

Heckington Fen Solar Park

EN010123

Chapter 20 – Glossary

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CHAPTER 20: GLOSSARY

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20. GLOSSARY

Table 20.1- Glossary and Acronym of Project Description Key Terms

Term / Acronym	Description
Project Description Key Terms	
Access Tracks	The tracks within the Order limits constructed to provide access around the Proposed Development.
<u>Additional Works</u>	<u>Additional areas within the revised Order limits to accommodate a new 'section' of National Grid Electricity Transmission (NGET) comprising a busbar extension including a section breaker, a bus coupler and a feeder circuit on land to the south of Bicker Fen Substation. Two design options are assessed in the ES for this section including Air Insulated Switchgear (AIS) and Gas Insulated Switchgear (GIS). This area is referred to as 'AW1'. A new cable sealing end (CSE) on land to the west of Bicker Fen Substation is also part of the Additional Works. This area is referred to as 'AW2'.</u>
<u>Air Insulated Switchgear</u>	<u>This apparatus is used for switching, controlling and protecting the electrical circuits and equipment as voltage is transformed from low to high or from high to low. AIS solutions use air as the dielectric (able to transmit electrical force without conduction i.e. insulating) gas medium.</u>
Ancillary Buildings	The office, warehouse and plant buildings which may be located within the Energy Park
Ancillary Infrastructure	Works to include means of enclosure and boundary treatment, security and monitoring infrastructure, landscaping and biodiversity measures including planting, drainage and irrigation works, signage, earthworks, and access including permissive paths.
Applicant	Ecotricity (Heck Fen Solar) Limited
BBC	Boston Borough Council
Baseline	Existing environmental conditions which are described in the Environmental Statement.
<u>Bus coupler</u>	<u>A bus coupler is a device which is used to couple one bus to another without any interruption in power supply and without creating hazardous arcs. Bus coupler is a breaker used to couple two busbars in order to perform maintenance on other circuit breakers associated with that busbar. This infrastructure is part of a substation 'section' as part of the Additional Works.</u>
<u>Bus section circuit breaker</u>	<u>A bus section circuit breaker is generally closed during normal operation. When a fault occurs on the bus, the bus section circuit breaker is opened to separate the bus into two sections. This allows the faulty bus section to be isolated, thereby limiting the number of loads that lose power. The provision of two bus sections provides redundancy in the development, so if one fails, the back-up is available. This infrastructure is part of a substation 'section' as part of the Additional Works.</u>
Energy Storage System (ESS)	Rechargeable energy storage system likely to consist of batteries, battery chargers, controls, power conditioning

Term / Acronym	Description
Project Description Key Terms	
	systems and associated electrical equipment designed to provide electrical power to a building or to provide electrical grid-related services.
Cable Route Corridor	Area within the Order limits that are proposed for the grid connection cable between the Onsite Substation and the National Grid Bicker Fen Substation and the new point of connection at National Grid Bicker Fen Substation
<u>Cable Sealing End (CSE)</u>	<u>A CSE is a connection point to transition between underground cable and above ground apparatus such as electrical bus-bars or overhead line. This infrastructure is part of part of the Additional Works allowing for this circuit transfer.</u>
Central Container Inverters	Inverters, switchgear and transformers are located throughout the Energy Park and would be housed together in containers.
Central Transformers	Transformers are located within the container that houses the Inverters and switchgear.
Construction Environmental Management Plan (CEMP)	A site or project specific plan designed to ensure best practice and/or appropriate environmental management practices are applied throughout the construction, operation and/or demolition phases of a project.
Cumulative Effects	Effects upon the environment that result from the incremental impact of an action when added to other past, present or reasonably foreseeable actions. Each impact by itself may not be significant but can become a significant effect when combined with other impacts.
DCO Application	The application for a Development Consent Order (DCO) to be submitted by the Applicant for the Proposed Development of Heckington Fen Solar Park.
Decommissioning Restoration Plan (DRP)	A specific plan developed to ensure that appropriate environmental management practices are followed during the decommissioning phase of a project.
Development Consent Order (DCO)	The means of obtaining permission for developments categorised as Nationally Significant Infrastructure Projects (NSIP) under the Planning Act 2008.
Energy Park	Area within the Order limits that are proposed primarily for the ground mounted solar photovoltaic (PV) electricity generation and energy storage facility inclusive of the Onsite Substation and Energy Storage System (ESS)
EIA (Environmental Impact Assessment)	Process for identifying the likely significance of environmental effects (beneficial or adverse) arising from a Proposed Development, by comparing the existing environmental conditions prior to development (the baseline) with the environmental conditions during/following the construction, operational and decommissioning phases of a development should it proceed.
Environmental Statement	Document setting out the findings of an Environmental Impact Assessment.

