GLOSSARY OF ABBREVIATIONS

Ab	Absolute Emissions
AIL	Abnormal Indivisible Load
ALDMP	Abnormal Loads Delivery Management Plan
AOD	Above Ordnance Datum
AoI	Area of Influence
ATCT	Air Traffic Control Tower
BAU	Business As Usual
BGS	British Geological Survey
BMV	Best and Most Versatile Agricultural Land
BNG	Biodiversity Net Gain
BRE	Building Research Establishment
BSI	British Standards Institute
CAA	Civil Aviation Authority (UK)
CAST	Combined Aerodrome Safeguarding Team
CCB	Caerphilly County Borough
CCBC	Caerphilly County Borough Council
CCGT	Combined Cycle Gas Turbine
CDP	Community Development Plan
CEMP	Construction Environmental Management Plan
CIFA	Chartered Institute for Archaeologists
CTMP	Construction Traffic Management Plan
DAM	Development Advice Map
DEFRA	Department for Environment, Food and Rural Affairs

DMP	Delivery Management Plan
DMP	Delivery Management Plan
EAP	Economically Active Population
EBRD	European Bank for Reconstruction and Development
EIA	Environmental Impact Assessment
EIB	European Investment Bank
ES	Environmental Statement
ESDAL system	Electronic Service Delivery for Abnormal Loads System
FAA	Federal Aviation Administration (USA)
FCA	Flood Consequences Assessment
FCD	Field Capacity Days
FEH	Flood Estimation Handbook
FTE	Full time equivalent
GGAT	Glamorgan-Gwent Archaeological Trust
GGZ	Ground Glint Zone
GHG	Greenhouse Gas
GIS	Geographic Information System
GP	General Practitioner
GPP	Guidance on Pollution Prevention
GVA	Gross Value Added
GW	Gigawatt
GWDTE	Groundwater Dependent Terrestrial Ecosystems
GWh	Gigawatt Hour

H&S	Health and Safety
Ha	Hectare
HCSM	Hydrogeological Conceptual Site Model
HER	Historic Environment Record
HGV	Heavy Goods Vehicle
HIA	Health Impact Assessment
HLA	Historic Landscape Area
IAIA	International Association for Impact Assessment
IEA	International Energy Agency
IEMA	Institute of Environmental Management and Assessment
IPCC	Intergovernmental Panel on Climate Change
IQ	Institute of Quarrying
kWh	Kilowatt-hour
LDP	Local Development Plan
LEP	Local Employment Plan
LFRMS	Local Flood Risk Management Strategy
LGP	Low Ground Pressure
LLFA	Lead Local Flood Authority
LNR	Local Nature Reserve
LVIA	Landscape and Visual Impact Assessment
MAFF	Ministry of Agriculture, Forestry and Food
MW	Megawatt
MWh	Megawatt-hour

MWp	Megawatt Peak
NCN	National Cycle Network Route
NDF	National Development Framework
NGR	National Grid Reference
NHS	National Health Service
NHS	National Health Service
NPAP	National Peatland Action Programme
NPPF	National Planning Policy Framework
NRP	National Resource Policy
NVZ	Nitrate Vulnerable Zone
OM	Organic Matter
ONS	Office for National Statistics
OP	Observation Point
OS	Ordnance Survey
OSMP	Outline Soil Management Plan
PEDW	Planning and Environment Decisions Wales
PM	Particulate Matter
PPW	Planning Policy Wales
PRoW	Public Right of Way
PrWS	Private Water Supply
PSBs	Public Services Boards
PSD	Particle Size Distribution
PV	Photovoltaic

