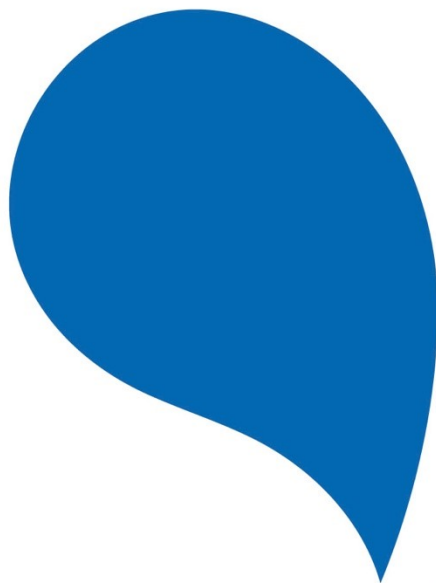


Fens Reservoir

**Environmental Impact Assessment  
Scoping Report  
Volume 3  
Part 1: Appendices 4.1 – 7.3**

**October 2024**



## Document Control

**Document title** EIA Scoping Report – Volume 3 – Part 1

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**Revision** C01

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**Date** October 2024

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## Version History

<b>Revision</b>	<b>Suitability</b>	<b>Date</b>	<b>Description</b>
C01	A3	October 2024	For submission to the Planning Inspectorate

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## **APPENDIX 4.1: Legislation, planning policy and guidance summary**



# 1 Introduction

## 1.1 Purpose of this document

- 1.1.1 This appendix outlines the key environmental legislation, policy and guidance, and the local planning policy that is relevant to the Proposed Development. Further details will be provided within the application for development consent regarding how these have been considered during the development of the Proposed Development.
- 1.1.2 The application for development consent would be considered by the Secretary of State primarily in accordance with the applicable legislation and the policies in the relevant National Policy Statement (NPS), as described in Environmental Impact Assessment (EIA) Scoping Report Chapter 4: Legislation, planning policy and guidance. However, when undertaking EIA, the wider policy and guidance relevant to the assessment is considered. Section 2 of this appendix outlines the environmental legislation, policy and guidance that is considered relevant to the Proposed Development.
- 1.1.3 Section 3 considers the local planning documentation, which may include policies or guidance that will need to be considered during the development of the Proposed Development.

## 2 Legislation, policy and guidance

### 2.1 Legislation and national policy

- 2.1.1 Table 2-1 sets out the environmental legislation and policy relevant to the Proposed Development. General environmental legislation and policy, which apply to more than one topic, is presented towards the top of Table 2-1, followed by aspect-specific legislation, policy and guidance. It should be noted that the legislation and policy may apply to more than one aspect, but has only been included in the table once to avoid duplication. For simplicity, Table 2-1 refers to the original legislation, rather than referencing amendments; however, amendments to the original legislation have been considered, where relevant, when producing the EIA Scoping Report.
- 2.1.2 A summary of the Planning Act 2008, the Infrastructure Planning (EIA) Regulations 2017, the NPS for Water Resources Infrastructure (Department for Environment, Food and Rural Affairs (Defra), 2023a), and the National Planning Policy Framework (NPPF) (Department for Levelling Up, Housing and Communities (DLUHC), 2023) is provided in Chapter 4: Legislation, planning policy and guidance, of this EIA Scoping Report. Further details are also contained within the relevant aspect chapters.
- 2.1.3 The United Kingdom (UK) is no longer a member of the European Union (EU). EU legislation as it applied to the UK on 31 December 2020 is now part of UK domestic legislation, under the control of the UK's Parliaments and Assemblies, and is published on [legislation.gov.uk](https://www.legislation.gov.uk). This retained legislation is being kept up to date on [legislation.gov.uk](https://www.legislation.gov.uk) in the same way as other forms of domestic legislation.

**Table 2 1: Relevant environmental legislation and policy**

Name/reference	Relevance to the Proposed Development
<b>General environmental legislation relevant to more than one aspect</b>	
Countryside and Rights of Way Act 2000 (as amended)	National Landscapes (formerly called ‘Areas of Outstanding Natural Beauty’) are designated under the Act, which sets out the requirements for conservation boards and management plans, and places a duty on relevant authorities (including statutory undertakers) to conserve and enhance the natural beauty of National Landscapes. The Act also increases measures for the management and protection of Sites of Special Scientific Interest and includes provision for public access to the countryside and Public Rights of Way, and through open access land.
Environment Act 2021 (as amended)	The Act provides a legal framework for environmental governance and makes provision for specific improvement of the environment, including measures on: waste and resource efficiency; air quality and environmental recall; water; nature; biodiversity; and conservation covenants.
Environmental Protection Act 1990 (as amended)	Part II, Section 33 (1)(a) establishes certain actions as offences with respect to depositing, treating, keeping or disposing of controlled waste without a permit. Section 33 (1)(c) makes it an offence to keep, treat or dispose of controlled waste in a manner likely to cause pollution of the environment. Part IIA sets out the statutory contaminated land regime. This sets out procedures to make land suitable for its current use where there is a pollution linkage that can result in significant harm. Where land is being developed, the relevant planning regime addresses the risk posed by potential contamination. Part III covers statutory nuisance provisions for noise and vibration, dust and odour. Relevant planning authorities can take action in cases where a statutory odour or dust nuisance is found to exist.
Reservoirs Act 1975 (as amended)	This Act makes provision against escapes of water from large reservoirs, lakes or lochs artificially created or enlarged, which store more than 10,000m <sup>3</sup> above the natural level of any part of the surrounding land. The legislation requires licensed engineers to build large reservoirs and supervise them when they are in operation to minimise the risk of uncontrolled releases.
Water Industry Act 1991 (as amended)	This Act contains provisions relating to the water supply and the provision of wastewater services in England and Wales. Part I includes general duties relating to the water industry, strategic priorities and objectives in England and Wales, as well as environmental and recreational duties, including in relation to sites of special interest.
The Environmental Permitting (England and	These Regulations apply to sites that are covered by environmental permits, such as landfills, and how these are regulated. They also cover the licensing of surface waters and groundwater abstractions. They also

Name/reference	Relevance to the Proposed Development
Wales) Regulations 2016 (as amended)	protect water resources through Source Protection Zones, and seek to prevent or limit the inputs of pollutants into groundwater in order to protect the environment or human health.
The Hedgerows Regulations 1997	The Regulations apply to hedgerows over 20m in length with protection granted for ‘important hedgerows’ (which are more than 30 years old and meet qualifying criteria).
The Management of Hedgerows (England) Regulations 2024	The Regulations provide a consistent approach for the management and protection of hedgerows.
The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017 (as amended)	The Regulations transpose the Water Framework Directive (WFD) regime into English and Welsh law and provides for the protection of surface (fresh) water, estuaries, coastal waters and groundwater. The objectives of the Regulations are to enhance the status, and prevent further deterioration of aquatic ecosystems, promote the sustainable use of water, reduce pollution of water and ensure progressive reduction of groundwater pollution.
The Infrastructure Planning (Decisions) Regulations 2010	These Regulations set out matters to which the competent authorities must have regard when deciding applications for development consent relating to: (a) listed buildings, conservation areas and ancient monuments; (b) deemed licences under Part 2 of the Food and Environment Protection Act 1985; (c) deemed consents under Section 34 of the Coast Protection Act 1949; and (d) hazardous substances.
UK Marine Policy Statement (Defra, 2020)	This Policy Statement provides the framework for taking decisions which affect the marine environment. Proposed developments should avoid harm to marine ecology, biodiversity and geological conservation interests, and where appropriate, provide opportunities for building-in beneficial features. It also states that any proposed development will not cause a deterioration in status of any WFD water body or prevent compliance with WFD objectives.
Environmental Improvement Plan (Defra, 2023b)	This sets out Government action to help the natural world regain and retain good health. It includes objectives aimed at enhancing the health of future generations by establishing long-term goals and targets to be accomplished over the next 25 years. Specific measures include providing opportunities for the reintroduction of native species, shaping the Nature Recovery Networks and rolling out Local Nature Recovery Strategies to identify areas to create and restore habitat. It also has objectives for improving mental health and the feeling of wellbeing. It advocates for inclusive engagement in spending more time in green and blue spaces across people from diverse backgrounds.