Term / Acronym	Description
Project Description Key Terms	
<u>Feeder Circuit</u>	<u>A feeder circuit is a conductor, or group of conductors, and associated protective and switching devices. The circuit is connected to both the bus coupler and the bus section breaker. This infrastructure is part of a substation 'section' as part of the Additional Works.</u>
Fixed Solar PV Panel	PV Tables that are mounted to fixed Mounting Structures that face south.
<u>Gas Insulated Switchgear</u>	<u>This apparatus is used for switching, controlling and protecting the electrical circuits and equipment as voltage is transformed from low to high or from high to low. GIS solutions traditionally encase switchgear components with sulfur hexafluoride (SF₆) gas with enhanced dielectric characteristics. Alternative SF₆ insulation medium technology is currently being explored and will be used if a GIS solution is pursued for the Proposed Development.</u>
Green Infrastructure (GI)	Network of green spaces and watercourses and water bodies that connect rural areas, villages, towns and cities.
Habitat Enhancement Areas	Areas within the Order limits that are proposed for green infrastructure, habitat creation, and a community orchard
Horizontal Directional Drilling (HDD)	A construction technique whereby a tunnel is drilled under a waterway or other designated area, and a pipeline or other utility is pulled through the drilled underground tunnel.
Indirect Effects	Effects that result indirectly from the proposed project as a consequence of the direct effects, often occurring away from the site, or as a result of a sequence of interrelationships or a complex pathway. They may be separated by distance or in time from the source of the effects.
Iterative Design Process	The process by which project design is amended and improved by successive stages of refinement which respond to growing understanding of environmental issues.
Jointing bay	Underground structures constructed at regular intervals along the cable route to join sections of the cable circuits and facilitate installation of the cable circuits into the buried ducts.
LCC	Lincolnshire County Council
National Grid Bicker Fen Substation	The existing National Grid 400kV Substation known as Bicker Fen substation owned and operated by National Grid Electricity Transmission.
National Grid Bicker Fen Substation Extension Works	Area within the Order limits for an extension to the National Grid Bicker Fen Substation required for the new electrical equipment necessary to connect the electricity generated by the Proposed Development into the National Grid infrastructure system.
<u>NGET</u>	<u>National Grid Electricity Transmission</u>
NKDC	North Kesteven District Council
Magnitude (of effect)	A term that combines judgements about the size and scale of the effect, the extent of the area over which it occurs, whether

Term / Acronym	Description
Project Description Key Terms	
	it is reversible or irreversible and whether it is short or long term in duration.
Mitigation	Measures including any process, activity, or design to avoid, reduce, or remedy for negative environmental impacts or effects of a development.
Module Mounting Structure	The structure that is fixed to the ground and onto which the PV Modules are attached.
Offsite Cable Route Corridor	A subsection area of the Cable Route Corridor within the Order limits for the proposed grid connection cable between the Energy Park boundary and the new point of connection at National Grid Bicker Fen Substation
Offsite Underground Cable	The buried 400kV cables connecting the Onsite Substation to the National Grid Bicker Fen Substation. Located within the Cable Route Corridor.
Order limits	The land shown on the Works Plans within which the Proposed Development can be carried out.
Onsite Cabling	33-66kV cabling, which transmit electricity from the Solar Station to the Onsite Substation, located within the Energy Park.
Onsite Substation	<p>Comprising electrical infrastructure such as the transformers, switchgear and metering equipment required to facilitate the export of electricity from the Proposed Development to the National Grid.</p> <p>The Onsite Substation will convert the electricity to 400kV for onward transmission to the Bicker Fen Substation via an underground cable.</p>
Outline Energy Storage Safety Management Plan	This document identifies the measures required to avoid and reduce the risk of fire from energy storage systems within the Proposed Development, as well as how to effectively manage a fire should the event occur.
Outline Landscape and Ecology Management Plan (oLEMP)	The oLEMP sets out the landscape and ecological management actions for the Proposed Development, outlining how mitigation measures, identified within the Environmental Statement, will be delivered through future landscape works and management.
Permissive Path	New recreational informal path signed as permissive that the landowner allows the public to use for the life of the Proposed Development.
Preliminary Environmental Information	<p>Preliminary Environmental Information is defined in the EIA Regulations as: 'information referred to in regulation 14(2) which –</p> <p>(a) has been compiled by the applicant; and</p> <p>(b) is reasonably required for the consultation bodies to develop and informed view of the likely significant environmental effects of the development (and of any associated development).</p> <p>A Preliminary Environmental Information Report (PEIR) for the Proposed Development was produced in June 2022.</p>

