



GLOSSARY

Terminology	Explanation
AAA	Anti-Aircraft Ammunition
AADT	Annual Average Daily Traffic
Abstraction	The process of removing water from a river, groundwater, or other source.
Accidents and Safety	Risk of collisions occurring through the Proposed Development changing the character of existing traffic
Additionality	The extent to which an activity is undertaken on a larger scale, takes place at all, or earlier, or within a given geographical area as a result of the intervention. Thus, an impact arising from an intervention is additional if it would not have occurred in the absence of the intervention.
ADF (Average Daylight Factor)	Average daylight factor (ADF) is a measure of levels of illuminance (due to diffuse daylight) within a room (averaged over the working plane taken at 850mm over the floor) presented as a percentage of outdoor illuminance over an unobstructed horizontal plane.
Agglomeration effects	The benefits firms obtain when they locate near to each other. These effects are related to the concepts of economies of scale and network effects.
Air Quality Management Areas (AQMA)	Areas designated by local authorities because they are not likely to achieve national air quality objectives by the relevant deadlines.
Air Quality Objectives	Pollutant objectives that local authorities have a duty to meet, as set out in the Air Quality Standards Regulation (2010).
ALARP	As low as reasonably practicable
Applicants	Robertson Property Ltd (arena and hotel) and Cardiff Council (Atlantic Wharf, Butetown Masterplan).
Aquifer	A sub-surface zone or formation of rock or soil containing a body of groundwater.
ASHP	Air Source Heat Pump
BAP	Biodiversity Action Plans
Baseline conditions	The conditions that would pertain in the absence of the proposed project at the time the project would be constructed / operated / decommissioned. The definition of these conditions should / may also be informed by changes arising from other causes (e.g., other consented developments).
Baseline studies	Studies of existing environmental conditions, which are designed to establish the baseline conditions against which any future changes can be measured or predicted.
BCAG	Breathe Clean Air Group
BEIS	Government Department for Business, Energy & Industrial Strategy
BGS	British Geological Survey
BIM	Building Information Modelling
BNG	Biodiversity Net Gain
BoCC	Birds of Conservation Concern
Borehole	A borehole is a narrow shaft bored into the ground, either vertically or horizontally.
BRE	Building Research Establishment
Brownfield site	A derelict, disused site envisaged for redevelopment.
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 of the surface water from rain, runoff, and nearby streams that run downslope towards the shared outlet.



Terminology	Explanation
CC	Climate Change
CC	Cardiff Council
CEMP	Construction Environmental Management Plan
CEP	Circular Economy Package
CFD	Computational Fluid Dynamics
CFSH	Code for Sustainable Homes
CH4	Methane Gas
CHP	Combined Heat and Power
CIEEM	Chartered Institute of Ecology and Environmental Management
Clean Air Zone (CAZ)	Where certain types of vehicles cannot enter without meeting set emission standards or facing a penalty charge.
CLOCS	Construction Logistics and Cycle Safety
CO2	Carbon Dioxide Gas
CO2e	Carbon Dioxide Equivalent
Conservation Area	An area of special environmental or historical importance that is protected from changes by law.
Countryside	The rural environment and its associated communities (including the coast).
CRoW	The Countryside and Rights of Way
CSM	Conceptual Site Model
dB - Decibel	Unit used to describe quantify sound pressure levels or noise levels. 0 dB is the approximate threshold of hearing and 120 – 140 dB is the threshold of pain. A decibel is a logarithmic quantity and for sound pressure is calculated relative to a reference sound pressure level of 20 µPa. A change of 1 dB is just detectable under carefully controlled listening conditions.
dB(A) - A Weighted decibel	The dB(A) unit used to describe a sound pressure level with the frequency spectrum weighted to account for the sensitivity of human hearing at different frequencies. Human hearing is less sensitive at low and high frequencies and most sensitive at speech frequencies. The dB(A) weighting better describes the subjective effect. A change of 3 dB(A) is typically the minimum noticeable difference for noises with a similar character. A change of 10 dB(A) is equivalent to a subjective doubling or halving of loudness. A-weighted noise levels are also denoted by a suffix 'A' as in LAeq etc.
Deadweight	Output that would have occurred without the intervention.
DECC	Former Government Department of Energy & Climate Change
DEFRA	Department for Environment, Food & Rural Affairs
DER	Dwelling Emission Rate
Designated heritage asset (landscape)	A World Heritage Site, Scheduled Monument, Listed Building, Protected Wreck Site, Registered Park and Garden, Registered Battlefield or Conservation Area designated under the relevant legislation. These designations or their settings can be relevant to landscape and / or visual impact considerations.
Designated Landscape	Areas of landscape identified as being of importance at local, national or international levels, either defined by statute or identified in development plans or other documents.
Development plan	This includes adopted Local Plans, neighbourhood plans and the London Plan, as defined in section 38 of the Planning and Compulsory Purchase Act 2004 (regional strategies have all been abolished by Order using powers taken in the Localism Act 2011).