Name/reference	Relevance to the Proposed Development
<b>Landscape and visual</b>	
Town and Country Planning Act 1990 (as amended)	The legislation (as amended) on Tree Preservation Orders is in the Town and Country Planning Act 1990 (in particular, Sections 197-214 as amended by the Planning Act 2008).
The Town and Country Planning (Tree Preservation) (England) Regulations 2012 (as amended)	This is further legislation protecting specific trees, groups of trees, or woodlands in the interest of amenity.
European Landscape Convention 2000	This Treaty was ratified in the UK in 2006. It recognises that the landscape is important as a component of the environment and of people’s surroundings in both town and country, whether it is ordinary landscape or outstanding. The Treaty contains 18 articles which, collectively, promote landscape protection, management and planning and organising European cooperation on landscape issues.
<b>Biodiversity (terrestrial and aquatic)</b>	
Natural Environment and Rural Communities Act 2006 (as amended)	The Act places a duty to conserve biodiversity on public authorities. It requires the Secretary of State to publish and maintain lists of species and types of habitats which are regarded by Natural England as being of ‘principal importance’ for the purposes of conserving biodiversity.
Protection of Badgers Act 1992 (as amended)	The Act lists offences relating to activities affecting badgers and their setts.
Salmon and Freshwater Fisheries Act 1975 (as amended)	The Act is aimed at the protection of freshwater fish, in particular salmon and trout. It sets out activities that could constitute an offence including direct mortality, barriers to migration and degradation of habitats.
Wildlife and Countryside Act 1981 (as amended)	The Act allows for the designation of Sites of Special Scientific Interest due to features of conservation interest related to flora, fauna, physiography or geology. It also makes it an offence to kill, injure, take, possess or trade in many wild animal species and to pick, uproot, possess or trade in a number of wild plants. The Act aims to prevent the establishment of non-native species.
The Eels (England and Wales) Regulations 2009 (as amended)	The Regulations grant powers to regulators to implement measures for the recovery of European eel stocks and have implications for operators of abstractions and discharges.

Name/reference	Relevance to the Proposed Development
The Conservation of Habitats and Species Regulations 2017 (as amended)	<p>Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (“the Habitats Directive”) and certain elements of the EU Wild Birds Directive (management and protection of bird habitat) has been transposed in these Regulations.</p> <p>The Regulations provide for the designation and protection of European sites and species, and the adoption of planning and other controls for the protection of European sites. The Regulations require all plans or proposed developments to be assessed by the competent authority to determine if there is likely to be a significant effect on nature conservation sites before a consent is granted. The Regulations allow for the licensing of activities affecting European Protected Species that would otherwise be illegal.</p>
Biodiversity 2020: A Strategy for England’s wildlife and ecosystem services (Defra, 2011a)	The most recent biodiversity strategy for England has as its mission to halt overall biodiversity loss, support healthy well-functioning ecosystems, and establish coherent ecological networks, with more and better places for nature for the benefit of wildlife and people.
England Biodiversity Strategy: Climate Change Adaptation Principles (Defra, 2011b)	Includes conservation and diversity of ecosystems and habitats, and maintaining ecological networks so that species can spread locally into newly favourable habitat if their current habitat becomes inhospitable under climate change.
<b>The translocation of Invasive Non-Native Species (INNS)</b>	
Wildlife and Countryside Act 1981 (as amended)	Under Section 14 it may be an offence to release, or allow to escape into the wild, any animal which <i>‘is of a kind which is not ordinarily resident in and is not a regular visitor to Great Britain in a wild state’</i> ; or is included in Part I of Schedule 9. Under Section 14 it may also be an offence to plant or otherwise cause <i>‘to grow in the wild any plant’</i> which is included in Part II of Schedule 9.
The Invasive Non-Native Species (Amendment etc.) (EU Exit) Regulations 2019 (as amended)	The Regulations ensure the continued operability of EU Invasive Alien Species Regulation 1143/2014, which outlines a set of measures to combat the spread of INNS on the list of EU concern, through prevention by a number of robust measures that aim to prevent introduction of INNS, early detection and eradication of INNS through a surveillance system and rapid eradication measures, and management action to prevent further spread and harm.
The Invasive Alien Species (Enforcement and Permitting) Order 2019	It may be an offence to release, cause to escape, plant, or grow species of animal or plant <i>‘not ordinarily resident in’</i> and <i>‘not a regular visitor to Great Britain in a wild state’</i> , or otherwise listed in Part 1 of Schedule 2.

Name/reference	Relevance to the Proposed Development
<b>Water resources and flood risk</b>	
Flood and Water Management Act 2010 (as amended)	The Act provides a comprehensive flood risk management framework for people, homes and businesses. It encourages the use of sustainable drainage systems in proposed developments. Schedule 4 of the Act defines the meaning of a ‘large raised reservoir’ and ‘high-risk reservoir’ and safety management and planning requirements.
Land Drainage Act 1991 (as amended)	This Act requires that ordinary watercourses be maintained by their owner in such a condition that the free flow of water is not impeded. Under this Act, works with the potential to block or obstruct flow are subject to consent from the relevant internal drainage board or local authority.
Water Resources Act 1991 (as amended 2009)	This Act sets out the responsibilities of the Environment Agency (and, prior to 1995, the National Rivers Authority) in relation to water pollution, resource management, flood defence, fisheries, and navigation.
The Water Resources (Abstraction and Impounding) Regulations 2006 (as amended)	This contains provisions relating to the licensing of abstraction and impounding of water in England and Wales.
The Water Resources Management Plan Regulations 2007	Regulations setting out the requirements for water companies to prepare and maintain a water resources management plan.
The Environment Agency’s approach to groundwater protection (Environment Agency, 2018)	The Environment Agency regulates activities that may impact groundwater resources, to prevent and limit pollution. This Policy is concerned with infrastructure schemes of national or regional significance, that pass through a Source Protection Zone or are below the water table in Principal or Secondary aquifers. The position statements are currently under review.
<b>Historic environment</b>	
Ancient Monuments and Archaeological Areas Act 1979 (as amended)	Scheduled monuments are designated by law and are, by definition, of national importance. The Planning Act 2008 removed the requirement to apply for consent to works relating to archaeology or submit a notice under Section 35 of the 1979 Act.
Burial Act 1857 (as amended)	The Act makes the removal of buried human remains an offence unless a licence from the Ministry of Justice has first been obtained or, where Christian consecrated ground is concerned and the remains are to be reburied elsewhere, a faculty has been issued.

Name/reference	Relevance to the Proposed Development
Planning (Listed Buildings and Conservation Areas) Act 1990	The Act provides specific protection for listed buildings and conservation areas. The Planning Act 2008, under Section 33, removes the requirement to apply for consent for changes to, or removal of, listed buildings under Section 74 of the Listed Building Act.
Protection of Military Remains Act 1986 (as amended)	The Act makes the unauthorised interference of the remains of military aircraft that have crashed and of associated human remains an offence, unless a license under Section 4 of the Act has been granted by the Secretary of State.
Treasure Act 1996 (as amended)	This Act obligates those who find items defined as ‘treasure’ to report the object to their local coroner.
<b>Geology, soils, agriculture and land quality</b>	
Pollution Prevention and Control Act 1999 (as amended)	This Act establishes a comprehensive pollution control regime to protect the environment from pollution activities, which will be adhered to for the Proposed Development.
The Control of Asbestos Regulations 2012 (as amended)	These Regulations ensure the protection of the public, including construction workers, from risks associated with exposure to asbestos.
The Contaminated Land (England) Regulations 2006 (as amended)	These Regulations make provision for the identification, and remediation where applicable, of contaminated lands under Part 2A of the Environmental Protection Act 1990.
The Control of Substances Hazardous to Health Regulations 2002 (as amended)	These Regulations set out the principles of assessing health risks posed by hazardous substances. It involves the risk assessment, control measures and emergency procedures needed in managing human exposures to hazardous substances.
The Environmental Damage (Prevention and Remediation) (England) Regulations 2015 (as amended)	These Regulations aim to ensure any potential environmental damage is promptly addressed while protecting human health and the environment.
The Environmental Permitting (England and	These Regulations provide an integrated framework for the regulation of activities that could harm the environment or human health, requiring operators of ‘regulated facilities’ to obtain a permit or to register



Name/reference	Relevance to the Proposed Development
Wales) Regulations 2016 (as amended)	some activities, which would otherwise require permits, as ‘exempt facilities’. The Proposed Development would be considered as a regulated facility.
<b>Material assets and waste management</b>	
Environmental Permitting (England and Wales) Regulation 2016 (as amended)	The Landfill Directive (1999/31/EC) has been transposed in these Regulations. The overall objective of the Landfill Directive is to prevent, or reduce as far as possible, the negative effects of landfilling on the environment, as well as any resultant risk to human health.
The Hazardous Waste (England and Wales) Regulations 2005 (as amended)	The Regulations provide for the control of hazardous wastes and their movements. A consignment note is required prior to the removal of any hazardous waste.
The Waste and Environmental Permitting etc. (Legislative Functions and Amendment etc.) (EU Exit) Regulations 2020	The Regulations transpose the Waste Framework Directive (2008/98/EC) into UK legislation. The Directive provides some basic waste management principles and sets out a five-step waste hierarchy as to how waste should be managed as an important requirement, which applies to anyone who produces or manages waste.
Controlled Waste (England and Wales) Regulations 2012 (as amended)	The Regulations define household, industrial and commercial waste for environmental permitting purposes. The Regulations also specify that waste from construction or demolition works, including preparatory works, should be ‘ <i>treated as household waste</i> ’ for the purposes of Part 2 of the Environmental Protection Act 1990 only.
The Waste Electrical and Electronic Equipment Regulations 2013 (as amended)	All electrical and electronic equipment placed on the market in the UK is covered by the scope of the Regulations. Electrical and electronic equipment utilised on the Proposed Development is covered by the scope of the Regulations and such waste must be managed by an approved authorised treatment facility.
The Hazardous Waste (Miscellaneous Amendments) Regulations 2015 (as amended)	These Regulations make amendments to enactments which concern hazardous waste, or cross-refer to other enactments or European Union instruments concerning hazardous waste. The amendments are made as a consequence of amendments made to EU instruments.