RCP	Representative Concentration Pathway
Re	Relative Emissions
RICS	Royal Institution of Chartered Surveyors
SAC	Special Areas of Conservation
SEP	Stakeholder Engagement Plan
SIA	Social Impact Assessment
SMP	Soil Management Plan
Solar PV	Solar photovoltaics
SRP	Soil Resource Plan
SuDS	Sustainable Drainage Systems
TAN	Technical Advice Note (e.g. TAN15: Technical Advice Note 15)
TMP	Traffic Management Plan
UHOVI	Universities of the Heads of the Valleys Institute
UKCP	United Kingdom Climate Projections
UNECE	United Nations Economic Commission for Europe
WA	Wardell Armstrong
WC	Wetness Class
WIMD	Welsh Index of Multiple Deprivation
WLC	Whole Life Carbon
ZTV	Zone of Theoretical Visibility

GLOSSARY OF KEY TERMINOLOGY

Adverse	Having a negative or harmful effect on something
Agricultural Land Classification	ALC uses a grading system to enable you to assess and compare the quality of agricultural land in England and Wales. ALC is graded from 1 (excellent) to 5 (very poor).
Aquifer	A sub-surface zone or formation of rock or soil containing a body of groundwater
Archaeological Interest	There will be archaeological interest in a historic asset if it holds, or potentially may hold, evidence of past human activity worthy of expert investigation at some point. Historic assets with archaeological interest are the primary source of evidence about the substance and evolution of places, and of the people and cultures that made them.
Artistic Interest	The influence of human imagination and skill to convey meaning through all forms of creative expression on the physical properties of a place and its setting or on their associations and appreciation. Artistic interest may relate to the influence of a place on art as well as the use of skill and design embodied in its fabric.
Attenuation	Attenuation is the process storing and slowly releasing surface water run-off, and is one of the key features of sustainable drainage systems (SuDS)
Baseline Conditions	The conditions that would pertain in the absence of the proposed project at the time that the project would be constructed / operated / decommissioned. The definition of these baseline conditions should be informed by changes arising from other causes (e.g. other consented developments).
Baseline Emissions (Be)	Greenhouse gas emissions associated with an alternative development that delivers the same outputs as supplied by the proposed project
Bedrock	Bedrock more than 2.6 million years old, and generally underlying superficial deposits.

Best and Most Versatile Land	The National Planning Policy Framework (England) and Planning Policy Wales (Wales) defines land of ALC Grade 1, Grade 2 and Subgrade 3a as being BMV agricultural land
Biodiversity	The biological diversity of the earth's living resources. The total variability among organisms and ecosystems. In common usage, and within these Guidelines, biodiversity is used to describe the conservation of the natural environment, rather than describing the variation within it.
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 Net Gain	A measurable improvement in biodiversity as determined by using a metric to quantify habitat values pre- and post-development.
Catchment	Any area of land where precipitation collects and drains off into a common outlet, such as into a river, bay, or other body of water. The catchment includes all the surface water from rain runoff, snowmelt, and nearby streams that run downslope towards the shared outlet.
CH_4	Methane (greenhouse gas)
CO_2	Carbon Dioxide (greenhouse gas)
CO_2e	Carbon Dioxide Equivalent. CO2e is a unit of measurement to compare emissions from various greenhouse gas sources based on their warming potential.
Confluence	The meeting of two or more waterbodies.
Culvert	A closed conduit carrying a watercourse beneath an obstruction such as road, railway or canal.
Cumulative effects	The summation of effects that result from changes caused by a development in conjunction with other past, present or reasonably foreseeable actions.
Desk Study	A study of the site that is carried out through research and includes a review and collation of information already available about the

	site. It is usually carried out at an early stage and used to inform and guide the rest of the site investigation.
Ecosystem Services	Ecosystem services: In the context of land and soils, these can be defined as the range of benefits land and soils provide for society e.g. a soil's function as a growing medium for food provision or the storage of nutrients and organic matter.
Effect	A physical or measurable change to the environment attributable to the project.
EIA Regulations	The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (as amended).
Embodied Carbon	The carbon dioxide (CO_2) emissions associated with materials and construction processes throughout the whole lifecycle of a building or infrastructure.
Environment	Our physical surroundings including air, water and land.
Environment Agency	The EA is a non-departmental public body of the Department for Environment Food and Rural Affairs. Its purpose is, "to protect or enhance the environment, taken as a whole" (section 4, Environment Act 1995) to promote the objective of achieving sustainable development.
Environmental Assessment	A process by which information about the environmental effects of a project is collected, both by the developer and from other sources, and taken into account by the relevant decision making body before a decision is given and whether the development should go ahead.
Environmental Effects	The consequences for human being in terms of health and well-being, including the well-being of ecosystems and natural systems on which human survival depends, which stem from environmental impacts.
Environmental Impact	The process whereby a change, which may be adverse, beneficial, or both, is brought about in the existing environment as a result of development activities.
Environmental impact assessment (EIA)	The evaluation of the effects of particular development proposals on the environment.

