

## **Appendix: Introduction and EIA Methodology**

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# Culham Storage ES Volume 3 – Appendix: Introduction, Annex 3: Glossary of Terms and Abbreviations

## GLOSSARY OF TERMS

Abnormal Indivisible Loads	Loads which cannot, without undue expense or risk or damage, be divided into two or more loads for the purpose of carriage on the road and which cannot be carried on vehicle operating within the limitations of the C&U regulations.	Design Brief	A written document for a design project developed by a person or team in consultation with the 'client'.
Acoustic Fencing	Use of a fabric-covered, double-sided screen used in open areas such as offices to absorb noise.	Desk-Based Assessment	A non-intrusive study and review of all available information pertaining to a site, including historical records, collated and monitored data, and consultation with relevant stakeholders.
Amenity	A pleasant or advantageous aspect of the environment.	Design Freeze	A method used during design development stage to mitigate the risks associated with change. This organizes and complies the design process, control changes, and force the completion of design stages on time.
Aquifer	A below ground, water-bearing layer of soil or rock.	Directive	European Union (EU) Directives impose legal obligations on European Member States. They are binding as to the results to be achieved but, allow individual states the right to decide the form and methods used to achieve the results. An example of this is the EU Air Quality Framework Directive (1996) that is brought into legal effect in the UK by the Air Quality (England) Regulations (2000).
Alluvium	Sediment laid down by a river. Can range from sands and gravels deposited by fast flowing water and clays that settle out of suspension during overbank flooding. Other deposits found on a valley floor are usually included in the term alluvium (e.g. peat).	Ecology by Design	Ecology and arboriculture specialist consultants
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.	EIA Scoping	An initial stage in determining the nature and potential scale of the environmental impacts arising from a proposed development and assessing what further studies are required to establish their significance.
Biodiversity	The diversity, or variety of plants and animals and other living things in a particular area of region. It encompasses landscape diversity, ecosystem diversity, species diversity and genetic diversity.	EIA Scoping Opinion	A written statement of the opinion of the relevant planning authority as to the information to be provided in the Environmental Statement which specifically requires a local planning authority to respond or consult with consultees within a statutory period.
Borehole	A deep hole bored into the ground as part of intrusive geological investigations.	EIA Screening	An initial stage in which the need for EIA is considered in respect of a development. Some developments are automatically subject to EIA by means of their inevitable size, nature and effects (Schedule 1 developments). Other projects are made subject to EIA because it is anticipated that they are likely to have significant environmental effects (Schedule 2 developments).
Bunding	A constructed retaining wall around storage 'where potentially polluting substances are handled, processed or stored, for the purposes of containing any unintended escape of material from that area until such time as remedial action can be taken'.	Emission	A material that is expelled or released to the environment. Usually applied to gaseous or odorous discharges to the atmosphere.
Carbon Budget	A tolerable quantity of greenhouse gas emissions that can be emitted in total over a specified time.	Environmental Impact Assessment	A process by which information about the environmental effects of a development is collected and taken into account by the relevant decision-making body before a decision is given on whether the development should go ahead.
Carbon Dioxide (CO <sub>2</sub> )	Carbon dioxide is a naturally occurring gas comprising 0.04% of the atmosphere. The burning of fossil fuels releases carbon dioxide fixed by plants many millions of years ago, and this has increased its concentration in the atmosphere by some 12% over the past century. It contributes about 60 per cent of the potential global warming effect of manmade emissions of greenhouse gases.	Environmental Statement	A statement that includes such information that is reasonably required to assess the environmental effects of a development.
Completed Development	A development scheme which has been build out.	Floodplain	Land adjacent to a watercourse over which water flows, or would flow but for defences in place, in times of flood.
Conservation Area	An area designated by the Local Authority as being of special architectural or historic interest under the provisions of the Planning (Listed Buildings and Conservation Areas 1990) Act, the character or appearance of which it is desirable to preserve or enhance.	Geotechnical	Ground investigation, typically in the form of boreholes and/or trial/test pits, carried out for engineering purposes to determine the nature of the subsurface deposits.
Construction Environmental Management Plan	A documented management system with environmental procedures to monitor residual impacts of the construction phase of a development.	Grade I Listed Building	A listed building that is of exceptional interest.
Construction Logistics Plan	A documented travel plan specific for a construction site.	Grade II Listed Building	A listed building that is of special interest.
Cumulative Schemes	Developments that have received planning permission and have a signed legal agreement in place. They are assumed to be in place by the time the Development being assessed is completed.		