Name/reference	Relevance to the Proposed Development
The Waste (Circular Economy) (Amendment) Regulations 2020	These Regulations transpose the EU’s 2020 Circular Economy Package (European Commission, 2020), which aims to promote a more sustainable and circular approach to waste management. The Proposed Development would handle materials and waste in accordance with circular economy principles favouring reuse and recycling rather than being discarded.
Waste Management Plan for England (Defra, 2021b)	The Plan provides an overview of waste management in England. It outlines the waste hierarchy as a guide to sustainable waste management and sets out the Government’s ambition to work towards a more sustainable and efficient approach to resource use and management.
Waste Prevention Programme for England: Maximising Resources, Minimising waste (Defra, 2023c)	The Plan encourages proposed developments to design out waste and encourages reuse and repair.
The Clean Growth Strategy (Department for Business, Energy & Industrial Strategy, 2017)	This highlights the relevance to work towards zero avoidable waste by 2050, maximising the value extracted from resources, and minimising the negative environmental and carbon impacts associated with their extraction, use and disposal.
Our Waste, Our Resources: A Strategy for England (Defra, 2018a)	The Strategy complements and helps deliver the 25-Year Plan (Defra, 2018b) and The Clean Growth Strategy (Department for Business, Energy & Industrial Strategy, 2017). It is guided by two overarching objectives: to increase the value of resource use; and to reduce waste and its impact on the environment.
Net Zero Strategy: Build Back Greener (Department for Business, Energy & Industrial Strategy, 2021)	This Strategy highlights the reduction of waste sent to landfill for disposal, particularly biodegradable waste, as well as the importance of an efficient and sustainable use of resources.
National Planning Policy for Waste (Department for Communities and Local Government, 2014)	This sets out detailed waste planning policies and maintains the core principles of the ‘plan led’ approach with a continued focus of moving waste up the waste hierarchy, and facilitating a more sustainable and efficient approach to resource use and management.
<b>Traffic and transport – no specific legislation or policy</b>	
<b>Air quality</b>	

Name/reference	Relevance to the Proposed Development
The Air Quality Standards Regulations 2010 (as amended)	These Regulations set out the requirements for exposure reduction of Particulate Matter 2.5 (PM <sub>2.5</sub> ) within the general population, and the requirements for action to be taken when levels of air pollutants persistently exceed the limit values.
The Air Quality Strategy for England, Scotland, Wales and Northern Ireland: Volume 1 (Defra, 2011c)	This sets out the air quality objectives and the measures selected to achieve the desired improvements in air quality.
<b>Carbon and greenhouse gases and climate resilience</b>	
Climate Change Act 2008 (as amended)	The 2019 amendment mandates that the UK’s terrestrial greenhouse gas emissions in 2050 are at least 100% lower than in 1990.
The Sixth Carbon Budget (Climate Change Committee, 2020)	This provides carbon budgets for different sectors of the UK economy to achieve the 2050 Net Zero target of the amended Climate Change Act 2008. In 2025 the Seventh Carbon Budget will be prepared, which will set out the limit for UK net emissions of greenhouse gases over the years 2038 to 2042.
Flood and Coastal Erosion Risk Management: Policy Statement (Environment Agency, 2020)	This policy statement includes the objective of creating climate resilient places that are adapted to the increased risks of flooding and drought.
Third National Adaptation Programme (NAP3) (Defra, 2023d)	This programme responds to the requirement in the Climate Change Act 2008 to publish a programme for adaptation, and includes the objective for water companies to make their infrastructure resilient to flooding and coastal change.
<b>Noise and vibration</b>	
Control of Pollution Act 1974 (as amended)	Section 60 of the Act grants the power to the relevant planning authority to serve a notice on a developer imposing restrictions on construction works. Section 61 states that in advance of the works, prior consent may be applied for from the relevant planning authorities. If this is undertaken, the relevant planning authorities would need to be provided with information about how construction noise would be managed, including the use of ‘best practicable means’.
The Noise Insulation Regulations 1975	These Regulations allow the Highway Authority to carry out or fund noise insulations works at eligible properties affected by the construction and/or use of new or altered highways. The noise criteria presented have been used to support the road traffic noise assessment.

Name/reference	Relevance to the Proposed Development
Noise Insulation (Railways and Other Guided Transport Systems) Regulations 1996	These Regulations allow the responsible authority to carry out or fund noise insulations works at eligible properties affected by the construction and/or use of new or altered railways. The noise criteria presented have been used to support the rail traffic noise assessment.
The Building Regulations 2010	Approved Document O issued under these Regulations provides advice concerning the interaction of internal noise levels, ventilation and the potential for overheating that should be taken into account when designing new residential developments, such as any on-site temporary worker accommodation.
Noise Policy Statement for England (Defra, 2010)	This aims to avoid significant adverse impacts on health and quality of life; to mitigate and lessen adverse impacts on health and quality of life; and, where possible, contribute to the improvement of health and quality of life. The Statement provides an explanation of the term 'significant adverse impact' in the context of noise impact from the NPPF. The Statement also defines the meanings of the terms No Observed Effect Level (NOEL), Lowest Observed Adverse Effect Level (LOAEL) and Significant Observed Adverse Effect Level (SOAEL).
<b>Public access and amenity</b>	
The Water and Sewerage (Conservation, Access and Recreation) Code of Practice on Conservation, Access and Recreation, 2000	The Code gives practical guidance to water and sewerage undertakers and the Environment Agency relating to their environmental and recreational duties, under Sections 3 and 4 of the Water Industry Act 1991, and Sections 6(1), 7 and 8 of the Environment Act 1995, and seeks to promote desirable practices in these fields.
<b>Socio-economics and community – no specific legislation or policy</b>	
<b>Human health, and major accidents and disasters</b>	
Animal Health Act 1981 (as amended)	The Act provides powers for the control of outbreaks of various animal diseases, including avian influenza. This includes provision for the slaughter of poultry found to be diseased, suspected of disease, exposed to disease or within a designate cull zone to prevent spread of the disease; compensation payments where birds are slaughtered which are not diseased; powers for veterinary inspectors to enter premises where disease is suspected; publication of biosecurity guidance, and preparation and review of a national contingency plan. There are several pieces of subordinate legislation that have been prepared in relation to powers under this Act. It is relevant for the human health assessment and major accidents and disasters assessment scoping in relation to zoonotic disease and biosecurity measures which may affect health and livelihoods.

Name/reference	Relevance to the Proposed Development
Public Health (Control of Disease) Act 1984 (as amended)	The Act provides powers to isolate individuals infected with a notifiable disease to prevent the spread of such a disease. It is relevant to the human health and major accidents and disasters scoping in relation to responding to pandemics as, for example, it was the basis for the subordinate legislation prepared in connection with the COVID-19 pandemic in the UK.
Health and Safety at Work etc. Act 1974 (as amended)	The Act places general duties on employers and provides the framework for the regulation of industrial health and safety in the UK. The overriding principle is that foreseeable risks to persons in workplaces shall be reduced so far as is reasonably practicable, and that adequate evidence shall be produced to demonstrate that this has been done.
Civil Contingencies Act 2004 (as amended)	The Act provides a framework for civil protection in the UK. Part 1 of the Act concerns emergency preparedness and sets roles and responsibilities for those involved in emergency preparation and response at the local level. Category 1 organisations are the core response bodies (emergency services, local authorities and National Health Service (NHS) bodies) and are required to prepare risk assessments, emergency plans, business continuity arrangements, and share information with other local responders. Category 2 organisations are cooperating bodies and include the Health and Safety Executive, transport and utility companies. Category 1 and 2 organisations come together to form local resilience forums. Part 2 of the Act allows for the making of emergency powers to be deployed in exceptional circumstances.
The Control of Major Accident Hazards (COMAH) Regulations 2015 (as amended)	The COMAH Regulations aim to prevent and mitigate the effects of major accidents involving dangerous substances, which can cause serious damage/harm to people and/or the environment. The competent authorities in England for COMAH are the Health and Safety Executive and Environment Agency.
The Construction (Design and Management) Regulations 2015 (as amended)	The Regulations place specific duties on clients, designers and contractors so that health and safety is considered throughout the life of a construction development, from its inception to its subsequent final demolition and removal. Under the Regulations, designers are required to avoid foreseeable risks so far as reasonably practicable by eliminating hazards from proposed developments.
The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 (as amended)	These Regulations impose requirements and prohibitions in relation to the carriage of dangerous goods by road and by rail in the interests of safety.