Environmental Statement (ES)	A document which sets out the developer's assessment of the likely effects of the project on the environment and which is submitted in conjunction with an application for planning permission.
Erosion rills	Small channels formed by water erosion which can be removed by ploughing. They are differentiated from gullies which cannot be removed through ploughing.
Evapotranspiration	The process by which the Earth's surface or soil loses moisture by evaporation of water and by uptake and then transpiration from plants.
Fauna	All members of the animal kingdom: vertebrates (e.g. birds, mammals and fish) and invertebrates (e.g. insects).
FCA	Flood Consequence Assessment
Flood and Water Management Act 2010	The Flood and Water Management Act 2010 was introduced to provide legislation to address the threat of flooding and water scarcity, both of which are predicted to increase with climate change.
Flora	All members of the plant kingdom: higher ferns, ferns and fern allies, mosses and liverworts, algae and phytoplankton, fungi and lichens.
Geology	The scientific study of the origin, history and structure of the earth.
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.
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.
GPP	Guidance on Pollution Prevention
Green Glint	Low intensity glint with no potential for temporary after image.
Greenfield sites	Undeveloped land in a city or rural area either used for agriculture or landscape design, or left to evolve naturally.

Green infrastructure	A network of multi-functional green space, urban and rural, which is capable of delivering a wide range of environmental and quality of life benefits for local communities.
Greenhouse Gas	Gases such as carbon dioxide, methane and nitrous oxide, that trap heat in the atmosphere and contribute to climate change.
Groundwater	Water that exists underground in saturated zones beneath the land surface. The upper surface of the saturated zone is called the water table.
Groundwater Daughter Directive	Directive 2006/118/EC of the European Parliament and Council (the Groundwater Daughter Directive) came into force on 12th December 2006 and aims to protect groundwater against pollution and deterioration.
Habitat	The place or type of site where an organism or population naturally occurs. Often used in the wider sense referring to major assemblages of plants and animals found together.
Historic Asset	As stated in Planning Policy Wales Edition 12 (2024), the historic environment is made up of individual historic features which are collectively known as historic assets. Examples of what can constitute an historic asset include listed buildings, conservation areas, historic assets of special local interest, historic parks and gardens, townscapes, historic landscapes, World Heritage Sites, and archaeological remains (including schedule monuments).
Historic Interest	The connections between a place and past lives and events.
Hydrogeology	The area of geology that deals with the distribution and movement of groundwater in the soil and rocks.
Hydrology	The scientific study of the movement, distribution, and quality of water surface water.
Inert	Chemically inactive.
Infiltration	The process by which water on the ground surface enters the soil and unsaturated zone.
Interception	The process by rainfall is prevented from falling directly onto the ground surface by the presence of vegetation.