Term / Acronym	Description
Project Description Key Terms	
Proposed Development	A Nationally Significant Infrastructure Project (NSIP) for areas within the Order limits that are proposed for the ground mounted solar photovoltaic (PV) electricity generation, energy storage facility (also known as Energy Storage System (ESS)), underground cable route to, and above and below ground works at, the National Grid Bicker Fen Substation, and any associated ancillary infrastructure, including temporary construction compounds and security fencing at land at Six Hundreds Farm, Six Hundreds Drove, East Heckington, Sleaford, Lincolnshire. The Proposed Development encompasses all areas within the Order limits.
Public Right of Way (PRoW)	Footpath, bridleway or byways over which members of the public have a right to use.
PV String	A row of PV Modules mounted onto the Mounted Structure that are connected to one another to form a PV string which is either connected to a string inverter or a central inverter
PV Tables	Solar PV Modules mounted onto the Mounting Structure, forming tables, which are then set out in rows
Receptor	A location, feature (ground, watercourse) or individual (person, plant, bird, animal etc) upon which the effects of a proposed development is assessed, i.e. the receiving environment.
Residual effect	Those impacts that remain following the implementation of mitigation measures
Scoping	The process of identifying the issues to be addressed by an EIA. It is a method of ensuring that an EIA focuses on the important issues and avoids those that are considered to be less significant.
Sensitivity	A term applied to specific receptors, combining judgements of the susceptibility of the receptor to the specific type of change or development proposed and the value related to that receptor.
Significance	A measure of the importance or gravity of the environmental effect, defined by significance criteria specific to the environmental topic.
Solar Farm	Electricity generating station comprising of solar PV modules connected to the National Grid via a substation.
Solar PV Modules	A panel comprising a grouping of photovoltaic cells connected to each other and set within a single physical frame. The PV Panel is attached to a Mounting Structure. Also referred to as a PV Module.
Solar Station	A Solar Station means a station comprising centralised inverters, transformers and switch gear with each component grouped together to form each solar station.
Study Area	The area in which a particular assessment or survey targets. The study area will vary depending on the nature of the technical assessment. Where relevant, these are defined within the relevant technical chapter of the ES.

Term / Acronym	Description
Project Description Key Terms	
String Inverters	String Inverters are located throughout the Energy Park, mounted on the Mounting Structures underneath the PV Modules. Inverters convert the direct current (DC) electricity into alternating current (AC), which allows the electricity generated to be exported to the national grid.
Switchgears	Switchgears are the combination of electrical disconnect switches, fuses or circuit breakers used to control, protect and isolate electrical equipment
Transformers	Transformers control the voltage of the electricity generated across the Energy Park before it reaches the primary onsite substations
Works Plan	The plans submitted with the Application known as the Works Plans and which delineate the Order limits for the Proposed Development.
Zone of Influence (ZoI)	The area for the assessment of combined effects. Zones of Influence (ZoIs) are variable depending on the environmental factor being discussed.

Table 20.2: Glossary and Acronyms of Chapter 5- Planning Policy

Term / Acronym	Description
Planning Policy	
EIA Regulations	Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (as amended)
National Policy Statement	National Policy Statements are produced by government. They give reasons for the policy set out in the statement and must include an explanation of how the policy takes account of government policy relating to the mitigation of, and adaptation to, climate change. They comprise the government's objectives for the development of nationally significant infrastructure in a particular sector and state.
National Planning Policy Framework	Document setting out the Government's planning policies for England and instruction on how they are expected to be applied. Latest version published in July 2021.
National Planning Practice Guidance	Online resource to support the implementation of the NPPF.
PA 2008	Planning Act 2008

Table 20.3- Glossary and Acronyms of Chapter 6 and 7 - Landscape and Visual Impact, Residential Visual Amenity

Term / Acronym	Description
Landscape and Visual Impact, Residential Visual Amenity	
AOD (Above Ordnance Datum)	Baseline standard for measuring height usually measured in metres AOD (mAOD)
AONB	Area of Outstanding Natural Beauty
bgl	Below Ground Level
BGS	British Geological Society
Characterisation	The process of identifying areas of similar landscape character, classifying and mapping them and describing their character.
Designated Landscape	Areas of landscape identified as being of importance at international, national or local levels, either defined by statute or identified in development plans or other documents.
Elements	Individual parts which make up the landscape, such as, for example, trees, hedges and buildings.
Geographical Information System (GIS)	A system designed to capture, store, manipulate, analyze, manage, and present spatial or geographic data.
GLVIA3	'Guidelines for Landscape and Visual Impact Assessment - Third Edition'. Published in April 2013 by the Landscape Institute and the Institute of Environmental Management and Assessment. Guidance providing advice on the process of assessing the landscape and visual effects of developments.
Green Infrastructure (GI)	Network of green spaces and watercourses and water bodies that connect rural areas, villages, towns and cities.
ha	Hectare – unit of measurement 100m x 100m, or 10,000m ²
Landform	An area, as perceived by people, the character of which is the result of the action and interaction of natural and /or human factors.
Land Use	What land is used for, based on broad categories of functional land cover, such as urban and industrial use and the different types of agriculture and forestry.
Landscape and Visual Impact Assessment (LVIA)	A tool used to identify and assess the likely significance of the effects of change resulting from development both on the landscape and as an environmental resource in its own right and on people's views and visual amenity (GLVIA 3, 2013 p157).
Landscape Character Assessment	The process of identifying and describing variation in the character of the landscape, and using this information to assist in managing change in the landscape. It seeks to identify and explain the unique combination of elements and features that make landscape distinctive. The process results in the production of a Landscape Characterisation Assessment.
LCA (Landscape Character Area)	Single unique areas which are the discrete geographical areas of a particular landscape type. Each has its own individual character and identity, even though it shares the same genetic characteristics with other types.