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Grade II* Listed Building	A listed building that is of particular importance and of more than special interest.	Ordnance Datum	Land levels are measured relative to the average sea level at Newlyn, Cornwall. This average level is referred to as 'Ordnance Datum'.
Gross External Area	A measure of floor space calculated in accordance with the Royal Institution of Chartered Surveyors (RICS) Code of Measuring Practice.	Oxford Archaeology	Archaeology specialist consultants
Hardstanding	Ground surfaced with a hard material for parking vehicles on.	Pathways	The routes by which impacts are transmitted through air, water, soils or plants and organisms to their receptors.
Heritage Asset	A building, area or scene which makes a positive contribution of special architectural, historic or environmental interest.	Plant	A building's generator, heating, ventilation, and/or electricity-production system.
Hoarding	A temporary board fence set up on the perimeter of a building site.	Planning Application Red Line Boundary	Border that incorporates all land necessary to carry out the proposed development.
Hydrogeology	The study of geological factors relating to the Earth's water.	Planning Practice Guidance	A web-based resource that came into force in 2014. It seeks to consolidate existing technical guidance into a consolidated online format and provides further detail on the policies contained within the NPPF.
Lignia	Arboriculture assessment specialist consultants	Planning Statement	Sets out the policy background to the proposal, describes the site and its surroundings, identifies constraints and explores the planning policy framework.
Listed Building	A building or structure of special architectural or historic interest which is included in a list made by the Secretary of State.	Porous	A rock or material having minute holes through which liquid or air can pass.
Local Plan	The South Oxfordshire Local Plan 2011-2035. A series of documents which sets out the vision and framework for development in the district.	Proposed Development	An area of land that has had a potential scheme put forward to be built on.
Magnitude of Impact	The degree and extent to which the project changes the environment.	Public Rights of Way	Footpaths open to public access, which might cross privately owned land.
Massing	Massing refers to the structure in three dimensions, usually outlining the height and size of a building.	Ramsar Sites	Designated wetlands of international importance
Mitigation	Any process, activity of thing designed to avoid, reduce or remedy adverse environmental impacts likely to be caused by a development project.	Receptor (Sensitive)	A component of the natural, created, or built environment such as human being, water, air, a building, or a plant that is affected by an impact.
Mitigation Measure	Measure aiming at reducing an adverse environmental effect.	Residual Effects	Those effects of a development following implementation of any relevant mitigation proposals.
National Planning Policy Framework	Came into force on 27 March 2012. It sets out the Government's economic, environmental and social planning policies for England and summarises, in a single document, all previous national planning policy advice (Planning Policy Statements and Planning Policy Guidance notes).	Risk Assessment	An assessment of the likelihood and severity of an occurrence.
National Site Network	Special Protection Areas and Special Areas of Conservation, collectively	RPS	Specialist consultants for water resources and for noise and vibration
Neighbourhood Plan	South Oxfordshire District Council's plan for Culham as part of the SODC Local Plan.	Safeguarding	Protecting from harm or damage with an appropriate measure.
Non-Technical Summary	A summary of the Environmental Statement in 'non-technical language'.	Screening (landscaping)	A natural or man-made feature which separates land uses.
Open Space	Includes all open spaces, plus other spaces that provide a break from the densely built-up urban form, such as pedestrianised areas and station concourses; hard-landscaped areas with private access; pedestrian/cycle and wildlife routes; and all the green infrastructure that links open spaces together, including green corridors, private residential gardens, trees, green roofs, and green landscaped areas.	Sensitive Area	According to EIA Regulations is any of the following: land notified under section 28(1) (Sites of Special Scientific Interest) of the Wildlife and Countryside Act 1981 (23); a National Park; the Broads; a property on the World Heritage List; a scheduled monument; AONB or a European site.
		Setting	The context in which a building or area can be appreciated.
		Sightline	Specialist consultants for landscape and visual impact assessment
		Site of Importance for Nature Conservation	A non-statutory site identified as being areas of importance for wildlife and geology.

