Hydrology

17.2.30 Surface water features in the vicinity of the Scoping Site Boundary include the man-made Huntspill River to the south-west, the River Parrett to the north-west, and an extensive network of field drains, rhynes, and ditches associated with the Somerset Levels. These drainage features are important receptors for surface water quality and will be considered in the assessment of land contamination.

Current Land Uses

17.2.31 The majority of the Scoping Site Boundary is located to the north of the former ROF Bridgwater explosives manufacturing facility (now the Gravity Smart Campus/Huntspill Energy Park), in the vicinity of the Somerset Wetlands National Nature Reserve (Huntspill River). This part of the Scoping Site Boundary is predominantly agricultural land, comprising cultivated fields and drainage rhynes. The southern part of the Scoping Site Boundary is adjacent to the former ROF Bridgwater site, where production ceased in 2008 and the majority of process buildings have been demolished. The wider area is being promoted for energy-related and commercial uses as part of the Huntspill Energy Park/Gravity Smart Campus and the Heart of the South West Enterprise Zone. Surrounding land is predominantly rural, comprising agricultural fields, dispersed residential properties, and the villages of Puriton, Woolavington, and West Huntspill.

Landfills

17.2.32 Groundsure data (Ref 392) indicates two historic landfill sites in the vicinity of the Scoping Site Boundary: Cossington Refuse Tip (WDL/043) to the west, and a further site near Brookhays Plantation/Lower West Farm to the south-east. The Gravity Phase 1 Land Condition Report (Ref 393) also identifies two historical landfills approximately 88 m and 184 m to the south, licensed to S Roberts and Son Bridgwater (Ltd) for inert industrial and household waste and last filled in 1989. Given their distance and the time since infilling, the preliminary review suggests that risk of ground gas migration or leachate impacts is expected to be low, subject to confirmation through the PRA.

Unexploded Ordnance

17.2.33 The Scoping Site Boundary is located immediately to the north of the former ROF Bridgwater munitions manufacturing site. Although the majority of the Scoping Site Boundary is on agricultural land rather than within the former industrial facility, an Unexploded Ordnance (UXO) risk assessment will be undertaken as part of the PRA, using Zetica UXO risk maps and historical site records (Ref 391), to establish whether a credible UXO risk exists.

Potential Effects and Mitigation

17.2.34 This section sets out the potential effects of the Proposed Development on ground conditions.

Construction and Decommissioning

17.2.35 Potential impacts during the construction and decommissioning phases of the Proposed Development include, but are not limited to:

a. Disturbance of geological features of interest (if present);
b. Encountering unexpected contamination during excavation;
c. Human exposure through direct contact/inhalation/dermal uptake of contaminants potentially present in soil and groundwater;
d. Creation of preferential pathways and mobilisation of contamination;
e. Contamination of natural soils, driving of contamination into an aquifer during piling, contamination of groundwater with concrete, paste or grout;
f. Pollution and degradation of water quality of any underlying aquifer;
g. Run-off and infiltration of contaminants from excavated material stockpiles;
h. Contamination of drainage and sewerage network and/or groundwater;
i. Spread of nuisance dusts and soils to the wider environment and local roads;
j. Disturbance of Made Ground associated with the former ROF, including potential soils and groundwater affected by historical industrial use; and
k. Beneficial impact of remediation undertaken to address any unacceptable risk to people and environment.

17.2.36 At this stage, based upon an initial, high-level review of publicly available data, there is considered to be a low likelihood of significant effects relating to the geological baseline and the predominantly agricultural northern part of the Scoping Site Boundary. The likelihood of effects associated with historical contamination is considered to be higher in the southern part of the Scoping Site Boundary adjacent to the former ROF Bridgwater site. This will be subject to confirmation following completion of the aforementioned PRA.

Operation and Maintenance

17.2.37 During operation (and maintenance), activities will be limited to routine maintenance, and no significant disturbance of soils or geological resources is anticipated. There is however, the potential for the use of oils, grease,

fuels, lubricants or cleaning agents on-site, which could result in a risk of localised soil or ground contamination in the event of an accidental spillage.

17.2.38 On the basis of the current understanding of the Proposed Development, significant effects on soils and geological resources during the operation (and maintenance) phase are not anticipated.

Mitigation

17.2.39 This section sets out the potential ground conditions embedded mitigation measures. Mitigation measures relevant to ground conditions are included in A**ppendix 1-2: Environmental Mitigation and Commitments Register** of this EIA Scoping Report.

Construction

17.2.40 Based upon the findings of the PRA to be submitted with the ES, a number of environmental design and management measures are expected to be employed as standard best practice to minimise impacts to both human health and controlled waters during the construction phase of the Proposed Development, including those listed in **Table 17-3** below. Where applicable, these measures will be incorporated into the Outline Construction Environmental Management Plan (CEMP) which will be provided alongside the ES as part of the DCO Application.

Table 17-3: Environmental Design and Management Measures

Environmental Design and Management Measures
Regulatory/Guidance
1. Work will be carried out in accordance with relevant Construction (Design and Management) Regulations 2015 (Ref 371), details of these measures will be presented within the Health and Safety Plan (H&SP), and the Outline CEMP.
2. A detailed CEMP, based on the Outline CEMP, will be prepared prior to commencement of works, setting out the management, monitoring, auditing and training procedures, and the mitigation measures that will be put in place during enabling works and construction, to maintain compliance with the applicable regulations. In order to reduce the likelihood of contamination and protect human health and controlled waters from effects related to ground conditions, the Outline CEMP will include mitigation measures such as those presented here.
3. A Pollution Response Plan will be drafted prior to the commencement of works on-site (and could form part of the Outline CEMP). The plan will outline key pollution mitigation measures including a Control of Substances Hazardous to Health (COSHH)/fuel inventory and key contacts to be notified in the event of a significant pollution incident, which may subsequently lead to the contamination of controlled waters. Any fuel and COSHH chemicals will be stored in accordance with current Environment Agency guidance and recognised good practice. Tanks and dispensing pumps will be locked when not in use to prevent unauthorised access. Information regarding spill prevention and disposal of COSHH items will be provided as part of the standard site induction presentations and during regular toolbox talks and the works progress. The Pollution Response Plan will contain a Spillage Emergency Response Plan that will include provisions to contain a serious spill or leak through the use of booms, bunding and absorbent material.

Environmental Design and Management Measures
4. Where piling or other penetrative ground improvement methods are proposed, they will be carried out in accordance with CL:AIRE, Piling and Penetrative Ground Improvement Methods on Land Affected by Contamination: Guidance on Pollution Prevention (Ref 380) and ground investigations will inform the Foundation/Piling Risk Assessment which will define the appropriate piling methods and foundation design to mitigate risk.
5. Specification of concrete used in foundations and building structures will be selected based on the results of the chemical composition of the site soil and groundwater. Guidance is provided by the BRE series 'Concrete in Aggressive Ground' (Ref 381).
Waste
6. Waste materials will be disposed of by the contractor(s) to appropriate recycling facilities or appropriately licensed landfills in line with the Outline Site Waste Management Plan (SWMP). The appropriate landfill for the disposal of any contaminated soil off-site will depend on the waste classification determined from the chemical analysis or Waste Acceptance Criteria (WAC) testing as necessary. Where possible, non-contaminated excavated material will be reused.
7. Waste effluent will be tested for appropriate physical and chemical parameters and, where necessary, disposed of at the correctly licensed facility by a licensed specialist contractor(s).
Construction Related
8. Oils and hydrocarbons will be stored in designated locations with specific measures to prevent leakage and release of their contents, include the siting of storage area away from surface water drains, on an impermeable base with an impermeable bund that has no outflow and is of adequate capacity to contain 110% of the contents. Valves and trigger guns will be protected from vandalism and kept locked up when not in use. Details of appropriate storage and handling measures will be presented within the Outline CEMP.
9. Vehicles will be well maintained to prevent accidental pollution from leaks. Static machinery and plant will include drip trays beneath oil tanks/engines/gearboxes/hydraulics, which will be checked and emptied regularly via a licensed waste disposal operator.
10. During the enabling and construction stage of work, the contractor(s) will employ dust suppression measures when necessary to prevent the potential mobilisation of contaminated dust particles and their migration off-site.
11. Stockpiles and material handling areas will be kept as clean as practicable to avoid nuisance from dust. Dusty materials will be dampened down using water sprays in dry weather or covered.
12. The length of time materials are stockpiled on-site before being removed for re-use, recycling or disposal is to be kept to a minimum.
13. Dust-generating activities will be managed to minimise dust emissions and nuisance at sensitive receptors, as far as reasonably practicable
14. Complaints about dust will be investigated at the earliest opportunity and appropriate action taken to control the source or remedy the impact as appropriate.
15. Access roads will be regularly cleaned and damped down with water where necessary to control dust and mud on the highway.
16. Where necessary to prevent mud and debris being deposited on the public highway, vehicles leaving the construction site will pass through a wheel washing facility or equivalent measures (e.g. road sweeping). Vehicles used to transport materials and aggregates will be enclosed or covered in a tarpaulin. Vehicle

Environmental Design and Management Measures
movements will be kept to a minimum and vehicle speeds within the Scoping Site Boundary will be limited. 17. Potentially contaminated Made Ground will be quantified prior to removal from excavations. 18. Advice will be sought by an environmental specialist should materials suspected of being contaminated be uncovered.

Operation and Maintenance

17.2.41 A detailed Operational Environmental Management Plan (OEMP) will be prepared following the granting of the DCO to manage environmental effects during the operation (and maintenance) phase of the Proposed Development. An Outline OEMP will be submitted as part of the DCO Application and will set out the overarching environmental management principles to be implemented during operation (and maintenance). This will include an operational Pollution Response Plan that will include a Spillage Emergency Response Plan and which maintenance personnel will be required to understand and follow. Appropriate on-site spill response measures, including booms, bunding and absorbent materials, will be provided to enable the prompt containment of any accidental spills or leaks.

Decommissioning

17.2.42 An Outline Decommissioning Environmental Management Plan (DEMP) will be prepared as part of the DCO Application and will set out the overarching environmental management principles to be implemented during the decommissioning of the Proposed Development. Where the detailed decommissioning methodology is not known at this stage, it is anticipated that the activities and associated environmental effects will be broadly comparable to those during construction. Accordingly, the assessment assumes that similar environmental design and management measures will be implemented. A detailed DEMP will be prepared and agreed with the relevant authorities prior to the commencement of decommissioning works.

Assessment Methodology

17.2.43 A PRA will be undertaken covering land within the Scoping Site Boundary as refined as the design develops.

17.2.44 The Environment Agency's LCRM Guidance (Ref 373) identifies that the first step, known as Stage 1, Tier 1, in evaluating land contamination risks is a PRA. The objective of the PRA is to identify and evaluate potential land quality risks and development constraints associated with the Proposed Development and to construct an initial conceptual site model (CSM) that can be used to inform future decision making and the design of future ground investigation and/or mitigation, should it be required.

17.2.45 The PRA report will be included as a technical appendix to the ES. The PRA will include the following:

a. Details of land within the Scoping Site Boundary and surrounding area including development history, geology, hydrogeology, hydrology, soil and groundwater quality and environmental setting;
b. Details of geological designated sites (if present);
c. Details of any available site investigation reports for land within the Scoping Site Boundary, including the BAE Systems remediation and ground investigation records for the former ROF Bridgwater;
d. Details from a targeted site inspection documenting:
    i. The existing layout, current operations and condition of land within the Scoping Site Boundary, the property boundaries and immediately surrounding land;
    ii. The visual inspection of any potential indicators of any land contamination, for example spillages, disturbed ground, or former process areas; and
    iii. The visual inspection of any geohazards or ground conditions constraints.
e. An initial CSM and an evaluation of potential contamination linkages and risk; and
f. Conclusions and recommendations based on the findings.

Limitations and Assumptions

17.2.46 The following limitations are applicable to this EIA Scoping Report:

a. The baseline conditions presented are based on a high-level review of publicly available information and will be refined through the PRA;
b. No site inspection of the Scoping Site Boundary or Study Area has been undertaken at this stage;
c. No consultation with statutory consultees or other stakeholders has been undertaken at this stage;
d. Historical mapping has only been reviewed where referenced in the Geotechnical Feasibility Study (Ref 34) with a full review to follow in the PRA; and
e. A detailed desk-based PRA, including a review of historical mapping, third-party environmental datasets and relevant consultation responses, will be undertaken to support the ES.

Summary of Elements Scoped In and Out

17.2.47 Based on the information available at this stage, and subject to the findings of the PRA, it is anticipated that likely significant effects on ground conditions can be avoided through the implementation of standard environmental design and management measures secured through the Outline CEMP, Outline OEMP and Outline DEMP.

17.2.48 It is therefore proposed that ground conditions do not require a standalone topic within the ES and will instead be addressed within **Chapter 17: Other Environmental Topics**, supported by the PRA technical appendix. This will include consideration of the aspects in **Table 17-4.**

Table 17-4 Ground Conditions aspects

Element
Soil and groundwater contamination (including related to any landfill) on human health, surface water, groundwater and ecological receptors.
Confirmation of the absence of MSA/MCA.
Historical mining to human health, surface water, groundwater and ecological receptors.
Geologically designated sites.
UXO to human health receptors

17.3. Human Health

Introduction

17.3.1 This section sets out the proposed approach to the consideration of potential effects on human health during the construction, operation (including maintenance) and decommissioning phases of the Proposed Development, and explains how relevant health effects will be identified and addressed through the Environmental Impact Assessment (EIA).

17.3.2 The World Health Organization (WHO) defines health as "*a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity"* (Ref 394). Consequently, public health encompasses general wellbeing, rather than simply the absence of illness. Human health incorporates physical, mental and social wellbeing and is influenced by a range of factors, commonly referred to as the 'wider determinants of health', including biophysical, social, behavioural, economic and institutional factors.

Study Area

17.3.3 The health baseline has been informed by demographic and health indicators for communities located within approximately 500 m of the Scoping Site Boundary. This area has been used to provide a high-level profile of the local population and identify potentially vulnerable groups within the vicinity of the Proposed Development. Relevant Study Areas for specific determinants of health, including air quality, noise and vibration, transport and access, socio-economics, and recreation, are defined within the corresponding technical chapters.

Legislation, Planning Policy Context and Guidance

17.3.4 Relevant legislation, planning policy and guidance relating to human health are set out below.

Legislation

17.3.5 Relevant legislation includes the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (Ref 2). The Regulations require the likely significant direct and indirect effects of a proposed development on population and human health to be considered as part of the EIA process.

National Planning Policy

17.3.6 National Policy Statements (NPSs) have been considered in identifying potential pathways to human health effects and informing the proposed scope of the assessment.

17.3.7 In particular, the Overarching National Policy Statement for Energy (EN-1), 2025 (Ref 5), has been considered with specific reference to Section 4.4 'Health'. Paragraph 4.4.1 acknowledges that access to energy is beneficial to society as a whole and that the production, distribution and use of energy may have negative impacts on some people's health. Paragraphs 4.4.4 to 4.4.6 set out the information to be considered when assessing potential effects on human health.

Other Policy and Guidance

17.3.8 Other relevant planning policy includes the National Planning Policy Framework (NPPF) (August 2026) (Ref 9). Specifically, Chapter 16: Promoting healthy communities, which sets out the need for planning policies and decisions to promote healthy, inclusive and safe places, and Chapter 17: Pollution, public protection and security.

17.3.9 Relevant local planning policy includes:

a. Sedgemoor Local Plan (2011-2032) (Ref 11):
   i. Policy D4 (Renewable or Low Carbon Energy and Heat Generation Projects) supports proposals that maximise energy generation from renewable or low-carbon sources, provided that significant adverse effects are avoided. Relevant considerations include potential effects on local communities arising from emissions, noise and cumulative impacts, together with the extent of social and economic benefits delivered to the local area.
   ii. D13 (Sustainable Transport and Movement) promotes sustainable travel choices and accessibility, helping to support healthier and more sustainable communities.
   iii. D25 (Protecting Residential Amenity) seeks to ensure that development does not result in unacceptable effects on the amenity of existing or future occupiers, including through noise, pollution, disturbance and other environmental impacts.
   iv. Policy D28 (Health and Social Care), seeks to support healthy and active living. The policy supports proposals that facilitate safe walking and cycling, improve accessibility to green spaces, contribute to the green infrastructure network, and enhance recreational, sport, leisure and children's play facilities.
   v. D29 (Protection and Enhancement of Existing Green Infrastructure Resources) seeks to protect and enhance green infrastructure assets that contribute to recreation, wellbeing and environmental quality.
b. Improving Lives in Somerset Strategy (Ref 395), prepared by Somerset Council's Health and Wellbeing Board in conjunction with the Somerset Integrated Care Partnership (ICP). The strategy aims to reduce inequalities and improve health and wellbeing across Somerset through the following four priorities:
   i. a county infrastructure that drives productivity, supports economic prosperity and sustainable public services;
   ii. safe, vibrant and well-balanced communities that are able to enjoy and benefit from the natural environment;
   iii. fairer life chances and opportunities for all; and
   iv. improved health and wellbeing, with more people living healthy and independent lives for longer.

Relevant Industry Guidance

17.3.10 Relevant industry guidance includes the Institute of Environmental Management and Assessment (IEMA) (now the Institute of Sustainability and Environmental Professionals (ISEP)) publication Determining Significance for Human Health in Environmental Impact Assessment (2022) (Ref 396). The guidance has been used to inform consideration of potential health pathways associated with the Proposed Development and the proposed scope of assessment. The guidance highlights the importance of considering effects on vulnerable population groups and applying informed professional judgement when determining significance.

17.3.11 Somerset's Joint Strategic Needs Assessment (JSNA) (Ref 397) provides a key evidence base describing the health, wellbeing and care needs of Somerset's population. The JSNA draws together information on health outcomes, health inequalities, wider determinants of health and the characteristics of potentially vulnerable population groups. Public health data sourced from the Office for Health Improvement and Disparities (OHID) Fingertips database (Ref 398) has been used to inform the health baseline.

Consultation

17.3.12 Human health is not proposed to be assessed as a standalone topic within the Environmental Statement (ES). Consequently, no health-specific consultation is proposed at this stage.

17.3.13 Consultation undertaken in relation to other environmental topics may, however, identify matters relevant to human health. In particular, consultation responses from statutory consultees, local authorities, public health bodies and local communities relating to topics such as air quality, noise and vibration, traffic and access, socio-economics, recreation and public access will be considered as part of the relevant technical assessments.

17.3.14 Any human health considerations identified through the consultation process will be addressed, where relevant, within the corresponding ES topic chapters.

Baseline Conditions

17.3.15 This section describes the baseline health characteristics of the population residing within and surrounding the Study Area.

17.3.16 A summary of the health profile of the population currently residing in proximity to the Proposed Development is set out in Table 17-7 below, drawing on Office for National Statistics (ONS) data (Ref 399) and Department of Health and Social Care/OHID public health datasets (Ref 400).

17.3.17 Data is presented for the Study Area, which comprises all Lower Layer Super Output Areas (LSOAs) located within 500 m of the Scoping Site Boundary. The LSOAs within the Study Area are Sedgemoor 002C, 002H, 003A, 003B, 003C, 003D, 005B, 005E, 006B, 006C, 006D and 012F. Where data are not available at LSOA level, corresponding Middle Layer Super Output Areas (MSOAs) have been used. The MSOAs within the Study Area are Sedgemoor 002, 003, 005, 006 and 012.

17.3.18 Data is also presented for Somerset, the South West region and England to provide wider geographical context and comparators for the health profile of the Study Area population.

Table 17-5 Human Health Profile

	Study Area	Somerset	South West	England
Population (2021)	23,517	571,548	5,701,186	56,490,048
Population aged under 16 (%) (2021)	15.3%*	16.9%	16.9%	18.5%
Population aged 65+ (%) (2021)	28.5%*	24.8%	22.3%	18.4%
Unemployment (% working age population claiming out of work benefits) (2024/25)	2.4%	2.5%	2.7%	4.1%
Long-Term Unemployment-rate per 1,000 working age population (2024/25)	0 (LT unemployed claiming benefits)	0.09	0.26	0.51
General Health – bad or very bad (%) (2021)	6.2%	5.1%	6.0%	6.2%
Disabled under the Equality Act (2021)	19.2%	18.6%	18.6%	17.3%
Emergency hospital admissions for all causes (SAR) (2016/17 - 20/21)	92.2	100.9	N/A**	100.0
Deaths from respiratory diseases, all ages (SMR) (2019 – 2023)	89.3	81.6	86.8	100.0

** MSOA-level data have been used where equivalent LSOA-level data is not available for a particular dataset.*

***Regional comparator data are not available for this indicator from the source dataset.*

17.3.19 The human health profile shows that:

a. The proportion of the population aged under 16 in the Study Area is 15.3% (data from the ONS 2021 Census), which is lower than in all comparator geographies;
b. The proportion of the population aged 65 years and over in the Study Area is 28.5%, which is higher than in all comparator geographies.
c. From 2024 to 2025, the long-term unemployment rate per 1,000 working-age population in the Study Area was 0, which is lower than in Somerset (0.09), the South West (0.26) and England (0.51);
d. In the 2021 Census, the percentage of people self-reporting their health as 'bad' or 'very bad' was 6.2% in the Study Area, which is higher than in Somerset (5.1%) and the South West (6.0%), and equal to the England average (6.2%);
e. The percentage of people reporting a disability under the Equality Act in the Study Area was 19.2%, which is higher than in Somerset and the South West (both 18.6%) and England (17.3%); and
f. Health data from 2016/17 to 2020/21 show that the Standardised Admissions Ratio (SAR) for emergency hospital admissions from all causes in the Study Area was 92.2, which is lower than Somerset (100.9) and the national average (100.0). South West comparator data are not available for this indicator. The Study Area also recorded a higher Standardised Mortality Ratio (SMR) for deaths from respiratory diseases (89.3) than Somerset (81.6) and the South West (86.8), although lower than England (100.0) between 2019 and 2023.

17.3.20 Overall, the Study Area is characterised by an older population profile and comparatively higher levels of disability than the comparator geographies. Although rates of self-reported poor health are broadly comparable with England as a whole, these characteristics indicate the presence of potentially vulnerable population groups who may be more sensitive to changes in environmental conditions and community amenity.

Potential Effects and Mitigation

Potential Effects

17.3.21 A standalone Human Health Assessment is proposed to be scoped out of the ES. This is considered a proportionate approach given the nature of the Proposed Development and because the environmental, social and economic determinants of health relevant to the Proposed Development will implicitly be assessed through the relevant ES technical chapters.

17.3.22 The following ES technical chapters/appendices will consider environmental and socio-economic effects that may be relevant to human health and wellbeing during the construction, operation (including maintenance) and decommissioning phases:

a. **Chapter 7: Climate Change**, which will consider climate change-related effects that may have implications for communities and wellbeing;

b. **Chapter 10: Water Environment**, which will consider effects relating to water quality, water resources and flood risk;
c. **Chapter 11: Landscape and Visual**, which will consider effects on landscape character and visual amenity;
d. **Chapter 12: Noise and Vibration**, which will consider effects associated with noise and vibration;
e. **Chapter 13: Socio-economics and Land Use**, which will consider effects on employment, economic activity, land use and community receptors;
f. **Chapter 15: Traffic and Access**: which will consider effects associated with changes in traffic and access conditions;
g. **Chapter 17: Other Environmental Topics**: in relation to the elements of Ground Conditions, Electromagnetic Fields and Glint and Glare that are scoped in (see **Chapter 19 Summary and Conclusions, Table 19-1)**; and
h. **Technical Appendix 17-1: Long List of Major Accidents and Disasters** which presents the outcomes of the screening exercise for major accident and disaster events.

17.3.23 In addition, **Chapters 8: Cultural Heritage**, **Chapter 9: Ecology and Biodiversity**, **Chapter 14: Agriculture and Soils** and **Chapter 16: Materials and Waste** may identify effects that are indirectly relevant to human health and wellbeing, where appropriate.

Mitigation

17.3.24 **Appendix 1-2 Environmental Mitigation and Commitments Register** of this EIA Scoping Report identifies measures that may contribute to the mitigation of potential effects on human health, including measures relating to topics such as noise and vibration, air quality and dust, visual amenity, and water.

17.3.25 Mitigation relevant to potential effects on human health is addressed within the relevant technical topic chapters of this EIA Scoping Report. Information on embedded, standard and topic-specific mitigation is provided where appropriate and will be further developed through the EIA process. Any additional mitigation measures identified through the assessment will be reported within the relevant ES technical chapters.

Assessment Methodology

17.3.26 Human health effects will be considered indirectly through the assessment of environmental determinants of health within relevant topic chapters. The significance of effects will be determined in accordance with methodologies defined within those chapters. No separate significance criteria or standalone health impact assessment methodology are proposed.

Limitations and Assumptions

17.3.27 Health baseline information has been derived from publicly available health and demographic datasets at LSOA and MSOA level. This is considered

sufficient to characterise the broad health profile of the Study Area and identify potentially vulnerable population groups.

Summary of Elements Scoped In and Out

17.3.28 The potential for effects on human health has been considered as part of the EIA scoping process. A standalone Human Health Assessment is proposed to be scoped out of the ES. No additional likely significant effects on human health that would require a separate standalone assessment have been identified at this stage. Consequently, all human health effects are proposed to be scoped out of a dedicated Human Health chapter.

17.4. Electromagnetic Fields

Introduction

17.4.1 This section sets out the proposed scope of the assessment of likely significant effects relating to electromagnetic fields (EMFs) associated with the Proposed Development during the construction, operation (including maintenance) and decommissioning phases. It identifies the potential sources of EMFs, the receptors that may be affected, and the proposed approach to the assessment of EMFs within the Environmental Statement (ES).

17.4.2 The Proposed Development may include underground electrical cabling and overhead power lines (OHL) at voltages of up to 400 kilovolt (kV). Electric fields associated with underground cables are effectively screened by the cable sheathing and surrounding ground, but they still produce magnetic fields. OHL can produce electric and magnetic fields.

Study Area

17.4.3 The Study Area comprises the Scoping Site Boundary (see **Figure 1-1: Proposed Development Location Plan**) as potential effects associated with magnetic fields are expected to be localised around the electrical infrastructure.

Legislation, Planning Policy Context and Guidance

17.4.4 As required by law, all cables and electrical equipment will meet health, safety and environmental protection requirements of UKCA and/or CE marked products.

17.4.5 National Policy Statement (NPS) for Electricity Networks Infrastructure (EN-5) (Ref 7) references to EMFs in paragraphs 2.9.45 to 2.9.52 and 2.10.11 to 2.10.13 will be considered.