Name/reference	Relevance to the Proposed Development
The Dangerous Substances and Explosive Atmospheres Regulations 2002 (as amended)	These Regulations require employers to assess the risks of fires and explosions that may be caused by dangerous substances in the workplace. It requires risks to be eliminated or reduced as far as reasonably practicable.
The Management of Health and Safety at Work Regulations 1999 (as amended)	The Regulations generally make more explicit what employers are required to do to manage health and safety under the Health and Safety at Work Act 1974.
The Planning (Hazardous Substances) Regulations 2015 (as amended)	These Regulations set a consent requirement via the local planning authority for the storage or use of hazardous substances at or above defined limits at a site.
The NHS Long Term Plan (NHS, 2019)	This highlights the importance of improving upstream prevention and addressing wider determinants of health to promote good health beyond healthcare services. It emphasises the need for collaborative efforts between different organisations to tackle health threats, and integrate health considerations into social and economic policies.
The Flood Plan (Reservoirs Emergency Planning) Direction (Defra, 2021a)	This sets a requirement for an undertaker to prepare a flood plan for a 'large raised reservoir' before a construction engineer issues a preliminary certificate for the reservoir under the Reservoirs Act 1975.
The Security and Emergency Measures (Water and Sewerage Undertakers and Water Supply Licensees) Direction (SEMD) (Drinking Water Inspectorate, 2022)	This sets requirements to water companies to maintain water supply in the interests of national security, or to mitigate the effects of any civil emergency which may occur.
<b>Cumulative effects – no specific legislation or policy</b>	

## **2.2 Environmental standards, guidance and advice notes**

- 2.2.1 The EIA will take into account national standards and guidance for EIA. Table 2-2 sets out relevant standards and guidance that have been used to inform the technical chapters or guide the proposed assessment methodology. It should be noted that the standards and guidance may apply to more than one aspect but have only been included in the table once to avoid duplication.
- 2.2.2 The Planning Inspectorate advice notes which apply to all aspects of the EIA are discussed in Chapter 4: Legislation, planning policy and guidance, of this EIA Scoping Report

**Table 2 2: Relevant standards and guidance**

Name/reference
<b>Landscape and visual</b>
British Standards Institution (2010). BS 3998:2010 Tree Work – Recommendations.
British Standards Institution (2012). BS 5837:2012 Trees in Relation to Design, Demolition and Construction – Recommendations.
Institute of Environmental Management and Assessment (IEMA) and the Landscape Institute (2013). Guidelines for Landscape and Visual Impact Assessment. Third edition.
Landscape Institute (2020). Reviewing Landscape and Visual Impact Assessments. Technical Guidance Note 1/20.
Landscape Institute (2019). Visual Representation of Development Proposals. Technical Guidance Note 06/19.
Landscape Institute (2021). Technical Guidance Note 02/21. Assessing the Value of Landscape Outside National Designations.
Natural England (2014). An Approach to Landscape Character Assessment.
<b>Biodiversity (terrestrial and aquatic)</b>
British Standards Institution (2013). BS 42020:2013 Biodiversity: Code of Practice for Planning and Development.
Chartered Institute of Ecology and Environmental Management (CIEEM) (2017). Guidelines for Preliminary Ecological Appraisal. Second edition.
CIEEM (2018). Guidelines for Ecological Impact Assessment in the UK and Ireland – Terrestrial, Freshwater and Coastal.
CIEEM (2019). Advice Note on the Lifespan of Ecological Reports and Surveys.
Defra (2022). Ancient woodland, ancient trees and veteran trees: advice for making planning decisions.
Natural England (2023). Prepare a planning proposal to avoid harm or disturbance to protected species.
Various Biodiversity Net Gain (BNG) regulations published in 2024 covering the identification and delivery of biodiversity gain in relation to proposed developments. While BNG does not apply to Nationally Significant Infrastructure Projects (NSIPs) from November 2025, the regulations have been considered helpful in the assessment.
<b>Water resources and flood risk</b>
Defra (2015). Sustainable drainage systems, non-statutory standards for sustainable drainage systems.
Construction Industry Research and Information Association (CIRIA) (2001). Control of Water Pollution from Construction Sites. Guidance for Consultants and Contractors (C532).
CIRIA (2006). Control of Water Pollution from Linear Construction Projects (C649).
CIRIA (2010a). Flood Resilience and Resistance for Critical Infrastructure (C688).
CIRIA (2023). Environmental Good Practice on Site (C692).



Name/reference
Environment Agency (2023). Water Resources Planning Guideline.
Environment Agency and Defra (2016). Flood Risk assessments: Climate Change Allowances. As amended in 2022.
Environment Agency and Defra (2017). Groundwater protection guidance.
Highways England (2020). Design Manual for Roads and Bridges (DMRB) LA 113 Road Drainage and the Water Environment.
Mustow, S.E., Burgess, P.F. and Walker, N. (2005). Practical Methodology for Determining the Significance of Impacts on the Water Environment.
<b>Historic environment</b>
Chartered Institute for Archaeologists (CIfA) Standards (2023a-c) for: Archaeological excavation; Archaeological field evaluation; and Archaeological monitoring and recording.
Standard and Guidance (2014a-f) for: The creation, compilation, transfer and deposition of archaeological archives; The archaeological investigation and recording of standing buildings or structures; The collection, documentation, conservation and research of archaeological materials; Historic environment desk-based assessment; Archaeological geophysical survey; and Commissioning work or providing consultancy advice on archaeology and the historic environment.
CIfA Universal Guidance (2023d-f) for: Archaeological excavation; Archaeological field evaluation; and Archaeological monitoring and recording.
DLUHC and Ministry of Housing, Communities and Local Government (MHCLG) (2019). Historic Environment Planning Practice Guidance.
Europae Archaeologiae Consilium (2015). European Archaeological Council Guidelines for the Use of Geophysics in Archaeology.
Historic England (2008). Conservation Principles, Policies and Guidance for the Sustainable Management of the Historic Environment.
Historic England (2015a). Geoarchaeology: Using Earth Sciences to Understand the Archaeological Record.
Historic England (2016). Preserving Archaeological Remains: Decision Taking for Sites Under Development.
Historic England (2020). Deposit Modelling and Archaeology: Guidance for mapping buried deposits.

Name/reference
Historic England (2019a). Historic England Aerial Investigation and Mapping Standards Technical Review.
Historic England (2015b). Managing Significance in Decision-Taking in the Historic Environment: Good Practice Advice in Planning Note 2.
Historic England (2017). The Setting of Heritage Assets. Historic Environment Good Practice Advice in Planning Note 3. Second edition.
Historic England (2018). Listed Buildings and Curtilage: Historic England Advice Note 10.
Historic England (2019b). Statements of Heritage Significance: Analysing Significance in Heritage Assets Historic England Advice Note 12.
Historic England (2019c). Conservation Area Appraisal, Designation and Management: Historic England Advice Note 1. Second edition.
Historic England (2021). Local Heritage Listing: Identifying and Conserving Local Heritage: Historic England Advice Note 7.
Historic England (2022). Planning and Archaeology: Historic England Advice Note 17.
CiFA Code of Conduct: Professional Ethics in Archaeology (2022).
IEMA, Institute of Historic Building Conservation, and CiFA (2021). Principles of Cultural Heritage Impact Assessment in the UK.
<b>Geology, soils, agriculture and land quality</b>
British Standards Institution (2015). BS 3882:2015 Specification for Topsoil.
Ministry of Agriculture, Fisheries and Food (1988). Agricultural Land Classification of England and Wales. Revised Guidelines and Criteria for Grading the Quality of Agricultural Land.
Ministry of Agriculture, Fisheries and Food (2000). Good Practice Guide for Handling Soils. Cambridge: The Farming and Rural Conservation Agency.
CIRIA (2024). Contaminated Land Risk Assessment, A Guide to Good Practice (C552).
Natural England (2021). Guide to assessing development proposals on agricultural land.
Highways England (2019a). DMRB LA 109 Geology and Soils.
Defra (2009a). Construction Code of Practice for the Sustainable Use of Soils on Construction Sites.
Defra (2009b). Safeguarding our Soils: A Strategy for England.
Environment Agency (2006). Remedial Targets Methodology: Hydrogeological Risk Assessment for Land Contamination.
Environment Agency (2007). Hydrogeological Impact Appraisal for Dewatering Abstractions.
Environment Agency (2018). The Environment Agency's Approach to Groundwater Protection (Version 1.2).
Environment Agency (2024). Land Contamination Risk Management.
IEMA (2022). A new perspective on land and soil in Environmental Impact Assessment.
Natural England (2009). Agricultural Land Classification: protecting the best and most versatile agricultural land. Second edition.