Land Cover	The surface and cover of the land, usually expressed in terms of vegetation cover or lack of it. Related to but not the same as land use.
Land Drainage Act 1991	The Land Drainage Act 1991 requires the owner of a watercourse to maintain the watercourse in such a condition that the free flow of water is not impeded.
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.
Leachate	Water that has percolated through a solid and leached out some of the constituents.
Leaching	Movement of a contaminant from soil, ash, or similar material by the action of percolating liquid, especially rainwater.
Local Plan	The plan for the future development of the local area, drawn up by the local planning authority in consultation with the community. In law this is described as the development plan documents adopted under the Planning and Compulsory Purchase Act 2004. Current core strategies or other planning policies, which under the regulations would be considered to be development plan documents, form part of the Local Plan. The term includes old policies which have been saved under the 2004 Act.
Local planning authority	The public authority whose duty it is to carry out specific planning functions for a particular area.
Lower Super Output Areas	'Lower Super Output Areas are made up of groups of OAs, usually four or five. They comprise between 400 and 1,200 households and have a usually resident population between 1,000 and 3,000 persons.'
Made Ground	An area of land that has been made by people, generally through the reclamation or landfilling. Made ground can consist of natural and/or man-made materials/deposits.
Magnitude	A combination of the scale, extent and duration of an effect.

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.
Megawatt (MW)	A unit of power equal to one million watts, especially as a measure of the output of a power station.
Methodology	The specific approach and techniques used for a given study.
Middle layer Super OAs	'Middle layer Super Output Areas are made up of groups of LSOAs, usually four or five. They comprise between 2,000 and 6,000 households and have a usually resident population between 5,000 and 15,000 persons. MSOAs fit within local authorities.'
Mineral soil	As defined by the Soil Survey Field Handbook (Hodgson, 1974) which underpins the MAFF guidelines, mineral soils have an organic matter content of <6%, or <10% where the clay content exceeds 50%.
Mitigation	Any process, activity or thing designed to avoid, reduce or remedy adverse environmental impacts likely to be caused by a development project.
Nitrate Vulnerable Zone (NVZ)	An area designated as being at risk from agricultural nitrate pollution.
Non-statutory Designated Site	A site identified and selected via planning policy for its nature conservation value based on important, distinctive and threatened habitats and species.
NOx	Nitrogen Oxides (greenhouse gas). The collective term used to describe various oxides of Nitrogen.
Ordinary Watercourse	Rivers which are not considered to be Main Rivers. Lead local flood authorities, district councils and internal drainage boards carry out flood risk management work on ordinary watercourses.
Organic soil	As defined by the Soil Survey Field Handbook (Hodgson, 1974) which underpins the MAFF guidelines, organic soils have an organic matter content of more than 20% if the mineral fraction contains no clay, 25% if the mineral fraction contains >50% clay, or proportionate organic matter content if the clay content is intermediate.
Organic-mineral soil	As defined by the Soil Survey Field Handbook (Hodgson, 1974) which underpins the MAFF guidelines, organic-mineral soils have an

	organic matter content of 6-20% where a soil has no clay, 10-25% for a soil with a clay content exceeding 50%, or proportional organic matter content if the clay content is intermediate.
Output Areas	'Output Areas are the lowest level of geographical area for census statistics and were first created following the 2001 Census.'
Pathways	The routes by which impacts are transmitted through air, water, soils or plants and organisms to their receptors.
Peat	The Soil Survey of England and Wales defines peat as having more than 40 cm of (O horizon) material within the upper 80cm, excluding fresh litter (L) and living moss; or, more than 30 cm of organic (O horizon) material resting directly on the bedrock (R or Cr) or extremely stony material; and, no overlying non-humose material mineral horizon that has a colour value of 4 or more and extends below 30 cm depth.
Peaty gley:	Poorly drained soils with peaty topsoils and greyish/blueish grey, mottled subsoil. Developed under intermittent or permanent waterlogging.
Permeability	The measure of the ability of a porous material (often, a rock or unconsolidated material) to allow fluids to pass through it.
Permeable (rocks/soil)	Rocks and soil which have interconnected pores and allow passage of fluids.
Photovoltaic	The process of converting sunlight to electrical energy.
Planning condition	A condition imposed on a grant of planning permission (in accordance with the Town and Country Planning Act 1990) or a condition included in a Local Development Order or Neighbourhood Development Order.
Planning Practice Guidance (PPG): Flood Risk and Coastal Change (2014)	In March 2014, the DCLG published the Planning Practice Guidance (PPG), which replaced the Technical Guidance to the NPPF. This document provides additional guidance to local planning authorities to ensure the effective implementation of the planning policies set out in the NPPF on development in areas at risk of flooding.