Terminology	Explanation
Dewatering	The removal or draining of groundwater or surface water from a riverbed, construction site or mine shaft, typically by pumping.
DFEE	Dwelling Fabric Energy Efficiency
DfT's MoEA	DfT's 'Manual of Environmental Appraisal'
DHN	District Heat Network
Direct Jobs	Jobs that are a primary output of a development (e.g. construction jobs).
Displacement	The proportion of intervention outputs accounted for by reduced outputs elsewhere in the target area.
DM DPD	Development Management Development Plan Document
DMRB	Design Manual for Roads and Bridges
Driver Delay	Traffic delays to non-development traffic
dte	Dry Tonnes Equivalent (measure of wood fuel)
EC	European Community
Economic inactivity	Section of the working population which is not in employment and is not actively seeking employment.
Effect	A physical or measurable change to the environment attributable to the project.
EIA	Environmental Impact Assessment
EIA Regulations	The Town and Country Planning (Environmental Impact Assessment) (Wales) Regulations 2017
EIB	European Investment Bank
Element	A component part of the landscape (e.g. roads, hedges, woods).
EMS	European Marine Site
Enhancement (landscape)	Improvement to the landscape resource and / or visual amenity of a proposed development site (and its wider setting) over and above the baseline conditions through restoration, reconstruction or creation.
Environment	Our physical surroundings including air, water and land.
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.
EPI	Environment Performance Indicators
EPS	European Protected Species
EPSM	European Protected Species Mitigation
ERF	Energy Recovery Facility
ES	Environmental Statement
ESCo	Energy Supply Company
EU	European Union
EV	Electric Vehicles
Existing Sensitive Receptors (Air Quality)	Existing residential dwellings, school or care homes, located in areas that could be impacted by the air quality effects of the proposed development.
Fear and Intimidation	The impact of this is dependent on the volume of traffic, its HGV composition, its proximity to people or the lack of protection caused by such factors as narrow pavement widths
FEES	Fabric Energy Efficiency Standards
FHS	Future Homes Standard