17.4.6 The assessment will be undertaken with reference to guidance, including the International Commission on Non-Ionizing Radiation Protection (ICNIRP) guidelines (Ref 363), National Grid guidance (Ref 402) and other relevant industry guidance.

Consultation

17.4.7 No consultation has been undertaken, or is expected to be undertaken, regarding EMFs at the time of writing.

Baseline Conditions

17.4.8 The Proposed Development will be located within existing field boundaries. The Arrays will be connected via cables within the Connection and Access Infrastructure Corridors, and will connect to the National Grid Woolavington Substation via cabling within the same corridors.

17.4.9 Existing OHL that are not associated with the Proposed Development are present within the baseline environment.

Potential Effects and Mitigations

17.4.10 The Proposed Development is expected to include Underground Cables (UGC) and Overhead Lines (OHL) operating at 33 kV and 132 kV, and potentially 400 kV. During operation, these electrical components have the potential to generate electric and magnetic fields.

17.4.11 The following potential effects were identified at the scoping stage for consideration in this assessment:

a. Direct effects during operation (and maintenance) from EMF on:
   i. Local residents;
   ii. People located in non-residential properties; and
   iii. The general public on Public Rights of Way.

17.4.12 There are no known indirect effects predicted during construction or operation from EMF. This is because EMFs produce no physical output meaning there can be no downstream emissions/waste product which could lead to additional effects not already captured within the assessment of direct EMF effects. Refer to **Chapter 9: Ecology and Biodiversity** for an overview of ecological impacts of EMF.

17.4.13 Construction and decommissioning activities will not generate operational electric and magnetic fields and significant effects are therefore not anticipated during these phases. Occupational exposure will be managed through compliance with relevant health and safety legislation and is therefore scoped out of the assessment.

17.4.14 Embedded design measures will be incorporated into the Proposed Development, if required, to minimise any EMF effects.

Assessment Methodology

17.4.15 In accordance with Planning Inspectorate guidance (Ref 403), an EMF technical appendix will be prepared if electrical infrastructure operating above 132 kV is confirmed as part of the Proposed Development. The appendix will identify the location, routing and voltage of relevant infrastructure and undertake a risk assessment of nearby sensitive human and ecological receptors, where relevant.

17.4.16 The assessment will consider operational effects only, as electricity will only flow through the electrical infrastructure during operation. The assessment will:

a. Identify sensitive receptors within the identified zone of influence;
b. Predict magnetic field strengths where appropriate;
c. Demonstrate compliance with relevant exposure guidelines;
d. Identify any additional mitigation required; and
e. Consider cumulative effects with existing and proposed electricity infrastructure, where relevant.

17.4.17 Based on the current design assumptions and published guidance, significant effects are not anticipated. Where an EMF technical appendix is required, it will consider the Proposed Development against relevant exposure guidelines and the potential for any likely significant effects.

17.4.18 If it is confirmed that the Proposed Development will only include cabling up to 132 kV, and no 400 kV cables are proposed, a technical appendix will not be required.

Assumptions and Limitations

17.4.19 If specific cable/voltage information is not available, the technical appendix will assume a worst-case scenario (typically this involves using the highest voltage and current).

Summary of Elements Scoped In and Out

17.4.20 **Table 17-6** summarises the proposed scope of the EMF assessment.

Table 17-6 Elements scoped in and out of the EMF assessment

Element	Scoped In / Scoped Out
All elements related to construction	Scoped out – cabling and associated infrastructure will not be connected to a power source at the time of construction and will therefore have no EMF effects.
Operational EMF effects associated with cabling above 132 kV	Scoped in, subject to determination of cable voltage – a technical appendix will be produced and appended to the Other Environmental Topics chapter if 400 kV cabling is included as part of the Proposed Development. No significant effects are expected. If the Proposed Development is confirmed to only include cabling up to a maximum of 132 kV, an EMF assessment will not be required, and operational EMF effects will therefore be scoped out.
All elements related to decommissioning	Scoped out – see construction rationale above.

17.5. Glint and Glare

Introduction

17.5.1 This section considers the potential for likely significant effects associated with glint and glare during the construction, operation (including maintenance) and decommissioning phases of the Proposed Development. It sets out the proposed approach to the scope of the assessment of glint and glare within the Environmental Statement (ES).

17.5.2 Glint and glare are effects caused by the reflection of sunlight from reflective surfaces. *Glint* is the momentary reflection of direct sunlight, whereas *glare* is the sustained reflection of diffuse light from the sky surrounding the sun.

17.5.3 Solar PV panels are designed to maximise the absorption of solar radiation and minimise reflection through the use of anti-reflective coatings and low-reflectivity finishes. Nevertheless, under certain conditions, reflections from the panel surface may give rise to glint or glare, which will be assessed where there is the potential to affect sensitive receptors.

Study Area

17.5.4 The Study Area for ground-based receptors will initially extend 1 km from the Development Areas, as the potential for glint and glare effects decreases with increasing distance from the source. Should the assessment identify the potential for significant effects at the edge of the Study Area, it will be extended as appropriate.

17.5.5 The Study Area for aviation receptors will be defined in accordance with the safeguarding criteria applicable to each aviation asset. All aerodromes within 30 km of the Development Areas will be identified. Where appropriate, detailed assessment will be undertaken for aerodromes within the distances specified by the aerodrome operator or in CAST guidance (see **Section 17.5.11**), typically 5 km, and up to 10 km in some cases.

Legislation, Planning Policy Context and Guidance

17.5.6 Legislation, planning policy and guidance relating to Glint and Glare and pertinent to the Proposed Development are outlined below.

Legislation

17.5.7 Relevant legislation includes:

a. Planning Act 2008 (Ref 1) – establishes the Nationally Significant Infrastructure Project (NSIP)/Development Consent Order (DCO) regime and the requirement to consider environmental effects through examination and decision-making.
b. The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (Ref 2) – sets the legal basis for EIA under the DCO regime and that glint and glare can be assessed within likely significant effects.

c. Highways Act 1980 (Ref 404) – relevant where glint/glare could affect the safe operation of the highway (e.g., at junctions, crossings, approach roads).
d. Road Traffic Act 1988 (Ref 405) underpins road safety responsibilities; glare that contributes to hazardous driving conditions is typically treated as a safety risk for assessment/mitigation.
e. Civil Aviation Act 1982 (Ref 406) – part of the legislative framework supporting aviation safety and safeguarding; relevant if glint and glare could affect pilots/aerodrome operations and therefore requires safeguarding consultation and assessment.
f. Air Navigation Order 2016 (Ref 407) – provides rules relevant to safe air navigation; glint/glare can be treated as a potential hazard near aerodromes/flight paths, driving assessment and mitigation.

National Planning Policy

17.5.8 The following planning policies from relevant National Policy Statements (NPS) have been taken into account as part of identifying the assessment methodology, receptor selection/sensitivity, potential significant environmental effects, and mitigation:

a. Overarching National Policy Statement for Energy (EN-1) (December 2025) (Ref 5) paragraph 5.5.57 states that "*Lighting must also be designed in such a way as to ensure that there is no glare or dazzle to pilots and/or ATC, aerodrome ground lighting is not obscured and that any lighting does not diminish the effectiveness of aeronautical ground lighting and cannot be confused with aeronautical lighting. Lighting may also need to be compatible with night vision devices for military low flying purposes*."
b. National Policy Statement for Renewable Energy Infrastructure (EN-3) (December 2025) (Ref 6), Section 2.10 (paragraphs 2.10.94 to 2.10.98) sets out the approach to assessing glint and glare effects associated with solar developments. Specifically, paragraph 2.10.95 requires the applicant to identify potential glint and glare receptors and, where necessary, undertake a quantitative assessment to determine the likelihood and significance of effects.

Other Policy and Guidance

17.5.9 Other relevant national policy and guidance includes:

a. National Planning Policy Framework (NPPF) (2026) (Ref 9) – Glint and glare is not specifically mentioned in the NPPF; however, Chapter 14 (Achieving well-designed places) and Chapter 19 (Conserving and enhancing the natural environment) can be considered relevant in terms of protecting residential amenity and landscape and visual amenity respectively.

17.5.10 Relevant local planning policy includes the Sedgemoor Local Plan 2011 to 2032 (February 2019) (Ref 11). There are no policies containing specific reference to glint and glare in the Sedgemoor Local Plan 2011 to 2032,

however of relevance are more general amenity, design and pollution policies, particularly:

a. Policy D4 (Renewable or low carbon energy and heat generation projects) – The supporting text to the sustainability and energy policies notes that renewable energy proposals should be considered having regard to landscape, environmental and amenity considerations. While glint and glare are not expressly referenced, they are commonly assessed as part of the amenity impacts of solar developments.
b. Policy D19 (Landscape) – This policy requires development proposals to take account of the predicted long-term impacts on the landscape.
c. Policy D24 (Pollution impacts of development) – This policy is intended to ensure that development does not give rise to unacceptable pollution impacts on people, property or the environment.
d. Policy D25 (Protecting residential amenity) – This policy seeks to protect the amenity of existing and future occupiers. In practice, if glint and glare from a development adversely affected nearby residents, decision makers could consider the impacts under this policy.

Relevant Industry Guidance

17.5.11 Relevant industry guidance includes:

a. Planning Practice Guidance (PPG) for Renewable and Low Carbon Energy (Ref 250) – The PPG states that when considering large-scale ground-mounted solar farms, decision-makers should have regard to "*the proposal's visual impact, the effect on landscape of glint and glare ... and on neighbouring uses and aircraft safety*."
b. CAST Aerodrome Safeguarding Advice Note 5: Renewable Energy Developments (February 2024) (Ref 408). This guidance highlights potential impacts on air traffic control towers, pilots on approach, pilots in visual circuits, taxiing and departing aircraft and communication, navigation and surveillance equipment.

Consultation

17.5.12 Consultation will be undertaken following submission of this EIA Scoping Report with relevant statutory consultees and infrastructure operators, as appropriate. Consultation responses will be used to inform the scope and methodology of the glint and glare assessment.

Baseline Conditions

17.5.13 This section identifies the baseline receptors that may be affected by glint and glare associated with the Proposed Development. In accordance with NPS EN-3 (Ref 6), the following potential receptors have been identified for assessment:

a. Residential properties within 1 km of the Development Areas;
b. Roads within 1 km of the Development Areas, including the M5, A38, B3139 (Mark Causeway, Mark Road and Blackford Road) and B3141 (Church Road and The Causeway);

c. Aviation receptors, potentially including Westonzoyland Airfield (approximately 7.3 km south), Middlezoy Aerodrome (approximately 8.4 km south) and Bristol Airport (approximately 16.8 km north east);
d. Railway users on the Bristol to Taunton Line (approximately 710 m west of the Development Areas); and
e. Users of local Public Rights of Way (PRoW) (see **Figure 15-1: Existing Walking, Cycling and Railway Network**).

Potential Effects and Mitigation

Construction and Decommissioning

17.5.14 Construction and decommissioning activities will be undertaken in accordance with an Outline Construction Environmental Management Plan (Outline CEMP) and Outline Decommissioning Environmental Management Plan (Outline DEMP), which will include, where relevant, measures to manage the potential for glint and glare associated with temporary reflective surfaces.

17.5.15 Construction and decommissioning activities will be temporary and progressive, with works undertaken on a rolling basis across the Development Areas. Consequently, the movement of reflective surfaces will be localised and short term. Year 1 of operation, when all solar PV panels have been installed and landscape mitigation has not yet matured, represents a reasonable worst-case scenario for glint and glare. Potential effects during construction and decommissioning are therefore anticipated to be no greater than those during operation. Taking into account the temporary nature of the works, the distance to sensitive receptors and the implementation of embedded mitigation measures, significant construction and decommissioning effects are not anticipated. Construction and decommissioning glint and glare effects are therefore proposed to be scoped out of the assessment.

Operation (and Maintenance)

17.5.16 Potential glint and glare effects during operation will be associated with the presence of the solar PV panels for the lifetime of the Proposed Development. The potential for effects will depend on the location and orientation of the panels relative to sensitive receptors. Embedded mitigation measures will be incorporated into the design of the Proposed Development and secured through an Outline OEMP, which will form the basis of the detailed OEMP secured through the DCO.

17.5.17 Embedded design measures are expected to reduce the potential for glint and glare. These may include appropriate setbacks from the Development Areas, panel orientation and tilt, and the use of solar PV panels with anti-reflective coatings and low-reflectivity finishes designed to maximise light absorption and minimise reflected light.

17.5.18 Where the potential for glint and glare effects on sensitive receptors is identified, a quantitative glint and glare assessment will be undertaken as the design develops to identify the potential for reflections to affect sensitive receptors. The assessment will consider the visibility of the solar PV panels,

the potential for glint and glare to occur, and the duration and significance of any effects using recognised modelling software. Where potentially significant effects are identified, appropriate mitigation measures will be considered and, where necessary, incorporated into the Proposed Development design.

Assessment Methodology

17.5.19 As described in **Section 3.2** of this EIA Scoping Report, the Proposed Development may comprise either fixed south-facing solar PV panels or single-axis tracker systems. Where the potential for glint and glare effects is identified, a quantitative glint and glare assessment will be undertaken for the final design using recognised modelling software. The assessment will include detailed geometric analysis and, where required, aviation modelling using the Sandia methodology.

17.5.20 If required, a glint and glare assessment will be presented as a technical appendix to the ES. The assessment will consider the potential for effects on sensitive receptors and, where appropriate, identify any mitigation measures for consideration as part of the Proposed Development design. Any mitigation measures arising from the assessment will be considered for incorporation into the Proposed Development design, as appropriate, and reflected within the relevant technical chapters of the ES.

17.5.21 A summary of the assessment will be presented within the Other Environmental Topics chapter, with any relevant landscape and visual effects addressed in the Landscape and Visual chapter.

Limitations and Assumptions

17.5.22 The information presented in this section is based on the preliminary design information available at the time of preparing the EIA Scoping Report. As the Proposed Development design evolves, the scope of any Glint and Glare Assessment may be refined to reflect the final project parameters and consultation responses received during the EIA process.

Summary of Elements Scoped In and Out

17.5.23 The Proposed Development is not anticipated to give rise to significant effects relating to glint and glare, and the assessment is proportionate to the scale and nature of the potential impacts. A standalone ES chapter is therefore not considered necessary. Instead, the topic has been combined with other related topics within Chapter 17, which provides sufficient coverage of the potential effects and any embedded mitigation. **Table 17-7** summarises the proposed scope of the glint and glare assessment.

Table 17-7 Elements scoped in and out of the glint and glare assessment

Element	Scoped In / Scoped Out
All elements related to construction	Scoped out – Potential glint and glare effects during the construction phase will be limited. As the potential glint and glare effects at construction will be lower than those of the

Element	Scoped In / Scoped Out
	operation phase, the assessment of operational effects will cover any construction phase effects.
Operational effects	Scoped in, where required – A glint and glare assessment is proposed to be provided as a technical appendix to the ES.
All elements related to decommissioning	Scoped out – see construction rationale above.

17.6. Telecommunications

Introduction

17.6.1 This section considers the potential for the Proposed Development to affect existing telecommunications and utility infrastructure during the construction, operation (including maintenance), and decommissioning phases. It sets out the proposed approach to the scope of the assessment of telecommunications and utilities within the Environmental Statement (ES).

Study Area

17.6.2 The Study Area for telecommunications and utilities comprises the Scoping Site Boundary (see **Figure 1-1: Proposed Development Location Plan**), as potential interactions are limited to the footprint of the Proposed Development and associated construction activities.

Legislation, Planning Policy Context and Guidance

17.6.3 Legislation, planning policy and guidance relating to telecommunications and pertinent to the Proposed Development are outlined below.

Legislation

17.6.4 Relevant legislation includes:

a. Infrastructure Planning (Environmental Impact Assessment (EIA)) Regulations 2017 (Ref 2);
b. Communications Act 2003 (Ref 409); and
c. Digital Economy Act 2017 (Ref 410).

Relevant Industry Guidance

17.6.5 Relevant guidance includes:

a. The Health and Safety Executive (HSE): Avoiding danger from underground services (Ref 411), which provides guidance on the identification and protection of underground utility infrastructure during construction activities; and
b. The HES: Avoiding danger from overhead power lines, which provides guidance for works carried out in close proximity to overhead electricity transmission or distribution lines (Ref 412).

Consultation

17.6.6 Consultation will be undertaken as part of the EIA process with relevant statutory undertakers and other consultees, as appropriate, to identify existing telecommunications and utility infrastructure that may be affected by the Proposed Development. Consultees are anticipated to include, but are not limited to:

a. Relevant telecommunication providers; and
b. Utilities providers (such as water, gas, oil and fuel pipelines, and electricity providers). This will include National Grid and other relevant

infrastructure providers identified through utility searches and ongoing consultation.

Baseline Conditions

17.6.7 There is an existing National Grid Overhead Line (OHL) that runs east to west through the southern section of the Connection and Access Infrastructure Corridors.

17.6.8 The National Grid Hinkley Connection Project is a new high-voltage electricity OHL connection that runs through the centre of Scoping Site Boundary north to south. The Hinkley Point C Connection Project Development Consent Order (DCO) Material Change Application (Reference: EN0210004) seeks consent for permanent access infrastructure for the purpose of maintenance and operation of the OHL. This includes amendments to the authorised works, powers and lands rights set out in the DCO. The Material Change Application is in the pre-application stage with submission not anticipated before January 2028. Any potential interactions with the Proposed Development will be considered within the cumulative effects assessment at the ES stage. The Applicant is maintaining ongoing communications with National Grid to monitor potential interactions and opportunities between the DCOs.

17.6.9 Other utility information is currently being collated to identify the locations of existing buried and overhead infrastructure. Initial consultation with statutory undertakers and telecommunications providers is also being undertaken to identify existing assets and required easements or stand-off distances.

Potential Effects and Mitigation

Construction

17.6.10 During construction, there is potential for direct effects on existing telecommunications and utility infrastructure through accidental damage to buried or overhead assets during construction activities.

Operation and Maintenance

17.6.11 During operation (and maintenance), there is potential for effects where the Proposed Development could restrict access to existing telecommunications and utility infrastructure required for inspection, maintenance or repair.

17.6.12 OHL are being considered as part of the Proposed Development. Depending on the tower height, there is potential for these to affect telecommunications infrastructure.

Decommissioning

17.6.13 During decommissioning, potential effects would be similar to those identified for the construction phase and relate to the removal of the Proposed Development and associated ground disturbance.

Mitigation

17.6.14 The potential for effects on existing telecommunications and utility infrastructure will be managed through established design practices, consultation with relevant statutory undertakers and utility providers, and appropriate construction management measures.

17.6.15 The Proposed Development will be designed, where practicable, to avoid existing telecommunications and utility infrastructure and will incorporate appropriate stand-off distances and working areas to facilitate safe construction and maintenance. Utility searches and surveys will be undertaken as necessary to confirm the location and nature of existing infrastructure and inform the detailed design.

17.6.16 Where interaction with existing telecommunications or utility infrastructure cannot be avoided, appropriate measures will be identified through consultation with the relevant infrastructure owner or statutory undertaker. This may include agreed protection, diversion or other measures, as appropriate. Safe systems of work will be implemented during construction to minimise the risk of damage to existing infrastructure.

17.6.17 Where appropriate, Protective Provisions for the benefit of relevant statutory undertakers and infrastructure providers will be included within the DCO to provide for the protection of existing telecommunications and utility infrastructure during the construction and operation of the Proposed Development.

Assessment Methodology

17.6.18 Consultation with relevant telecommunications and utility providers, together with utility record searches and surveys, will be used to identify existing infrastructure that could interact with the Proposed Development. The information obtained will inform the detailed design, including the application of appropriate stand-off distances, avoidance of existing assets where practicable, and any necessary protection, diversion or other measures.

17.6.19 On the basis of the current understanding of the Proposed Development, the baseline information available, and the embedded mitigation measures identified above, significant effects on telecommunications and utility infrastructure are not anticipated. Telecommunications and utilities are therefore proposed to be scoped out of the EIA.

Assumptions and Limitations

17.6.20 This justification is based on the preliminary design information available at the time of preparing the EIA Scoping Report, together with available utility records and the consultation undertaken to date. Utility searches, surveys and consultation will continue to inform the detailed design and confirm the location and protection requirements of existing infrastructure.

Summary of Elements Scoped In and Out

17.6.21 Telecommunications and utilities are proposed to be scoped out of the EIA and, therefore, a standalone chapter will not be included in the ES..

17.6.22 **Table 17-8** summarises the justification for scoping out a telecommunications and utilities assessment from the EIA.

Table 17-8 Elements scoped out of the telecommunications and utilities assessment

Element	Scoped Out
Assessment of telecommunications and utilities for all phases of the Proposed Development	Scoped out – the Proposed Development will be designed, where practicable, to avoid existing telecommunications and utility infrastructure and will incorporate appropriate stand-off distances and other mitigation measures where required. Protective Provisions for relevant statutory undertakers and infrastructure providers will also be included within the DCO, where appropriate. On this basis, significant effects on telecommunications and utility infrastructure are not anticipated.

17.7. Major Accidents and Disasters

Introduction

17.7.1 This section considers the potential for likely significant effects associated with major accidents and disasters (MADs) during the construction, operation (and maintenance), and decommissioning phases of the Proposed Development. It sets out the proposed approach to the assessment of MADs within the Environmental Statement (ES).

17.7.2 The Environmental Impact Assessment (EIA) Regulations (Ref 2) require consideration of the likely significant effects of the Proposed Development arising from MADs, citing two specific Directives as examples of risk assessments to be brought into EIA, namely Directive 2012/18/EU of the European Parliament and of the Council which deals with major accident hazard registered sites (Ref 413) and Council Directive 2009/71/Euratom which deals with nuclear sites (Ref 414). Neither of these Directives are relevant to the Proposed Development.

17.7.3 Schedule 4 Paragraph 5(d) of the EIA Regulations requires that the EIA contains "*a description of the likely significant effects of the development on the environment resulting from the risks to human health, cultural heritage or the environment (for example due to accidents or disasters)*" whilst Schedule 4, Paragraph 8 requires that the EIA contains "*a description of the expected significant adverse effects of the development on the environment deriving from the vulnerability of the development to risks of major accidents and/or disasters which are relevant to the project concerned".*

17.7.4 There is no prescribed methodology for undertaking a MADs assessment within an EIA. The assessment will therefore be undertaken with reference to a Primer published by the Institute of Sustainability and Environmental Professionals (ISEP) (formerly Institute of Environmental Management and Assessment (IEMA)) (Ref 415). The Primer provides the following definitions:

"Major accident: events that threaten immediate or delayed serious environmental effects to human health, welfare and/or the environment and require the use of resources beyond those of the Client or its appointed representatives to manage. Whilst malicious intent is not accidental, the outcome (e.g. train derailment) may be the same and therefore many mitigation measures will apply to both deliberate and accidental events;

Disaster: may be a natural hazard (e.g. earthquake) or a man-made/external hazard (e.g. act of terrorism) with the potential to cause an event or situation that meets the definition of a major accident."

17.7.5 The assessment will identify those major accidents and disasters that are relevant to the Proposed Development and determine whether they have the potential to result in likely significant environmental effects. The assessment will be supported by **Appendix 17-1: Long List of Major Accidents and Disasters.**

Study Area

17.7.6 There is no prescribed Study Area for the assessment of MADs. The Study Area has therefore been defined using professional judgement, taking account of the nature of the Proposed Development, relevant guidance and the study areas adopted within the other technical assessments where appropriate.

17.7.7 The Study Area has been defined to identify existing infrastructure, natural hazards and other features that could influence the vulnerability of the Proposed Development to a major accident or disaster, or the potential for the Proposed Development to contribute to such an event. The following features will be considered:

a. Built Environment:
   i. Airports and airfields (a general safeguarding zone of 30 km has been applied);
   ii. Control of Major Accident Hazards (COMAH) establishments within 5 km;
   iii. Major Accident Hazard (MAH) pipelines within 1 km;
   iv. Fuel bulk storage within 1 km;
   v. Rail within 1 km;
   vi. Utilities/transmission crossing the Proposed Development boundary; and
   vii. Unexploded ordnance (UXO).
b. Natural Features:
   i. Flooding within 1 km;
   ii. Ground stability within 1 km;
   iii. Dam failures within 3 km; and
   iv. Seismic activity within 5 km.

Legislation, Planning Policy Context and Guidance

17.7.8 Legislation, planning policy and guidance relevant to the MADs assessment is set out below.

Legislation

17.7.9 Relevant legislation includes:

a. Infrastructure Planning (Environmental Impact Assessment (EIA)) Regulations 2017 (Ref 2);
b. Health and Safety at Work etc. Act 1974 (Ref 416);
c. The Electricity at Work Regulations 1989 (Ref 417);
d. The Workplace (Health, Safety and Welfare) Regulations 1992 (Ref 418);
e. The Management of Health and Safety at Work Regulations 1999 (Ref 419);
f. Construction (Design and Management) (CDM) Regulations 2015 (Ref 420);
g. The Dangerous Substances (Notification and Marking of Sites) Regulations 1990 (Ref 421);

h. The Dangerous Substances and Explosive Atmospheres Regulations 2002 (DSEAR) (Ref 422);
i. Civil Contingencies Act 2004 (Ref 423); and
j. The Control of Major Accident Hazards (COMAH) Regulations 2015 (Ref 424);
k. The Regulatory Reform (Fire Safety) Order 2005 (Ref 425).

National Planning Policy

17.7.10 The following planning policies from relevant National Policy Statements (NPS) have informed the assessment methodology, receptor selection/sensitivity, potential significant environmental effects, and mitigation:

a. Overarching NPS for Energy (EN-1) (December 2025) (Ref 5) sets the overarching requirement that DCO applications must assess the project's vulnerability to major accidents and disasters and its potential to cause such events. NPS EN-1 requires applicants to identify, evaluate and mitigate low-likelihood but high-consequence events during construction, operation, maintenance and decommissioning;
b. NPS for Renewable Energy Infrastructure (EN-3) (December 2025) (Ref 6) does not include a standalone accidents/disasters section, however it reinforces EN-1's requirement that solar schemes must assess project vulnerability to external hazards (e.g., storms, flooding, wildfires) and consider hazards relevant to solar arrays and supporting electrical equipment, including any associated Battery Energy Storage Systems (BESS); and
c. NPS for Electricity Networks Infrastructure (EN-5) (December 2025) (Ref 7).

17.7.11 Other relevant national planning and guidance includes:

a. National Planning Policy Framework (NPPF) (2026) (Ref 9) specifically reference to Policy P5: Maintaining public safety and security; and
b. Planning Practice Guidance (PPG) – Renewable and Low Carbon Energy (Ref 250).