Term / Acronym	Description
Landscape and Visual Impact, Residential Visual Amenity	
LCT (Landscape Character Type)	These are distinct types of landscape that are relatively homogeneous in character. They are generic in nature in that they may occur in different areas in different parts of the country, but wherever they occur they share broadly similar combinations of geology, topography, drainage patterns, vegetation, historical land use, and settlement pattern.
Landscape Effects	Effects on the landscape as a resource in its own right.
Landscape quality (condition)	A measure of the physical state of the landscape. It may include the extent to which typical character is represented in individual areas, the intactness of the landscape and the condition of individual elements.
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 landscape by society. A landscape may be valued by different stakeholders for a whole variety of reasons.
National Character Areas	Previously known as Joint Character Areas developed by the then Countryside Agency. These are areas that share similar landscape characteristics. See also LCA.
Outline Landscape and Ecology Management Plan (oLEMP)	The oLEMP sets out the landscape and ecological management actions for the Proposed Development, outlining how mitigation measures, identified within the Environmental Statement, will be delivered through future landscape works and management.
Ordnance Survey	National mapping agency in the United Kingdom which covers the island of Great Britain
Photomontage	A visualisation which superimposes an image of a Proposed Development upon a photograph or series of photographs.
Public Right of Way (PRoW)	Footpath, bridleway or byways over which members of the public have a right to use.
RPA	Root Protection Area.
Susceptibility (or vulnerability)	How susceptible or vulnerable the landscape receptor is to accommodate the Proposed Development without undue negative consequences for the maintenance of the baseline situation
Time depth	Historical layering – the idea of a landscape as a ‘palimpsest, a much written –over manuscript.
TPP	Tree Protection Plan
Tranquility	A state of calm and quietude associated with peace, considered to be a significant asset of landscape.
Visual amenity	The overall pleasantness of the views people enjoy of their surroundings, which provides an attractive visual setting or backdrop for the enjoyment of activities of the people living, working, recreating, visiting or travelling through an area.

Term / Acronym	Description
Landscape and Visual Impact, Residential Visual Amenity	
Visual effects	Effects on specific views and on the general visual amenity experienced by people.
Visual receptors	Individuals and/or defined groups of people who have the potential to be affected by a proposal.
Visualisation	A computer simulation, photomontage or other technique illustrating the predicted appearance of a development
Zone of Theoretical Visibility (ZTV)	A map, usually digitally produced, showing areas of land within which a development is theoretically visible. (GLVIA 3, 2013 p159). Used within Landscape and Visual Assessments (LVIAs) to identify areas of interest for further investigation and assessment.

Table 20.4- Glossary and Acronyms of Chapter 8- Ecology and Ornithology

Term / Acronym	Description
Ecology and Ornithology	
BAP	Biodiversity Action Plan. UK strategy for the conservation of biological resources, now largely succeeded by The 'UK Post-2010 Biodiversity Framework' but lists of priority species and habitats and forms the basis of much biodiversity work.
Biodiversity	The biological diversity of the earth's living resources. The variety and abundance of species, their genetic composition, and the natural communities, ecosystems, and landscapes in which they occur.
Biodiversity Net Gain (BNG)	Development that leaves biodiversity in a better state than before and involves an approach where developers work with local governments, wildlife groups, landowners and other stakeholders in order to support their priorities for nature conservation.
Birds Directive	EC Directive on the conservation of wild birds (2009/147/EC)
BMP	Biodiversity Management Plan
Chartered Institute of Ecology and Environmental Management (CIEEM)	Professional body of which most professional consultant ecologists are members. Its aim is to raise the profile of professional ecological and environmental management and to promote the highest standards of practice for the benefit of nature and society.
Countryside and Rights of Way (CROW) Act 2000	Primarily relates to public access to the countryside, but also amended existing law (the Wildlife and Countryside Act) relating to nature conservation and the protection of wildlife under Part III, which is concerned with the introduction of improved protection and management of Sites of Special Scientific Interest (SSSIs).
ECoW	Ecological Clerk of Works
Ecological Impact Assessment (EcIA)	Assesses the potential effects of a development on habitats and species, particularly those protected by national and international legislation or considered to be of particular nature conservation importance.
Ecological feature/receptor	An ecological feature is a living system or entity that exists because of specific limiting factors such as the soils and nutrients, availability of water, climate, etc. An ecological receptor is a feature that is sensitive to or has the potential to be affected by an impact.
eDNA	Environmental DNA is DNA that is collected from a variety of environmental samples such as soil, seawater, or even air rather than directly sampled from an individual organism.
EPS	European Protected Species
Extended Phase 1 Habitat Survey	A habitats survey method originally published by the Nature Conservancy Council in 1990. It is intended to rapidly provide a record of semi-natural vegetation and wildlife habitat over large areas of countryside. It has been modified slightly, or extended, for the purposes of carrying initial assessments as to the likely