Plastic limit	The moisture content above which a soil displays plastic behaviour and becomes more prone to structural damage. Soils should not be handled when above their plastic limit.
Pollution	Anything that affects the quality of land, air, water or soils, which might lead to an adverse impact on human health, the natural environment or general amenity. Pollution can arise from a range of emissions, including smoke, fumes, gases, dust, steam, odour, noise and light.
Potable	Water suitable for drinking.
Potential impacts	Impacts, which could occur in the absence of appropriate design modifications or preventative measures.
Priority Substances Directive	Directive 2008/105/EC of the European Parliament and Council (the Priority Substances Directive) came into force on 16th December 2008 and sets environmental quality standards in the field of water policy.
PV Panel	A panel comprising a grouping of photovoltaic cells connected to each other and set within a single physical frame. Each PV Panel is attached to a Mounting Structure.
Ramsar sites	Wetlands of international importance, designated under the 1971 Ramsar Convention.
Receptor	A component of the natural or man-made environment (such as water, air, a building, a plant, a physical landscape resource, special interest, or viewer group) that will experience an effect
Regulatory Authority	The planning or other authority responsible for planning consents or project authorisation (synonymous with Determining or Competent Authority).
Relative Emissions (Re)	Difference between absolute emissions generated by the proposed project and the baseline emissions.
Residual Effects	Those effects of a development that cannot be mitigated following implementation of mitigation proposals.
Runoff	Water flow (including flow from snow and other precipitation) over the ground surface which has not entered the drainage system. This occurs if the ground is impermeable, is saturated or rainfall is

	particularly intense. (Sometimes referred to as surface water runoff, surface runoff).
Scoping	An initial stage in determining the nature and potential scale of the environmental impacts arising from the proposed development, and assessing what further studies are required to establish their significance.
Secondary (undifferentiated) aquifer	A distinction between Secondary A and Secondary B aquifer designations cannot be made
Secondary A aquifer	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers.
Secondary Undifferentiated Aquifers	This has been assigned in cases where it has not been possible to attribute either category Secondary A or B aquifer to a rock type. In most cases, this means that the layer in question has previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type.
Site of Special Scientific Interest (SSSI)	Sites designated by Natural England under the Wildlife and Countryside Act 1981.
Soil	The surface layer of the Earth's crust composed of weathered rock, alive and dead organic matter (plant roots, soil fauna and microorganisms), water and air. Soil has important functions such as providing habitat for plant growth, transformation of mineral and organic compounds, carbon storage (in soil organic matter, or humus), water and air filtration, support for buildings, protection of archaeological artefacts. Soil is typically divided into horizontal layers, the main ones are: topsoil and subsoil. Topsoil is the most biologically active and fertile surface layer rich in organic matter. Typical topsoil depth is 25 to 35 cm (plough layer in arable farming). Subsoil is typically characterised by low content of organic matter (except peat or organic soils) and is less biologically active and fertile, it typically extends to 1.20m or bedrock, if the soil is shallower.

Soil associations	A geographic grouping of soils identified by the name of the most frequently occurring soil series and by the combination of ancillary soil series. Soil associations are mapped as map units on the Soil Survey of England and Wales soil maps.
Soil erodibility	A measure of a soil's susceptibility to being lost due to environmental factors such as wind and water.
Soil functions	The environmental, societal and economic benefits soils provide. Examples include the production of biomass (food, fibre, fuel), the provision of ecological habitats, and its role within geochemical cycles such as carbon and nutrient cycling.
Soil horizon	The name given for a horizontal layer of soil with distinct characteristics within a profile. Horizons can be identified by properties such as texture, structure, colour, organic matter content, water regime etc. Soil profiles are commonly subdivided into the topsoil (upper horizon) and the underlying subsoil horizon(s)
Soil series	The lower categorical level of the soil classification used in England and Wales. Soils series are defined using a combination of three main properties, the broad type of parent material present (substrate type), the texture of the soil material (textural grouping) and the presence or absence of material with a distinctive mineralogy.
Soil stripping	The removal of a layer of soil during the construction phase. Stripped soils are commonly reused elsewhere on the site, or stored for future reuse.
Soil texture	The relative proportions of sand, silt and clay in the inorganic fraction of the soil. Along with the organic matter content, soil texture strongly influences a soil's susceptibility to structural damage and erosion
Source (contamination)	The origin (source) of contamination, often related to past or present land use.
Source Protection Zone 1 (SPZ1)	Inner Protection Zone - Defined as the 50 day travel time from any point below the watertable to the source. This zone has a minimum radius of 50 metres.