Terminology	Explanation
Field pattern	The pattern of hedges and walls that define fields in farmed landscapes.
FOG	Flat Over Garage
FRA	Flood Risk Assessment
GAC	generic assessment criteria
GEART	Guidelines for the Environmental Assessment of Road Traffic
GGAT	Glamorgan-Gwent Archaeological Trust
GGAT – APM	Glamorgan-Gwent Archaeological Trust – Archaeological Planning Management
GHG	Greenhouse Gases
GIA	Gross Internal Area
GLVIA	Guidelines for Landscape and Visual Impact Assessment (currently the third edition)
GQRA	Generic Quantitative Risk Assessment
Green infrastructure (GI)	A network of multi-functional ‘green’ and ‘blue’ connections and spaces, habitats, drainage solutions and planting / vegetation, urban and rural, which is capable of delivering a wide range of environmental and quality of life benefits for local communities.
Greenfield site	A site, usually located in a rural area, which has not previously been built on.
Gross jobs	The sum of jobs supported by a development.
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 recharge	A hydrologic process, where water moves downward from surface water to groundwater. Recharge is the primary method through which water enters an aquifer.
GSHP	Ground Source Heat Pump
GVA (Gross Value Added)	GVA is the measure of the value of goods and services produced in an area, industry or sector of an economy. GVA is used to measure economic productivity.
GWP	Global Warming Potential
ha	hectares
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.
HCSM	Hydrogeological Conceptual Site Model
HE	High Explosive
HEDBA	Historic Environment Desk-Based Assessment
HER	Historic Environment Record
HGV	Heavy Goods Vehicle
HIA	Health Impact Assessment
HIU	Heat Interface Unit
HRA	Habitat Regulations Assessment
HUDU	Healthy Urban Development Unit
Hybrid Planning Application	The planning application for the Proposed Development comprising Atlantic Wharf, Butetown Masterplan (outline element) and Cardiff Arena and hotel (detailed element).
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 surface water.
IEMA	Institute of Environmental Management and Assessment



Terminology	Explanation
IEMA (Transport)	Institute of Environmental Management and Assessment Report published by the Transport Research Laboratory (TRL) SR356, Goldschmidt, 1976)
Indirect Impacts	Impacts on the environment, which are not a direct result of the development but are often produced away from it or as a result of a complex pathway. Sometimes referred to as secondary impacts.
Indirect jobs	Jobs that are an output of additional activities made possible by the project, but not as a direct output of the project itself (e.g. increased demand for building supplies results in the employment of factory workers).
Induced jobs	Additional jobs flowing from the wider beneficial effects of the project that fall outside the direct and indirect definitions above (e.g. new retail jobs created from the construction workers spending part of their wages in shops).
Infiltration	The process by which water on the ground enters the soil and the unsaturated zone.
Intervention	Project, programme or policy implemented or supported by the public sector to achieve its objectives.
IPCC	Intergovernmental Panel on Climate Change
IRZ	Impact Risk Zone
JSP	Joint Strategic Plan
km	kilometre
Kv	Kilovolt
kW	Kilowatt (unit of power)
kWh	Kilowatt hour (unit of energy)
kWhth/y	Kilowatt hour (of unit of thermal energy) per year
LA90 dB	The LA90 noise parameter is A-weighted noise level exceeded for 90% of the measurement period. This noise index is widely accepted as a descriptor of 'background' noise levels which is the underlying noise in the absence of short-term events.
LAeq dB	The LAeq noise level is defined as the equivalent steady-state sound level over a specified measurement period with the same energy as the actual fluctuating noise over the same time period. This noise index is widely accepted as a descriptor of 'ambient' or average noise level.
LAMax dB	The LAMax noise parameter is the maximum A-weighted noise level recorded during the measurement period.
LAMin dB	The LAMin noise parameter is the maximum A-weighted noise level recorded during the measurement period.
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 use	What land is used for, based on broad categories of functional land cover, such as urban and industrial use or the different types of agriculture and forestry.
Landform	The shape and form of the land surface which has resulted from combinations of geology, geomorphology, slope, elevation and physical process.
Landscape	An area, as perceived by people, the character of which is the result of the action and interaction of natural and/or human factors.