Local Planning Policy

17.7.12 Relevant local planning policy includes the Sedgemoor Local Plan 2011 – 2032 (February 2019) (Ref 11). Whilst there is no specific reference to MADs, the Proposed Development could be assessed under more generic policies relating to flood risk and surface water management, pollution impacts and major infrastructure proposals.

Relevant Industry Guidance

17.7.13 Relevant industry guidance includes:

a. Institute of Sustainability and Environmental Professionals (ISEP, formerly IEMA), Major Accidents and Disasters in EIA: A Primer 2020 (Ref 415);
b. Department for Environment, Food and Rural Affairs (DEFRA), Guidelines for Environmental Risk Assessment and Management (Ref 426);
c. ISO 31000: 2018 Risk Management – Guidelines (Ref 427);
d. Department for Energy Security and Net Zero (DESNZ), Health and safety in grid scale electrical energy storage systems (Ref 428);
e. Health and Safety Executive (HSE), Grid-scale battery energy storage systems (Ref 429);
f. National Fire Chiefs Council, Grid Scale Battery Energy Storage System planning – Guidance for Fire and Rescue Services (FRS) (Ref 430); and
g. Cabinet Office, National Risk Register 2026 (Ref 431).

Consultation

17.7.14 Consultation will be undertaken following submission of this EIA Scoping Report with relevant statutory consultees, including the relevant local authorities and the Health and Safety Executive (HSE). In accordance with Planning Practice Guidance (PPG) (Ref 205) the relevant Fire and Rescue Service will also be consulted, where appropriate.

Baseline Conditions

17.7.15 This section describes the baseline conditions relevant to the MADs assessment.

Infrastructure and Industrial Sites

17.7.16 There are no Control of Major Accident Hazards (COMAH) establishments within the Study Area. The closest industrial receptors are commercial units within towns near the Proposed Development. The closest sites are in Portishead and south of Bristol, located 25 km north of the Scoping Site Boundary.

17.7.17 The future Gravity Smart Campus facility is located partially within the Scoping Site Boundary between the villages of Puriton and Woolavington. Depending on the final scheme, some industrial end users could potentially meet COMAH thresholds. The status of the facility will therefore be kept under review as the scheme develops and, where relevant, the potential for interaction with the Proposed Development will be considered through the iterative design process and consultation.

17.7.18 There is an existing National Grid Overhead Line (OHL) that runs through the southern section of the Connection and Access Infrastructure Corridors, and through the Scoping Site Boundary north to south.

17.7.19 Utility searches are ongoing to identify the locations of existing buried and overhead infrastructure. Initial consultation with statutory undertakers and

telecommunications providers is also being undertaken to identify existing assets requiring easements or stand-off distances.

17.7.20 Transport infrastructure in the area consists of the M5 motorway, A roads and B roads including the A38, B3141 and the B3139. The closest railway line runs 700 m to the west of the Proposed Development at its closest point, on a north-south axis, connecting Weston-super-Mare to Bridgwater. There is one airfield within the Study Area, Westonzoyland Airfield located approximately 7.3 km south of the Scoping Site Boundary and one aerodrome, Middlezoy Aerodrome, 8.4 km south of the Scoping Site Boundary.

17.7.21 The nearest residential areas to the Proposed Development include the villages of Chapel Allerton, Mark, Yarrow, East Huntspill and Woolavington as well as farmhouses within the vicinity.

17.7.22 The Scoping Site Boundary is located immediately to the north of the former ROF Bridgwater munitions manufacturing site. Although the majority of the Scoping Site Boundary is on agricultural land rather than within the former industrial facility, an Unexploded Ordnance (UXO) risk assessment will be undertaken as part of the Preliminary Risk Assessment (PRA) to establish whether a credible UXO risk exists. If a credible risk is identified, appropriate UXO risk management measures will be set out in the Outline Construction Environmental Management Plan (CEMP), informed by the findings of the PRA.

Sensitive Receptors of Relevance to MADs

17.7.23 The following sensitive receptors which could be vulnerable to a MADs event have been identified:

a. Residential receptors within the local area;
b. Local economic receptors including businesses and employees;
c. Community receptors, including public rights of way, community land, and community buildings;
d. The historic and cultural environment including archaeological heritage and built heritage;
e. Designated ecological sites, fully described in **Chapter 9: Ecology and Biodiversity**, including:
    i. Catcott Edington and Chilton Moors Site of Special Scientific Interest (SSSI);
    ii. Tealham and Tadham Moors SSSI;
    iii. Somerset Levels and Moors Ramsar site and Special Protection Area (SPA);
    iv. Bridgwater Bay SSSI;
    v. Severn Estuary SPA, Ramsar, Special Area of Conservation (SAC);
    vi. Somerset Wetlands National Nature Reserve (NNR); and
    vii. Other non-statutory sites and priority habitats.
f. The water environment, including groundwater, local rivers, and surrounding ponds/lagoons;

g. Infrastructure and built environment including transport infrastructure, industrial infrastructure, and energy infrastructure; and
h. The potential interactions between the receptors above.

17.7.24 Construction workers are not considered further in the assessment, as risks to workers are managed through separate health and safety legislation and are not considered likely to give rise to significant environmental effects within the EIA.

Potential Effects and Mitigation

17.7.25 This section identifies the potential MADs relevant to the Proposed Development and describes the approach used to determine those requiring further assessment within the ES.

17.7.26 An initial scoping exercise has been undertaken to identify and review all major accidents or disasters that could be relevant to the Proposed Development. This initial list was drawn from a number of sources, including the National Risk Register 2026 (Ref 431). This initial scoping exercise shows the potential vulnerability of the Proposed Development to the risk of a major accident and/or disaster associated with a variety of different events during each phase of the Proposed Development and is presented in **Appendix 17-1: Long List of Major Accidents and Disasters.**

17.7.27 In general, major accidents or disasters, as they relate to the Proposed Development, fall into three categories:

a. Events that could not realistically occur, due to the nature of the Proposed Development or its location;
b. Events that could realistically occur, but for which the Proposed Development, and associated receptors, are either no more vulnerable than any other project or would not have an impact should the event occur; and
c. Events that could occur, and to which the Proposed Development could be vulnerable, or which the Proposed Development itself has a particular capacity to exacerbate.

17.7.28 Events falling into this last category are considered for further assessment in the ES.

17.7.29 The outcomes of the screening exercise are summarised in **Table 17-9 to Table 17-11** and presented in full in **Appendix 17-1: Long List of Major Accidents and Disasters**, which identifies the events proposed to be scoped into and out of relevant technical assessments of the ES together with the justification for each scoping decision.

Table 17-9 Construction Phase Major Accident and Disaster Risks Proposed to be Addressed within the EIA

Major Accident or Disaster	Commentary	Potential Receptors	Proposed Technical Assessment and/or Management Plan
Flooding	Parts of the Proposed Development are located within Flood Zones 2 and 3. Both the vulnerability of the Proposed Development to flooding, and its potential to exacerbate flooding, will be covered in the Flood Risk Assessment (FRA) and reported in the ES. Mitigation will be considered and, where necessary, incorporated into the Proposed Development design.	Property and people in areas of increased flood risk	**Chapter 10: Water Environment** and Outline CEMP
Plant Disease/Invasive Plant	Standard control measures would be implemented by the appointed contractor during construction to handle and dispose of any diseased or invasive plants to prevent their spread on and off-site. The spread of these species could outcompete the local flora and damage local infrastructure. Where required, an Invasive Species Management Plan (ISMP) will be prepared for inclusion within the Outline Landscape and Ecology Management Plan (Outline LEMP).	Habitats and species	**Chapter 9: Ecology and Biodiversity** and Outline LEMP
Road Accidents	During construction there will be an increase in heavy construction plant and equipment on the local road network which may increase the risk of road traffic accidents. The potential for transport effects will be considered within **Chapter 15: Transport and Access.** The main mitigation for traffic and transport effects would be described within an Outline Construction Traffic Management Plan (CTMP) which would be submitted with the ES.	Road users	**Chapter 15: Traffic and Access** and Outline CTMP
Utilities failure (electricity, gas, water supply and sewage)	The Proposed Development has the potential to affect existing utility infrastructure. To identify any existing infrastructure constraints, both consultation and a desk-based study will be undertaken. Consultation with relevant utilities providers is a routine part of solar development and	Local residents and businesses	**Chapter 17: Other Environmental Topics** (Telecommunications and Utilities), if

Major Accident or Disaster	Commentary	Potential Receptors	Proposed Technical Assessment and/or Management Plan
	consultees may include water, gas and electricity utilities providers and telecommunications providers as appropriate.		required and Outline CEMP
Pollution incident affecting Ground Receptors	During the construction phase there may be an increase in the risk of leaks and spillages of hazardous materials. This risk would be managed through embedded mitigation secured within the Outline CEMP.	Local residents and businesses, local habitats and species	**Chapter 17: Other Environmental Topics** (Ground Conditions) and Outline CEMP
Pollution incident affecting Aquatic Receptors	During the construction phase there may be an increase in the risk of leaks and spillages of hazardous materials associated with the construction activities. This risk would be controlled through standard control measures which would form commitments within the Outline CEMP.	Local habitats and species	**Chapter 9: Ecology and Biodiversity and Chapter 10: Water Environment** and Outline CEMP

Table 17-10 Operation (and Maintenance) Phase Major Accident and Disaster Risks Proposed to be Addressed within the EIA

Major Accident or Disaster	Commentary	Potential Receptors	Proposed Technical Assessment and/or Management Plan
Fires	There may be potential for fire associated with the Battery Energy Storage System (BESS). The BESS design would include cooling systems designed to regulate temperatures to within safe conditions, which reduces the risk of fire. In addition, the Proposed Development design would include adequate separation between battery banks to reduce the likelihood of an isolated fire becoming widespread. Fire detection and suppression features would be installed in accordance with prevailing National Fire Chiefs Council (NFCC) / Health and Safety	Local residents, local sensitive habitats and species	Outline Battery Safety Management Plan (Standalone document to be submitted with the DCO Application)

Major Accident or Disaster	Commentary	Potential Receptors	Proposed Technical Assessment and/or Management Plan
	Executive (HSE) good practice at the detailed design stage. The BESS design will take account of NFCC guidance on separation from occupied buildings, which proposes an initial minimum distance of 30 m before any mitigation is considered. An Outline Battery Safety Management Plan will be prepared for the Proposed Development and submitted alongside the DCO Application. The Outline Battery Safety Management Plan will be considered in the iterative design of the Proposed Development, so that that design requirements to ensure fire safety (such as having adequate provision of land for water storage) and management of any firewater runoff are captured.		
Pollution incident affecting Aquatic Receptors	Liquid hazardous substances are not expected to form part of the operation (and maintenance) of the Proposed Development, however there is potential for release of toxic substances entrained within firewater originating from a fire at the BESS. Mitigation for this includes measures as outlined above.	Local residents, local aquatic habitats and species	**Chapter 10: Water Environment** and Outline Battery Safety Management Plan
Pollution incident affecting Air Quality	Hazardous substances released to air are not expected to form part of the operation (and maintenance) of the Proposed Development, however there is potential for release of toxic substances due to a fire at the BESS. Mitigation for this includes measures as outlined above and will be included in the Outline Operation Environmental Management Plan (OEMP) and Outline Battery Safety Management Plan.	Local residents, local sensitive habitats and species	**Chapter 17: Other Environmental Matters (Air Quality)** Outline OEMP and Outline Battery Safety Management Plan
Flooding	Parts of the Proposed Development are located within Flood Zones 2 and 3, based on data provided in the flood map for planning. Both the vulnerability of the Proposed Development to flooding, and its potential to exacerbate flooding, will be covered in the FRA and reported in the ES. Mitigation will be considered and, where necessary, incorporated	Property and people in areas of increased flood risk	**Chapter 10: Water Environment**

Major Accident or Disaster	Commentary	Potential Receptors	Proposed Technical Assessment and/or Management Plan
	into the Proposed Development design and Outline Surface Water Drainage Strategy.		
Flood defence failure	Parts of the Proposed Development may be at risk of flooding from flood defence failure. If applicable, this will be covered in the FRA and reported in the ES, both in terms of the risk to the Proposed Development and increased risk caused by the Proposed Development. Mitigation will be considered and, where necessary, incorporated into the Proposed Development design.	Property and people in areas of increased flood risk	**Chapter 10: Water Environment**
Road Accidents	The operation (and maintenance) of the Proposed Development would not result in increased traffic flow or changes to traffic composition, however there is a potential for glint and glare, which may result in a vision impact, that may affect road users. This will be considered in **Chapter 17: Other Environmental Topics.** Mitigation will be considered and, where necessary, incorporated into the Proposed Development design.	Road users	**Chapter 15: Traffic and Access and Chapter 17: Other Environmental Topics** (Glint and Glare) and Outline OEMP
Rail Accidents	The operation (and maintenance) of the Proposed Development would not result in increased usage of or changes to the railway line which could have an adverse impact on railway safety. The potential for glint and glare, which may result in a vision impact, that may affect train drivers will be considered in **Chapter 17: Other Environmental Topics**. Mitigation will be considered and, where necessary, incorporated into the Proposed Development design.	Rail users	**Chapter 15: Traffic and Access and Chapter 17: Other Environmental Topics** (Glint and Glare) and Outline OEMP
Aviation Disasters	The closest airfield is the Westonzoyland Airfield located approximately 7 km south of the Proposed Development. Middlezoy Aerodrome is also located within the Study Area, approximately 8 km south of the	Aircraft users	**Chapter 17: Other Environmental Topics** (Glint and

Major Accident or Disaster	Commentary	Potential Receptors	Proposed Technical Assessment and/or Management Plan
	Proposed Development. Bristol Airport is located approximately 16.8km north east. The potential for glint and glare, which may result in a vision impact, that may affect pilots will be considered in **Chapter 17: Other Environmental Topics.** Mitigation will be considered and, where necessary, incorporated into the Proposed Development design.		Glare) and Outline OEMP
Utilities failure (electricity, gas, water supply and sewage)	The Proposed Development has the potential to affect existing utility infrastructure. To identify any existing infrastructure constraints, both consultation and a desk-based study will be undertaken. Consultation with relevant utilities providers is a routine part of solar development and consultees may include water, gas and electricity utilities providers and telecommunications providers as appropriate.	Local residents	**Chapter 17: Other Environmental Topics** (Telecommunications and Utilities), if required and Outline OEMP

Table 17-11 Decommissioning Phase Major Accident and Disaster Risks Proposed to be Addressed within the EIA

Major Accident or Disaster	Commentary	Potential Receptors	Proposed Technical Assessment and/or Management Plan
Road Accidents	During decommissioning there will be an increase in heavy construction plant and equipment on the local road network which may increase the risk of road traffic accidents. The main mitigation for traffic and transport effects would be described within an Outline Decommissioning Environmental Management Plan (DEMP).	Road users	**Chapter 15: Traffic and Access** and Outline DEMP

Major Accident or Disaster	Commentary	Potential Receptors	Proposed Technical Assessment and/or Management Plan
Flooding	Parts of the Proposed Development are located within Flood Zones 2 and 3. Both the vulnerability of the Proposed Development to flooding, and its potential to exacerbate flooding, will be covered in the Flood Risk Assessment (FRA) and reported in the ES. Mitigation will be considered and, where necessary, incorporated into the Proposed Development design.	Property and people in areas of increased flood risk	**Chapter 10: Water Environment** and Outline DEMP
Plant Disease/Invasive Plant	Standard control measures would be implemented by the appointed contractor during decommissioning to handle and dispose of any diseased or invasive plants to prevent their spread on and off-site. The spread of these species could outcompete the local flora and damage local infrastructure. Appropriate measures to manage invasive species would be considered as part of the Outline DEMP, where required.	Habitats and species	**Chapter 9: Ecology and Biodiversity**, **Chapter 11: Landscape and Visual** and Outline DEMP.
Utilities failure (electricity, gas, water supply and sewage)	The Proposed Development has the potential to affect existing utility infrastructure. Consultation with relevant utilities providers is a routine part of solar development and consultees may include water, gas and electricity utilities providers and telecommunications providers as appropriate.	Local residents	**Chapter 17: Other Environmental Topics** (Telecommunications and Utilities), if required
Pollution incident affecting Ground Receptors	During the decommissioning phase there may be an increase in the risk of leaks and spillages of hazardous materials. The risk will be managed through embedded mitigation secured within the Outline DEMP.	Local residents, local habitats and species	**Chapter 9: Ecology and Biodiversity and Chapter 17: Other Environmental Topics** (Ground Conditions) and Outline DEMP.
Pollution incident affecting Aquatic Receptors	During the decommissioning phase there may be an increase in the risk of leaks and spillages of hazardous materials associated with the construction activities. This risk	Local habitats and species	**Chapter 9: Ecology and Biodiversity and Chapter 10: Water Environment** and Outline DEMP

Major Accident or Disaster	Commentary	Potential Receptors	Proposed Technical Assessment and/or Management Plan
	would be controlled through standard control measures which would form commitments within the Outline DEMP.		

Limitations and Assumptions

17.7.30 The location and layout of certain elements of infrastructure (including cable routes, construction methodologies and BESS location), have not yet been determined. The risk of MADs will be taken into account within the iterative design process, including the choice of locations within the Proposed Development and use of best practice methodologies for construction.

17.7.31 Although the majority of the major accidents or disasters identified in the long list in **Appendix 17-1** are considered under other legislative or design requirements, this is not considered to be sufficient reason to automatically eliminate the major accident or disaster from further consideration. However, where it is concluded that the need for compliance is so fundamental that the risk of any receptors being affected is remote, major accidents or disasters on the long list are scoped out.

Summary of Elements Scoped In and Out

17.7.32 All potential MADs will be adequately covered within other technical chapters of the ES. A standalone MADs is therefore not proposed, which is considered a proportionate approach given the nature of the development and its potential impacts.

18. Structure of the Environmental Statement

18.1. Introduction

18.1.1 The Environmental Statement (ES) will consist of three volumes and a Non-Technical summary (NTS). This section provides a summary of each document that will form the ES.

ES Volume I: Main Report

18.1.2 This will form the main body of the ES, detailing the results of the Environmental Impact Assessment (EIA), likely significant effects arising from the Proposed Development, and the proposed mitigation measures. The ES will also identify opportunities for social and economic benefits and environmental enhancement. The ES will be divided into a number of background and technical chapters, each being supported with figures and relevant technical appendices contained in Volume II and Volume III, respectively. Volume I of the ES will consider the environmental effects associated with a number of identified topics, which may receive significant environmental effects. The chapter structure and numbering presented below are indicative of the anticipated Environmental Statement (ES) and may be refined following receipt of the Scoping Opinion. The chapters anticipated to be included within the ES are:

a. Chapter 1: Introduction
b. Chapter 2: The Order Limits and Surroundings
c. Chapter 3: The Proposed Development
d. Chapter 4: Alternatives Considered and Design Evolution
e. Chapter 5: Consultation
f. Chapter 6: EIA Methodology
g. Chapter 7: Climate Change
h. Chapter 8: Cultural Heritage
i. Chapter 9: Ecology and Biodiversity
j. Chapter 10: Water Environment
k. Chapter 11: Landscape and Visual
l. Chapter 12: Noise and Vibration
m. Chapter 13: Socio-Economics, Tourism and Recreation
n. Chapter 14: Agriculture and Soils
o. Chapter 15: Transport and Access
p. Chapter 16: Materials and Waste
q. Chapter 17: Other Environmental Topics
r. Chapter 18: Cumulative Effects and Interactions; and
s. Chapter 19: Summary of Environmental Effects

18.1.3 The following aspects included within this EIA Scoping Report are not proposed to be taken forward as standalone chapters of the ES, but with any relevant technical appendices produced as required, subject to feedback received as part of the Scoping Opinion:

a. Chapter 17: Other Environmental Topics
    i. Air Quality
    ii. Ground Conditions (technical appendix only)
    iii. Electromagnetic Fields (technical appendix, if required)
    iv. Glint and Glare (technical appendix, if required)
    v. Telecommunications and Utilities
    vi. Human Health
    vii. Major Accidents and Disasters

ES Volume II: Figures

18.1.4 This will include drawings and diagrams to be read alongside the environmental chapters in ES Volume I.

ES Volume III: Technical Appendices

18.1.5 A complete set of appendices will be provided for reference. These will provide supplementary information comprising background data, technical reports, tables, figures and surveys which support the assessments in ES Volume I.

ES Non-Technical Summary

18.1.6 The NTS will be presented in a separate document and will provide a concise description of the Proposed Development, the alternative designs considered, baseline conditions, assessment methodology, predicted residual environmental effects and mitigation measures.

18.1.7 The NTS will be designed to provide some information on the Proposed Development in an accessible format which can be understood by a wide audience and to assist interested parties with understanding of the Proposed Development and its associated environmental effect.

19. Summary and Conclusions

19.1.1 This EIA Scoping Report represents notification under Regulation 8(1)(b) of the EIA Regulations (Ref 2) that the Applicant will undertake an Environmental Impact Assessment (EIA) in respect of the Proposed Development and produce an Environmental Statement (ES) to report the findings of the EIA. This EIA Scoping Report also forms a formal request for a Scoping Opinion from the Secretary of State (SoS) under Regulation 10(1) of the EIA Regulations regarding the information to be provided within the ES that will form part of the Development Consent Order (DCO) Application.

19.1.2 This report has identified the environmental effects that are considered to have the potential to be significant and proposes the approach to be used in assessments that will be undertaken for the EIA to characterise and understand the significance of these effects. The prescribed consultees are invited to consider the contents of this report and provide comments within 28 days of being consulted, in accordance with Regulation 10(11) of the EIA Regulations.

19.1.3 In line with Planning Inspectorate recommendations, **Table 19-1** presents a summary of assessment which is proposed to be 'scoped out' and the rationale for this.

Table 19-1: Summary of matters proposed to be Scoped Out of the EIA

Topic	Proposed Scope of Assessment	Element proposed to be Scoped Out	Rationale for Scoping Out
Climate Change	• Lifecycle Greenhouse Gas Impact Assessment. • Climate Change Risk Assessment.	• In-Combination Climate Impact Assessment.	A standalone In-Combination Climate Change Impact assessment is proposed to be scoped out on the basis that environmental disciplines will consider climate change where relevant within their technical chapters
Cultural Heritage	• Designated heritage assets; non-designated heritage assets; previously unrecorded archaeological remains; Historic Landscape Character (construction and operation (and maintenance) phases)).	• Non-designated buried heritage assets, including previously unrecorded archaeological remains (operation (and maintenance)). • Designated and non-designated heritage assets, previously unrecorded archaeological remains and Historic Landscape Character (decommissioning).	Construction and operation (and maintenance) effects require assessment. Operational impacts on buried archaeological remains would have occurred and been appropriately mitigated during the construction phase, therefore scoped out. Decommissioning impacts are not anticipated to exceed those assessed during construction and operation (and maintenance). Effects on previously unrecorded archaeological remains would be appropriately mitigated through the Outline Archaeological Mitigation Strategy (OAMS). The land would be returned to its former use following decommissioning.
Ecology and Biodiversity	Statutorily designated sites at an International (European) level (UK National Site Network sites)		
	Potential likely significant effects associated with the loss, fragmentation or degradation of	• Chew Valley Lake SPA; • Mendip Woodlands SAC;	These UK National Site Network sites have been screened out on the basis of the absence of a credible ecological

Topic	Proposed Scope of Assessment	Element proposed to be Scoped Out	Rationale for Scoping Out
	functionally linked habitat supporting qualifying features of the following sites cannot yet be excluded and will be assessed further: • Somerset Levels and Moors Ramsar; • Somerset Levels and Moors Special Protection Area (SPA); • Severn Estuary Ramsar; • Severn Estuary SPA; • Severn Estuary Special Area of Conservation (SAC); • Exmoor and Quantock Oakwoods SAC; • Mendip Limestone Grasslands SAC; and • North Somerset & Mendip Bats SAC. Any additional sites within 200 m of a road for which the Institute of Air Quality Management (IAQM) screening criteria for construction traffic are exceeded will also be considered in the assessment (refer to **Chapter 17: Other Environmental Topics**).	• Hestercombe House SAC; and • Mells Valley SAC.	pathway. This is due to the separation distance, the absence of direct habitat overlap, the lack of hydrological connectivity, and the nature of the Proposed Development as a solar development.
	Statutorily designated sites of National importance		

Topic	Proposed Scope of Assessment	Element proposed to be Scoped Out	Rationale for Scoping Out
	• Tealham and Tadham Moors Site of Special Scientific Interest (SSSI); • Catcott Edington and Chilton Moors SSSI; • Bridgwater Bay SSSI; • Crook Peak to Shute Shelve Hill SSSI; • Shiplate Slait SSSI; • Westhay Heath SSSI; • Berrow Dunes SSSI; • Shapwick Heath SSSI; • Westhay Moor SSSI; • Cheddar Reservoir SSSI; • Axbridge Hill and Fry's Hill SSSI; • Somerset Wetlands National Nature Reserves (NNR); • Bridgewater Bay NNR and, • Mendip NNR. Any additional sites within 200 m of a road for which the IAQM screening criteria for construction traffic are exceeded will also be considered in the assessment (refer to **Chapter 17: Other Environmental Topics**).		
	Non-statutorily designated sites		

Topic	Proposed Scope of Assessment	Element proposed to be Scoped Out	Rationale for Scoping Out
	• Thirty two non-statutory designated sites within the 2 km Study Area. This list will be re-assessed when the affected road network is known but is likely to include at a minimum the six non-statutory sites within the Scoping Site Boundary. • Any additional sites within 200 m of a road for which the IAQM screening criteria for construction traffic are exceeded will also be considered in the assessment (refer to **Chapter 17: Other Environmental Topics**).	None.	N/A
	Habitats		
	• Habitats categorised as Important Ecological Features (IEFs). At this stage this includes the Habitats of Principal Importance (HaPI) within the Zone of Influence (ZoI) of the Scoping Site Boundary.	• Habitats not categorised as IEFs.	• Although no formal assessment of non-priority habitats is required due to an absence of legal protection or direction from relevant policy, there will be no direct impact to habitats outside of the Scoping Site Boundary and good practice construction methods will ensure that there are no indirect impacts to habitats outside of the Scoping Site Boundary. Therefore, there are no potential impact pathways.