Source Protection Zone 2 (SPZ2)	Outer Protection Zone - Defined by a 400 day travel time from a point below the watertable. This zone has a minimum radius of 250 or 500 metres around the source, depending on the size of the abstraction.
Source Protection Zone 3 (SPZ3)	Total Catchment - Defined as the area around a source within which all groundwater recharge is presumed to be discharged at the source. In confined aquifers, the source catchment may be displaced some distance from the source. For heavily exploited aquifers, the final Source Catchment Protection Zone can be defined as the whole aquifer recharge area where the ratio of groundwater abstraction to aquifer recharge (average recharge multiplied by outcrop area) is >0.75.
Special Areas of Conservation (SAC)	Areas given special protection under the European Union's Habitats Directive, which is transposed into UK law by the Habitats and Conservation of Species Regulations 2010.
Special Protection Areas (SPA)	Areas which have been identified as being of international importance for the breeding, feeding, wintering or the migration of rare and vulnerable species of birds found within European Union countries. They are European designated sites, classified under the Birds Directive.
Structural damage	Damage caused to soil structure often through inappropriate handling or trafficking. A soil's risk of structural damage increases with soil wetness
Superficial geology	Typically refers to geological deposits that are less than 2.6 million years old. These recent unconsolidated sediments may include stream channel and floodplain deposits, beach sands, talus gravels and glacial drift and moraine. All pre-quaternary deposits are referred to as bedrock.
Surface Water	Water occurring on the ground surface, such as rivers, streams, ponds and oceans.
Topography	The natural or artificial features, level and surface form of the ground surface.
Water Act 2003	The Water Act 2003 amended the Water Resources Act 1991 to improve long-term water resource management by making changes

	to licensing. The Water Act 2003 also aims to promote water conservation, increase competition, strengthen the voice of consumers and promote the suitable use of water resources.
Water Act 2014	The Water Act 2014 aims to reform the water industry to make it more responsive to customers and to increase the resilience of water supplies to droughts and flooding. It also brings in measures to address the availably and affordability of insurances in high flood risk areas.
Water Framework Directive (WFD)	The WFD (more formally Directive 2000/60/EC) is designed to improve and integrate the way water bodies are managed throughout Europe. In the UK, it came into force on 22 December 2000, and was transposed into UK law (transposed) in 2003. Member States must aim to reach good chemical and ecological status in inland and coastal waters by 2015 subject to certain limited exceptions. The WFD is designed to enhance the status and prevent further deterioration of aquatic ecosystems and associated wetlands; promote the sustainable use of water; reduce pollution of water especially by 'priority' and 'priority hazardous' substances; and ensure progressive reduction of groundwater pollution. The WFD establishes a strategic framework for managing the water environment. It requires a management plan for each river basin to be developed every 6 years. The plans are based on a detailed analysis of the impacts of human activity on the water environment and incorporate a programme of measures to improve water bodies where required.
Water Resources Act 1991	The Water Resources Act 1991 aims to prevent and minimise pollution of water (surface and groundwater) and tasks the policing of this Act to the EA.
Wetness class	A system of grading soils based on their water regime. Along with topsoil texture, a soil's wetness classes (I to VI) plays a key role in determining the degree to which Wetness limits the ALC grade at a particular point.