Terminology	Explanation
Landscape / Townscape Character Assessment	The process of identifying and describing variation in the character of the landscape or townscape and the use of 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 document such as Landscape Character Assessment or Landscape Guidelines.
Landscape / Townscape Effects	Change in the elements, characteristics, character and qualities of the landscape as a result of development. These effects can be positive or negative.
Landscape / Townscape Evaluation	The process of attaching value (non-monetary) to a particular landscape, usually by the application of previously agreed criteria, including consultation and third party documents, for a particular purpose (e.g. designation or in the context of the assessment).
Landscape / Townscape Factor	A circumstance or influence contributing to the impression of a landscape (e.g. scale, enclosure, elevation).
Landscape / Townscape Feature	Particularly prominent or eye-catching elements in the landscape, such as tree clumps, church towers or wooded skylines (or in townscape terms, may include structural planting, focal points, built skylines, or the relationship between built form and open space) OR a particular aspect of the project proposal.
Landscape / Townscape Quality	A measure of the physical state of the landscape. It may include the extent to which typical character is represented in individual areas, the interactions of the landscape and the condition of individual elements.
Landscape / Townscape Resource	The combination of elements that contribute to landscape context, character and value.
Landscape / Townscape Susceptibility	The extent to which a landscape can accept change of a particular type and scale, without unacceptable adverse effects.
Landscape / Townscape 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.
Landscape Capacity	The degree of change (e.g. due to development or land use change) that can take place in a landscape without unacceptable adverse effects on its character. The acceptable level of change is usually defined through consultation.
Landscape Character	A distinct, recognisable and consistent pattern of elements in the landscape that makes one landscape different from another, rather than better or worse.
Landscape characterisation / classification	A process of analysing the landscape and identifying different composite types using selected criteria but without attaching relative values to different sorts of landscape.
Landscape or Townscape Character Area / Type / Unit (Individual)	These can be distinct types of landscape comprising a series of areas or sub-units that are relatively homogenous in character and generic in nature in that they may occur in different parts of a wider study area, but wherever they occur they share broadly similar combinations of geology, topography, drainage patterns, vegetation and historical land use and settlement pattern, and perceptual and aesthetic attributes. Alternatively, these are single unique areas or comprise the sub-units themselves which are geographically discrete. Refer to relevant landscape character guidance for further information and definitions).
Lawson criteria	Short-hand for the LDDC version of the UK industry standard criteria for wind microclimate comfort and safety developed by T.V. Lawson.
LB	Listed Building
LDDC	London Dockland Development Corporation



Terminology	Explanation
LDF	Local Development Framework
LDP	Local Development Plan
LDV	Light Duty Vehicle
Leakage	The proportion of outputs that benefit those outside of the intervention's target area or group.
LNR	Local Nature Reserve
LPA	Local Planning Authority
LSOA	Lower Super Output Area
m	Metre
M ²	Square metre
Magnitude	A combination of the size, scale, extent, duration and reversibility or irreversibility of an effect.
Main River	Main Rivers are a statutory type of watercourse in England and Wales, usually larger streams or rivers, but also include some small watercourses. A main river is defined as a watercourse marked as such on a main river map, and can include any structure or appliance for controlling or regulating the flow of water in, into, or out of a main river.
Market failure	A situation where barriers exist to the normal and efficient operation of a local economy. Examples may include information barriers, where local people do not know about nearby job vacancies.
MEP	Mechanical, Electrical, Plumbing (as in MEP cupboard for domestic utilities)
Methodology	The specific approach and techniques used for a given study.
MEV	Mechanical Extract Ventilation
MMC	Modern Methods of Construction
Model Verification	A comparison of the modelled results versus monitoring results at relevant locations to enable the adjustment of model outputs, minimising the inherent uncertainties associated with dispersion modelling.
MRF	Materials Recycling Facility
MSCP	Multi-storey Car Park
Multiplier effects	Further economic activity (jobs, expenditure or income) associated with additional local income, local supplier purchases and longer-term effects.
MVHR	Mechanical Ventilation with Heat Recovery
MW	Megawatt (unit of power)
MWh	Megawatt hour (unit of energy)
N ₂ O	Nitrous Oxide Gas
National Trails	Long distance routes for walking, cycling and horse riding.
NERC	Natural Environment and Rural Communities
Net jobs	The difference between gross job gains and gross job losses.
NHS	National Health Service
NLCA	National Landscape Character Area (Wales)
NMR	National Monuments Record
NO ₂	Nitrogen Dioxide
Non-tradable sector	Sectors, the output of which is mostly only deliverable within the local area.
NO _x	Oxides of Nitrogen.
NPPF	National Planning Policy Framework
NPRN	National Primary Reference Number
NRW	Natural Resources Wales