Topic	Proposed Scope of Assessment	Element proposed to be Scoped Out	Rationale for Scoping Out
	Biodiversity Net Gain		
	• An Outline Biodiversity Gain Plan and Biodiversity Net Gain Boundary Plan will be submitted at ES stage.	None.	N/A
	Species		
	• Notable terrestrial invertebrate species and assemblages categorised as IEFs. • Notable aquatic macroinvertebrate species and assemblages categorised as IEFs. • Notable aquatic macrophyte species and assemblages categorised as IEFs. • Notable fish species and assemblages categorised as IEFs. • Great crested newt. • Common species of reptiles. Adder is excluded due to lack of suitable habitat. • Breeding and non-breeding birds categorised as IEFs. • Barn owls. • Bats.	• Terrestrial invertebrates not categorised as IEFs. • Aquatic macroinvertebrates not categorised as IEFs. • Other amphibians not categorised as IEFs based, including common frog and smooth newt. • Rare species of reptiles.	• The Proposed Development design will seek to avoid those habitats of higher value to terrestrial invertebrates and aquatic macroinvertebrates, such as through the retention of most habitats (e.g. woodland, hedgerows and rhynes) within the Proposed Development, avoidance of habitats outside the Proposed Development and following good practice environmental methods during any phase (construction, operation (and maintenance) and decommissioning) of the Proposed Development. • Observations of other amphibians will be recorded during other ecological surveys. Embedded mitigation secured within the Outline CEMP submitted as part of the DCO, will minimise the risk of

Topic	Proposed Scope of Assessment	Element proposed to be Scoped Out	Rationale for Scoping Out
	• Riparian mammals. • Hazel dormouse. • Badger. • Other Species of Principal Importance (SPI) mammals, including brown hare, hedgehog and harvest mouse. • Invasive and Non-Native Species (INNS).		injury or killing of such species (where present) during construction.
Water Environment	• Water supply (construction). • Hydromorphology (construction, operation (and maintenance), and decommissioning). • Surface water (construction, operation (and maintenance), and decommissioning). • Groundwater (construction, operation (and maintenance), and decommissioning). • Flood risk, including drainage (construction, operation (and maintenance), and decommissioning).	• Impact on surface water and groundwater from foul drainage (construction, operation (and maintenance), and decommissioning). • Nutrient neutrality assessment (construction, operation (and maintenance), and decommissioning).	• Impact on surface water and groundwater from foul drainage has been scoped out on the basis that no discharges to surface watercourses are proposed. • A Nutrient Neutrality screening assessment demonstrated a net reduction in phosphorus loading between the existing and proposed land uses; the Proposed Development is considered phosphorus neutral and would not result in an increase in phosphorus inputs to the Somerset Levels and Moors Ramsar Site. The full Nutrient Neutrality Screening Assessment, including phosphate budget calculator outputs and supporting assumptions is provided in

Topic	Proposed Scope of Assessment	Element proposed to be Scoped Out	Rationale for Scoping Out
			Appendix 10-2: Nutrient Neutrality Screening Assessment.
Landscape and Visual	**Landscape Receptors**		
	National Character Areas (NCA)		
	None.	• NCA 142 Somerset Levels and Moors, NCA 143 Mid Somerset Hills, NCA 141 Mendip Hills.	• Due to the availability of more detailed Landscape Character Assessments, NCAs are scoped out of the Landscape and Visual Impact Assessment (LVIA) chapter.
	Somerset Landscape Character Assessment (LCA)		
	• Landscape Character Type (LCT) 10 Levels. • LCT 11 Peat and Clay Moors - LCA 11a. • LCT 12 Limestone Lowland Hills - LCA 12a, LCA 12b, and LCA 12e. • LCT 2 Wooded Limestone Slopes - LCA 2a.	• LCT 9 Dunes and Beaches - LCA 9b. • LCT 8 Salt Marsh and Mudflats (including seascape/marine receptors).	• Significant effects are not anticipated as no physical change to the LCA would arise from the Proposed Development. Any views of the Proposed Development would be screened by intervening landform, built form and vegetation.
	North Somerset Council Landscape Character Assessment Supplementary Planning Guidance, 2018		
	• LCA E1: Mendip Ridges and Combes.	• LCA A5: Bleadon Moor. • LCA B2: Lox Yeo River Floodplain. • LCA J1: Lox Yeo Rolling Valley Farmland.	• Significant effects are not anticipated as no physical change to the LCA would arise from the Proposed Development. While views may be possible, the

Topic	Proposed Scope of Assessment	Element proposed to be Scoped Out	Rationale for Scoping Out
			distance and intervening vegetation would filter views of the Proposed Development.
	Designated Landscapes		
	• Mendip Hills National Landscape	None.	N/A
	Visual Receptors		
	Settlements		
	• Cross and Compton Bishop. • Rooks Bridge, Tarnock, Biddisham. • Badgworth, Stone Allerton, Chapel Allerton, Ashton, West Stoughton, Wedmore. • Walrow, Watchfield, Northwick, Mark, Blackford. • Bason Bridge, East Huntspill, Cote, Burtle, Westhay. • Puriton, Woolavington, Cossington, Chilton Polden, Edington, Catcott.	• Axbridge, Cheddar and Lower Weare. • Weare, Clewer, Cocklake. • Brent Knoll, East Brent. • Highbridge, Burnham on Sea.	• Significant effects are not anticipated. The Zone of Theoretical Visibility (ZTV) indicates limited or no visibility which has been confirmed by field work.
	Public Rights of Way (PRoW) / Long Distance Trails / National Cycle Routes / Open Access Land/Parks and Gardens		
	• AX 17/13 and AX17/24 that cross the M5 in the northern zone.	• Strawberry Line. • National Cycle Route 26.	• Significant effects are not anticipated. Field work has confirmed that views would be

Topic	Proposed Scope of Assessment	Element proposed to be Scoped Out	Rationale for Scoping Out
	• AX17/30, AX23/15, AX23/5 and AX23/7 running in north-south direction. • AX23/12, AX23/13, AX23/14, AX 12/28 and AX12/33 running in the east-west direction. • AX2/13, AX2/14 and AX12/33 east of Kingsway. • Dense PRoW close to Watchfield, Mark and Blackford. • Dense PRoW around Puriton, Woolavington, Cossington, Chilton Polden, Edington and Catcott. • West Mendip Way. • Access Land within Mendip Hills National Landscape (MHNL) and Brent Knoll. • National Cycle Route 3. • National Cycle Route 33.	• Highbridge Garden of Remembrance (Registered Park and Garden).	largely prevented by intervening vegetation and landform.
	Road and Rail		
	• The M5 motorway. • The A38.	• The A39. • Exeter-Bristol railway line.	• Significant effects are not anticipated. Field work has confirmed that views would be largely prevented by intervening vegetation.
	Other		

Topic	Proposed Scope of Assessment	Element proposed to be Scoped Out	Rationale for Scoping Out
	• Residential visual amenity assessment – Residential properties where there is potential for overbearing effects (to be identified by reference to the ZTV, fieldwork and the evolving design, following Landscape Institute Technical Guidance Note 02/19) (Ref 432) • Cumulative Assessment (Inter-Project Cumulative Effects).	• Residential visual amenity assessment – All other residential properties – beyond the properties identified above it is unlikely that the Proposed Development would result in overbearing effects such that living conditions would be affected to an unacceptable degree • Night-Time Effects and Lighting.	• Beyond the properties identified above, the Proposed Development may be visible but it is unlikely that it would result in any overbearing effects such that living conditions would be affected to an unacceptable degree. • The lighting design would seek to minimise impacts on sensitive receptors through good practice lighting controls during construction, secured through the Outline CEMP. During operation (and maintenance), lighting would be restricted to essential safety and security requirements and would be secured through the Outline OEMP.
Noise and Vibration	• Noise and vibration levels associated with construction works. • Noise and vibration levels associated with decommissioning works. • Noise associated with construction and decommissioning traffic. • Operational solar farm noise.	• Noise associated with construction and decommissioning traffic vibration. • Operational traffic noise. • Vibration from the operation (and maintenance) of the Proposed Development. • Maintenance noise.	• It is assumed that the Somerset Council will maintain good quality conditions for highways used to access the Proposed Development. Therefore, an assessment of construction and decommissioning traffic vibration has been scoped out. • Operational traffic flows would be minimal and not sufficient to result in a 1 dB increase in noise, which

Topic	Proposed Scope of Assessment	Element proposed to be Scoped Out	Rationale for Scoping Out
	• Operational 400 kV overhead line noise.	• Operational 33 kV and 132 kV overhead line noise.	would require a 25% increase in traffic. • No plant that would generate perceptible levels of vibration are part of the Proposed Development and, as such, there will be no associated operational vibration effects. • Maintenance activities are infrequent, short-lived, use light plant, and are no worse than construction or typical agricultural activity. • Operational noise from 132 kV and/or 33 kV overhead lines associated with the Inter-Array Connections, as emissions from conductors operating at these voltages are not expected to result in perceptible noise at nearby sensitive receptors.
Socio-Economics, Tourism and Recreation	• Employment, economic growth and training (construction, operation (and maintenance) and decommissioning). • Recreation, open space (including PRoW), community facilities and local services (construction,	None.	N/A

Topic	Proposed Scope of Assessment	Element proposed to be Scoped Out	Rationale for Scoping Out
	operation (and maintenance) and decommissioning). • Private assets (construction, operation (and maintenance) and decommissioning). • Development land (construction, operation (and maintenance) and decommissioning). • Community identity, structure and way of life (construction and decommissioning). • Visitor Accommodation (construction, and decommissioning) • Tourism (construction, operation (and maintenance), and decommissioning). • Farming businesses (construction, operation (and maintenance) and decommissioning).		
Agriculture and Soils	• Agricultural land within the Scoping Site Boundary (construction and decommissioning). • Soil resources within the Scoping Site Boundary (construction and decommissioning).	• Agricultural land within the Scoping Site Boundary (operation (and maintenance)). • Soil resources within the Scoping Site Boundary	• There is no likely significant effect on agricultural land during operation (and maintenance). • Resting the soil from pastoral farming and agricultural operations within the Energy Park will result in benefits to the soil resources,

Topic	Proposed Scope of Assessment	Element proposed to be Scoped Out	Rationale for Scoping Out
		(operation (and maintenance)). • Crop selection and agricultural production.	which are unlikely to yield a significant effect. • DEFRA maintains that food production levels can be maintained or moderately increased alongside the land use change required to meet Net Zero and Environment Act targets and commitments.
Transport and Access	• Impact of the construction phase of the Proposed Development through a quantitative assessment, including: - Severance - Driver Delay - Pedestrian Delay - Non-motorised users amenity - Fear and Intimidation - Road Safety • Hazardous/Large Loads (during, construction and decommissioning phase). • Impact of the decommissioning phase of the Proposed Development (Assessed by reference to the Construction phase assessment).	• Impact of the operation (and maintenance) phase of the Proposed Development.	• The operation (and maintenance) phase of the Proposed Development is expected to generate only nominal levels of traffic and is therefore unlikely to result in significant transport effects. Accordingly, operation (and maintenance) phase transport effects are proposed to be scoped out of the assessment. Further details of operational transport arrangements, including anticipated vehicle types and trip numbers, will be provided within the ES to demonstrate the appropriateness of this approach.

Topic	Proposed Scope of Assessment	Element proposed to be Scoped Out	Rationale for Scoping Out
Materials and Waste	• Consumption of key construction materials. • Waste generation and landfill capacity.	• Waste arising from extraction, processing and manufacture of construction materials. • Environmental effects associated with waste transport, storage and off-site management. • Environmental effects associated with off-site waste management facilities. • Effects on safeguarded mineral and waste sites.	• These activities are outside the scope of the Proposed Development and are managed through separate planning, permitting and supply chain arrangements. • These effects will be assessed within the relevant technical chapters of the ES (Noise and Vibration, Transport and Access, and Water Environment) and for Air Quality in Section 17.1 of **Chapter 17: Other Environmental Topics**). • These effects are controlled through the planning and environmental permitting of those facilities. • There are no safeguarded mineral or waste sites within the Scoping Site Boundary.
Air Quality	None.	• Construction Phase Dust Emissions. • Operation (and maintenance) and Decommissioning Phase Dust Emissions.	• Taking into account the nature and scale of the Proposed Development, the anticipated construction activities, and the implementation of embedded mitigation measures, significant effects arising from construction-

Topic	Proposed Scope of Assessment	Element proposed to be Scoped Out	Rationale for Scoping Out
		• Construction Phase Road Traffic Emissions. • Operation (and maintenance) Phase Road Traffic Emissions. • Decommissioning Phase Road Traffic Emissions. • Construction and Decommissioning Phase Non-Road Mobile Machinery Emissions (NRMM).	phase dust emissions are not anticipated. • Dust generating activities during the operational and decommissioning phases are anticipated to be similar to, or less than, those associated with the construction phase and will be managed through embedded mitigation measures. Accordingly, significant effects arising from operational and decommissioning-phase dust emissions are not anticipated. • Based on the current design assumptions, construction traffic flows are unlikely to exceed the Institute of Air Quality Management (IAQM) screening criteria that would trigger the need for a detailed air quality assessment. This will be confirmed following completion of the Transport Assessment. • Operational traffic associated with maintenance activities will be infrequent and is unlikely to give rise to significant air quality effects.

Topic	Proposed Scope of Assessment	Element proposed to be Scoped Out	Rationale for Scoping Out
			• Decommissioning traffic flows will be similar to or lower than construction traffic and significant air quality effects are unlikely. • Emissions from NRMM will represent a minor contribution to local air pollutant concentrations and will be managed through embedded mitigation measures secured within the Outline Construction Environmental Management Plan (CEMP) and Outline Decommissioning Environmental Management Plan (DEMP). There are no risks of significant effects.
Ground Conditions	• A Preliminary Risk Assessment, which will include the following aspects: - Soil and groundwater contamination (including related to any landfill) on human health, surface water, groundwater and ecological receptors; - Confirmation of the absence of Mineral Safeguarding Areas (MSA)/Mineral Consultation Areas (MCA);	• A standalone Ground Conditions ES chapter.	• Ground Conditions will be addressed within **Chapter 17: Other Environmental Topics,** supported by the Preliminary Risk Assessment technical appendix.

Topic	Proposed Scope of Assessment	Element proposed to be Scoped Out	Rationale for Scoping Out
	- Historical mining to human health, surface water, groundwater and ecological receptors; - Geologically designated sites; and - Unexploded Ordnance (UXO) to human health receptors		
Human Health	None.	• A standalone Human Health ES chapter. • A standalone Human Health Assessment.	• Human health effects will instead be considered indirectly through the assessment of environmental determinants of health within relevant technical chapters of the ES.
Electromagnetic Fields (EMF)	• Operational EMF effects associated with cabling above 132 kV, where such cabling is confirmed as part of the Proposed Development.	• All elements related to construction. • All elements related to decommissioning.	• Cabling and associated infrastructure will not be connected to a power source at the time of construction or decommissioning and will therefore have no EMF effects.
Glint and Glare	• Operational effects, where required.	• All elements related to construction. • All elements related to decommissioning.	• As the potential glint and glare effects at construction and decommissioning will be lower than those of the operation (and maintenance) phase, the assessment of operational effects will cover any construction phase effects.

Topic	Proposed Scope of Assessment	Element proposed to be Scoped Out	Rationale for Scoping Out
Telecommunications and Utilities	None.	• Assessment of telecommunications and utilities (construction, operation (and maintenance), and decommissioning).	• The Proposed Development will be designed, where practicable, to avoid existing telecommunications and utility infrastructure and will incorporate appropriate stand-off distances and other mitigation measures where required. Provisions for relevant statutory undertakers and infrastructure providers will also be included within the DCO, where appropriate. On this basis, significant effects on telecommunications and utility infrastructure are not anticipated.
Major Accidents and Disasters (MADs)	None.	• A standalone MADs ES chapter. • A standalone MADs Assessment.	• All potential MADs will be adequately covered within other technical chapters of the ES.

20. Glossary and Abbreviations

20.1. Glossary

Term	Definition
“A” Weighting (dB(A))	The human ear does not respond uniformly across the audible frequency range. The “A” weighting is commonly used to simulate the frequency response of the ear.
Access Infrastructure	Collective term for physical infrastructure required to facilitate access to the Proposed Development, including the Haul Road, Construction Access Tracks, Operational Access Tracks and associated highway access features, not including the public highway.
Access Route	The route used by vehicles travelling to, from or within the Proposed Development. Access Routes may utilise existing public highways and one or more items of Access Infrastructure.
Access Track	A track used to provide access to parts of the Proposed Development.
Agricultural Land Classification	The standard method for classifying agricultural land according to its versatility, productivity and workability, based upon inter-related parameters including climate, relief, soil characteristics and drainage. These factors form the basis for classifying agricultural land into one of five grades (with Grade 3 land divided into Subgrades 3a and 3b), ranked from excellent (Grade 1) to very poor (Grade 5). ALC is determined using the Department for Environment, Food and Rural Affairs (DEFRA) & Welsh Government: Agricultural Land Classification of England and Wales: Guidelines for grading the quality of agricultural land (JP069) (2025).
Agro-climatic characteristics	The interrelationship between climate and farming systems, influencing crop suitability and agricultural productivity.
Air Quality Management Area (AQMA)	Places where air quality objectives are not likely to be achieved. Where an AQMA is declared, the local authority is obliged to produce an Action Plan in pursuit of the achievement of the air quality objectives.
Ambient Sound Level, $L_{Aeq,T}$	The equivalent continuous A-weighted sound pressure level of the totally encompassing sound in a given situation at a given time that is usually composed of sound from many sources near and far.
Ancient woodland	Land that has been continually wooded since at least 1600 in England. Regarded as irreplaceable habitat’ in national planning guidance. Ancient woodland greater than 2 ha is

Term	Definition
	recorded on the National England Ancient Woodland Inventory.
Annex 1 habitat	Annex 1 Habitat refers to a habitat as defined under the EU Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora.
Annex 2 species	Annex 2 species refer to species as defined under the EU Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora.
Applicant	Somerset Energy Park Limited, which is a subsidiary of Low Carbon Ltd ('Low Carbon'); a privately-owned renewable energy company.
Array	An area of the Energy Park containing groups of solar panels and associated infrastructure, such as equipment needed to collect and transfer electricity. Arrays may consist of several adjacent fields and are separated from other Arrays by features such as roads, tracks, watercourses or land outside the Proposed Development.
Background Sound Level $L_{A90,T}$	The A-weighted sound pressure level of the residual noise at the assessment position that is exceeded for 90% of a given time interval, T, measured using the fast time weighting, F, and quoted to the nearest whole number.
Baseline Conditions	The environment as it appears (or would appear) immediately prior to the implementation of the Proposed Development together with any known or foreseeable future changes that will take place before completion of the Proposed Development.
Battery Energy Storage System (BESS)	A system comprising batteries and associated electrical infrastructure that enables the storage, import and export of electricity. The BESS stores electricity for use at a later time and supports the efficient operation of the electricity network.
BESS Compound	The area within which the BESS would be located for the storage, import, and export of energy.
Biodiversity	The variability among living organisms from all sources including terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part: this includes diversity within species, between species and of ecosystems.
Biodiversity Action Plan	A strategy for conserving and enhancing wild species and wildlife habitats in the UK.
Biodiversity Net Gain (BNG)	BNG is an approach to development which aims to leave nature in a better state than it was before the proposed development was completed. The Applicant is committed to delivering a minimum BNG target of 10% above

Term	Definition
	baseline in accordance with the applicable statutory requirements and national policy.
Blue Lias	A geological formation comprising alternating limestones and shales/mudstones of latest Triassic to early Jurassic age, encountered in the Somerset area.
Brownfield	Land which has been previously developed and may be affected by contamination from previous industrial use.
Burtle Beds	Late Pleistocene–Holocene superficial deposits comprising sand, gravel, clay and silt, found in the Somerset Levels.
Charmouth Mudstone Formation	A geological formation comprised of laminated shales and mudstones of Sinemurian to Pliensbachian age.
Claimant Count	A measure of the number of people claiming benefits principally for the reason of being unemployed, based on administrative data from the benefits system.
Collector Substations	Collector Substations transform voltage from high to low, or the reverse, or perform any of several other important functions. Between the generating station and consumer, electric power may flow through several substations at different voltage levels.
Conceptual Site Model	A representation of the characteristics of the site. It shows the possible relationships between contaminants, pathways and receptors.
Connection and Access Infrastructure Corridors	Collective term for the areas within which the Inter-Array Connections, the Grid Connection and associated access infrastructure may be located.
Conservation area	An area which has been designated because of its special architectural or historic interest, the character or appearance of which it is desirable to preserve or enhance.
Construction Access	An access point used by construction traffic to enter or leave the Proposed Development during the construction phase.
Construction Access Track	An Access Track used during the construction phase, including connections between the haul road, Arrays and electrical connection infrastructure.
Construction Compounds	Temporary Construction Compounds would be required within the Energy Site including at the solar PV sites and Substation compounds, within the Connection and Access Infrastructure Corridors and for the delivery of materials elsewhere, during the construction phase This would contain offices, mobile welfare units, canteens, storage, waste skips and construction staff car parking.
Cumulative Effects	Effects upon the environment that result from the incremental impact of an action when added to other past,

Term	Definition
	present or reasonably foreseeable actions. Each impact by itself may not be significant but can become a significant effect when combined with other impacts.
Decibel (dB)	The decibel is a logarithmic ratio of two values of a variable. The range of audible sound pressures is approximately 2 x 10-5 Pa to 200 Pa. Using decibel notation presents this range in a more manageable form, 0 dB to 140 dB.
Design Parameters	The Design Parameters define the envelope within which the Proposed Development will be developed. These comprise maximum and minimum descriptors of the Proposed Development components e.g. panel and substation heights.
Designated Heritage Asset	Specific type of heritage asset that has been officially recognised and protected due to its historical, cultural or aesthetic significance.
Desk-Based Assessment (DBA)	A Desk-Based Assessment is a supporting planning document that identifies the archaeological potential and significance within an Application site.
Development Area	A grouping of Arrays located in close proximity within the Energy Park. Development Areas form the principal land parcel divisions of the Energy Park and are identified as Western, Northern, Central, Eastern and Southern.
Development Consent Order (DCO)	Where the Secretary of State proposes to grant consent for a NSIP, this will be through a DCO which is in the form of a statutory instrument – a form of secondary legislation. The DCO not only provides planning consent for the Proposed Development but may also incorporate other consents and include authorisation for the compulsory acquisition and temporary use of land.
Disaster	A natural hazard (e.g. earthquake) or a man-made/external hazard (e.g. act of terrorism) with the potential to cause an event or situation that meets the definition of a major accident.
Ecological feature	Habitats, species or ecosystems.
Ecosystem	A dynamic complex of plant, animal and micro-organism communities and their non-living environment interacting as a functional unit.
Economic Activity Rate	The proportion of the population aged 16 to 64 who are economically active.
Embedded Mitigation	In-built design measures embedded in the Proposed Development as well as standard industry practice.
Energy Park	Comprises the area that is being considered for the generation and storage of electricity through solar PV, the Main Substation, Collector Substations, BESS

Term	Definition
	Infrastructure, other related Infrastructure, and areas for landscape and biodiversity mitigation and enhancement.
Environmental Impact Assessment (EIA)	An EIA is a tool for systematically examining and assessing the impacts and effects of a development on the environment. The objective of the EIA is to identify any likely significant effects which may arise from the Proposed Development and identify measures to prevent, reduce or offset any adverse effects.
Environmental Statement (ES)	A document produced in accordance with the EIA Directive as transposed into UK law by the EIA Regulations to report the results of an EIA.
European Protected Species	Animals and plants listed under the Habitats Directive and protected under the Conservation of Habitats and Species Regulations 2017, as amended.
Fixed South Facing Arrays	The configuration where panels are arranged in rows running from east to west facing to the south at a fixed tilt is commonly seen on existing UK solar farms.
Flood Zone 1	This is land assessed as having a less than 1 in 1,000 annual probability of river or sea flooding.
Flood Zone 2	This zone comprises land assessed as having between a 1 in 100 and 1 in 1,000 annual probability of river flooding (1% – 0.1%), or between a 1 in 200 and 1 in 1,000 annual probability of sea flooding (0.5% – 0.1%) in any year.
Flood Zone 3	This zone comprises land assessed as having a 1 in 100 or greater annual probability of river flooding (>1%), or a 1 in 200 or greater annual probability of flooding from the sea (>0.5%) in any year.
Frequency (Hz)	The number of cycles per second (i.e., the number of vibrations that occur in one second); subjectively this is perceived as pitch.
Frequency Spectrum	The relative frequency contributions that make up a noise.
Geophysical Survey	A non-intrusive method for scanning sub-surface deposits to identify archaeological anomalies and features.
Grid Connection	The electrical infrastructure that will connect the Main Substation to the National Grid Woolavington Substation, which is the point at which the Proposed Development will connect to the national electricity transmission network. The Grid Connection may comprise underground cables, overhead lines, or a combination of both.
Grid Connection Corridor	The area of land within which the Grid Connection could be located. The exact route and type of infrastructure will be determined as the design develops.
Gross Value Added (GVA)	A measure of the value of goods and services produced in an area, industry or sector of an economy calculated as

Term	Definition
	the value of all output minus the value of intermediate consumption.
Habitat of Principal Importance (HaPI)	HaPI are covered under Section 41 of the Natural Environment and Rural Communities Act 2006 (NERC). The term is interchangeable with 'UK Priority BAP Habitat', 'Section 41 habitat' and 'NERCs41 habitat'.
Haul Road	The former National Grid Electricity Transmission (NGET) construction haul road, sections of which may be reinstated to provide access for construction vehicles, equipment and materials to areas of the Energy Park not readily accessible from the public highway.
Impacts	For the purposes of the EIA, the term 'impacts' is used to describe the changes that arise as a result of the Proposed Development.
Inter-Array Connection	The electrical infrastructure that will connect different parts of the Energy Park, enabling electricity to be transferred between Arrays and associated infrastructure, including substations and BESS. Inter-Array Connections may comprise underground cables, overhead lines, or a combination of both.
Inter-Array Connection Corridor	The area within which Inter-Array Connection infrastructure may be constructed to connect Arrays and associated infrastructure within the Energy Park. The final route and type of infrastructure will be determined through the ongoing design process.
Intra-Array Connection	Electrical infrastructure located within and connecting different parts of the same Array.
Invasive non-native species	An invasive non-native species is any non-native animal or plant that has the ability to spread, causing damage to the environment, the economy, health, and way of life.
Inverter	Inverters convert the DC electricity collected by the PV panels into AC, which allows the electricity generated to be exported to the national electricity transmission network.
Illustrative Viewpoint	A viewpoint chosen specifically to demonstrate a particular effect or specific issues.
Joint Strategic Needs Assessment (JSNA)	An evidence-based process analysing the current and future health and care needs of local populations to inform and guide the planning of health, wellbeing and social care services within a local authority area.
Landscape	An area, as perceived by people, the character of which is the result of the action and integration of natural and/or human factors.
Landscape Character Areas	Discrete geographical areas of a particular landscape type.