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Socio-Economics	The social science that studies how economic activity affects and is shaped by social processes.
Soyl	Specialist consultants for land take and soils
Statutory Consultees	Groups or bodies that, by law, must be consulted as part of the planning application process for EIA development.
Strata	Layer of rock or soil.
Supplementary Planning Document	Documents which seek to give guidance and support on the Council's planning processes and are one of the material considerations in determining planning applications.
Surface Water Drainage Strategy	A report into how surface water, usually caused by rain, affects a site and the surrounding area.
The Applicant	The persons or entities making the planning application.
The London Clay Formation	A marine geological formation of Ypresian age which crops out in the southeast of England.
The site	The extent of the development site, as defined by the red-line boundary plan.
Topography	The natural and man-made features of an area collectively.
Watching Brief (archaeological)	An archaeological watching brief is 'a formal programme of observation and investigation conducted during any operation carried out for non–archaeological reasons.'

## ABBREVIATIONS

µm	Micrometres
AD	Anno Domini
ALC	Agricultural Land Classification
AOD	Above Ordnance Datum
AONB	Area of Outstanding Natural Beauty
AP	Available Water
AQMA	Air Quality Management Area
AVR	Accurate Verifiable Representations
BC	Before Christ
BESS	Battery Energy Storage System
BEIS	Department of Business, Energy and Industrial Strategy
BGS	British Geological Survey
BIA	Biological Impact Assessment
BMV	Best and Most Versatile agricultural land
BNG	Biodiversity Net Gain
BREEAM	British Research Establishment Environmental Assessment Method
BS	British Standard
BSI	British Standard Institute
CA	Conservation Area
CCC	Committee on Climate Change
CCUS	Carbon Capture, Utilisation and Storage
CCTV	Closed Circuit Television
CEMP	Construction Environmental Management Plan
CH <sub>4</sub>	Methane
CIEEM	Chartered Institute for Ecology and Environmental Management
CIfA	Chartered Institute for Archaeologists
cm	Centimetre
CMLI	Chartered Member of the Landscape Institute
CO	Carbon monoxide
CO <sub>2</sub>	Carbon dioxide
CO <sub>2</sub> e	Carbon dioxide equivalent
CSC	Culham Science Centre
CTMP	Construction Traffic Management Plan
DAS	Design and Access Statement
DBA	Desk Based Assessment
DEFRA	Department of Environment, Food and Rural Affairs

DSEAR	Dangerous Substances and Explosive Atmospheres
E	East
EA	Environment Agency
EA	Easily Available Water
EAC	Environmental Audit Committee
EC	European Commission
EcIA	Ecological Impact Assessment
EIA	Environmental Impact Assessment
ENV3	SODC's biodiversity policy, including requirement for BNG
ENV8	SODC's conservation areas policy, including planning allocation for the Nuneham Courtenay Conservation Area
ENV10	SODC's Registered Parks and Gardens and Historic Landscapes policy, including planning allocation for the Nuneham Courtenay Grade 1 Registered Park and Garden
EPC	Engineering, Procurement and Construction
EPS	European Protected Species
ES	Environmental Statement
FRA	Flood Risk Assessment
FRA's	Fire and Rescue Authorities
FRS	Fire and Rescue Services
GEA	Gross External Area
GHG	Greenhouse Gas
GIS	Geographic Information System
GLVIA	Guidelines for Landscape and Visual Impact Assessment
GtCO <sub>2</sub> e	Giga tonnes carbon dioxide equivalent
GWP	Global Warming Potential
GWR	Great Western Railway
Ha/ha	Hectare
HA	Heritage Asset
HDV	Heavy Duty Vehicle
HE	Historic England
HFC	Hydrofluorocarbon
HGV	Heavy Goods Vehicle
IEMA	Institute of Environmental Management and Assessment
IPCC	Intergovernmental Panel on Climate Change
kg	Kilogram
km	Kilometre
kWh	Kilowatt hour