Terminology	Explanation
NSN	National Site Network
NTS	Non-Technical Summary
ONS	Office for National Statistics
Open space (Socio-Economics)	Any open piece of land that is undeveloped (has no buildings or other built structures) and is accessible to the public (e.g. parks, community gardens, cemeteries).
Open space (Townscape)	All open space of public value, including not just land, but also areas of water (such as rivers, canals, lakes and reservoirs) which offer important opportunities for sport and recreation and can act as a visual amenity.
OS	Ordnance Survey
Outcomes	The wider effects or impact on an area of an intervention, for example the reduction in crime level over a set period of time.
Outputs	The physical products or measurable results of individual projects, for example, the number of firms assisted, and training places taken up.
PAC	Pre Application Consultation
PAH	Polycyclic Aromatic Hydrocarbons
PAN	Planning Advice Note
PEAR	Preliminary Ecological Appraisal Report
Pedestrian Amenity	The relative pleasantness of a journey and can include fear and intimidation if they are relevant.
Pedestrian Delay	Ability of pedestrians to cross-roads due to changes in traffic volume, composition and speed and the level of pedestrian activity, visibility and physical conditions of the Proposed Development
Perception	The psychology of seeing and possibly ascribing value and/or meaning (to landscape) through sensory and cognitive means.
Permeability	The measure of the ability for users within a site, landscape or townscape area to move through the area.
Persistence	The period of time over which the benefits generated will endure.
Play space	A place designated to provide an environment for children that facilitates play, typically outdoors.
PM ₁₀	Airborne particulate matter with an aerodynamic diameter of 10µm (micrometres or microns) or less
PM _{2.5}	Airborne particulate matter with an aerodynamic diameter of 2.5µm or less
Potential impacts	Impacts which may be found to occur, or could occur in the absence of appropriate design modifications or preventative measures.
PPA	Planning Performance Agreement
PPA	Power Purchase Agreement
PPE	Personal Protective Equipment
PPW	Planning Policy Wales
PRA	Preliminary Risk assessment
PRA (Biodiversity)	Preliminary Roost Assessment
Predicted impacts	Those impacts which are predicted as a consequence of the development although the nature and severity of their effect will be conditioned by the scope for mitigation.
Present value	The future value of a cost or benefit expressed in present terms by means of discounting.
PRN	Primary Reference Number