Term	Definition
Landscape Character Type	Distinct types of landscape that are relatively homogeneous in character.
Landscape effects	Effects on the landscape as a resource in its own right.
Landscape character	A distinct, recognisable and consistent pattern of elements in the landscape that makes one landscape different from another.
Landscape receptors	Defined aspects of the landscape resource that have the potential to be affected by a proposal.
Landscape value	The relative value that is attached to different landscapes by society. A landscape may be valued by different stakeholders for a whole variety of reasons.
Level $L_{A10,T}$	The A-weighted sound pressure level exceeded for 10% of a given time interval, T, measured using the fast time weighting, F.
Listed Building	A building which has been designated because of its special architectural or historic interest.
Local Wildlife Site (LWS)	Non-statutory nature conservation sites of local value.
Low Carbon	The parent company of the Applicant, Somerset Energy Park Limited, and the developer of the Proposed Development.
Made Ground	An area where the pre-existing (natural or artificial) land surface is raised by artificial deposits.
Magnitude (of effect)	A term that combines judgements about the size, scale, the extent of the area over which it occurs, its reversibility and duration.
Main Substation	The single substation, operating at either 132 kV or 400 kV depending on the connection voltage, that aggregates and exports electricity from the Energy Park to the National Grid. The main substation will comprise electrical infrastructure such as the transformers and switchgear.
Major Accident	Events that threaten immediate or delayed serious environmental effects to human health, welfare and/or the environment and require the use of resources beyond those of the Applicant or its appointed representatives to manage. Whilst malicious intent is not accidental, the outcome (e.g. train derailment) may be the same and therefore many mitigation measures will apply to both deliberate and accidental events.
Materials	Defined in the ISEP Guidance as *"physical resources that are used across the lifecycle of a development. Examples include key construction materials such as concrete, aggregate, asphalt and steel."*

Term	Definition
Maximum Parameters	These define the worst case extents of design elements of the Proposed Development, or factors arising from them.
Mercia Mudstone Group	A Triassic lithostratigraphic group comprising red-brown and green-grey mudstones, siltstones and occasional sandstones, gypsum and halite beds.
Mitigation	The action of reducing the severity and magnitude of change (impact) to the environment. Measures to avoid, reduce, remedy or compensate for significant adverse effects.
National Grid Woolavington Substation	Point of Connection for the Proposed Development – the proposed NGET 400kV/132kV substation at Woolavington.
National Policy Statements (NPS)	National Policy Statements are produced by the UK government. They comprise the government's central policy documents for the development of Nationally Significant Infrastructure Projects.
Nationally Significant Infrastructure Projects (NSIP)	NSIPs are large scale developments such as certain new harbours, power generating stations (including solar farms), highways developments and electricity transmission lines, which require a development consent under procedures governed by the Planning Act 2008 (and amended by the Localism Act 2011).
National Vegetation Classification	System of classifying natural habitat types in Great Britain according to their vegetation types.
Noise	Unwanted or unexpected sound.
Non-designated Heritage Asset	Non-designated heritage assets are buildings, monuments, sites, places, areas or landscapes identified as having a degree of significance meriting consideration in planning decisions because of their heritage interest but which do not meet the criteria for designated heritage assets.
Operational Access	An access point used for routine operation (and maintenance) activities.
Operational Access Track	An Access Track used to facilitate routine operation (and maintenance) activities. Operational Access Tracks may also be used during construction where required.
Outline Construction Environmental Management Plan (Outline CEMP)	This plan provides an outline for environmental management during the construction phase of the Proposed Development, with the aim to provide a clear and consistent approach to environmental mitigation during construction.
Outline Construction Traffic Management Plan (Outline CTMP)	This plan provides an outline for traffic management practices for construction traffic and staff vehicles during the construction of the Proposed Development.

Term	Definition
Outline Decommissioning Environmental Management Plan (Outline DEMP)	This plan provides an outline for how the mitigation measures included within the ES will be implemented during the decommissioning stage. It also sets out the monitoring and auditing activities designed to ensure that such mitigation measures are carried out, and that they are effective.
Outline Landscape and Ecology Management Plan (Outline LEMP)	This plan provides an outline for achieving the outline design, including the successful establishment and future management of biodiversity and landscaping works.
Outline Operational Environmental Management Plan (Outline OEMP)	This plan provides an outline for how the operational mitigation measures included within the ES will be implemented and sets out the monitoring and auditing activities designed to ensure that such mitigation measures are carried out, and that they are effective.
Overhead Lines (OHL)	Cabling suspended above ground via poles or towers.
Peak Particle Velocity (PPV)	The peak speed of particle movement in the ground due to vibration and used to assess impacts from construction activity induced vibration. The Peak Particle Velocity is defined as millimetres per second (mm/s).
Point of Connection	Connection to the National Grid Woolavington Substation.
Power Conversion Units (PCU)	Comprises an inverter, a transformer, and switchgear, which can be grouped together or distributed throughout the Energy Park, depending on the final electrical design.
Preliminary Risk Assessment)	A preliminary risk assessment will establish if there are any potentially unacceptable risks arising from contamination at the site.
Proposed Development	Somerset Energy Park, comprising the construction, operation (and maintenance) and decommissioning of the Energy Park (solar PV panels, BESS Infrastructure, the Main Substation, Collector Substations and associated infrastructure), the Inter-Array Connections, the Grid Connection and associated access infrastructure.
Priority habitat	Habitats identified as of principal importance in England, in accordance with requirements of the NERC Act 2006. These are based on the UK Biodiversity Action Plan Priority Habitats.
Priority species	Species identified as of principal importance in England, in accordance with requirements of the NERC Act 2006. These are based on the UK Biodiversity Action Plan Priority Species.
Public Rights of Way (PRoW)	Legally protected routes or paths in England and Wales that the public has the right to use.
Rating Level, $L_{Ar,Tr}$	The specific noise level plus any adjustment for any characteristic features of the noise.

Term	Definition
Ramsar sites	Wetlands of international importance designated under the Ramsar Convention.
Receptor	A component of the natural or man-made environment that is affected by an impact, including people.
Reference Time Interval, Tr	The specified interval over which an equivalent continuous A-weighted sound pressure level is determined.
Registered Park or Garden	A designed landscape which has been designated because of its special historic interest.
Regulated Qualifications Framework (RQF)	A standardised framework that categorises qualifications based on their level of learning outcomes.
Representative Viewpoint	A viewpoint selected to represent the experience of different types of visual receptors.
S41 of NERC Act	Section 41 of the NERC Act 2006 lists species of principal importance in England for the purpose of conserving biodiversity.
Schedule 1 species	Bird species listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended), for which it is an offence to intentionally or recklessly disturb birds and their young at, on or near an 'active' nest.
Scoping Opinion	A Scoping Opinion is requested from the Planning Inspectorate on behalf of the Secretary of State to inform the requirements of EIA process and ultimately the ES which will be submitted as part of the application for development consent. Through the scoping process the views of the statutory consultees and other relevant organisations on the proposed scope of the EIA are sought.
Scoping Site Boundary	The extent of land currently being considered for the Proposed Development, comprising the Energy Park and the Connection and Access Infrastructure Corridors. The Scoping Site Boundary is likely to be refined as the design progresses.
Scheduled Monument	A monument which has been designated because of its national importance.
Secondary A Aquifers	Permeable layers that can support local water supplies, and may form an important source of base flow to rivers.
Secondary Undifferentiated Aquifer	Secondary Undifferentiated Aquifers are aquifers where it is not possible to apply either a Secondary A or B definition because of the variable characteristics of the rock type. These have only a minor value.
Sensitivity	A term applied to specific receptors, combining judgements of the susceptibility of the receptors to the specific type of change or development proposed and the value related to that receptor.

Term	Definition
Significance	A measure of the importance or gravity of the environmental effect, defined by significance criteria specific to the environmental topic.
Single Axis Tracker Arrays	A Tracker system involves attaching the PV panels to a motorised table that can move in relation to the sun.
Sites of Special Scientific Interest (SSSI)	Protected areas in the UK designated under the Wildlife and Countryside Act 1981 (as amended) to conserve nationally important habitats, specials or geological features.
Soil Associations	Groupings of related soil series
Soil Management Plan (SMP)	A site-specific plan developed to ensure appropriate management practices are followed during excavation, storage, and restoration of soils.
Soil Series	The lowest category in the soil classification system and are precisely defined based upon particle-size distribution, parent material (substrate) type, colour and mineralogical characteristics.
Solar photovoltaic (PV) Mounting Structures	A metal frame that holds the Solar PV Panels in place and secures them to the ground via galvanised steel piles driven into the ground (depth dependent on ground conditions).
Solar PV Panels	Solar panels which convert sunlight into electrical current.
Sound Pressure Level (Lp)	Equal to 20 times the logarithm to the base 10 of the ratio of the root mean squared (RMS) sound pressure to the reference sound pressure. In air the reference sound pressure is 2 x 10-5 Pa. Mathematically: Sound Pressure Level (dB) =20 log10 {p(t) / P0} Where P0 = 2 x 10-5 Pa
Special Areas of Conservation (SAC)	Protected areas in the UK designated under the Conservation of Habitats and Species Regulations 2017 (as amended) in England and Wales.
Specific Noise Level, $L_{Aeq,Tr}$	The equivalent continuous A-weighted sound pressure level at the assessment position produced by the specific noise source over a given reference time interval.
Species of Principal Importance (SPI)	Covered under Section 41 of the NERC Act 2006. The term is interchangeable with ‘UK Priority BAP Species’, ‘Section 41 species’ and ‘NERCs41 species.
Special Protection Areas (SPA)	Protected areas for birds in the UK classified under the Wildlife & Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2017 (as amended) in England and Wales.
Specific Viewpoint	A promoted viewpoint within the landscape

Term	Definition
Statutory designated site	A site which receives protection by means of legislation in recognition of its biodiversity value.
Susceptibility	The ability of a receptor to accommodate the specific proposed development without undue negative consequences.
Subsoil	Layer (or horizon) of soil immediately beneath the surface topsoil. Generally, less structurally developed and less nutrient rich than the topsoil
Switchgear	Switchgear are the combination of electrical disconnect switches, fuses or circuit breakers used to control, protect, and isolate electrical equipment. Switchgear are used both to de-energise equipment to allow work to be done and to clear faults downstream.
Topsoil	Natural topsoil or manufactured topsoil, varies in depth with soil type but usually covering the top 20-30 cm in which plants can grow healthily.
Transformers	LV/MV transformers control the voltage of the electricity generated across the Proposed Development before it reaches the substation.
Underground Cable	Cabling installed below ground within a buried trench.
Unemployment Rate	The proportion of the labour force that does not have a job and is actively seeking work.
Unproductive Strata	Largely unable to provide usable water supplies and are unlikely to have surface water and wetland ecosystems dependent on them.
Visual effect	Effects on specific views and visual amenity experienced by people.
Visual receptor	Individuals and/or defined groups of people who have the potential to be affected by a proposal.
Visualisation Type 3 Photomontage / Photowire	Offer an appropriate level of detail and accuracy for EIA and non-EIA projects, provide a reasonable level of locational and photographic accuracy but do not need to be accompanied by verification data.
Waste	Defined as per the European Waste Framework Directive as *“any substance or object which the holder discards or intends or is required to discard".*
Zone of Influence	The limit determined for each specialist study in which the construction or operation (and maintenance) of the Proposed Development component has the potential to cause an adverse or beneficial effect on a receptor. This will inform the definition of the discipline-specific study area defined for their assessment.

Term	Definition
Zone of Theoretical Visibility	A digitally produced map, showing areas of land within which a development is theoretically visible.

20.2. Abbreviations

Abbreviation	Definition
AC	Alternating Current
AEP	Annual Exceedance Probability
AGL	Above Ground Level
A/HMWB	Artificial or Heavily Modified Water Body
AIL	Abnormal Indivisible Loads
AIMS	Asset Information and Management System
ALC	Agricultural Land Classification
ALGAO	Association of Local Government Archaeological Officers
ANC	Association of Noise Consultants
AOD	Above Ordnance Datum
AQMA	Air Quality Management Area
ATI	Aerial Tree Inspection
BAP	Biodiversity Action Plan
BESS	Battery Energy Storage System
BGS	British Geological Survey
BMV	Best and Most Versatile
BMWP	Biological Monitoring Working Party
BNG	Biodiversity Net Gain
BPM	Best Practicable Means
BRAG	Black, Red, Amber and Green
BRE	Building Research Establishment
BS	British Standards
BSI	British Standards Institution
BSMP	Battery Safety Management Plan
BTO	British Trust for Ornithology
CCC	Climate Change Committee
CAIC	Connection and Access Infrastructure Corridors
CAST	Combined Aerodrome Safeguarding Team
CCRA	Climate change risk assessment
CCTV	Closed-circuit television system
CDM	Construction (Design and Management)

Abbreviation	Definition
CEMP	Construction Environmental Management Plan
CFGM	Coastal and Floodplain Grazing Marsh
CIEEM	Chartered Institute for Environmental and Ecological Management
CIfA	Chartered Institute for Archaeologists
CIRIA	Construction Industry Research and Information Association
CL:AIRE	Contaminated Land: Applications in Real Environments
CMS	Credible Maximum Scenario
COMAH	Control of Major Accident Hazards
CoPA	Control of Pollution Act
COSHH	Control of Substances Hazardous to Health
CROME	Crop Map of England
CRoW	Countryside and Rights of Way
CRTN	Calculation of Road Traffic Noise
CSM	Conceptual Site Model
CTMP	Construction Traffic Management Plan
DBA	Desk-Based Assessment
DBW	Daytime Bat Walkover
DC	Direct Current
DCO	Development Consent Order
DfT	Department for Transport
DEFRA	Department for Environment, Food and Rural Affairs
DEMP	Decommissioning Environmental Management Plan
DESNZ	Department of Energy Security and Net Zero
DLL	District Level Licensing
DMRB	Design Manual for Roads and Bridges
DoWCoP	Definition of Waste: Development Industry Code of Practice
DSEAR	Dangerous Substances and Explosive Atmospheres Regulations
EA	Environment Agency
EC	European Commission

Abbreviation	Definition
EcIA	Ecological Impact Assessment
eDNA	Environmental DNA
EIA	Environmental Impact Assessment
EMF	Electromagnetic Fields
EPS	European Protected Species
EPSL	European Protected Species Licence
EQSD	Environmental Quality Standards Directive
ERP	Emergency Response Plan
ES	Environmental Statement
EU	European Union
FOI	Freedom of Information
FRA	Flood Risk Assessment
FRS	Fire and Rescue Services
GCC	Grid Connection Corridor
GEP	Good Ecological Potential
GHG	Greenhouse Gas
GLTA	Ground Level Tree Assessment
GLVIA 3	Guidelines for Landscape and Visual Impact Assessment, Third Edition
GVA	Gross Value Added
GW	Groundwater
GWD	Groundwater Directive
GWDTE	Groundwater Dependent Terrestrial Ecosystem
GWR	Great Western Railway
H&SP	Health and Safety Plan
ha	Hectare
HaPI	Habitats of Principal Importance
HDD	Horizontal Directional Drilling
HE	Historic England
HER	Historic Environment Record
HES	Historic Environment Service
HGV	Heavy Goods Vehicle
HLC	Historic Landscape Character
HMS	Habitat Modification Score

Abbreviation	Definition
HMSO	His Majesty's Stationery Office
HQA	Habitat Quality Assessment
HRA	Habitat Regulation Assessment
HSE	Health and Safety Executive
HSI	Habitat Suitability Index
HV	High Voltage
IAQM	Institute of Air Quality Management
ICCI	In-combination Climate Change Impact
ICE	Inventory of Carbon and Energy
ICNIRP	International Commission on Non-Ionizing Radiation Protection
ICP	Integrated Care Partnership
IDB	Internal Drainage Board
IEF	Important Ecological Feature
IEMA	Institute of Environmental Management Assessment
IHBC	Institute of Historic Building Conservation
INNS	Invasive non-native species
IoQ	Institute of Quarrying
IPCC	Intergovernmental Panel on Climate Change
IRR	Internal Run Rate
ISEP	Institute of Sustainability and Environmental Professionals
ISO	International Organisation for Standardisation
IUCN	International Union for Conservation of Nature
JNCC	Joint Nature Conservation Committee
JSNA	Joint Strategic Needs Assessment
km	Kilometres
kV	Kilovolt
LBAP	Local Biodiversity Action Plan
LCA	Landscape Character Area
LCRM	Land contamination: risk management
LCT	Landscape Character Type
LEMP	Landscape and Ecology Management Plan
LGS	Local Geological Sites

Abbreviation	Definition
LGV	Light Goods Vehicles
LHA	Local Highway Authority
LLFA	Local Lead Flood Authority
LNR	Local Nature Reserve
LNRS	Local Nature Recovery Strategy
LOAEL	Lowest Observed Adverse Effect Level
LRN	Local Road Network
LSE	Likely Significant Effect
LSOA	Lower layer Super Output Area
LV	Low Voltage
LWS	Local Wildlife Site
MADs	Major Accidents and Disasters
MAFF	Ministry of Agriculture Fisheries and Food
MAGIC	Multi-Agency Geographic Information for the Countryside
MAH	Major Accident Hazard
MCA	Mineral Consultation Area
MHCLG	Ministry of Housing, Communities and Local Government
MMP	Materials Management Plan
MoRPh	Modular River Physical Habitat Survey
MPA	Minerals Planning Authority
MSA	Mineral Safeguarding Area
MSOA	Middle layer Super Output Area
MV	Medium Voltage
MW	Megawatt
NBN	National Biodiversity Network
NBW	Night-time Bat Walkover
NCA	National Character Area
NCN	National Cycle Network
NDC	Nationally Determined Contribution
NE	Natural England
NERC	Natural Environment and Rural Communities
NETS	National Electricity Transmission System

Abbreviation	Definition
NGET	National Grid Electricity Transmission
NGR	National Grid Reference
NH	National Highways
NHLE	National Heritage List for England
NL	National Landscape
NN	Nutrient Neutrality
NNR	National Nature Reserve
NPPF	National Planning Policy Framework
NPPG	National Planning Policy Guidance
NPS	National Policy Statement
NPSE	Noise Policy Statement for England
NRFA	National River Flow Archive
NRMM	Non-Road Mobile Machinery
NRTF	National Road Traffic Forecast
NSIP	Nationally Significant Infrastructure Project
NTEM	National Trip Ends Model
NTM	National Transport Model
NVC	National Vegetation Classification
NVZ	Nitrate Vulnerable Zone
OEMP	Operational Environmental Management Plan
OHL	Overhead Lines
OHID	Office for Health Improvement and Disparities
ONS	Office for National Statistics
OS	Ordnance Survey
PA 2008	Planning Act 2008
PAHs	Polycyclic Aromatic Hydrocarbons
PBDE	Polybrominated Diphenyl Ethers
PAS	Publicly Available Specification
PCU	Power Conversion Unit
PEA	Preliminary Ecological Appraisal
PFAS	Per- and Polyfluoroalkyl Substances
PFOS	Perfluorooctane Sulphonate
PIC	Personal Injury Collision
PINS	Planning Inspectorate

Abbreviation	Definition
PPE	Personal Protective Equipment
PPG	Planning Practice Guidance
PPV	Peak Particle Velocity
PRA	Preliminary Roost Assessment
PRF	Potential Roost Feature
PRoW	Public Rights of Way
PRoWMP	Public Rights of Way Management Plan
PSYM	Predictive System for Multimetrics
PUB	Powering Up Britain
PV	Photovoltaic
PWS	Public Water Supply
RBD	River Basin Districts
RBMP	River Basin Management Plan
RCP	Representative Concentration Pathway
RFD	Reasons for Deterioration
RHS	River Habitat Survey
RL	River Level
RNAG	Reasons for Not Achieving Good
RQF	Regulated Qualifications Framework
ROF	Royal Ordnance Factory
RPA	Root Protection Area
RPS	Regulatory Position Statement
SAC	Special Area of Conservation
SAT	Single Axis Tracker
SERC	Somerset Environmental Records Centre
SFRA	Strategic Flood Risk Assessment
SHER	Somerset Historic Environment Record
SMP	Soil Management Plan
SNR	Strategic Road Network
SNRHW	Stable Non-reactive Hazardous Waste
SOAEL	Significant Observed Adverse Effect Level
SoS	Secretary of State
SPA	Special Protection Area
SPI	Species of Principal Importance

Abbreviation	Definition
SPZ	Source Protection Zone
SSSI	Sites of Special Scientific Interest
SUDS	Sustainable Drainage Systems
SWDS	Surface Water Drainage Strategy
SWHT	South West Heritage Trust
SWMI	Significant Water Management Issue
SWMP	Site Waste Management Plan
SWSGZ	Surface Water Safeguard Zone
TAG	Technical Advisory Group
TAN	Transport Assessment Note
TFD	Tidal Flat Deposits
TP	Travel Plan
TraC	Transitional and Coastal
TRL	Transport Research Laboratory
UGC	Underground Cables
UKCP	UK Climate Projections
UKHab	UK Habitat Classification
UKTAG	UK Technical Advisory Group
UNFCCC	United Nations Framework Convention on Climate Change
uPBTs	Ubiquitous Persistent Bioaccumulative Toxic Substances
UXO	Unexploded Ordnance
VOC	Volatile Organic Compounds
WAC	Waste Acceptance Criteria
WCA	Wildlife and Countryside Act 1981
WER	Water Environment Regulations
WFD	Water Framework Directive
WHO	World Health Organisation
WPA	Waste Planning Authority
WQ	Water Quality
WRAP	Waste and Resource Action Programme
ZoI	Zone of Influence
ZTV	Zone of Theoretical Visibility.

21. References

Ref 1. The Planning Act (2008), Available at: https://www.legislation.gov.uk/ukpga/2008/29/contents

Ref 2. The Infrastructure Planning (Environmental Impact Assessment) Regulations (2017). Available at: https://www.legislation.gov.uk/uksi/2017/572/contents

Ref 3. The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009. Available at: https://www.legislation.gov.uk/uksi/2009/2264/contents

Ref 4. The Localism Act (2011). Available at: https://www.legislation.gov.uk/ukpga/2011/20/contents

Ref 5. Department of Energy Security and Net Zero (DESNZ) Overarching National Policy Statement for Energy (EN-1) (2025). Available at: https://www.gov.uk/government/publications/overarching-national-policy-statement-for-energy-en-1-2025/overarching-national-policy-statement-for-energy-en-1-2025-accessible-webpage

Ref 6. DESNZ National Policy Statement for Renewable Energy Infrastructure (EN-3) (2025). Available at: https://assets.publishing.service.gov.uk/media/695d1368b5c46330350ed9a2/national-policy-statement-for-renewable-energy-infrastructure-en-3-web-accessible.pdf

Ref 7. DESNZ National Policy Statement for Electricity Networks Infrastructure (EN-5) (2025). Available at: https://www.gov.uk/government/publications/national-policy-statement-for-electricity-networks-infrastructure-en-5-2025/national-policy-statement-for-electricity-networks-infrastructure-en-5-2025-accessible-webpage

Ref 8. HM Government (2008). Climate Change Act 2008. Available at: https://www.legislation.gov.uk/ukpga/2008/27/contents

Ref 9. Ministry of Housing, Communities and Local Government (MHCLG) (August 2026 National Planning Policy Framework (NPPF). Available at: https://www.gov.uk/guidance/national-planning-policy-framework

Ref 10. Somerset Council (n.d.) Somerset Local Plan 2045 (Emerging). Available at: https://www.somerset.gov.uk/planning-buildings-and-land/planning-policy/emerging-somerset-local-plan/

Ref 11. Sedgemoor District Council (2019). Sedgemoor Local Plan 2011 – 2032. Available at: https://www.somerset.gov.uk/planning-buildings-and-land/adopted-local-plans/?district=Sedgemoor

Ref 12. Somerset County Council (2015). Somerset Minerals Plan 2030. Available at: https://www.somerset.gov.uk/planning-buildings-and-land/minerals-and-waste-planning/

Ref 13. Somerset County Council (2013). Somerset Waste Core Strategy 2028. Available at: https://www.somerset.gov.uk/planning-buildings-and-land/minerals-and-waste-planning/

Ref 14. Burnham-on-Sea and Highbridge Town Council (2018). Burnham and Highbridge area Neighbourhood Plan. Available at: https://burnham-highbridge-tc.gov.uk/wp-content/uploads/2020/04/Final-Neighbourhood-plan.pdf

Ref 15. Puriton Parish Council (2024). Puriton Neighbourhood Plan. Available at: https://puritonparishcouncil.org/wp-content/uploads/2024/09/Puriton-Neighbourhood-Plan-June-2024.pdf

Ref 16. Wedmore Neighbourhood Plan Group (2019). Wedmore Neighbourhood Plan. Available at: https://wedmore-pc.gov.uk/wp-content/uploads/2022/01/Wedmore_Neighbourhood_Plan.pdf

Ref 17. DESNZ and DBEIS (2020) Energy White Paper, Powering our NetZero Future (2020). Available at: https://www.gov.uk/government/publications/energy-white-paper-powering-our-net-zero-future

Ref 18. HM Government (2021). Environment Act 2021. Available at: https://www.legislation.gov.uk/ukpga/2021/30/contents

Ref 19. DESNZ and DBEIS (2022). British energy Security Strategy. Available at: https://www.gov.uk/government/publications/british-energy-security-strategy

Ref 20. DESNZ (2023). Powering up Britain. Available at: https://www.gov.uk/government/publications/powering-up-britain

Ref 21. HM Government, Environmental Improvement Plan (2025). Available at: https://www.gov.uk/government/publications/environmental-improvement-plan-2025

Ref 22. HM Government, Clean Power 2030 Action Plan: A new era of clean electricity (2024). Available at: https://assets.publishing.service.gov.uk/media/677bc80399c93b7286a396d6/clean-power-2030-action-plan-main-report.pdf

Ref 23. DESNZ (2025). Solar Roadmap. Available at: https://www.gov.uk/government/publications/solar-roadmap

Ref 24. Planning Inspectorate (2026) Nationally Significant Infrastructure Projects: Pre-Application Advice on Environmental Impact Assessment. Available at: https://www.gov.uk/guidance/nationally-significant-infrastructure-projects-pre-application-advice-on-environmental-impact-assessment

Ref 25. Building Research Establishment (BRE). BRE Digest 365: Soakaway Design. Available at: https://bregroup.com/documents/311572/1990118/327631.pdf/015b337e-14d2-d928-ebc6-af5867851a0b?version=1.0&t=1732262310015 [Accessed 08 October 2026]

Ref 26. Planning and Infrastructure Act 2025. Available at: https://www.legislation.gov.uk/ukpga/2025/34

Ref 27. The Planning and Infrastructure Act 2025 (Commencement No 4 and Transitional Provisions) Regulations 2026. Available at: https://www.legislation.gov.uk/uksi/2026/641/contents/made

Ref 28. Ministry of Housing, Communities and Local Government (2026). Planning Act 2008: Guidance on preparing an application: Part 1 – Pre-application steps. Available at: https://www.gov.uk/guidance/planning-act-2008-guidance-on-preparing-an-application-part-1-pre-application-steps

Ref 29. Ministry of Housing, Communities and Local Government (2026). Planning Act 2008: Guidance on preparing an application: Part 2 – Application contents. Available at https://www.gov.uk/guidance/planning-act-2008-guidance-on-preparing-an-application-part-2-application-contents

Ref 30. Planning Inspectorate (2024). Nationally Significant Infrastructure Projects: 2024 Pre-application Prospectus. Available at: Nationally Significant Infrastructure Projects: 2024 Pre-application Prospectus - GOV.UK

Ref 31. European Commission (1999) Guidelines for the Assessment of Indirect and Cumulative Impacts as well as Impact Interaction. Available at: https://tethys.pnnl.gov/sites/default/files/publications/European-Commission-1999.pdf

Ref 32. Planning Inspectorate (2024) Nationally Significant Infrastructure Projects: Advice on Cumulative Effects Assessment. Available at: https://www.gov.uk/guidance/nationally-significant-infrastructure-projects-advice-on-cumulative-effects-assessment

Ref 33. Department for Business, Energy and Industrial Strategy (2020). UK's Nationally Determined Contribution. Available at: https://www.gov.uk/government/publications/the-uks-nationally-determined-contribution-communication-to-the-unfccc

Ref 34. UK's 2035 Nationally Determined Contribution (NDC) emissions reduction target under the Paris Agreement. Available at: https://www.gov.uk/government/publications/uks-2035-nationally-determined-contribution-ndc-emissions-reduction-target-under-the-paris-agreement

Ref 35. HMSO (2011). Carbon Budget Order 2011. Available at: https://www.legislation.gov.uk/uksi/2011/1603/made

Ref 36. HMSO (2016). Carbon Budget Order 2016. Available at: https://www.legislation.gov.uk/uksi/2016/785/contents/made.