Term / Acronym	Description
Ecology and Ornithology	
	ecological value of a site and its potential to support protected or notable species.
GCN	Great Crested Newt
Geographical Information System (GIS)	A system designed to capture, store, manipulate, analyze, manage, and present spatial or geographic data.
Habitat connectivity	Linkage between areas of habitats, such as corridors to allow dispersal of wildlife.
Habitat Directive	A directive adopted by the European Union (then known as the European Community) in 1992. The Habitats Directive ensures the conservation of a wide range of rare, threatened or endemic animal and plant species.
Habitat of Principal Importance	Identified as being the most threatened and requiring conservation action under the UK Biodiversity Action Plan (UK BAP). Statutory lists of priority habitats in England, are provided under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006 (England).
Habitat Regulations Assessment (HRA)	A Habitat Regulations Assessment is required where a project may have significant effects on a site by affecting its function to support protected habitats or species. Its purpose is to assess the implications of the proposal in respect of the site's 'conservation objectives'.
Habitat Suitability Index (HSI)	A numerical index that represents the capacity of a given habitat to support a selected species. Most commonly used for pond habitats and great crested newts following a method developed by Oldham <i>et al.</i> (2000)
Impact Risk Zone	A GIS tool developed by Natural England to make rapid initial assessment of the potential risks posed by development proposals to: Sites of Special Scientific Interest (SSSIs), Special Areas of Conservation (SACs), Special Protection Areas (SPAs) and Ramsar sites.
Invasive Non-native species	An alien plant or animal which is listed under Schedule 9 of the Wildlife and Countryside Act, making it an offence to allow the species to be spread into the wild.
Local Biodiversity Action Plan (LBAP).	Local strategy for the conservation of biological resources, now largely succeeded by The 'UK Post-2010 Biodiversity Framework' but lists of priority species and habitats and forms the basis of much biodiversity work.
LNR	Local Nature Reserve
LWS	Local Wildlife Site - non statutory designated site identified and selected for their local nature conservation value and protected through planning policy.
Natural Environment and Rural Communities (NERC) Act 2006	It requires local authorities and government departments to have regard to the purposes of conserving biodiversity in a manner that is consistent with the exercise of their normal functions such as policy and decision-making.

Term / Acronym	Description
Ecology and Ornithology	
National Nature Reserve (NNR)	Established to protect the most significant areas of habitat and of geological formations.
Phase 1 Habitat Survey	A habitats survey method originally published by the Nature Conservancy Council in 1990. It is intended to rapidly provide a record of semi-natural vegetation and wildlife habitat over large areas of countryside. It has been modified slightly, or extended, for the purposes of carrying initial assessments as to the likely ecological value of a site and its potential to support protected or notable species.
Priority habitat or species	Identified as being the most threatened and requiring conservation action under the UK Biodiversity Action Plan (UK BAP). Statutory lists of priority species and habitats in England, are provided under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006 (England)
Reasonable Avoidance Measures (RAMS)	Outlines how a task should be undertaken to avoid impacts on an ecological receptor.
Ramsar Site	A Ramsar site is a wetland site designated to be of international importance under the Ramsar Convention. The Convention on Wetlands, known as the Ramsar Convention, is an intergovernmental environmental treaty established in 1971 by UNESCO, which came into force in 1975.
Royal Society for the Protection of Birds (RSPB)	Nature conservation charity engaged in managing reserves, undertaking research and working to improve the value and management of land for wildlife, with particular focus on birds.
Special Area of Conservation (SAC)	Sites chosen to conserve the natural habitat types and species of wild flora and fauna listed in Annex I and II of the Habitats Directive. They are the best areas to represent the range and variety of habitats and species within the European Union.
Special Protection Area (SPA)	European Designation designated under Article 4 of the EC Directive on Conservation of Wild Birds (Directive 2009/147/EC) for the protection of rare or vulnerable birds (as listed on Annex I of the Directive) and for regularly occurring migratory species.
Site of Special Scientific Interest (SSSI)	Conservation designation denoting a protected area in the United Kingdom. An area of land of special interest by reason of its flora, fauna, geology or physiographical features notified under the Wildlife and Countryside Act 1981 (as amended).
UKBAP	UK Biodiversity Action Plan (UKBAP), as succeeded by The 'UK Post-2010 Biodiversity Framework'. BAPs identify habitats and species of nature conservation priority on a UK (UK BAP) and Local (LBAP) scale. UK BAPs formed the basis for statutory lists of priority species and habitats.
WCA	Wildlife and Countryside Act (1981) (as amended). The primary legislation which protects animals, plants and habitats in the UK.