Terminology	Explanation
Proposed Development	The Atlantic Wharf, Butetown Masterplan and Cardiff Arena and hotel (this is the description that should be used if referring to the Proposed Development in full).
Proposed Sensitive Receptors (Air Quality)	Proposed residential dwellings, school or care homes, located within the proposed development.
PRoW	Public Right(s) of Way
PrWS	Private Water Supply
Public Right(s) of Way (PRoW)	Footpaths (for walking, running, mobility scooters or powered wheelchairs); Bridleways (for walking, horse riding, bicycles, mobility scooters or powered wheelchairs); Restricted byways (for any transport without a motor and mobility scooters or powered wheelchairs); Byways open to all traffic (for any kind of transport, including cars, but mainly used by walkers, cyclists and horse riders).
PV	Solar Photovoltaic
Ramsar	Wetlands of international importance designated under the Ramsar convention.
Rarity	A measure of relative abundance.
RCP	Representative Concentration Pathways
RDC	Red Dragon Centre
RDC2	Proposed new Red Dragon Centre
Receptor	Physical resource, special interest or viewer group that will experience an effect.
Reference case	The position in terms of target outputs over a set period of time if the intervention did not take place.
Residual Effects	Those effects of a development that cannot be mitigated following implementation of mitigation proposals.
RICS	Royal Institution of Chartered Surveyors
Runoff	Water flow (including flow from snow and other precipitation) over the ground surface which has not entered the drainage system.
SAC	Special Area of Conservation
SAP	Standard Assessment Procedure (to model domestic energy consumption)
SBEM	Simplified Building Energy Model (to model commercial energy consumption)
Secondary (Undifferentiated) Aquifer	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.
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 B Aquifer	Predominantly lower permeability layers which may store and yield limited amounts of groundwater due to localised features such as fissures, thin permeable horizons and weathering.
Sense of Place (Genius Loci)	The essential character and spirit of an area: Genius Loci literally 'spirit of the place'.
Setting of (an asset)	The surroundings in which an asset is experienced. A setting's extent is not fixed and may change as the asset and its surroundings evolve, or according to the nature of the asset. Elements of a setting may make a neutral, positive or negative contribution to the character, appreciation, or experience of an asset.
Severance	Severance is defined as the perceived division that can occur within a community when it becomes separated by a major traffic artery and describes a series of factors that separate people from places and other people.
SEWBREC	South East Wales Biodiversity Records Centre



Terminology	Explanation
SINC	Site of Importance for Nature Conservation
Site	The land on which the Proposed Development will be located.
SM	Scheduled Monument
SME	Strip, Map, Excavate
Social Infrastructure	Social Infrastructure is a subset of the infrastructure sector and typically includes assets that accommodate social services such as schools, universities, hospitals, and community facilities.
SPA	Special Protection Area
SPD	Supplementary Planning Document
SPG	Supplementary Planning Guidance
SPZ	Groundwater Source Protection Zone
SSSI	Site of Special Scientific Interest
Substitution	Where a firm substitutes one activity for a similar activity (such as recruiting a different job applicant) to take advantage of public sector assistance.
SUDS	Sustainable Urban Drainage Systems
Sui Generis	In planning terms, buildings that do not fall within any particular use class.
SWMP	Site Waste Management Plan
TAN	Technical Advice Note
Target area	The area within which benefits will be assessed.
tCO ₂ /y	Tonnes of Carbon Dioxide per year
TER	Target Emission Rate
TFEE	Target Fabric Energy Efficiency
Topography	The natural or artificial features, level and surface form of the ground surface.
Townscape	The character and composition of the built environment including urban open space, green space, relationships between buildings and open space, as well as the buildings themselves and relationships between them.
Tradable sector	Sectors, the output of which is sold mostly outside the local area.
TRICS	Trip Rate Information Computer System
TZW	Towards Zero Waste
UKCP18	United Kingdom Climate Projections 2018
UXO	Unexploded ordnance
Verified View	A visualisation which superimposes an image of a proposed development upon a photograph or series of photographs.
VISSIM	Traffic microscopic simulation software which has been widely used assessing traffic conditions.
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.
Visual Effect	Effects on specific views and on the general visual amenity experienced by people.
Visual Envelope	Extent of potential visibility to or from a specific area or feature.
Visualisation	Computer simulation, photomontage or other technique to illustrate the predicted appearance of a development.
VSC (Vertical Sky Component)	Vertical Sky Component (VSC) is a measure of diffuse daylight from sky reaching the centre point of the outer face of a window, representing the area of sky visible from the point of measurement as a percentage of unobstructed hemispherical sky.
WA	Wardell Armstrong LLP



Terminology	Explanation
WFD	Water Framework Directive
WIMD	Welsh Index of Multiple Deprivation
WMC	Wales Millennium Centre
WPP	Waste Prevention Programme
WWHR	Waste Water Heat Recovery
Zone(s) of influence	The area(s) over which ecological features may be affected by the biophysical changes caused by the proposed project and associated activities.