Ref 37. HMSO (2021). The Carbon Budget Order 2021. Available at: https://www.legislation.gov.uk/uksi/2021/750/made

Ref 38. HMSO (2026). Carbon Budget Order 2026. Available at: https://www.legislation.gov.uk/uksi/2026/695/contents/made

Ref 39. United Nations (2015). The Paris Agreement. Available at https://unfccc.int/process-and-meetings/the-paris-agreement

Ref 40. HM Government (2023). The Energy Act. Available at: https://www.legislation.gov.uk/ukpga/2023/52/contents/made

Ref 41. Ministry of Housing, Communities and Local Government (August 2026). National Planning Policy Framework. Available at: https://www.gov.uk/guidance/national-planning-policy-framework.

Ref 42. HM Government (2022). UK Climate Change Risk Assessment 2022. Available at: https://www.gov.uk/government/publications/uk-climate-change-risk-assessment-2022.

Ref 43. Lowe, J. A., Harrison, M. and Perks, R. J. (2026). CCRA4-IA Technical Report. Available at: The Fourth Climate Change Risk Assessment – Independent Assessment (CCRA4-IA) Technical Report - UK Climate Risk

Ref 44. Department for Energy Security and Net Zero and Department for Business, Energy & Industrial Strategy (2021). Net Zero Strategy: Build Back Greener. Available at: https://www.gov.uk/government/publications/net-zero-strategy .

Ref 45. HM Government (2025). UK Infrastructure: A 10 Year Strategy. Available at: https://www.gov.uk/government/publications/uk-infrastructure-a-10-year-strategy

Ref 46. Regen (2024) Somerset Energy Investment Plan. Available at: https://democracy.somerset.gov.uk/documents/s27437/Appendix%20C%20Somerset%20Energy%20Plan%20FINAL%20v3.pdf

Ref 47. Somerset Council (2020). Somerset's Climate Emergency Strategy. Available at: https://www.somerset.gov.uk/climate-nature-and-water/somersets-climate-emergency-strategy/

Ref 48. Institute of Sustainability and Environmental Professionals (ISEP) (2026). Assessing Greenhouse Gas Emissions and Evaluating their Significance. Edition 2.1 with Supplementary Guidance. Available at: https://www.isepglobal.org/media/iimlrmqw/2026-04-comms-policy-ia-ghg-assessment.pdf

Ref 49. The British Standards Institution (BSI) (2023) PAS 2080:2023, Carbon management in buildings and infrastructure. Available at: https://www.bsigroup.com/en-GB/insights-and-media/insights/brochures/carbon-management-in-buildings-and-infrastructure/

Ref 50. Institute of Sustainability and Environmental Professionals (ISEP) (2022). Climate Change Adaptation Practitioner Guidance: climate-change-adaptation-practitioner-guidance.pdf

Ref 51. European Commission (2021). Technical guidance on the climate proofing of infrastructure in the period 2021–2027. Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52021XC0916%2803%29

Ref 52. World Business Council for Sustainable Development and World Resources Institute (2001). The GHG Protocol: A Corporate Accounting and

Reporting Standard. Available at: https://ghgprotocol.org/sites/default/files/standards/ghg-protocol-revised.pdf

Ref 53. DEFRA (2025). Agricultural Land Classification of England and Wales. Available at: https://publications.naturalengland.org.uk/publication/6257050620264448

Ref 54. UK Met Office Climate Data Portal. Available at: https://climatedataportal.metoffice.gov.uk/search?q=precipitation&tags=Climate%2CUK%2520observations%2520temperature

Ref 55. UK Climate Projections (UKCP18) (2019). Available at: https://www.metoffice.gov.uk/research/approach/collaboration/ukcp

Ref 56. BBC (2026). Is Storm Goretti the worst storm to hit the South West. Available at: https://www.bbc.co.uk/news/articles/czejy201r1eo

Ref 57. BBC (2025). Major incident in Somerset after Storm Herminia in the UK. Available at: https://www.bbc.co.uk/news/articles/c23np9mx5k3o

Ref 58. Met Office (2019). UK Climate Projections User Interface. Available at: https://ukclimateprojections-ui.metoffice.gov.uk/products

Ref 59. NASA (2024). IPCC AR6 Sea Level Projection Tool (n.d.). Available at: https://sealevel.nasa.gov/ipcc-ar6-sea-level-projection-tool.

Ref 60. UK Government. Greenhouse gas reporting: conversion factors 2025. Available at: https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2025

Ref 61. Circular Ecology. Embodied Carbon – The ICE Database (2025). Available at: https://circularecology.com/embodied-carbon-footprint-database.html

Ref 62. UK Government. Flood map for planning. Available at: https://flood-map-for-planning.service.gov.uk/map?lyr=&seg=fz,fzpd&cz=603055.1,125242.8,13.611111

Ref 63. Department for Energy Security and Net Zero (DESNZ) Carbon Budget and Growth Delivery Plan (2025). Available at: https://www.gov.uk/government/publications/carbon-budget-and-growth-delivery-plan

Ref 64. Climate Change Committee (2025). The Seventh Carbon Budget. Available at: The Seventh Carbon Budget - Climate Change Committee

Ref 65. Ancient Monuments and Archaeological Areas Act (1979) (c. 46). London: The Stationery Office. Available at: http://www.legislation.gov.uk/ukpga/1979/46/pdfs/ukpga_19790046_en (Accessed on: 27/07/2026)

Ref 66. National Heritage Act (1983). UK Public General Acts. Available at: https://www.legislation.gov.uk/ukpga/1983/47/contents (Accessed on: 27/07/2026)

Ref 67. Uk Public General Acts (2002). National Heritage Act 2002. UK Public General Acts. Available at: National Heritage Act 2002 (Accessed on: 27/07/2026)

Ref 68. HMSO (1990). Planning (Listed Buildings and Conservation Areas) Act. Available at: https://www.legislation.gov.uk/ukpga/1990/9/contents (Accessed on: 27/07/2026)

Ref 69. UK Statutory Instruments (1997). The Hedgerows Regulations 1997. Available at: The Hedgerows Regulations 1997

Ref 70. UK Statutory Instruments (2010). The infrastructure Planning (Decisions) Regulations 2010. Available at: https://www.legislation.gov.uk/uksi/2010/305/contents/made

Ref 71. Ministry of Housing, Communities and Local Government, Department for Levelling Up, Housing and Communities and Ministry of Housing, Communities & Local Government (2018 to 2021) (2019). Planning Practice Guidance (PPG): Historic Environment. Available at: https://www.gov.uk/guidance/conserving-and-enhancing-the-historic-environment (Accessed on: 27/07/2026)

Ref 72. Historic England (2015). Historic England Good Practice Advice in Planning: Managing Significance in Decision Taking in the Historic Environment. Available at: Managing Significance in Decision-Taking in the Historic Environment - Historic Environment Good Practice Advice in Planning: 2 | Historic England (Accessed on: 27/07/2026)

Ref 73. Historic England (2025). Historic England Advice Note 2: Making changes to heritage assets. Available at: https://historicengland.org.uk/images-books/publications/making-changes-heritage-assets-advice-note-2/ (Accessed: 15/09/2026)

Ref 74. Historic England (2017). Historic Environment Good Practice Advice in Planning Note 3. The Setting of Heritage Assets. Historic England (2nd edition, 2017). Available at: The Setting of Heritage Assets - Historic Environment Good Practice Advice in Planning: 3 (2nd Edition) | Historic England (Accessed on: 27/07/2026)

Ref 75. Historic England (2019). Statements of Heritage Significance. Available at: https://historicengland.org.uk/images-books/publications/statements-heritage-significance-advice-note-12/ (Accessed on: 27/07/2026)

Ref 76. Historic England (2026). Delivering Clean Power: Commercial Renewable Energy and the Historic Environment (2nd edition). Available at: Delivering Clean Power: Commercial Renewable Energy Development and the Historic Environment - Historic England Advice Note 15 (2nd ed) | Historic England (Accessed on: 27/07/2026)

Ref 77. CIfA (2025). Code of Conduct: professional ethics in archaeology. Available at: https://archaeologists.net/work/standards (Accessed on: 27/07/2026)

Ref 78. CIfA, IHBC and IEMA (2021). Principles of Cultural Heritage Impact Assessment in the UK. Institute of Environmental Management and Assessment, Chartered Institute for Archaeologists and the Institute of Historic Building Conservation. Available at: https://www.iema.net/resources/blog/2021/07/20/launch-of-principles-of-cultural-heritage-impact-assessment (Accessed on: 27/07/2026)

Ref 79. CIfA (2026). Association of Local Government Archaeological Officers (ALGAO), Archaeology and Solar Farms Good Practice Guide. Advice for Developers, Archaeological Advisors, Consultants and Contractors. Available at: Archaeology and Solar Farms Good Practice Guide published | CifA (Accessed on: 27/07/2026)

Ref 80. CIfA (2020). Standard and Guidance for Historic Environment Desk-Based Assessment. Available at: https://archaeologists.net/work/standards

Ref 81. Historic England, The National Heritage List for England. Available at: https://historicengland.org.uk/listing/the-list (Accessed on: 27/07/2026)

Ref 82. British Geological Survey (BGS) Online Viewer. Available at: https://www.bgs.ac.uk/map-viewers/bgs-geology-viewer/ (Accessed on: 27/07/2026)

Ref 83. UKHab Ltd. (2023). The UK Habitat Classification Version 2.0. [online] Available at: https://www.UKHab.org [Accessed July 2026].

Ref 84. CIEEM (2024). Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine. CIEEM, Winchester.

Ref 85. HMSO (1981). Wildlife & Countryside Act 1981 (as amended). [online] Available at: https://www.legislation.gov.uk/ukpga/1981/6 [Accessed July 2026].

Ref 86. HMSO (2017). The Conservation of Habitats and Species Regulations 2017. [online] Available at: http://www.legislation.gov.uk/uksi/2017/1012/contents/made [Accessed July 2026].

Ref 87. HMSO (2006). The Natural Environment and Rural Communities Act 2006. [online] Available at: https://www.legislation.gov.uk/ukpga/2006/16/contents [Accessed July 2026].

Ref 88. Ramsar Convention on Wetlands of International Importance especially as Waterfowl Habitat. United Nations Educational, Scientific and Cultural Organization (1971) [online]. Available at: https://www.ramsar.org/sites/default/files/documents/library/scan_certified_e.pdf [Accessed July 2026].

Ref 89. HMSO. (2019). The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019. [online] Available at: https://www.legislation.gov.uk/ukdsi/2019/9780111176573 [Accessed July 2026].

Ref 90. HMSO (2024). The Biodiversity Gain Requirements (Irreplaceable Habitat) Regulations 2024. [online] Available at:

https://www.legislation.gov.uk/uksi/2024/48/contents/made [Accessed October 2025].

Ref 91. HMSO (2000). Countryside and Rights of Way Act 2000. [online] Available at: https://www.legislation.gov.uk/ukpga/2000/37/contents [Accessed July 2026].

Ref 92. HMSO (1992). Protection of Badgers Act 1992. [online] Available at: https://www.legislation.gov.uk/ukpga/1992/51/contents [Accessed July 2026].

Ref 93. HMSO (1997). The Hedgerows Regulations 1997. [online] Available at: http://www.legislation.gov.uk/uksi/1997/1160/contents/made [Accessed July 2026].

Ref 94. HMSO (1996). Wild Mammals (Protection) Act 1996. [online] Available at: https://www.legislation.gov.uk/ukpga/1996/3/contents [Accessed July 2026].

Ref 95. HMSO (1975). Salmon and Freshwater Fisheries Act 1975. [online] Available at: https://www.legislation.gov.uk/ukpga/1975/51/contents [Accessed July 2026].

Ref 96. HMSO (2009). The Eels (England and Wales) Regulations 2009. [online] Available at: https://www.legislation.gov.uk/uksi/2009/3344 [Accessed July 2026].

Ref 97. HMSO (2019). The Invasive Alien Species (Enforcement and Permitting) Order 2019. [online] Available at: https://www.legislation.gov.uk/uksi/2019/527/made [Accessed July 2026].

Ref 98. European Council (EC) (1992). Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora. [online] Available at: https://www.legislation.gov.uk/eudr/1992/43/contents [Accessed July 2026].

Ref 99. EC (2009). Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds (codified version). EC, Brussels. [online] Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32009L0147 [Accessed July 2026]

Ref 100. EC (2000). Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy. [online] Available at: https://eur-lex.europa.eu/eli/dir/2000/60/oj/eng [Accessed July 2026]

Ref 101. His Majesty's Stationery Office (HMSO) (2017). The Water Environment (Water Framework Directive) (England and Wales) Regulations. [online] Available at: https://www.legislation.gov.uk/uksi/2017/407/contents/made [Accessed July 2026].

Ref 102. EC (2014). Regulation (EU) 1143/2014 (2014) of the European Parliament and of the Council on the prevention and management of the introduction and spread of invasive alien species (the IAS Regulation). [online].

Available at: https://www.legislation.gov.uk/eur/2014/1143/contents [Accessed July 2026]

Ref 103. Ministry of Housing, Communities and Local Government. (2026). National Planning Policy Framework [online]. Available at: https://assets.publishing.service.gov.uk/media/6a8334c03bd75b81e2329ac4/National_Planning_Policy_Framework.pdf [Accessed August 2026].

Ref 104. Ministry of Housing, Communities and Local Government. (2026). National Planning Policy Framework [online]. Available at: https://assets.publishing.service.gov.uk/media/6a8334c03bd75b81e2329ac4/National_Planning_Policy_Framework.pdf [Accessed August 2026].

Ref 105. Somerset Council (2026). A Vision for Somerset, Local Nature Recovery Strategy. [online] Available at: https://www.somerset.gov.uk/planning-buildings-and-land/somersets-local-nature-recovery-strategy/ [Accessed July 2026].

Ref 106. Somerset County Council (2018). Pollinator Action Plan 2018-2028. Available at: https://sheptonbeauchamp-pc.gov.uk/wp-content/uploads/2020/01/Somerset-County-Council-Pollinator-Action-Plan-min-1.pdf [Accessed July 2026].

Ref 107. Somerset County Council (2008). Wild Somerset! 2008-2018, Somerset Biodiversity Strategy. Available at: https://modgov.southsomerset.gov.uk/Data/District%20Executive/20081106/Agenda/8B.pdf%2006-11-2008.pdf [Accessed July 2026].

Ref 108. North Somerset Council (2026). North Somerset and Mendip Bats Special Area of Conservation (SAC) Supplementary Planning Document Version 2

Ref 109. Defra (2011). Biodiversity 2020: A strategy for England's wildlife and ecosystem services. [online] Available at: https://assets.publishing.service.gov.uk/media/5a78c263ed915d04220651ea/pb13583-biodiversity-strategy-2020-111111.pdf [Accessed July 2026].

Ref 110. BRE National Solar Centre (2014) Biodiversity Guidance for Solar Developments. Eds G E Parker and L Greene. [online] Available at: https://files.bregroup.com/bre-co-uk-file-library-copy/filelibrary/pdf/Brochures/NSC-Biodiversity-Guidance.pdf [Accessed July 2026].

Ref 111. Natural England and DEFRA (updated 2023). Protected species and development: advice for local planning authorities. [online] Available at: https://www.gov.uk/guidance/protected-species-how-to-review-planning-applications [Accessed July 2026].

Ref 112. HMSO (1994). Biodiversity: The UK Action Plan. [online] Available at: https://assets.publishing.service.gov.uk/media/5a7ced59ed915d2017106d17/2428.pdf [Accessed July 2026].

Ref 113. JNCC on behalf of the Four Countries' Biodiversity Group. (2024). UK Biodiversity Framework. [online] Available at: https://data.jncc.gov.uk/data/19a729f6-440e-4ac6-8894-cc72e84cc3bb/uk-biodiversity-framework.pdf [Accessed July 2026].

Ref 114. The International Union for Conservation of Nature (IUCN) (2024). The IUCN Red List of Threatened Species. [online] Available at: https://www.iucnredlist.org/e [Accessed July 2026].

Ref 115. Bennun, L., van Bochove, J., Ng, C., Fletcher, C., Wilson, D., Phair, N. and Carbone, G. (2021). Mitigating biodiversity impacts associated with solar and wind energy development. Guidelines for project developers. Gland, Switzerland: IUCN and Cambridge, UK: The Biodiversity Consultancy.

Ref 116. Natural England (2016). Evidence review of the impact of solar farms on birds, bats and general ecology 2016 (NEER012). [online] Available at: https://publications.naturalengland.org.uk/publication/6384664523046912 [Accessed July 2026].

Ref 117. Natural England (2011). Natural England Technical Information Note TIN101 Solar parks: Maximising Environmental Benefits. [online] Available at: https://webarchive.nationalarchives.gov.uk/ukgwa/20150902172007/http://publications.naturalengland.org.uk/publication/32027 [Accessed July 2026].

Ref 118. JNCC (2022). The Guidelines for the Selection of Biological Sites of Special Scientific Interest (SSSIs). [online] Available at: https://jncc.gov.uk/our-work/guidelines-for-selection-of-sssis [Accessed July 2026].

Ref 119. State of Nature Partnership (2023). State of Nature 2023. [online] Available at: https://stateofnature.org.uk/wp-content/uploads/2023/09/TP25999-State-of-Nature-main-report_2023_FULL-DOC-v12.pdf [Accessed July 2026].

Ref 120. Somerset Environmental Records Centre (2010). Somerset Local Wildlife Sites And Local Geological Sites Manual Policies and Procedures for the Identification and Designation of Wildlife Sites. Available at: https://wp.somerc.co.uk/wp-content/uploads/2017/04/Somerset-Local-Sites-Guidelines-2010.pdf [Accessed July 2026].

Ref 121. Somerset Environmental Records Centre (SERC) (2026). https://www.somerc.com/ [Accessed March 2026].

Ref 122. Defra (2026). MAGIC Multi-Agency Geographic Information for the Countryside (MAGIC). https://magic.defra.gov.uk/MagicMap.html [Accessed July 2026].

Ref 123. Natural England Open Data Geoportal. Ancient Woodland (England). [online] Available at: https://naturalengland-defra.opendata.arcgis.com/datasets/ancient-woodland-england/explore?location=52.900079%2C-2.004678%2C6 [Accessed July 2026].

Ref 124. Natural England (2026). Ancient Tree Inventory. https://ati.woodlandtrust.org.uk/ [Accessed July 2026].

Ref 125. Ordnance Survey (2026). https://www.ordnancesurvey.co.uk/ [Accessed March 2026].

Ref 126. Ramsar. Ramsar Sites Information Service. [online] Available at: https://rsis.ramsar.org [Accessed July 2026].

Ref 127. Natural England. Designated Sites View. [online] Available at: https://designatedsites.naturalengland.org.uk [Accessed July 2026].

Ref 128. Natural England. SSSI Impact Risk Zones (England). [online] Available at: https://naturalengland-defra.opendata.arcgis.com/datasets/Defra::sssi-impact-risk-zones-england/about [Accessed July 2026].

Ref 129. Defra and Environment Agency (EA). Ecology & Fish Data Explorer. [online] Available at: https://environment.data.gov.uk/ecology/explorer [Accessed July 2026]

Ref 130. Defra and EA. Catchment Data Explorer. [online] Available at: https://environment.data.gov.uk/catchment-planning [Accessed July 2026]

Ref 131. National Biodiversity Network (NBN). NBN Atlas. [online] Available at: https://nbnatlas.org/#:~:text=The%20NBN%20Atlas-,The%20NBN%20Atlas%20is%20the%20UK's%20largest%20repository%20of%20publicly,data%20flow%20for%20nature's%20recovery [Accessed July 2026].

Ref 132. Somerset County Council (2019). Exmoor and Quantocks Oak Woodlands Special Area of Conservation (SAC) Guidance on Development Version 2.1

Ref 133. Somerset County Council (2019). Hestercombe House Special Area of Conservation (SAC) Guidance on Development Version 2.2

Ref 134. Rodwell, J. S. (1992). British Plant Communities. Volume 3: Grasslands and montane communities. Cambridge: Cambridge University Press.

Ref 135. British Geological Survey (BGS). (2020). Geology of Britain Viewer: Mark and the Brue Valley Bedrock and Superficial Deposits. BGS/NERC.

Ref 136. Williams, M. (1970). *The Draining of the Somerset Levels*. Cambridge University Press.

Ref 137. Wells, D.; Chanin, P. & Gubert, L. (2025). Hazel Dormouse Mitigation Handbook. Mammal Society.

Ref 138. Harrington, A., Rothwell, A., Harrington, L. A., Dalton, L., and Campbell, R. D. (2023). Wild beaver population assessment on the River Avon and tributaries. Natural England Commissioned Report NECR470.

Ref 139. Botanical Society of Britain and Ireland (BSBI) (2021) Updated Vascular Plant Red List for Great Britain. [online] Available at: http://bsbipublicity.blogspot.com/2021/02/updated-vascular-plant-red-list-for.html [Accessed July 2026].

Ref 140. Stroh, P.A., Leach, S.J., November, T.A., Walker, K.J., Pearman, D.A., Rumsey, F.J., Harrower, C.A., Fay, M.F., Martin, J.P., Pankhurst, T., Preston, C.D.

and Taylor, I. (2014). A Vascular Plant Red List for England. Botanical Society of Britain and Ireland, Bristol.

Ref 141. Stace, C.A. (2019). New Flora of the British Isles, 4th edition. C&M Floristics.

Ref 142. Defra (2007). Hedgerow Survey Handbook: A standard procedure for local surveys in the UK (2nd edition). [online]. Available at: https://www.hedgelink.org.uk/cms/cms_content/files/89_hedgerow-survey-handbook.pdf [Accessed July 2026].

Ref 143. Department for Environment Food & Rural Affairs, Natural England, NCEA (2025). England Peat Map [online] Available at: https://englandpeatmap-defra.hub.arcgis.com/ [Accessed August 2026]

Ref 144. WFD-UKTAG (Water Framework Directive – United Kingdom Advisory Group) (2014). UKTAG River Assessment Method Macrophytes and Phytobenthos: Macrophytes (River LEAFPACS2).

Ref 145. EA (2017). Freshwater macro-invertebrate sampling in rivers. Operational Instruction 018_08. Environment Agency, Bristol, UK.

Ref 146. Beaumont, W. R. C., Taylor, A. A. L., Lee, M. J., & Welton, J. S. (2002). Guidelines for electric fishing best practice. Environment Agency R&D Technical Report W2-054/TR.

Ref 147. EA (2002). A guide to monitoring the ecological quality of ponds and canals using Predictive System for Multimetrics (PSYM). [online] Available at: https://freshwaterhabitats.org.uk/wp-content/uploads/2013/09/NPMN_PSYM_MANUAL_July09.pdf [Accessed July 2026].

Ref 148. Gurnell et al. (2019). The MoRPh Survey: A Modular River Physical Survey Field Guide.

Ref 149. Gurnell et al. (2020). A guide to assessing River Condition Part of the Rivers and Streams Component of the Biodiversity Net Gain Metric.

Ref 150. Butterfly Conservation (2026). Small heath. [online] Available at: https://butterfly-conservation.org/butterflies/small-heath [Accessed August 2026].

Ref 151. Butterfly Conservation (2026). Wall. [online] Available at https://butterfly-conservation.org/butterflies/wall [Accessed August 2026].

Ref 152. Collins, J (editor) (2023) Bat Surveys for Professional Ecologists Good Practice Guidelines 4th edition.

Ref 153. Oldham, R.S., Keeble, J., Swan, M.J.S. and Jeffcote, M. (2000) Evaluating the Suitability of Habitat for the Great Crested Newt (Triturus cristatus). Herpetological Journal, Vol. 10, pp. 143-155.

Ref 154. Biggs, J., Ewald N., Valentini, A., Gaboriaud C., Griffiths, R.A., Foster, J., Wilkinson, J., Arnett, A., Williams, P. and Dunn, F. 2014. Analytical and

methodological development for improved surveillance of the Great Crested Newt. DEFRA Project WC1067. Freshwater Habitats Trust: Oxford.

Ref 155. English Nature (2001). Great Crested Newt Mitigation Guidelines. English Nature, Peterborough.