Table 20.5- Glossary and Acronyms of Chapter 9- Hydrology, Hydrogeology, Flood Risk and Drainage

Term / Acronym	Description
Hydrology, Hydrogeology, Flood Risk and Drainage	
bgl	Below Ground Level
Controlled Waters	Controlled waters are defined as virtually all freshwater including relevant territorial waters (extending 3 miles seawards from baseline), coastal waters (water inland of baseline), inland waters, surface water, public supply reservoirs and groundwater.
EA (Environmental Agency)	An executive non-departmental government body working with responsibilities to protect and improve the environment, including flood risk management.
Flood Zone 1	Low Probability – Land having a less than 1 in 1,000 annual probability of river flooding.
Flood Zone 2	Medium Probability – Land having between a 1 in 100 and 1 in 1,000 annual probability of river flooding.
Flood Zone 3a	High Probability – Land having a 1 in 100 or greater annual probability of river flooding.
Flood Zone 3b	The Functional Floodplain – This zone comprises land where water has to flow or be stored in times of flood.
FRA (Flood Risk Assessment)	An assessment as to the current and future flood risk of an area where development is proposed.
Groundwater	Water below the surface of the ground and in direct contact with the ground or found subsoil in cracks and spaces in soil, sand and rock.
Groundwater Daughter Directive	Clarifies certain objectives of the Water Framework Directive relating to prevention and control of groundwater pollution and establishes groundwater quality standards.
IDB	Internal Drainage Board
LLFA	Lead Local Flood Authority
Main River	Main rivers are usually larger rivers and streams. The Environment Agency carries out maintenance, improvement or construction work on main rivers to manage flood risk.
Ordinary watercourse	A watercourse that is not part of a Main River. All rivers and streams, ditches, drains, cuts, culverts, dikes, sluices, sewers (other than public sewers within the meaning of the Water Industry Act 1991) and passages, through which water flows.
SPZ	Source Protection Zone
Sustainable Drainage System (SuDS)	Management practices and control structures designed to drain surface water in a more sustainable fashion, mimicking natural processes.
Surface water runoff	Rainwater (including snow and other precipitation) which is on the surface of the ground and has not entered a watercourse, drainage system or public sewer.

Term / Acronym	Description
Hydrology, Hydrogeology, Flood Risk and Drainage	
Swale	A shallow vegetated channel designed to convey, treat or store surface water and facilitate infiltration.
Water Framework Directive (WFD)	A European Union Directive which commits European Union member states to achieve good qualitative and quantitative status of all water bodies (including marine waters up to one nautical mile from shore) by 2015.
Water Resources Act 1991	An Act of the Parliament of the United Kingdom that regulates water resources, water quality and pollution, and flood defences.

Table 20.6- Glossary and Acronyms of Chapter 10- Cultural Heritage

Term / Acronym	Description
Cultural Heritage	
Chartered Institute for Archaeologists (Cifa)	Professional organization for archaeologists working in the U.K
Conservation Area	Nearly always applies to an area (usually urban or the core of a village) considered worthy of preservation or enhancement because of its special architectural or historic interest.
Historic Environment Record (HER)	Information services that provide resources relating to archaeology and historic built environment.
Listed Building	Marks and celebrates a building's special architectural and historic interest, and also brings it under the consideration of the planning system, so that it can be protected for future generations.
National Heritage List for England (NHLE)	Register of all nationally protected historic buildings and sites in England, including Listed Buildings, Scheduled Monuments, protected wrecks, registered parks and gardens and battlefields.
Scheduled Monument	"Nationally important" archaeological site or historic building, given protection against unauthorised change.
World Heritage Site	A site inscribed by United Nations Educational, Scientific, and Cultural Organisation (UNESCO) because of its Outstanding Universal Value under the terms of the UNESCO World Heritage Convention
Written Scheme of Investigation	A Written Scheme of Investigation outlines known and potential archaeological features and deposits or built heritage elements on a site and suggests a structure for exploring them using the latest, most appropriate and cost-effective archaeological techniques.