Name/reference
<b>Material assets and waste management</b>
British Standards Institution (2005). BS 5906:2005 Waste management in buildings – Code of practice.
Department of Trade and Industry (2004). Site Waste Management Plans – Guidance for Construction Contractors and Clients Voluntary Code of Practice.
DLUHC (2014). National Planning Practice Guidance for Minerals.
DLUHC (2015). National Planning Practice Guidance for Waste.
Highways England (2019b). DMRB LA 110 Material assets and waste.
Contaminated Land: Applications in Real Environments (CL:AIRE) (2011). Definition of Waste: Development Industry Code of Practice.
IEMA (2020). Materials and Waste in Environmental Impact Assessment.
<b>Traffic and transport</b>
Department for Transport (2007). Guidance on Transport Assessments.
Department for Transport (2019). Transport Analysis Guidance.
IEMA (2023). Guidelines: Environmental Assessment of Traffic and Movement.
Department for Transport (2014). Overarching principles on Travel plans, Transport Assessments and Statements.
MHCLG (2014). Travel Plans, Transport Assessments and Statements.
<b>Air quality</b>
Defra and the Devolved Administrations (2022). Local Air Quality Management Technical Guidance (TG22).
National Highways (2024). DMRB LA 105 Air Quality.
Institute of Air Quality Management (IAQM) (2014). Guidance on the Assessment of Dust from Construction and Demolition.
IAQM (2017). Guidance on Land Use Planning and Development Control: Planning for Air Quality.
IAQM (2018). Guidance on Monitoring in the Vicinity of Demolition and Construction Sites.
IAQM (2020). A Guide to the Assessment of Air Quality Impacts on Designated Nature Conservation Sites.
<b>Carbon and greenhouse gases and climate resilience</b>
British Standards Institution (2022). BS EN 17472:2022 Sustainability of construction works. Sustainability assessment of civil engineering works. Calculation methods.
British Standards Institution (2023). PAS 2080:2023 Carbon Management in Buildings and Infrastructure.
IEMA (2020). Environmental Impact Assessment Guide to Climate Change Resilience and Adaptation.
HM Treasury (2013). Infrastructure Carbon Review.

Name/reference
IEMA (2022). Assessing Greenhouse Gas Emissions and Evaluating their Significance.
<b>Noise and vibration</b>
British Standards Institution (2023). BS EN 12354:2023 Building Acoustics. Estimation of the acoustic performance of buildings from the performance of elements.
British Standards Institution (2019). BS 4142:2014+A1:2019 Methods for Rating and Assessing Industrial and Commercial Sound.
British Standards Institution (2014). BS 5228:2009+A1:2014 Code of Practice for Noise and Vibration Control on Construction and Open Sites – Part 1: Noise and Part 2: Vibration.
British Standards Institution (2003). BS 7445-1:2003 Description and measurement of environmental noise.
British Standards Institution (2014). BS 8233:2014 Guidance on sound insulation and noise reduction for buildings.
British Standards Institution (1993). BS 7385-2:1993 Evaluation and measurement for vibration in buildings.
British Standards Institution (2008). BS 6472:2008 Guide to evaluation of human exposure to vibration in buildings.
Department of Transport and Welsh Office (1988). Calculation of Road Traffic Noise.
Association of Noise Consultants, Institute of Acoustics and Chartered Institute of Environmental Health (2017). Professional Practice Guidance (ProPG) on Planning and Noise.
MHCLG (2019d). Planning Practice Guidance for Noise.
Highways England (2020a). DMRB LA 111 Noise and Vibration.
IEMA (2014). Guidelines for Environmental Noise Impact Assessment.
The Noise Advisory Council (1978). A Guide to the Measurement and Prediction of the Equivalent Continuous Sound Level, Leq.
World Health Organisation (1999). Guidelines for Community Noise.
World Health Organisation (2009). Night Noise Guidelines for Europe.
MHCLG and DLUHC (2023). Overheating: Approved Document O The Building Regulations 2010.
Transport and Road Research Laboratory (1986). Ground Vibration Caused by Civil Engineering Works Research Report 53.
The Association of Noise Consultants (2020). Measurement and Assessment of Groundbourne Noise and Vibration.
International Organization for Standardisation (ISO) (2024). ISO 9613-2:2024. Acoustics – Attenuation of sound propagation outdoors – Part 2: Engineering method for the prediction of sound pressure levels outdoors.
<b>Public access and amenity</b>
Highways Agency (1993). DMRB Volume 11: Environmental Assessment, Section 3, Part 8 – Pedestrians, Cyclists, Equestrians and Community Effects [now withdrawn].

Name/reference
Highways England (2020b). DMRB LA 112 Population and Human Health.
<b>Socio-economics and community</b>
DLUHC (2022). National Planning Practice Guidance for healthy and safe communities.
<b>Human health</b>
DLUHC (2022). National Planning Practice Guidance for healthy and safe communities.
Pyper <i>et al.</i> (2022a). IEMA Guide to: Effective Scoping of Human Health in Environmental Impact Assessment.
Pyper <i>et al.</i> (2022b). IEMA Guide to Determining Significance for Human Health in Environmental Impact Assessment.
Pyper <i>et al.</i> (2024). Competent Expert for Health Impact Assessment including Health in Environmental Assessments.
Cave <i>et al.</i> (2020). Human Health: Ensuring a high level of protection. A reference paper on addressing Human Health in Environmental Impact Assessment.
International Association for Impact Assessment (2021). Health International Best Practice Principles: Health Impact Assessment.
Public Health England (2020). Health Impact Assessment in spatial planning: A guide for local authority public health and planning teams.
National MWIA Collaborative (2011). Mental Well-being Impact Assessment: A toolkit for wellbeing.
<b>Major accidents and disasters</b>
DLUHC (2019). Planning Practice Guidance: Hazardous substances.
Environment Agency (2013). Guide to risk assessment for reservoir safety management.
Health and Safety Executive (2015). L111 The Control of Major Accident Hazards Regulations 2015: Guidance on Regulations. Third edition.
IEMA and Arup (2020). Major Accidents and Disasters in EIA: A Primer.
<b>Cumulative effects</b>
IEMA (2011). The State of Environmental Impact Assessment Practice in the UK.
Planning Inspectorate (2020). Advice on Note Seventeen: Cumulative effects assessment relevant to nationally significant infrastructure projects.

## **3 Local planning policy**

### **3.1 Introduction**

- 3.1.1 This section sets out the local planning policy of potential relevance to the Proposed Development.
- 3.1.2 application for development consent will be considered by the Secretary of State primarily against the policies in any relevant NPS, as described in Chapter 4: Legislation, planning policy and guidance. However, in deciding the application, the Secretary of State must have regard to any matters raised in any Local Impact Report, and to any other matters raised which the Secretary of State thinks are both important and relevant to the decision (Section 104 of the Planning Act 2008), which may include local planning policies. Therefore, local planning policies of potential relevance are identified in this section.

### **3.2 Affected local planning authorities**

- 3.2.1 The Proposed Development would be located in the following local planning authority areas:
- Cambridgeshire County Council.
  - Fenland District Council.
  - South Cambridgeshire District Council.
  - Huntingdonshire District Council.
  - Peterborough City Council.
  - Norfolk County Council.
  - Borough Council of King's Lynn & West Norfolk.

### **3.3 Local planning policy documents**

- 3.3.1 Table 3-1 lists local planning policy documents which may contain local planning policies of potential relevance to the Proposed Development. Further details on specific policies that have been considered during the development of the Proposed Development will be set out within the Environmental Statement.

**Table 3 1: Local planning policy documents which may contain local planning policies of potential relevance to the Proposed Development**

Local planning authority	Adopted development plan	Relevant adopted Supplementary Planning Documents	Emerging Local Plan
<b>Norfolk County</b>			
Norfolk County Council	<ul style="list-style-type: none"> <li>Core Strategy and Minerals and Waste Development Management Policies Development Plan Document 2010–2026 (Norfolk County Council, 2011).</li> <li>Minerals Site Specific Allocations Development Plan Document (Norfolk County Council, 2017).</li> <li>Waste Site Specific Allocations Development Plan Document (Norfolk County Council, 2013).</li> </ul>	N/A	Norfolk Minerals and Waste Local Plan (Norfolk County Council, 2022) submitted to the Planning Inspectorate on 20 December 2023.
Borough Council of King’s Lynn & West Norfolk	<ul style="list-style-type: none"> <li>Local Development Framework – Core Strategy (Borough Council of King’s Lynn &amp; West Norfolk, 2011).</li> <li>Site Allocations and Development Management Policies Plan (Borough Council of King’s Lynn &amp; West Norfolk, 2016).</li> <li>Core Strategy and Minerals and Waste Development Management Policies Development Plan Document 2010 – 2026 (Norfolk County Council, 2011).</li> </ul>	<ul style="list-style-type: none"> <li>West Winch Growth Area Framework Masterplan Supplementary Planning Document (SPD) (Borough Council of King’s Lynn &amp; West Norfolk, 2023).</li> <li>West Winch SPD Consultation Statement (Borough Council of King’s Lynn &amp; West Norfolk, 2022).</li> </ul>	Emerging Local Plan Review 2016 – 2036. Currently under Examination. (Borough Council of King’s Lynn & West Norfolk, 2024)