Ref 156. Froglife (1999) Reptile survey: An introduction to planning, conducting and interpreting surveys for snake and lizard conservation. Froglife Advice Sheet 10. Froglife, London.

Ref 157. Sewell D., Griffith R.A., Beebee, T.J.C., Foster J. and Wilkinson J.W. (2013) Survey Protocols for the British Herpetofauna Version 1.0. Amphibian and Reptile Conservation Trust, University of Kent, University of Sussex. [online] Available at: https://www.arc-trust.org/Handlers/Download.ashx?IDMF=7c736bcd-9dde-4473-8115-12cf9a5d7462 [Accessed July 2026].

Ref 158. Bibby, C.J., Burgess, N.D., Hill, D.A. & Mustoe, S. 2000. Bird Census Techniques. Second Edition. Academic Press, London.

Ref 159. BTO (2019). WeBS Core Counts.

Ref 160. Cutts, N., Hemingway, K., and Spencer J. (2013). Waterbird Disturbance Mitigation Toolkit, informing estuarine planning and construction projects. Version 3.2. University of Hull.

Ref 161. Bibby, C.J., Burgess, N.D. and Hill, D.A. (1992) Bird Census Techniques. The University Press, Cambridge.

Ref 162. Gilbert G., Gibbons D.W. and Evans J. (1998) Bird Monitoring Methods: A manual of techniques for key UK species. RSPB, Bedfordshire.

Ref 163. Disturbance Distances in selected Scottish Bird Species – NatureScot Guidance. [online] Available at: https://www.nature.scot/doc/disturbance-distances-selected-scottish-bird-species-naturescot-guidance [Accessed July 2026].

Ref 164. Shawyer, C. R. (2011). Barn Owl *Tyto alba* Survey Methodology and Techniques for use in Ecological Assessment: Developing Best Practice in Survey and Reporting. IEEM. Winchester.

Ref 165. Environment Agency (2010). Managing Invasive Non-Native Plants. [online] Available at: https://www.nonnativespecies.org/assets/Managing_invasive_non-native_plants_-_Environment_Agency_2010-2.PDF [Accessed August 2026].

Ref 166. Strachan, R., Moorhouse, T. and Gelling, M. (2011). Water Vole Conservation Handbook. Third Edition. WildCRU, University of Oxford.

Ref 167. Dean, M., Strachan, R. Gow, D. and Andrews, R. (2016). The Water Vole Mitigation Handbook (The Mammal Society Mitigation Guidance Series). Eds Matthews, F. and Chanin, P. The Mammal Society, London.

Ref 168. RSPB, NRA and RSNC (1994). The New Rivers & Wildlife Handbook. RSPB.

Ref 169. EA (2011). Fifth otter survey of England 2009 – 2010.

Ref 170. Chanin, P. (2003). Ecology of European Otter. Conserving Natura 2000 Rivers Ecology Series No.10 English Nature.

Ref 171. Campbell-Palmer et al. (2021). Using field sign surveys to estimate spatial distribution and territory dynamics following reintroduction of the Eurasian beaver to British river catchments. River Research and Applications, Vol. 37, Issue 3, pp. 343-357.

Ref 172. DEFRA (2025). Recording beavers and data sharing. [online] Available at: https://www.gov.uk/government/publications/recording-beavers-and-data-sharing/recording-beavers-and-data-sharing#:~:text=Surveys%20should%20include%20a%20minimum%20of%202km,or%20rock.%20Beaver%20activities%20to%20look%20for. [Accessed August 2026].

Ref 173. Bullon, S., Wolton, R. and White, I. (2025). Hazel Dormouse Conservation Handbook, Third Edition. Mammal Society.

Ref 174. Harris, S., Cresswell, P. and Jefferies D (1989). Surveying Badgers

Ref 175. Scottish Badgers (2018). Surveying for Badgers: Good Practice Guidelines. Version 1.Bullon, S., Wolton, R. and White, I. (2025).

Ref 176. British Standards Institute (BSI) (2012). BS 5837:2012 Trees in relation to design, demolition and construction – recommendations.

Ref 177. Defra (2023) Statutory biodiversity metric tools and guides. [online] Available at: https://www.gov.uk/government/publications/statutory-biodiversity-metric-tools-and-guides [Accessed July 2026].

Ref 178. DEFRA (2026). Nationally significant infrastructure projects: biodiversity gain statement for energy. Presented to Parliament pursuant to paragraph 9(6)(a) of Schedule 2A to the Planning Act 2008. Available at: https://assets.publishing.service.gov.uk/media/6a185a1765bc5f798327f4c5/biodiversity-gain-statement-for-energy.pdf [Accessed July 2026]

Ref 179. Flood and Water Management Act 2010. Available at: https://www.legislation.gov.uk/ukpga/2010/29/contents [Accessed 06 August 2026]

Ref 180. Water Resources Act 1991 (Amendment) (England and Wales) Regulations 2009. Available at: https://www.legislation.gov.uk/uksi/2009/3104/contents [Accessed 06 August 2026]

Ref 181. Marine and Coastal Access Act 2009. Available at: https://www.legislation.gov.uk/ukpga/2009/23/contents [Accessed 06 August 2026]

Ref 182. Land Drainage Act 1991. Available at: https://www.legislation.gov.uk/ukpga/1991/59 [Accessed 06 August 2026].

Ref 183. Water Resources Act 1991. Available at: https://www.legislation.gov.uk/ukpga/1991/57/contents [Accessed 06 August 2026].

Ref 184. Environmental Protection Act 1990. Available at: https://www.legislation.gov.uk/ukpga/1990/43/contents [Accessed 03 September 2026]

Ref 185. Environmental Damage (Prevention and Remediation) Regulations 2015 Available at: https://www.legislation.gov.uk/uksi/2015/810/contents [Accessed 06 August 2026].

Ref 186. Environmental Permitting (England and Wales) Regulations 2016 Available at: https://www.legislation.gov.uk/uksi/2016/1154/contents [Accessed 06 August 2026]

Ref 187. HM Government. Building Regulations 2010 (updated 2015): Approved Document H, Drainage and Waste Disposal. Available at: https://assets.publishing.service.gov.uk/media/5a80cf9ded915d74e33fc8ae/BR_PDF_AD_H_2015.pdf [Accessed 06 August 2026].

Ref 188. Control of Substances Hazardous to Health (Amendment) Regulations 2004 Available at: https://www.legislation.gov.uk/uksi/2004/3386/contents [Accessed 06 August 2026].

Ref 189. Control of Pollution (Oil Storage) (England) Regulations 2001 Available at: https://www.legislation.gov.uk/uksi/2001/2954/contents [Accessed 06 August 2026].

Ref 190. Anti-Pollution Works Regulations 1999 Available at: https://www.legislation.gov.uk/uksi/1999/1006/contents/made [Accessed 06 August 2026].

Ref 191. Water Framework Directive (Standards and Classification) Directions 2015 Available at: https://www.legislation.gov.uk/uksi/2015/1623/pdfs/uksiod_20151623_en_auto.pdf [Accessed 06 August 2026].

Ref 192. Water Supply (Water Quality) (Amendment) Regulations 2018 Available at: https://www.legislation.gov.uk/uksi/2018/706/made [Accessed 06 August 2026].

Ref 193. Ministry of Housing, Communities and Local Government. National Planning Policy Framework (2026). Available at: https://www.gov.uk/guidance/national-planning-policy-framework [Accessed 19 August 2026].

Ref 194. Water UK. Appendix C Design and Construction Guidance (2023). Available at: https://www.water.org.uk/sewerage-sector-guidance-approved-documents [Accessed 08 October 2026].

Ref 195. GOV.UK. 25 Year Environment Plan. Available at: https://www.gov.uk/government/publications/25-year-environment-plan [Accessed 07 August 2026].

Ref 196. GOV.UK. Plan for Water: Our Integrated Plan for Delivering Clean and Plentiful Water (2023). Available at: https://www.gov.uk/government/publications/plan-for-water-our-integrated-plan-for-delivering-clean-and-plentiful-water [Accessed 07 August 2026]

Ref 197. GOV.UK. Future Water: The Government's Water Strategy for England. Available at: https://www.gov.uk/government/publications/future-water-the-government-s-water-strategy-for-england [Accessed 07 August 2026].

Ref 198. National Standards for Sustainable Drainage Systems (SuDS) Available at: https://www.gov.uk/government/publications/national-standards-for-sustainable-drainage-systems/national-standards-for-sustainable-drainage-systems-suds [Accessed 14 August 2026].

Ref 199. Water Quality and Nutrient Neutrality Advice (2022) Available at: https://publications.naturalengland.org.uk/publication/4792131352002560 [Accessed 14 August 2026].

Ref 200. Sedgemoor Level 1 Strategic Flood Risk Assessment (2015) Available at: https://www.somerset.gov.uk/planning-buildings-and-land/local-plan-evidence-base-and-monitoring/ [Accessed 08 October 2026].

Ref 201. Sedgemoor Level 2 Strategic Flood Risk Assessment (2009) Available at: https://www.somerset.gov.uk/planning-buildings-and-land/local-plan-evidence-base-and-monitoring/ [Accessed 08 October 2026].

Ref 202. Bridgwater Tidal Barrier Sites 4 & 5 Residual Flood Risk Assessment (2017). Available at: https://www.somerset.gov.uk/planning-buildings-and-land/local-plan-evidence-base-and-monitoring/ [Accessed 06 August 2026].

Ref 203. West of England Authorities. West of England Sustainable Drainage Developer Guide. Available at: https://www.somerset.gov.uk/planning-buildings-and-land/sustainable-drainage-in-somerset/#Downloads [Accessed 07 August 2026].

Ref 204. Somerset Council. Nutrient Neutrality in Somerset: Guidance for Applicants (2026). Available at: https://www.somerset.gov.uk/planning-buildings-and-land/phosphates-guidance-template-documents-and-useful-information/ [Accessed 07 August 2026].

Ref 205. GOV.UK. Planning Practice Guidance. Available at: https://www.gov.uk/government/collections/planning-practice-guidance [Accessed 06 August 2026].

Ref 206. Environment Agency. Flood Risk Assessments Climate Change Allowances. Available at: https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances [Accessed 06 August 2026].

Ref 207. CIRIA. CIRIA Guidance. Available at: https://www.ciria.org/ci/Civil_infrastructure/CIRIA_guidance.aspx [Accessed 06 August 2026].

Ref 208. CIRIA (2001). C532: Control of Water Pollution from Construction Sites: Guidance for Consultants and Contractors. Available at: https://www.ciria.org/CIRIA/CIRIA/Item_Detail.aspx?iProductCode=C532 [Accessed 06 August 2026].

Ref 209. CIRIA (2006). C648: Control of Water Pollution from Linear Construction Projects: Technical Guidance. Available at: https://www.ciria.org/CIRIA/CIRIA/Item_Detail.aspx?iProductCode=C648 [Accessed 06 August 2026].

Ref 210. CIRIA (2023). C811: Environmental Good Practice on Site Guide (Fifth Edition). Available at: https://www.ciria.org/ci/iCore/Store/StoreLayouts/Item_Detail.aspx?iProductCode=C811&Category=BOOK [Accessed 06 August 2026].

Ref 211. CIRIA (2016). C750: Groundwater Control: Design and Practice (Second Edition). Available at: https://www.ciria.org/CIRIA/CIRIA/Item_Detail.aspx?iProductCode=C750&Category=BOOK [Accessed 06 August 2026].

Ref 212. Environment Agency (2018). The Environment Agency's Approach to Groundwater Protection. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/692989/Envirnment-Agency-approach-to-groundwater-protection.pdf [Accessed 06 August 2026].

Ref 213. Environment Agency (2007) Hydrogeological impact appraisal for groundwater abstractions. Science Report – SC040020/SR2. Available at: https://assets.publishing.service.gov.uk/media/5a7c4eade5274a2041cf31ec/scho0407bmah-e-e.pdf [Accessed 04 September 2026]

Ref 214. Environment Agency (2007) Hydrogeological impact appraisal for dewatering abstractions. Science Report – SC040020/SR1. Available at: https://www.gov.uk/government/publications/hydrogeological-impact-appraisal-for-dewatering-abstractions [Accessed 04 September 2026]

Ref 215. Environment Agency (2025). Protect Groundwater and Prevent Groundwater Pollution. Available at: https://www.gov.uk/guidance/protect-groundwater-and-prevent-groundwater-pollution [Accessed 06 August 2026].

Ref 216. Environment Agency (2017). Groundwater Protection Technical Guidance. Available at: https://www.gov.uk/guidance/groundwater-protection-technical-guidance [Accessed 06 August 2026].

Ref 217. UK Technical Advisory Group (UKTAG) (2003). Water Framework Directive UK Risk Assessment of Groundwater-Dependent Terrestrial Ecosystems. Available at: https://www.wfduk.org/sites/default/files/Media/Characterisation%20of%20the%2

0water%20environment/Risk%20assessment%20of%20terrestrial%20ecosystems%20groundwater_Draft_210104.pdf [Accessed 06 August 2026].

Ref 218. GOV.UK. Oil Storage Regulations for Businesses. Available at: https://www.gov.uk/guidance/storing-oil-at-a-home-or-business [Accessed 06 August 2026].

Ref 219. GOV.UK. Pollution Prevention for Businesses. Available at: https://www.gov.uk/guidance/pollution-prevention-for-businesses [Accessed 06 August 2026].

Ref 220. GOV.UK. Nationally Significant Infrastructure Projects: Advice on the Water Framework Directive. Available at: https://www.gov.uk/guidance/nationally-significant-infrastructure-projects-advice-on-the-water-framework-directive [Accessed 06 August 2026].

Ref 221. Ordnance Survey. OpenStreetMap Online. Available at: https://os.openstreetmap.org/ [Accessed 06 August 2026].

Ref 222. Met Office. Climate Averages Data. Available at: https://www.metoffice.gov.uk/research/climate/maps-and-data/location-specific-long-term-averages [Accessed 13 August 2026].

Ref 223. Environment Agency. Catchment Data Explorer. Available at: https://environment.data.gov.uk/catchment-planning [Accessed 06 August 2026].

Ref 224. Environment Agency. Water Quality Explorer. Available at: https://environment.data.gov.uk/water-quality-beta [Accessed 06 August 2026].

Ref 225. Environment Agency. Main River Network Mapping Tool. Available at: https://environment.maps.arcgis.com/apps/webappviewer/index.html?id=17cd53dfc524433980cc333726a56386 [Accessed 06 August 2026].

Ref 226. DEFRA. Hydrology Data Explorer Website. Available at: https://environment.data.gov.uk/hydrology/landing [Accessed 04 September 2026].

Ref 227. British Geological Survey. GeoIndex Onshore. Available at: https://www.bgs.ac.uk/map-viewers/geoindex-onshore/ [Accessed 06 August 2026].

Ref 228. DEFRA. Survey Data Download. Available at: https://environment.data.gov.uk/survey [Accessed 06 August 2026].

Ref 229. National River Flow Archive (NRFA). Data Search. Available at: https://nrfa.ceh.ac.uk/data/search [Accessed 06 August 2026].

Ref 230. Natural England. Designated Sites System. Available at: https://designatedsites.naturalengland.org.uk/ [Accessed 06 August 2026].

Ref 231. Cranfield University. Soilscapes. Available at: https://www.landis.org.uk/soilscapes/ [Accessed 06 August 2026].

Ref 232. GOV.UK. Flood Map for Planning. Available at: https://flood-map-for-planning.service.gov.uk/ [Accessed 06 August 2026].

Ref 233. GOV.UK. Check Long Term Flood Risk. Available at: https://www.gov.uk/check-long-term-flood-risk [Accessed 06 August 2026].

Ref 234. Environment Agency. Asset Information and Management System (AIMS) Dataset (2026). Available at: https://www.data.gov.uk/dataset/a3861a23-78a1-438d-8c36-1f9f1133c572/aims-asset-bundle [Accessed 14 August 2026].

Ref 235. Association of Drainage Authorities. Internal Drainage Board Map. Available at: https://www.ada.org.uk/idb-map/ [Accessed 06 August 2026].

Ref 236. Somerset Rivers. Cripps River. Available at: https://somersetrivers.uk/somerset-rivers/somerset-levels/cripps-river/ [Accessed 14 August 2026].

Ref 237. Environment Agency (2025). South and West Somerset abstraction licensing strategy. Available at https://www.gov.uk/government/publications/south-and-west-somerset-abstraction-licensing-strategy/south-and-west-somerset-abstraction-licensing-strategy. [Accessed 17 September 2026]

Ref 238. Natural England. Tealham and Tadham Moors Site of Special Scientific Interest (SSSI) Citation. Available at: https://designatedsites.naturalengland.org.uk/PDFsForWeb/Citation/1001081.pdf [Accessed 14 August 2026].

Ref 239. Natural England. Catcott, Edington and Chilton Moors Site of Special Scientific Interest (SSSI) Citation. Available at: https://designatedsites.naturalengland.org.uk/PDFsForWeb/Citation/1003888.pdf [Accessed 14 August 2026].

Ref 240. Natural England. Bridgwater Bay Site of Special Scientific Interest (SSSI) Citation. Available at: https://designatedsites.naturalengland.org.uk/PDFsForWeb/Citation/1001145.pdf [Accessed 14 August 2026].

Ref 241. National Highways. DMRB LA 113: Road Drainage and the Water Environment. Available at: https://www.standardsforhighways.co.uk/search/d6388f5f-2694-4986-ac46-b17b62c21727 [Accessed 06 August 2026].

Ref 242. National Highways. DMRB LA 104: Environmental Assessment and Monitoring. Available at: https://www.standardsforhighways.co.uk/search/0f6e0b6a-d08e-4673-8691-cab564d4a60a [Accessed 06 August 2026].

Ref 243. CIRIA (2015). The SuDS Manual (C753). Available at: https://www.ciria.org/CIRIA/Books/Free_publications/C753F.aspx [Accessed 04 September 2026].

Ref 244. Legislation.gov.uk. Levelling-up and Regeneration Act (2023) Available at: https://www.legislation.gov.uk/ukpga/2023/55 [13 August 2026]

Ref 245. Ministry of Housing, Communities and Local Government. National Planning Policy Framework (2026). Available at:

https://www.gov.uk/guidance/national-planning-policy-framework [19 August 2026]

Ref 246. Ministry of Housing, Communities and Local Government. Planning Practice Guidance (PPG) Design: Process and Tools (2019) Available at: https://www.gov.uk/guidance/design [13 August 2026]

Ref 247. Ministry of Housing, Communities and Local Government. Design and Placemaking Planning Practice Guidance: consultation document (2026). Available at: https://www.gov.uk/government/consultations/design-and-placemaking-planning-practice-guidance/design-and-placemaking-planning-practice-guidance [13 August 2026]

Ref 248. Ministry of Housing, Communities and Local Government. Planning Practice Guidance (PPG) Light Pollution (2019) Available at: https://www.gov.uk/guidance/light-pollution [13 August 2026]

Ref 249. Ministry of Housing, Communities and Local Government. Planning Practice Guidance (PPG) Natural Environment (2025) Available at: https://www.gov.uk/guidance/natural-environment [13 August 2026]

Ref 250. Ministry of Housing, Communities and Local Government. Planning Practice Guidance (PPG) Renewable and Low Carbon Energy (2023) Available at: https://www.gov.uk/guidance/renewable-and-low-carbon-energy [13 August 2026]

Ref 251. Department for Environment, Food & Rural Affairs. Guidance for relevant authorities on seeking to further the purposes of Protected Landscapes (2024) Available at: https://www.gov.uk/government/publications/the-protected-landscapes-duty/guidance-for-relevant-authorities-on-seeking-to-further-the-purposes-of-protected-landscapes [13 August 2026]

Ref 252. Somerset Council. Planning, Implementing and Maintaining Landscape Schemes on Development Sites (August 2023). Available at: https://www.somerset.gov.uk/planning-buildings-and-land/landscape-and-planning/ [21 October 2026]

Ref 253. North Somerset Council. North Somerset: Core Strategy (2017) Available at: https://n-somerset.gov.uk/sites/default/files/2022-06/A1%20-%20North%20Somerset%20core%20strategy.pdf [13 August 2026]

Ref 254. North Somerset Council. North Somerset Development Management Policies Sites and Policies Plan Part 1 (2016) Available at: https://n-somerset.gov.uk/sites/default/files/2020-04/sites%20and%20policies%20plan%20part%201%20development%20management%20policies%20July%202016.pdf [13 August 2026]

Ref 255. North Somerset Council. North Somerset Local Plan 2041 Pre-submission Plan (Reg 19) (2025) Available at: https://n-somerset.gov.uk/sites/default/files/2025-10/Local%20Plan%202041%20-%20pre%20submission%20plan.pdf [13 August 2026]

Ref 256. Mendip Hills National Landscape. Mendip Hills National Landscape Management Plan 2025-2030 (Adopted August 2026) Available at: https://mendiphills-nl.org.uk/wp-content/uploads/2026/09/Adopted-MHNL-Management-Plan-2025-2030-August-2026.pdf [13 August 2026]

Ref 257. Mendip Hills Partnership. Mendip Hills Area of Outstanding Natural Beauty (AONB) Position Statement: Solar Photovoltaic (PV) Development (2012). Available at: https://mendiphills-nl.org.uk/wp-content/uploads/2012/06/Paper-B-DRAFT-Mendip-Hills-AONB-Solar-Phot… [01 September 2026]

Ref 258. Mendip Hills Partnership. Dark Night Skies in the Mendip Hills – National Landscape Statement Jan 2022. Available at: https://mendiphills-nl.org.uk/wp-content/uploads/2022/01/Dark-Skies-in-the-Mendip-Hills-AONB_statement-Revised-Jan-2022.pdf [13 October 2026]

Ref 259. Landscape Institute and IEMA. (2013) Guidelines on Landscape and Visual Impact Assessment. Oxon. Routledge.

Ref 260. Natural England. An Approach to Landscape Character Assessment (2014) Available at: https://assets.publishing.service.gov.uk/media/5aabd31340f0b64ab4b7576e/landscape-character-assessment.pdf [13 August 2026]

Ref 261. Landscape Institute. Technical Information Note 05/2017: Townscape Character Assessment (2017) https://landscapewpstorage01.blob.core.windows.net/www-landscapeinstitute-org/2018/04/tin-05-2017-townscape.pdf [13 August 2026]

Ref 262. Landscape Institute. Technical Guidance Note 2/19 Residential Visual Amenity Assessment (2019) Available at: https://landscapewpstorage01.blob.core.windows.net/www-landscapeinstitute-org/2019/03/tgn-02-2019-rvaa.pdf [13 August 2026]

Ref 263. Landscape Institute. Technical Guidance Note 06/19 Visual Representation of development proposals (2019) Available at: https://landscapeinstitute.org/wp-content/uploads/2019/09/LI_TGN-06-19_Visual_Representation-1.pdf [13 August 2026]

Ref 264. Landscape Institute. Technical Guidance Note 02/21: Assessing landscape value outside national designations (2021) Available at: https://landscapewpstorage01.blob.core.windows.net/www-landscapeinstitute-org/2021/05/tgn-02-21-assessing-landscape-value-outside-national-designations.pdf [13 August 2026]

Ref 265. Landscape Institute. Technical Guidance Note 01/24 Notes and Clarifications on Aspects of Guidelines for Landscape and Visual Impact Assessment Third Edition (2024) Available at: https://landscapeinstitute.org/wp-content/uploads/2024/08/LITGN-2024-01-GLVIA3-NC_Aug-2024.pdf [13 August 2026]

Ref 266. Natural England. National Character Area 142 Somerset Levels and Moors. Available at: https://nationalcharacterareas.co.uk/Somerset-Levels-and-Moors/ [13 August 2026]

Ref 267. Natural England. National Character Area 143 Mid Somerset Hills. Available at: https://nationalcharacterareas.co.uk/mid-somerset-hills-2/ [13 August 2026]

Ref 268. Natural England. National Character Area 141 Mendip Hills. Available at: https://nationalcharacterareas.co.uk/mendip-hills/ [13 August 2026]

Ref 269. Somerset Council. Somerset Landscape Character Assessment (2024) Available at: https://somerset.digital/landscape-character-assessment/ [13 August 2026]

Ref 270. Somerset Council. Somerset Landscape Character Assessment (2024) LCT 10: Levels. Available at: https://somerset.digital/landscape-character-assessment/landscape-profiles/lct-10-levels/ [13 August 2026]

Ref 271. Somerset Council. Somerset Landscape Character Assessment (2024) LCT 11: Peat and Clay Moors. Available at: https://somerset.digital/landscape-character-assessment/landscape-profiles/lct-11-peat-and-clay-moors/ [13 August 2026]

Ref 272. Somerset Council. Somerset Landscape Character Assessment (2024) LCT 12: Limestone Lowland Hills. Available at: https://somerset.digital/landscape-character-assessment/landscape-profiles/lct-12-limestone-lowland-hills/ [13 August 2026]

Ref 273. Somerset Council. Somerset Landscape Character Assessment (2024) LCT 2: Wooded Limestone Slopes. Available at: https://somerset.digital/landscape-character-assessment/landscape-profiles/lct-2-wooded-limestone-slopes/ [13 August 2026]

Ref 274. North Somerset Council. Landscape Character Assessment Supplementary Planning Guidance (2018) Available at: https://n-somerset.gov.uk/sites/default/files/2020-03/Landscape%20character%20assessment%20September%202018.pdf [13 August 2026]

Ref 275. British Standards Institute (2014). BS 5228-1:2009+A1:2014 – Code of practice for noise and vibration control on construction and open sites – Part 1: Noise. London: BSI.

Ref 276. Highways England (2020). Design Manual for Roads and Bridges LA111: Noise and Vibration, Revision 2.

Ref 277. International Organisation for Standardisation (2024). ISO 9613-2:2024 Attenuation of Sound during Propagation Outdoors – Part 2: Engineering method for the prediction of sound pressure levels outdoors. Switzerland: ISO.

Ref 278. Her Majesty's Stationery Office (1974). Control of Pollution Act.

Ref 279. Ministry of Housing, Communities & Local Government (2026). National Planning Policy Framework.

Ref 280. Department for Environment Food and Rural Affairs (2010). Noise Policy Statement for England.

Ref 281. Ministry of Housing, Communities & Local Government (2019). Planning Practice Guidance - Noise.

Ref 282. British Standards Institute (2003). BS 7445-1:2003 – Description and measurement of environmental noise – Part 1: Guide to quantities and procedures. London: BSI.

Ref 283. British Standards Institute (2014). BS 4142:2014+A1:2019 – Methods for rating and assessing industrial and commercial sound. London: BSI.

Ref 284. British Standards Institute (2014). BS 5228-2:2009+A1:2014 – Code of practice for noise and vibration control on construction and open sites – Part 2: Vibration. London: BSI.