Table 20.7- Glossary and Acronyms of Chapter 11- Socio-Economic

Term / Acronym	Description
Socio-Economics	
Business Rates	Non-domestic rates or business rates are the way that those who occupy commercial (non-domestic) property contribute towards the cost of local services. They are administered and collected by local authorities.
Claimant Count	Records the number of people claiming Jobseeker's Allowance plus those who claim Universal Credit and are required to seek work and be available for work.
GVA	Gross Value Added
FTE	Full Time Employment
Index of Multiple Deprivation	An index providing an indication of the average levels of deprivation for Lower Layer Super Output Areas (LSOAs) across England
LEP	Local Enterprise Partnership
LSOA	Lower Layer Super Output Areas
Non-Serviced Accommodation	Self-catering accommodation, static caravans, touring caravans and camping provision
ONS	Office National Statistics
SEP	Strategic Economic Plan
Serviced Accommodation	Hotels and Bed and Breakfasts
STEM	Science, Technology, Engineering and Mathematics, this is a term used to group together these technical disciplines.

Table 20.8- Glossary and Acronyms of Chapter 12- Noise

Term / Acronym	Description
Noise	
ASD	Autistic Spectrum Disorder
BS	British Standard
CRTN	Calculation of Road Traffic Noise
Decibel (dB)	Decibel – A scale for comparing the ratios of two quantities, including sound pressure and sound power. The difference in level between two sounds s_1 and s_2 is given by $20 \log_{10}(s_1/s_2)$. The decibel can also be used to measure absolute quantities by specifying a reference value that fixes one point on the scale. For sound pressure, the reference value is $20\mu\text{Pa}$.
dB (A), L_{Amax}	(noise quality) 1. Decibels measured on a sound level meter incorporating a frequency weighting (A weighting) which differentiates between sounds of different frequency (pitch) in a similar way to the human ear. Measurements in dB(A) broadly agree with people's assessment of loudness. A change of 3 dB(A) is the minimum perceptible under normal conditions, and a change of 10 dB(A) corresponds roughly to halving or doubling the loudness of a sound. The background noise in a living room may be about 30 dB(A); normal conversation about 60 dB(A) at 1 metre; heavy road traffic about 80 dB(A) at 10 metres; the level near a pneumatic drill about 100 dB(A).
DMRB	Design manual for Roads and Bridges
EHO	Environmental Health Officer
HDD	Horizontal Directional Drilling
HGV	Heavy Goods Vehicle
IOS	International Organisation for Standardisation
PPV	Peak Particle Velocity - Measurement of the environmental impact of ground vibration from blasting operations is based almost exclusively on the peak vibration level generated.

Table 20.9- Glossary and Acronyms of Chapter 13- Climate Change

Term / Acronym	Description
Climate Change	
BEIS	Business, Energy and Industrial Strategy
BSI	British Standards Institute
Carbon Budget	The number of greenhouse gases that can be "spent" - or emitted, considering global warming.
CCS	Considerate Constructors Scheme
DECC	Department of Energy and Climate Change
Embodied Carbon	The carbon dioxide (CO ₂) emissions associated with materials and construction processes throughout the whole lifecycle of a building or infrastructure.
EPD	Environmental Product Declaration
GHG	Greenhouse Gas
GHG Emissions	Greenhouse gases are gases that trap heat in the atmosphere. The main greenhouse gases are carbon dioxide, methane, nitrous oxide, and the fluorinated gases.
GHG Footprint	The total amount of GHG emissions that are generated by a certain action.
GHG Intensity	The operational emissions divided by the energy generation
HGV	Heavy Goods Vehicle
IEMA	Institute of Environmental Management and Assessment
IPCC	Intergovernmental Panel on Climate Change
LCA	Life Cycle Analysis
PAS	Publicly Available Specification
PM	Particulate Matter
PPE	Personal Protective Equipment
RCP	Representative Concentration Pathways
UKCP	UK Climate Projections
WBCSD	World Business Council for Sustainable Development
WTT	Well-to-Tank

Table 20.10- Glossary and Acronyms of Chapter 14- Transport and Access

Term / Acronym	Description
Transport and Access	
AADT	Annual Average Daily Traffic
AAWT	Annual Average Weekly Traffic
AIL	Abnormal Indivisible Load
ATC	Automatic Traffic Count
Construction Traffic Management Plan (CTMP)	Sets out how the construction phase (including deliveries to the Site) will be managed.
Design Manual for Roads and Bridges (DMRB).	A comprehensive manual which accommodates all current standards, advice notes and other published documents relating to the design, assessment and operation of trunk roads.
Hard Standing	Ground surfaced with a hard material suitable for supporting vehicular movement (e.g. tarmac, compacted gravel, concrete).
HDV	Heavy Duty Vehicle (>3.5 tonnes)
HGV	Heavy Goods Vehicle
LDV	Light Duty Vehicles (<3.5 tonnes)
OCTMP	Outline Construction Traffic Management Plan
PIC	Personal Injury Collision
Public Right of Way (PRoW)	Footpath, bridleway or byways over which members of the public have a right to use.
SEND	Special Educational Needs and Disabilities