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LCA	Landscape Character Area	PCS	Power Conditioning System
LCA	Life Cycle Analysis	PEA	Preliminary Ecological Appraisal
LEMP	Landscape and Ecological Management Plan	PFC	Perfluorocarbons
LNR	Local Nature Reserve	RCP	Representative Concentration Pathway
LPA	Local Planning Authority	RCP8.5	UKCP's medium emissions scenario for 2080
LVIA	Landscape and Visual Impact Assessment	REMA	BEISS's Review of Electricity Market Arrangements
LWS	Local Wildlife Site	RNAS	Royal Naval Air Station
m	Metre	RPS	Noise and Vibration and Water Resources specialist consultants
m <sup>2</sup>	Square metre	RTE	Round Trip Efficiency
m <sup>3</sup>	Cubic metre	RVT	Relief Visualisation Toolkit
M AOD	Metres Above Ordnance Datum	S	South
MAFF	Ministry of Agriculture, Fisheries and Food (current DEFRA)	SAC	Special Area of Conservation
mm	Millimetre	SE	Southeast
MS	Magnitude Surveys, specialist consultants for ground surveys	SF <sub>6</sub>	Sulphur hexafluoride
MW	Megawatt	SFB	Sunken Featured Building
mWh	Megawatt hour	SINC	Site of Importance for Nature Conservation
N	North	SLRM	Simple Local Relief Model
N/A	Not applicable	SO <sub>2</sub>	Sulphur Dioxide
N <sub>2</sub> O	Nitrous Oxide, as per the Kyoto Basket of gaseous emissions to be monitored	SODC	South Oxfordshire District Council
NCA	National Character Area (Landscape)	SOF	System Operability Framework (UK's electricity National Grid)
NDC	The UK's Nationally Determined Contribution under the Paris Agreement to the UNFCCC (Dec. 2020) to reduce economy-wide GHG emissions by at least 68% by 2030, compared to 1990 levels.	SPA	Special Protection Area
NE	Northeast	SPD	Supplementary Planning Documents
NFPA	National Fire Protection Association	SPG	Supplementary Planning Guidance
NGET	National Grid Electrical Transmission	SPI	Species of Principal Importance
NO	Nitrogen monoxide, a.k.a. nitric oxide	SPZ	(Groundwater) Source Protection Zone
NO <sub>2</sub>	Nitrogen Dioxide	SSSI	Site of Special Scientific Interest
NO <sub>x</sub>	Nitrogen Oxides	STRAT6	Oxford Green Belt's planning allocation in SODC's policy
NPPF	National Planning Policy Framework	STRAT8	Culham Science Centre's planning allocation in SODC's policy
NPPG	National Planning Practice Guidance	STRAT9	SODC's strategic allocation for 217ha adjacent to the Proposed Development to be developed to deliver approximately 3,500 new homes, a net increase of at least 7.3ha of employment land in combination with the adjacent Science Centre and supporting services and facilities. A formal planning application (or applications) for development in relation to this strategic allocation has not yet been submitted.
NRMM	Non-Road Mobile Machinery	SuDS	Sustainable Drainage System
NSIP	Nationally Significant Infrastructure Project	SW	Southwest
NTS	Non-Technical Summary	SW Drainage	Surface Water Drainage
NW	Northwest	TA	Total Available Water
OD	Ordnance Datum	TVERC	Thames Valley Environmental Records Centre
ONS	Office of National Statistics	TZV	Theoretical Zone of Visibility
OS	Ordnance Survey		

TZVI	Theoretical Zone of Visual Influence
UK	United Kingdom
UKAS	United Kingdom Accreditation Service
UKCP	United Kingdom Climate Projections
UNFCCC	United Nations Framework Convention on Climate Change
W	West
WBCSD	World Business Council for Sustainable Development
WFD	Water Framework Directive
WHS	World Heritage Site
WRI	World Resources Institutes