Ref 285. Department of Transport (1988). Calculation of Road Traffic Noise. London.

Ref 286. Association of Noise Consultants BS4142:2014+A1:2019 Technical Note, Version 1.0 March 2020.

Ref 287. British Standards Institute (2014). BS 8233:2014 – Guidance on sound insulation and noise reduction for buildings, BSI: London.

Ref 288. World Health Organization (1999). Guidelines for Community Noise.

Ref 289. Energy Networks Association (2026). Engineering Recommendation G201: Method for Assessing Electrically Induced Noise from Overhead Lines. Issue 1. London: Energy Networks Association.

Ref 290. DEFRA (2026) The Land Use Framework for England. Available at: https://assets.publishing.service.gov.uk/media/69c69033471d520038d0f7a6/Land_Use_Framework_Accessible.pdf.

Ref 291. DEFRA JP069 (1988 updated on 2025). Agricultural land classification of England and Wales: Guidelines for grading the quality of agricultural land. Available at: Agricultural Land Classification of England and Wales: Guidelines for grading the quality of agricultural land - JP069.

Ref 292. Natural England (2021). Guide to assessing development proposals on agricultural land. Available at: Agricultural land: assess proposals for development - GOV.UK.

Ref 293. DEFRA (2009). Construction Code of Practice for the Sustainable Use of Soils on Construction Sites. Available at: https://www.gov.uk/government/publications/code-of-practice-for-the-sustainable-use-of-soils-on-construction-sites.

Ref 294. The British Society of Soil Science (2022). Guidance Document 3: Working with Soil - Guidance Note on Benefitting from Soil Management in Development and Construction. Available at: https://soils.org.uk/wp-content/uploads/2022/02/WWS3-Benefitting-from-Soil-Management-in-Development-and-Construction-Jan-2022.pdf.

Ref 295. ISEP - IEMA (2022). A New Perspective on Land and Soil in Environmental Impact Assessment. Available at: ISEP - Launch of New EIA Guidance on Land and Soils - February 2022.

Ref 296. Institute of Quarrying (2021) Good Practice Guide for Handling Soils in Mineral Workings. Available at: https://www.quarrying.org/soils-guidance.

Ref 297. ISEP (2025). Solar PV on Agricultural Land: Essential Components of Environmental Assessments and Reports. Available at: New ISEP advice note: Protecting agricultural land while powering the future.

Ref 298. HM Government (2025). Planning Practice Guidance for the Natural Environment. Available at: Natural environment - GOV.UK.

Ref 299. HM Government (2020). The Agriculture Act 2020. Available at: https://www.legislation.gov.uk/ukpga/2020/21/contents/enacted.

Ref 300. Solar Energy UK (2024) Solar Farms and Agricultural Land. Available at: Sheet: FactSheet: Solar Farms and Agricultural Land 2024 | Final

Ref 301. DEFRA (2026). Predictive Agricultural Land Classification Map for England 1:250, 000 user scale. Available at: https://ckan.publishing.service.gov.uk/dataset/predictive-agricultural-land-classification-map-for-england/resource/950c5816-b4d2-46ba-a757-2e8367ced3c6

Ref 302. Cranfield University (2015). Research to develop the evidence base on soil erosion and water use in agriculture: Final Technical Report. pp147. Available at: https://www.theccc.org.uk/wp-content/uploads/2015/06/Cranfield-University-for-the-ASC.pdf.

Ref 303. Cranfield University (2026). LandIS - Soilscapes viewer of Soil Survey of England and Wales (1984). Soils and their Use in England and accompanying 1:250,000 map. Available at: LandIS - Land Information System - Soilscapes soil types viewer.

Ref 304. Met Office (1989). Climatological Data for Agricultural Land Classification. (ALC010) Available at: http://publications.naturalengland.org.uk/publication/6493605842649088

Ref 305. DEFRA (2024). United Kingdom Food Security Report 2024. Available at: United Kingdom Food Security Report 2024 - GOV.UK.

Ref 306. DEFRA (2024). Land utilised by solar PV – September 2024. Available at: https://assets.publishing.service.gov.uk/media/6762f035e6ff7c8a1fde9b48/Land_utilised_by_solar_PV__September_2024.pdf

Ref 307. Ministry of Housing, Communities & Local Government (2026); 'National Planning Policy Framework'.

Ref 308. National Highways and Department for Transport (2022); 'Strategic road network and the delivery of sustainable development: DfT Circular 01/2022'

Ref 309. Somerset Council (2026); 'Travel Plan Guidance'.

Ref 310. Department for Levelling Up, Housing and Communities and Ministry of Housing, Communities & Local Government (2014); 'National Planning Practice Guidance: Travel Plans, Transport Assessments and Statements'.

Ref 311. Institute of Sustainability and Environmental Professionals (ISEP) (2023); 'Environmental Assessment of Traffic and Movement'.

Ref 312. Construction Logistics and Community Safety (2024); 'CLOCS Standard'.

Ref 313. Department for Transport (DfT) (2026). Road Safety Open Data. Available at: https://www.gov.uk/government/statistical-data-sets/road-safety-open-data

Ref 314. Institute of Sustainability and Environmental Professionals (ISEP) (formerly IEMA) (2020). Guide to: Materials and Waste in Environmental Impact Assessment, Guidance for a Proportionate Approach. Available at: https://www.isepglobal.org/media/0t5fwyhj/iema-materials-and-waste-in-eia-march-2020.pdf.

Ref 315. The European Parliament and the Council of the European Union (2008). Directive 2008/98/EC of the European parliament and of the council of 19 November 2008 on waste and repealing certain directives. Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32008L0098.

Ref 316. Hazardous Waste (England and Wales) Regulations 2005 (as amended). Available at: https://www.legislation.gov.uk/uksi/2005/894/contents.

Ref 317. The Waste (England and Wales) Regulations 2011 (as amended). Available at: https://www.legislation.gov.uk/uksi/2011/988/contents.

Ref 318. The Waste (Miscellaneous Amendments) (EU Exit) Regulations 2019. Available at: https://www.legislation.gov.uk/uksi/2019/620/contents

Ref 319. MHCLG & DLUHC (2014). National Planning Policy for Waste. Available at: https://www.gov.uk/government/publications/national-planning-policy-for-waste

Ref 320. DEFRA (2021). Waste Management Plan for England. Available at: https://www.gov.uk/government/publications/waste-management-plan-for-england-2021

Ref 321. MHCLG (2014). Planning Practice Guidance for Minerals. Available at: https://www.gov.uk/guidance/minerals.

Ref 322. MHCLG (2015). Planning Practice Guidance for Waste. Available at: https://www.gov.uk/government/collections/planning-practice-guidance.

Ref 323. Contaminated Land: Applications in Real Environments (CL:AIRE) (2011). Definition of Waste: Development Industry Code of Practice (DoW CoP). Available at: https://claire.co.uk/component/phocadownload/file/212-initiatives.html?Itemid=230.

Ref 324. Waste & Resources Action Programme (WRAP) (2010). Designing out Waste: A design team guide for civil engineering. Available at: https://build360.ie/wp-content/uploads/2023/01/WRAP_DoW_Civil_Engineering.pdf.

Ref 325. Department for Environment, Food & Rural Affairs (Defra) and Environment Agency (2016). Waste duty of care code of practice. Available at: https://www.gov.uk/government/publications/waste-duty-of-care-code-of-practice.

Ref 326. Defra (2011). Guidance on Applying the Waste Hierarchy. Guidance on Applying the Waste Hierarchy. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/69403/pb13530-waste-hierarchy-guidance.pdf.

Ref 327. UK Steel (2025). Key Statistics Guide June 2025. Available at: https://www.uksteel.org/reports-and-publications

Ref 328. Mineral Products Association (MPA) (2025). Profile of the UK Mineral Products Industry (2025 Edition). Available at: https://www.mineralproducts.org/Facts-and-Figures/Profile-of-the-UK-Mineral-Products-Industry.aspx.

Ref 329. Environment Agency (2025). 2024 Waste Data Interrogator, 2024 Waste Summary Tables for England – Version 1. Available at: https://www.data.gov.uk/dataset/81f9d676-e77c-4d68-ab0c-b67e0b0b353e/2024-waste-data-interrogator

Ref 330. Environment Agency (2025). Permitted Waste Sites - Authorised Landfill Site Boundaries. Available at: https://www.data.gov.uk/dataset/ad695596-d71d-4cbb-8e32-99108371c0ee/permitted-waste-sites-authorised-landfill-site-boundaries1

Ref 331. Environment Agency (2025). Permitted Waste Sites – Historic Landfill Site Boundaries. Available at: https://www.data.gov.uk/dataset/17edf94f-6de3-4034-b66b-004ebd0dd010/historic-landfill-sites1

Ref 332. Environment Agency (2025). Environmental Permitting Regulations - Waste Sites. Available at: https://www.data.gov.uk/dataset/e2cc8101-d8b7-434d-a26a-9115061bb57c/environmental-permitting-regulations-waste-sites1

Ref 333. DEFRA (2025). Register of Waste Exemptions. Available at: https://environment.data.gov.uk/public-register/view/search-waste-exemptions

Ref 334. WRAP (2007). Waste Recovery Quick Wins - Improving Recovery Rates Without Increasing Costs. No longer available online.

Ref 335. Department for Business and Trade (2025). The UK's Modern Industrial Strategy (June 2025). Available at: https://www.gov.uk/government/collections/the-uks-modern-industrial-strategy-2025

Ref 336. Somerset Council, (2025); Somerset Economic Prosperity Strategy 2025-2045. Available at: https://www.somerset.gov.uk/business-economy-and-licences/county-wide-economic-strategies

Ref 337. Institute of Sustainability and Environmental Professionals (ISEP) (2025) Social Impact Assessment in Environmental Impact Assessment in the UK and Ireland. Available at: https://www.isepglobal.org/resources/blogs/2025/october/isep-launches-new-guide-on-social-impact-assessment/

Ref 338. ONS, (2026); Population Estimates - local authority based by single year of age. Available at: https://www.nomisweb.co.uk/datasets/pestoa2021 [Accessed August 2026]

Ref 339. Ministry of Housing, Communities and Local Government, (2025); English Indices of deprivation 2025. Available at: https://www.gov.uk/government/statistics/english-indices-of-deprivation-2025 [Accessed August 2026]

Ref 340. ONS, (2025); Regional gross value added (balanced approach). Table 2: Gross Value Added (balanced approach) per head of population at current basic prices. Available at: https://www.ons.gov.uk/economy/grossvalueaddedgva/datasets/nominalregionalgrossvalueaddedbalancedperheadandincomecomponents [Accessed August 2026]

Ref 341. ONS (2026) Annual Population Survey (January 2025 to December 2025) and (April 2025 to March 2026). Available at: https://www.nomisweb.co.uk/datasets/apsnew [Accessed August 2026]

Ref 342. ONS, (2026); Claimant Count by sex and age (June 2026). Available at: https://www.nomisweb.co.uk/datasets/ucjsa [Accessed August 2026]

Ref 343. ONS, (2025); Business Register and Employment Survey 2024. Available at: https://www.nomisweb.co.uk/datasets/newbres6pub [Accessed August 2026]

Ref 344. ONS (2025) 2022-Based Population Projections – local authority based by single year of age. Available at: https://www.nomisweb.co.uk/datasets/ppsyoala [Accessed August 2026]

Ref 345. Somerset Council (2026) Gravity Enterprise Zone information. Available at: https://www.somerset.gov.uk/business-economy-and-licences/gravity-enterprise-zone-information/#Jobs%20and%20economic%20benefits [Accessed August 2026]

Ref 346. MHCLG (2025) Appraisal Guide: Fourth Edition, February 2026. Available at: https://www.gov.uk/government/publications/the-mhclg-appraisal-guide [Accessed August 2026]

Ref 347. Institute of Air Quality Management (2024). Guidance on the assessment of dust from demolition and construction. Available at: https://iaqm.co.uk/wp-content/uploads/2013/02/Construction-Dust-Guidance-Jan-2024.pdf

Ref 348. HM Government (1995). Environment Act 1995. Available at: https://www.legislation.gov.uk/ukpga/1995/25/contents

Ref 349. HM Government (2000). The Air Quality (England) Regulations 2000. https://www.legislation.gov.uk/uksi/2000/928/contents/made (Accessed 11/09/2026)

Ref 350. HM Government (2002). The Air Quality (England) (Amendment) Regulations 2002. Available at: https://www.legislation.gov.uk/uksi/2002/3043/contents/made

Ref 351. HM Government (2020). National Air Quality Legislation Originating from the European Union (EU). Available at: https://www.legislation.gov.uk/browse/eu

Ref 352. HM Government (2016). The Air Quality Standards (Amendment) Regulations 2016. Available at: https://www.legislation.gov.uk/uksi/2016/1184/contents/made

Ref 353. HM Government (2023). The Environmental Targets (Fine Particulate Matter) (England) Regulations 2023. Available at: https://www.legislation.gov.uk/uksi/2023/96/contents/made

Ref 354. Ministry of Housing, Communities and Local Government (2026). National Planning Policy Framework. Available at: https://www.gov.uk/government/publications/national-planning-policy-framework--2

Ref 355. Ministry of Housing, Communities and Local Government (2019). Planning Practice Guidance on Air Quality. Available at: https://www.gov.uk/guidance/air-quality--3

Ref 356. Department for Environment, Food and Rural Affairs (2019). Clean Air Strategy 2019. Available at: https://www.gov.uk/government/publications/clean-air-strategy-2019

Ref 357. Department for Environment, Food and Rural Affairs (2023). Air Quality Strategy for England, available at: https://www.gov.uk/government/publications/the-air-quality-strategy-for-england/air-quality-strategy-framework-for-local-authority-delivery

Ref 358. Natural England (2025). Air Pollution and Development: advice for local authorities Guidance (2025). Available at: https://www.gov.uk/guidance/air-pollution-and-development-advice-for-local-authorities

Ref 359. Institute of Air Quality Management (2017). Land-Use Planning and Development Control: Planning for Air Quality. Available at: http://www.iaqm.co.uk/text/guidance/air-quality-planning-guidance.pdf

Ref 360. Department for Environment, Food and Rural Affairs (2025), Local Air Quality Management Technical Guidance (TG22). Available at: https://laqm.defra.gov.uk/air-quality/featured/uk-regions-exc-london-technical-guidance/

Ref 361. Somerset Council (2024). 2024 Air Quality Annual Status Report. Available at: https://www.somerset.gov.uk/environment-and-food-safety/air-quality-and-health/

Ref 362. Department for Environment, Food and Rural Affairs (n.d.). Modelled Background Maps 2021. Available at: https://uk-air.defra.gov.uk/data/laqm-background-home

Ref 363. HM Government (2003), Water Act 2003. Available at: https://www.legislation.gov.uk/ukpga/2003/37/contents

Ref 364. HM Government (1984), Building Act 1984. Available at: https://www.legislation.gov.uk/ukpga/1984/55/contents

Ref 365. HM Government (1995), Environment Act 1995. Available at: https://www.legislation.gov.uk/ukpga/1995/25/contents

Ref 366. HM Government (2011), Waste (England and Wales) Regulations 2011. Available at: https://www.legislation.gov.uk/uksi/2011/988/contents

Ref 367. HM Government (2016), Hazardous Waste (England and Wales) (Amendment) Regulations 2016. Available at: https://www.legislation.gov.uk/uksi/2016/336/contents

Ref 368. HM Government (2006), Contaminated Land (England) Regulations 2006. Available at: https://www.legislation.gov.uk/uksi/2006/1380/contents

Ref 369. HM Government (2010), Building Regulations 2010. Available at: https://www.legislation.gov.uk/uksi/2010/2214/schedule/1

Ref 370. HM Government (1999), Anti-Pollution Works Regulations 1999. Available at: https://www.legislation.gov.uk/uksi/1999/1006/contents/made

Ref 371. HM Government (2015), Construction (Design and Management) Regulations 2015. Available at: https://www.legislation.gov.uk/uksi/2015/51/contents

Ref 372. HM Government (2012), Part 2A Contaminated Land Statutory Guidance. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/223705/pb13735cont-land-guidance.pdf

Ref 373. Environment Agency (2020, updated 2025), Online guidance for the management of land contamination 'Land contamination: risk management' (LCRM). Available at: https://www.gov.uk/government/publications/land-contamination-risk-management-lcrm

Ref 374. British Standard Institution (BSI) (2026), BS 10175, 'Investigation of Potentially Contaminated Sites - Code of Practice'.

Ref 375. BSI (2013), BS 8576 'Guidance on investigations for ground gas. Permanent gases and Volatile Organic Compounds (VOCs)'.

Ref 376. BSI (2019), BS 8485:2015+A1:2019 'Code of practice for the design of protective measures for methane and carbon dioxide ground gases for new buildings'.

Ref 377. CIRIA (2007), C665 ‘Assessing risks posed by hazardous ground gases to buildings’.

Ref 378. CIRIA (2001), C552 ‘Contaminated Land Risk Assessment: A Guide to Good Practice’.

Ref 379. CIRIA (2023), C811 5th Edition ‘Environmental Good Practice on Site’.

Ref 380. CL:AIRE (2025), ‘Piling and Penetrative Ground Improvement Methods on Land Affected by Contamination: Guidance on Pollution Prevention’.

Ref 381. BRE (2005), Third edition, Special Digest 1:2005 'Concrete in Aggressive Ground'.

Ref 382. CL:AIRE (2025), Framework for Assessing the Sustainability of Soil and Groundwater Remediation.

Ref 383. CGL, ‘Somerset Land – Geotechnical Feasibility Study’, Ref. 17840. Dated April 2026

Ref 384. CGL, ‘Somerset Land – Preliminary Pile Test Report’, Ref. 17840. Dated July 2026.

Ref 385. British Geological Survey (BGS), Geology of Britain viewer. Available at: https://www.bgs.ac.uk/map-viewers/bgs-geology-viewer/

Ref 386. Mining Remediation Authority (2026), Map Viewer. Available at: https://datamine-cauk.hub.arcgis.com/

Ref 387. British Geological Survey (2026), BGS Lexicon of Named Rock Units, Mercia Mudstone Group. Available at: https://webapps.bgs.ac.uk/lexicon/lexicon.cfm?pub=MMG

Ref 388. Somerset Environmental Records Centre (2026), Local Geological Sites. Available at: http://www.somerc.com/local-geological-sites/

Ref 389. British Geological Survey / Environment Agency (2026), Aquifer Designation Dataset for England and Wales. Available at: https://www.bgs.ac.uk/datasets/aquifer-designation-data/

Ref 390. Environment Agency (2024), Groundwater Source Protection Zones. Available at: https://www.gov.uk/guidance/groundwater-source-protection-zones-spzs

Ref 391. Zetica UXO (2025), UXO Risk Maps. Available at: https://zeticauxo.com/guidance/risk-maps/

Ref 392. Groundsure.io Viewer (2026). Available at: https://auth.groundsure.io/login (login and password required to access)

Ref 393. This Is Gravity Limited (2021). Gravity Local Development Order, Gravity Southern Lands, Phase 1 Land Condition Report. Available at: https://thisisgravity.co.uk/resources/#documents

Ref 394. World Health Organization (1948). Constitution of the World Health Organization. Geneva: WHO. Available at: https://www.who.int/about/governance/constitution

Ref 395. Somerset Council's Health and Wellbeing Board 2019-2028, (2019) 'Improving Lives in Somerset Strategy'. Available at: https://democracy.somerset.gov.uk/documents/s21438/Improving%20Lives%20in%20Somerset%20Strategy%202019%20-%202028.pdf

Ref 396. IEMA, (2022), IEMA Guide: Determining Significance for Human Health in Environmental Impact Assessment. Available at: https://www.iema.net/media/yljb2nbs/iema-eia-guide-to-determining-significance-for-human-health-nov-2022.pdf

Ref 397. Somerset Council (2025) Joint Strategic Needs Assessment. Available at: https://healthysomerset.co.uk/somerset-jsna/

Ref 398. Office for Health Improvement and Disparities (OHID) (2026) Public Health Profiles (Fingertips). Available at: https://fingertips.phe.org.uk/

Ref 399. Office for National Statistics (ONS), (2022); Census 2021.

Ref 400. Department of Health & Social Care, (2024); Local health, public health data for small geographical areas. https://localhealth.org.uk/

Ref 401. ICNIRP (1998) Guidelines for Limiting Exposure to Time-varying Electric, Magnetic and Electromagnetic Fields. Available at: ICNIRPemfgdl.pdf

Ref 402. National Grid (2015) Underground High Voltage Electricity Transmission Lines. Available at: https://www.nationalgrid.com/sites/default/files/documents/39111-Undergrounding_high_voltage_electricity_transmission_lines_The_technical_issues_INT.pdf

Ref 403. Planning Inspectorate (2024) Nationally Significant Infrastructure Projects: Technical Advice Page for Scoping Solar Development. Available at: https://www.gov.uk/guidance/nationally-significant-infrastructure-projects-technical-advice-page-for-scoping-solar-development#:~:text=Glint%20and%20Glare&text=This%20should%20be%20provided%20as,and%20visual%2C%20traffic%20and%20transport

Ref 404. Highways Act (1980). Available at: https://www.legislation.gov.uk/ukpga/1980/66/contents

Ref 405. Road Traffic Act (1988). Available at: https://www.legislation.gov.uk/ukpga/1988/52/contents

Ref 406. Civil Aviation Act (1982). Available at: https://www.legislation.gov.uk/ukpga/1982/16/contents

Ref 407. Air Navigation Order (2016). Available at: https://www.legislation.gov.uk/uksi/2016/765/contents

Ref 408. Combined Aerodrome Safeguarding Team (CAST) (2024). Aerodrome Safeguarding Advice Note 5: Renewable Energy Developments. February 2024. Supported by the UK Civil Aviation Authority (CAA). Available at: https://www.caa.co.uk/media/f51mg4hs/cast-advice-note-5-renewable-energy-developments-renewable-energy-apr-24.pdf

Ref 409. Communications Act (2003). Available at: https://www.legislation.gov.uk/ukpga/2003/21/contents

Ref 410. Digital Economy Act (2017). Available at: https://www.legislation.gov.uk/ukpga/2017/30/contents

Ref 411. Health and Safety Executive (2014) Avoiding danger from underground services. Available at: https://www.hse.gov.uk/pubns/priced/hsg47.pdf

Ref 412. Health and Safety Executive (2013) Avoiding danger from overhead power lines. Available at: https://www.hse.gov.uk/pubns/gs6.htm

Ref 413. Official Journal of the European Communities, now recognised as the Official Journal of the European Union (OJEU) (2012) Directive 2012/18/EU of the European Parliament and of the Council of 4 July 2012 on the control of major-accident hazards involving dangerous substances, amending and subsequently repealing Council Directive 96/82/EC. Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32012L0018&qid=1767616908225

Ref 414. Council of the European Union (2009) Council Directive 2009/71/EURATOM of the European Parliament and of the Council of 25 June 2009 establishing a community framework for the nuclear safety of nuclear installations. Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32009L0071&qid=1767616981692

Ref 415. ISEP (formerly IEMA) (2020) Major Accidents and Disasters in EIA: A Primer. Available at: https://www.isepglobal.org/content/major-accidents-and-disasters-in-eia-an-iema-primer-october-2020/

Ref 416. HMSO (1974). The Health and Safety at Work etc. Act 1974 (1974 C37). Available at: https://www.hse.gov.uk/legislation/hswa.htm

Ref 417. HMSO (1989). The Electricity at Work Regulations 1989 (SI 1989/635). Available at: https://www.legislation.gov.uk/uksi/1989/635/contents

Ref 418. HMSO (1992). The Workplace (Health, Safety and Welfare) Regulations 1992 (SI 1992/3004). Available at: https://www.legislation.gov.uk/uksi/1992/3004/contents/made

Ref 419. HMSO (1999) Management of Health and Safety at Work Regulations 1999 (SI 1999/3242). Available at: https://www.legislation.gov.uk/uksi/1999/3242/contents/made

Ref 420. HMSO (2015). Construction (Design and Management) Regulations 2015 (SI 2015/51). Available at: https://www.legislation.gov.uk/uksi/2015/51/contents/made

Ref 421. HMSO (1990). The Dangerous Substances (Notification and Marking of Sites) Regulations 1990 (SI 1990/304). Available at: https://www.legislation.gov.uk/uksi/1990/304/contents/made

Ref 422. HMSO (2002). Dangerous Substances and Explosive Atmospheres Regulations 2002 (SI 2002/2776). Available at: https://www.legislation.gov.uk/uksi/2002/2776/contents

Ref 423. HMSO (2004). Civil Contingencies Act 2004 (2004 C36). Available at: https://www.legislation.gov.uk/ukpga/2004/36/contents

Ref 424. HMSO (2015) The Control of Major Accident Hazards Regulations 2015 (SI 2015/483). Available at: https://www.legislation.gov.uk/uksi/2015/483/contents

Ref 425. HMSO (2005). The Regulatory Reform (Fire Safety) Order 2005 (SI 2005/1541). Available at: https://www.legislation.gov.uk/uksi/2005/1541/contents

Ref 426. DEFRA (2011) Guidelines for environmental risk assessment and management: Green leaves III. Available at: https://www.gov.uk/government/publications/guidelines-for-environmental-risk-assessment-and-management-green-leaves-iii

Ref 427. International Organization for Standardization (ISO) (2018) ISO 31000:2018 Risk Management – Guidelines.

Ref 428. DESNZ (2024) Health and safety in grid-scale electrical energy storage systems. Available at: https://www.gov.uk/government/publications/grid-scale-electrical-energy-storage-systems-health-and-safety/health-and-safety-in-grid-scale-electrical-energy-storage-systems-accessible-webpage

Ref 429. HSE (2026) Grid-scale battery energy storage systems. Available at: https://www.hse.gov.uk/electricity/batteryenergy-storage-systems.htm

Ref 430. National Fire Chiefs Council (NFCC) (2025) Grid Scale Battery Energy Storage System planning – Guidance for FRS. Available at: https://nfcc.org.uk/our-services/building-safety/grid-scale-energy-storage-system-planning-guidance-for-fire-and-rescue-services/

Ref 431. Cabinet Office (2026) National Risk Register 2026 edition. Available at: https://assets.publishing.service.gov.uk/media/6a50d66b1228eb26a4cab76c/National_Risk_Register_2026.pdf

Ref 432. Landscape Institute. Technical Guidance Note 2/19 Residential Visual Amenity Assessment (2019) Available at: https://landscapewpstorage01.blob.core.windows.net/www-landscapeinstitute-org/2019/03/tgn-02-2019-rvaa.pdf