Table 20.11- Glossary and Acronyms of Chapter 15- Air Quality

Term / Acronym	Description
Air Quality	
AADT	Annual Average Daily Traffic
AEP	Annual Exceedance Probability
Air quality objective	Policy target generally expressed as a maximum ambient concentration to be achieved, either without exception or with a permitted number of exceedances within a specific timescale.
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.
Air quality standard	The concentrations of pollutants in the atmosphere which can broadly be taken to achieve a certain level of environmental quality. The standards are based on the assessment of the effects of each pollutant on human health including the effects on sensitive sub groups (see also air quality objective).
AQAP	Air Quality Action Plan
ASR	Annual Service Reports
CTMP	Construction Traffic Management Plan
Emissions Factor Toolkit	Published to assist local authorities in carrying out Review and Assessment of local air quality as part of their duties under the Environmental Act 1995
EPUK	Environmental Protection UK
HDV	Heavy Duty Vehicle
IAQM	Institute of Air Quality Management
LAQM	Local Air Quality Management
LDV	Light Duty Vehicle
NRMM	Non Road Mobile Machinery
PPG	Pollution Prevention Guidelines

Table 20.12- Glossary and Acronyms of Chapter 16- Land Use and Agriculture

Term / Acronym	Description
Land Use and Agriculture	
Agricultural Land Classification (ALC)	A means of assessing the quality of farmland. Its assessment is based on physical limitations of the land, such as climate, site characteristics (for example gradient) and soil. The assessment gives an indication of the versatility and expected yield of the land. The system classifies agricultural land in 5 grades. The best and most versatile land is classified as 1, 2 and 3a. The Agricultural Land Classification was developed by the former Ministry of Agriculture, Fisheries and Food (MAFF) in 1988 and revised in 1996.
Best and Most Versatile Agricultural Land (BMV)	Land in grades 1, 2 and 3a of the Agricultural Land Classification
BNG	Biodiversity Net Gain
Downgrading	The potential change in ALC grade to a lower (i.e. poorer) ALC quality grading
Land Use	What land is used for, based on broad categories of functional land cover, such as urban and industrial use and the different types of agriculture and forestry.
LWS	Local Wildlife Site
MAFF	Ministry of Agriculture, Fisheries and Food
PSD	Particle Size Distribution
Sealing	Terminology is taken from the Institute of Environmental Management and Assessment guide "A New Perspective on Land and Soil in Environmental Impact Assessment", and is a description of physical changes that in effect lose future agricultural potential use, ie it is irreversible development
SIC	Soil Inorganic Carbon
SMP	Soil Management Plan
SOC	Soil Organic Carbon

Table 20.13- Glossary and Acronyms of Chapter 17- Glint and Glare

Term / Acronym	Description
Glint and Glare	
AOD	Above Ordnance Datum
AGL	Above Ground Level
ATCT	Air traffic control tower
CAA	Civil Aviation Authority
CAP	Civil Aviation Publication
Dazzle	An effect caused by intense glint and glare, which can cause distraction, and if strong enough reduce the ability of the receptor (pilot or otherwise) to distinguish details and objects.
FAA	Federal Aviation Authority
Glare	A scattered reflection of light. Glare is significantly less intense than glint and is produced from rougher surfaces such as concrete, tarmac, and vegetation.
Glint	Also known as a specular reflection is produced as a direct reflection of the sun on the surface of the solar panel. It occurs with the reflection of light from smooth surfaces such as glass, steel, and calm water.
Green Glint	Low intensity glint with no potential for temporary after image
MOD	Ministry of Defence
NATS	National Air Traffic Services
OP	Observation Point
SPV	Solar Photovoltaic Systems
Yellow Glint	Higher intensity glint that does have some potential for temporary after image.
ZTV	Zone of Theoretical Visibility

Table 20.14 - Glossary and Acronyms of Chapter 18 Miscellaneous Issues

Term / Acronym	Description
Miscellaneous Issues	
AADT	Annual Average Daily Traffic
CDM	Construction, Design Management
CEMP	Construction Environmental Management Plan
DRP	Decommissioning and Restoration Plan
EMF	Electro-magnetic field
EMI	Electromagnetic Interference
ESQCR	Electricity Safety Quality & Continuity Regulations 2002
ESSMP	Energy Storage Safety Management Plan
HPA	Health protection AGENCY
HSC	Hazardous Substances Consent
ICNIRP	International Commission on Non-Ionizing Radiation Protection
SWMP	Site Waste Management Plan
Unexploded ordnance (UXO)	Any sort of military ammunition or explosive ordnance which has failed to function as intended.
Waste Framework Directive (WFD)	Legislative framework for the collection, transport, recovery and disposal of waste across the European community.