Local planning authority	Adopted development plan	Relevant adopted Supplementary Planning Documents	Emerging Local Plan
<b>Cambridgeshire County</b>			
Cambridgeshire County Council	Cambridgeshire and Peterborough Minerals and Waste Local Plan 2036 (Cambridgeshire County Council and Peterborough City Council, 2021).	<ul style="list-style-type: none"> <li>Cambridgeshire Rights of Way Improvement Plan Update (Cambridgeshire County Council, 2016).</li> <li>Cambridgeshire and Peterborough Local Transport and Connectivity Plan (Cambridgeshire and Peterborough Combined Authority, 2023).</li> </ul>	N/A
Peterborough City Council	<ul style="list-style-type: none"> <li>Peterborough Local Plan 2016 to 2036 (Peterborough City Council, 2019c).</li> <li>Cambridgeshire and Peterborough Minerals and Waste Local Plan 2036 (Cambridgeshire County Council and Peterborough City Council, 2021).</li> </ul>	<ul style="list-style-type: none"> <li>Design and Development in Selected Villages SPD (Peterborough City Council, 2011).</li> <li>Peterborough Flood and Water Management SPD (Peterborough City Council, 2019b).</li> <li>Peterborough Developer Contributions SPD (Peterborough City Council, 2019a).</li> <li>Peterborough’s Green Infrastructure and Biodiversity SPD (Peterborough City Council, 2019d).</li> </ul>	Live Timetable of Peterborough Local Plan (Accessed 4 June 2024) sets out that adoption is expected from February 2026 onwards.
Fenland District Council	<ul style="list-style-type: none"> <li>Fenland Local Plan (Fenland District Council, 2014b).</li> <li>Cambridgeshire and Peterborough Minerals and Waste Local Plan 2036 (Cambridgeshire County Council and Peterborough City Council, 2021).</li> </ul>	<ul style="list-style-type: none"> <li>Developer Contributions SPD (Fenland District Council, 2015).</li> <li>Fenland Infrastructure Delivery Plan (Fenland District Council, 2016).</li> <li>Cambridgeshire Flood and Water SPD (Cambridgeshire County Council <i>et al.</i>, 2016).</li> </ul>	Draft emerging Local Plan Regulation 18 stage (Fenland District Council, 2022).



Local planning authority	Adopted development plan	Relevant adopted Supplementary Planning Documents	Emerging Local Plan
		<ul style="list-style-type: none"> <li>Delivering and Protecting High Quality Environments in Fenland SPD (Fenland District Council, 2014a).</li> <li>Resource Use and Renewable Energy SPD (Fenland District Council, 2014c).</li> </ul>	
Huntingdonshire District Council	<ul style="list-style-type: none"> <li>Huntingdonshire’s Local Plan to 2036 (Huntingdonshire District Council, 2019).</li> <li>Cambridgeshire and Peterborough Minerals and Waste Local Plan 2036 (Cambridgeshire County Council and Peterborough City Council, 2021).</li> </ul>	<ul style="list-style-type: none"> <li>Landscape and Townscape SPD (Huntingdonshire District Council, 2022).</li> <li>Cambridgeshire Flood and Water SPD (Cambridgeshire County Council <i>et al.</i>, 2016).</li> <li>Huntingdonshire Design Guide SPD (Huntingdonshire District Council, 2017).</li> <li>Huntingdonshire’s Design Guide SPD 2017 – Compatibility Statement (Huntingdonshire District Council, 2021).</li> <li>Development Contributions SPD (Huntingdonshire District Council, 2011).</li> <li>Great Fen Masterplan (Huntingdonshire District Council, 2010).</li> </ul>	Local Development Scheme (Huntingdonshire District Council, 2023) sets out that adoption is expected in Winter 2028.
South Cambridgeshire District Council (represented by Greater	<ul style="list-style-type: none"> <li>Cambridgeshire and Peterborough Minerals and Waste Local Plan 2036 (Cambridgeshire County</li> </ul>	<ul style="list-style-type: none"> <li>Cambridgeshire Flood and Water SPD (Cambridgeshire County Council <i>et al.</i>, 2016).</li> </ul>	<ul style="list-style-type: none"> <li>In the process of producing a Greater Cambridge Local Plan. 12 March 2024 Cabinet</li> </ul>

Local planning authority	Adopted development plan	Relevant adopted Supplementary Planning Documents	Emerging Local Plan
Cambridge Shared Planning)	<p>Council and Peterborough City Council, 2021).</p> <ul style="list-style-type: none"> <li>• South Cambridgeshire Local Plan (South Cambridgeshire District Council, 2018).</li> </ul>	<ul style="list-style-type: none"> <li>• Sustainable Design and Construction SPD (Greater Cambridge Shared Planning, 2020).</li> <li>• Biodiversity SPD (Greater Cambridge Shared Planning, 2022).</li> <li>• Development Affecting Conservation Areas SPD (South Cambridgeshire District Council, 2009a).</li> <li>• District Design Guide SPD (South Cambridgeshire District Council, 2010a).</li> <li>• Health Impact Assessment SPD (South Cambridgeshire District Council, 2011).</li> <li>• Landscape in New Developments SPD (South Cambridgeshire District Council, 2010b).</li> <li>• Listed Buildings SPD (South Cambridgeshire District Council, 2009b).</li> <li>• Open Space in New Developments SPD (South Cambridgeshire District Council, 2009c).</li> <li>• Trees and Development Sites SPD (South Cambridgeshire District Council, 2009d).</li> </ul>	<p>Meeting update: timetable unknown. Could potentially start the Regulation 18 consultation by Autumn/Winter 2025.</p> <ul style="list-style-type: none"> <li>• Swavesey Neighbourhood Plan (preparation abandoned January 2024) (South Cambridgeshire District Council, 2024 and Swavesey Parish Council, 2024). Some policy documents produced as part of the Neighbourhood Plan exercise before the work was stopped may have relevance (e.g. Flood &amp; Drainage Policy and the Green Spaces Policy).</li> </ul>

## References

This list provides references to documents not already referenced in Tables 2-1, 2-2 and 3-1. Borough Council of King's Lynn & West Norfolk (2011). Local Development Framework – Core Strategy.

Borough Council of King's Lynn & West Norfolk (2016). Site Allocations and Development Management Policies Plan.

Borough Council of King's Lynn & West Norfolk (2022). Consultation Statement – West Winch Framework Masterplan Supplementary Planning Document.

Borough Council of King's Lynn & West Norfolk (2023). West Winch Growth Area Framework Masterplan Supplementary Planning Document.

Borough Council of King's Lynn & West Norfolk (YYYY). Emerging Local Plan Review 2016 – 2036 (2024). Available at: [https://www.west-norfolk.gov.uk/info/20079/planning\\_policy\\_and\\_local\\_plan/951/local\\_plan\\_review\\_2021-2040\\_examination](https://www.west-norfolk.gov.uk/info/20079/planning_policy_and_local_plan/951/local_plan_review_2021-2040_examination). Accessed June 2024.

Cambridgeshire and Peterborough Combined Authority (2023). Local Transport and Connectivity Plan.

Cambridgeshire County Council (2016). Cambridgeshire Rights of Way Improvement Plan Update.

Cambridgeshire County Council and Peterborough City Council (2021). Cambridgeshire and Peterborough Minerals and Waste Local Plan 2036.

Cambridgeshire County Council, Fenland District Council, East Cambridgeshire District Council, Huntingdonshire District Council, South Cambridgeshire District Council and Cambridge City Council (2016). Cambridgeshire Flood and Water Supplementary Planning Document.

Climate Change Committee (2020). The Sixth Carbon Budget.

Department for Business, Energy & Industrial Strategy (2017). The Clean Growth Strategy.

Department for Business, Energy & Industrial Strategy (2021). Net Zero Strategy: Build Back Greener.

Department for Communities and Local Government (2014). National Planning Policy for Waste.

Department for Environment, Food and Rural Affairs (Defra) (2010). Noise Policy Statement for England.

Department for Environment, Food and Rural Affairs (Defra) (2011a). Biodiversity 2020: A Strategy for England's wildlife and ecosystem services.

Department for Environment, Food and Rural Affairs (Defra) (2011b). England Biodiversity Strategy: Climate Change Adaptation Principles.

Department for Environment, Food and Rural Affairs (Defra) (2011c). The Air Quality Strategy for England, Scotland, Wales and Northern Ireland: Volume 1.

Department for Environment, Food and Rural Affairs (Defra) (2018a). Our Waste, Our Resources: A Strategy for England.

Department for Environment, Food and Rural Affairs (Defra) (2018b). A Green Future: Our 25 Year Plan to Improve the Environment.

Department for Environment, Food and Rural Affairs (Defra) (2020). UK Marine Policy Statement.

Department for Environment, Food and Rural Affairs (Defra) (2021a). Reservoirs Act 1975: The Flood Plan (Reservoirs Emergency Planning) Direction 2021.

Department for Environment, Food and Rural Affairs (Defra) (2021b). Waste Management Plan for England.

Department for Environment, Food and Rural Affairs (Defra) (2023a). National Policy Statement for Water Resources Infrastructure. London: The Stationery Office.

Department for Environment, Food and Rural Affairs (Defra) (2023b). Environmental Improvement Plan.

Department for Environment, Food and Rural Affairs (Defra) (2023c). Waste Prevention Programme for England: Maximising Resources, Minimising waste.

Department for Environment, Food and Rural Affairs (Defra) (2023d). Third National Adaptation Programme (NAP3).

Department for Levelling Up, Housing and Communities (DLUHC) (2023). National Planning Policy Framework (NPPF).

Drinking Water Inspectorate (2022). The Security and Emergency Measures (Water and Sewerage Undertakers and Water Supply Licensees) Direction. Available at: [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/1057909/water-security-emergency-measures-direction-feb2022.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1057909/water-security-emergency-measures-direction-feb2022.pdf). Accessed June 2024.

Environment Agency (2018). The Environment Agency's approach to groundwater protection.

Environment Agency (2020). Flood and Coastal Erosion Risk Management: Policy Statement.

European Commission (2020). A new Circular Economy Action Plan For a cleaner and more competitive Europe.

Fenland District Council (2014a). Delivering and Protecting High Quality Environments in Fenland Supplementary Planning Document.

Fenland District Council (2014b). Fenland Local Plan.

Fenland District Council (2014c). Resource Use and Renewable Energy Supplementary Planning Document.

Fenland District Council (2015). Developer Contributions Supplementary Planning Document.

Fenland District Council (2016). Fenland Infrastructure Delivery Plan.

Fenland District Council (2022). Fenland Local Plan 2021–2040 – Draft Local Plan Consultation.

Greater Cambridge Shared Planning (2020). Greater Cambridge Sustainable Design and Construction Supplementary Planning Document.

Greater Cambridge Shared Planning (2022). Biodiversity Supplementary Planning Document.

Huntingdonshire District Council (2010). Great Fen Masterplan.

Huntingdonshire District Council (2011). Developer Contributions SPD.

Huntingdonshire District Council (2017). Huntingdonshire Design Guide SPD.

Huntingdonshire District Council (2019). Huntingdonshire's Local Plan to 2036.

Huntingdonshire District Council (2021). Huntingdonshire's Design Guide SPD 2017 – Compatibility Statement (September 2021).

Huntingdonshire District Council (2022). Huntingdonshire Landscape and Townscape Supplementary Planning Document 2022

Huntingdonshire District Council (2023). Local Development Scheme (March 2023).

National Health Service (NHS) (2019). The NHS Long Term Plan.

Norfolk County Council (2011). Norfolk Mineral and Waste Development Framework – Core Strategy and Minerals and Waste Development Management Policies Development Plan Document 2010-2026.

Norfolk County Council (2017). Minerals Site Specific Allocations Development Plan Document (December 2017).

Norfolk County Council (2022). Norfolk Minerals and Waste Local Plan – Publication.

Norfolk County Council (2024). Norfolk Minerals and Waste Local Plan – Monitoring Report Mineral Data Local Aggregate Assessment for calendar year 2022.

Peterborough City Council (2011). Peterborough Design and Development in Selected Villages Supplementary Planning Document.

Peterborough City Council (2019a). Peterborough Developer Contributions Supplementary Planning Document.

Peterborough City Council (2019b). Peterborough Flood and Water Management Supplementary Planning Document.

Peterborough City Council (2019c). Peterborough Local Plan 2016 to 2036.

Peterborough City Council (2019d). Peterborough's Green Infrastructure and Biodiversity Supplementary Planning Document.

Peterborough City Council (2024). Live Timetable of Peterborough Local Plan. Available at: [https://ccandpcc.sharepoint.com/:f:/s/PCCPlanningPolicyPublicData/Eli\\_sL5GRVNBvOitrKIK4BABWLSKPlniU9OCwdAlmrlx\\_w?e=43X6pe](https://ccandpcc.sharepoint.com/:f:/s/PCCPlanningPolicyPublicData/Eli_sL5GRVNBvOitrKIK4BABWLSKPlniU9OCwdAlmrlx_w?e=43X6pe). Accessed June 2024.

South Cambridgeshire District Council (2009a). Development Affecting Conservation Areas Supplementary Planning Document.

South Cambridgeshire District Council (2009b). Listed Buildings: Works to or affecting the setting of, Supplementary Planning Document.

South Cambridgeshire District Council (2009c). Open Space in New Developments Supplementary Planning Document.

South Cambridgeshire District Council (2009d). Trees and Development Sites Supplementary Planning Document.

South Cambridgeshire District Council (2010a). District Design Guide: High Quality and Sustainable Development in South Cambridgeshire, Supplementary Planning Document.

South Cambridgeshire District Council (2010b). Landscape in New Developments Supplementary Planning Document.

South Cambridgeshire District Council (2011). Health Impact Assessment SPD Planning Document.

South Cambridgeshire District Council (2018). South Cambridgeshire Local Plan.

South Cambridgeshire District Council (2024). Swavesey Neighbourhood Plan. Available at: <https://southcambswb.azurewebsites.net/planning/local-plan-and-neighbourhood-planning/swavesey-neighbourhood-plan/>. Accessed June 2024.

Swavesey Parish Council (2024). Neighbourhood Plan. Available at: <https://www.swavesey-pc.gov.uk/the-council/neighbourhood-plan/>. Accessed June 2024.

## APPENDIX 4.2: Transboundary effects supporting information

# 1 Transboundary effects supporting information

- 1.1.1 Regulation 32 of The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the ‘EIA Regulations’) requires the consideration of any likely significant effects on the environment of another European Economic Area (EEA) state. Effects on other EEA states are referred to as transboundary effects.
- 1.1.2 A screening exercise has been undertaken to establish the potential for the Proposed Development to result in transboundary effects using guidance provided in the Planning Inspectorate’s Advice Note Twelve: Transboundary Impacts and Process (2020, version 6). Table 1-1 provides the transboundary effects screening exercise undertaken for the Proposed Development.

**Table 1-1: Transboundary effects screening**

Criteria and relevant considerations	Result of the screening considerations
<p><b>Characteristics of the development:</b></p> <ul style="list-style-type: none"> <li>• Size of the development.</li> <li>• Use of natural resources.</li> <li>• Production of waste.</li> <li>• Pollution and nuisances.</li> <li>• Risk of accidents.</li> <li>• Use of technologies.</li> </ul>	<p>The Proposed Development involves the construction of a new reservoir with a storage capacity of approximately 55Mm<sup>3</sup>, together with the associated infrastructure required to transport water to the proposed reservoir, treat it and facilitate the supply of potable water to Anglian Water and Cambridge Water customers.</p> <p>The Applicant is designing the Proposed Development to align with good practice methods of material and waste management, aligned with the waste hierarchy. Large proportions of material are being sourced from within the site boundary and it is anticipated that all of the structural clay material for the embankment would be sourced from the reservoir site. Some of the resources required for the construction of the Proposed Development are likely to be imported to meet certain design criteria (for example, aggregate materials for the temporary haul routes and hardstanding areas).</p> <p>Waste would be generated during the construction of the Proposed Development, including large quantities of inert and non-hazardous waste, and small quantities of hazardous waste mainly from site preparation works, including site clearance and vegetation removal, and demolition and excavation works. The Proposed Development is anticipated to be resource-efficient throughout its lifecycle, promoting the re-use of materials and minimising waste arisings.</p>



Criteria and relevant considerations	Result of the screening considerations
	<p>Pollution, such as from dust, noise and light, would be generated during the construction of the Proposed Development. Should the effects of construction of the Proposed Development give rise to nuisance, these would be local to the area around the Proposed Development, and would not extend beyond the border of the United Kingdom.</p> <p>Chapter 22: Major accidents and disasters has considered the use of the emergency drawdown facility as embedded mitigation in the highly unlikely event of a problem occurring which threatens the structural performance of the embankment. Due to the location of the Proposed Development and its distance from the nearest EEA state, it is not anticipated that this potential risk would give rise to transboundary effects.</p> <p>No novel technologies would be implemented that have potential for transboundary effects.</p>
<p><b>Location of development and geographical area:</b></p> <ul style="list-style-type: none"> <li>• What is the existing use?</li> <li>• What is the distance to another EEA state? (name the EEA state)</li> <li>• What is the extent of the area of a likely impact under the jurisdiction of another EEA state?</li> </ul>	<p>The proposed reservoir is located in Cambridgeshire, approximately 2.2km north of the town of Chatteris and approximately 7km south of March, in the Fenland District Council area. The existing land use is made up of functioning farmland, businesses, an airfield and residential properties. The associated water infrastructure extends from the proposed reservoir site towards the more urban areas of Peterborough, Cambridge and Downham Market.</p> <p>The nearest EEA state is France, located approximately 183km to the south-east of the Proposed Development.</p> <p>No physical works or impacts are likely to extend beyond the jurisdiction of the United Kingdom.</p>
<p><b>Environmental importance:</b></p> <ul style="list-style-type: none"> <li>• Are particular environmental values (e.g. protected areas - name them) likely to be affected?</li> <li>• Capacity of the natural environment.</li> </ul>	<p>There are six European designated sites that overlap with the Scoping boundary:</p> <ul style="list-style-type: none"> <li>• Ouse Washes Special Protection Area (SPA), Special Area of Conservation (SAC), and Ramsar site, that lie east of Chatteris.</li> <li>• Nene Washes SPA, SAC and Ramsar site, east of Peterborough.</li> </ul> <p>Information to inform a Habitats Regulations Assessment Report will be submitted with the application for development consent, with details that will enable the Secretary of State to</p>

Criteria and relevant considerations	Result of the screening considerations
<ul style="list-style-type: none"> <li>Wetlands, coastal zones, mountain and forest areas, nature reserves and parks, Natura 2000 sites, areas where environmental quality standards already exceeded, densely populated areas, landscapes of historical, cultural or archaeological significance.</li> </ul>	<p>undertake an appropriate assessment of the effects of the Proposed Development on European sites. Preliminary screening assessment work has identified other European sites in The Wash that are within the zone of influence (Zol) of the Proposed Development, but the Zol does not extend beyond the United Kingdom and so no transboundary effects on European sites are anticipated. The European sites that may be directly affected by the Proposed Development are underpinned by the Ouse Washes Site of Special Scientific Interest (SSSI) and Nene Washes SSSI. These nationally designated sites have additional habitat and species features, including migratory birds, that are not features of the European and Ramsar sites. Those additional features will be considered as part of the EIA.</p> <p>There is a theoretical risk that as a consequence of the Proposed Development some individuals of those species could be subject to impacts locally that then reduce the numbers and/or physical condition of some of the birds that return to the EEA countries. However, the HRA and EIA processes will consider impacts on migratory birds, and where there are any likely significant effects identified, they will either be mitigated and/or compensated for to ensure there are no residual significant effects (EIA), no adverse effect on integrity of the European and Ramsar sites, or that the HRA derogation tests, if required, are satisfied.</p> <p>On that basis, there would be no significant effects on migratory bird features at the Ouse and Nene Washes, therefore, no significant effects are anticipated that could impact an EEA state.</p> <p>There are two Scheduled Monuments located adjacent to the Scoping boundary at the reservoir site and one located adjacent to the Scoping boundary for the abstraction and upstream transfer east of Peterborough.</p> <p>There are also several Local Wildlife Sites located within the Scoping boundary.</p> <p>The Proposed Development is likely to result in localised effects on landscape and visual, cultural heritage (including archaeology), soils and agricultural land, adjacent landowners and residents,</p>

Criteria and relevant considerations	Result of the screening considerations
	biodiversity (including protected and migratory species) and the water environment. These effects would be mitigated to reduce their significance. These effects would not result in impacts to an EEA state, even for those migratory features such as birds that may be reliant on one or more EEA states for part of the year.
<p><b>Potential impacts and carrier:</b></p> <ul style="list-style-type: none"> <li>By what means could impacts be spread (i.e. what pathways)?</li> </ul>	The pathways by which impacts could be spread are via air, and water, such as rivers. These pathways are over extended distances; however, none of the anticipated effects are likely to impact an EEA state due to the distance to the nearest EEA state.
<p><b>Extent:</b></p> <ul style="list-style-type: none"> <li>What is the likely extent of the impact (geographical area and size of the affected population)?</li> </ul>	The extent of the impacts will vary for different environmental aspects; however, no significant effects are anticipated that could impact an EEA state due to the distance to the nearest EEA state.
<p><b>Magnitude:</b></p> <ul style="list-style-type: none"> <li>What will the likely magnitude of the change in relevant variables be relative to the status quo, taking into account the sensitivity of the variable?</li> </ul>	The magnitude of change will vary for different environmental aspects; however, no effects are anticipated that would occur at a magnitude that would impact an EEA state.
<p><b>Probability:</b></p> <ul style="list-style-type: none"> <li>What is the degree of probability of the impact?</li> <li>Is the impact likely to occur as a consequence of normal conditions or exceptional situations, such as accidents?</li> </ul>	It is considered to be very unlikely that effects from the Proposed Development would impact on an EEA state during both normal conditions and exceptional situations, such as accidents, due to the distance to the nearest EEA state and the nature and form of the Proposed Development.

Criteria and relevant considerations	Result of the screening considerations
<p><b>Duration:</b></p> <ul style="list-style-type: none"> <li>• Is the impact likely to be temporary, short term or long term?</li> <li>• Is the impact likely to relate to the construction, operation or decommissioning phase of the activity?</li> </ul>	<p>Impacts during construction would occur over the duration of the construction period. Impacts during operation would be long-term over the Proposed Development’s operational life; however, no significant effects are anticipated that would impact an EEA state due to the distance to the nearest EEA state.</p>
<p><b>Frequency:</b></p> <ul style="list-style-type: none"> <li>• What is likely to be the temporal pattern of the impact?</li> </ul>	<p>The temporal pattern is likely to be relatively constant; however, no significant effects are anticipated that would impact an EEA state due to the distance to the nearest EEA state.</p>
<p><b>Reversibility:</b></p> <ul style="list-style-type: none"> <li>• Is the impact likely to be reversible or irreversible?</li> </ul>	<p>Reversibility varies depending on the impact. In general, the impacts are considered irreversible over the lifetime of the Proposed Development; however, no significant effects are anticipated that would impact an EEA state due to the distance to the nearest EEA state.</p>
<p><b>Cumulative impacts:</b></p> <ul style="list-style-type: none"> <li>• Are other major developments close by?</li> </ul>	<p>There are a number of other developments within the study areas for the inter-project cumulative effects assessment, including Nationally Significant Infrastructure Projects within the 20km study area, and major developments within the 5km study area for the proposed reservoir (see Chapter 23: Cumulative effects, of this EIA Scoping Report for further details). Potential cumulative effects with these other developments will be assessed within the EIA; however, no significant effects are anticipated that would impact an EEA state due to the distance to the nearest EEA state.</p>

## References

Planning Inspectorate (2020). Advice Note Twelve: Transboundary Impacts and Process (version 6).

The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017. SI 2017/572. London: The Stationery Office.

## APPENDIX 7.1: Scoping landscape and visual methodology

# 1 Introduction

## 1.1 Overview

- 1.1.1 This appendix document has been written to set out the methodology that will be used to determine likely significant effects within the Landscape and Visual Impact Assessment (LVIA) presented in the Environmental Statement (ES). This appendix should be read in conjunction with Chapter 7: Landscape and visual, of the EIA Scoping Report.
- 1.1.2 The LVIA will identify and assess the potential effects of the reservoir site, the water treatment works, the sources of supply and upstream water transfers and the downstream water transfers during the construction phase and the operational phase at year one (the operational year) and at year 15 (the design year) on the landscape and visual resources, within a defined study area.
- 1.1.3 The assessment of landscape effects will address the effects of change on the landscape as a resource (i.e. landscape receptors such as landscape character areas (LCA)). The assessment will be primarily concerned with the extent to which the Proposed Development will affect the elements that make up the landscape, the aesthetic and perceptual aspects of the landscape and its distinctive character. Landscapes vary considerably in character and quality and are key to the distinctiveness of any local area.
- 1.1.4 The assessment of visual effects will address the effects of change on the views available to people and their visual amenity (i.e. visual receptors). It will be primarily concerned with how the surroundings of individuals or groups of people are affected by changes in the content and character of views. This can be from the change or loss of existing elements in the view and/or the introduction of new elements.

## 1.2 Legislation, guidance and approach

- 1.2.1 The methodology has been developed in accordance with the principles of good practice set out in the following publications:
- National Policy Statement (NPS) for Water Resources Infrastructure, Department for Environment Food & Rural Affairs (Defra, 2023).
  - Landscape Institute and Institute of Environmental Management and Assessment 2013. Guidelines for Landscape and Visual Impact Assessment Third Edition (GLVIA3) (Landscape Institute and IEMA, 2013).
  - Natural England, 2014. An Approach to Landscape Character Assessment (Tudor C. and Natural England, 2014).
  - Design Manual for Roads and Bridges (DMRB) LA 107 Landscape and Visual Effects (Highways England, 2020).

- Landscape Institute Technical Guidance Note 06/19 Visual Representation of Development Proposals (LI TGN 06/19) (Landscape Institute, 2019a).

1.2.2 The above guidance does not provide a prescriptive LVIA methodology and relies on practitioners to develop specific methodologies based on the characteristics of the Proposed Development and the landscape in which it is located, combined with professional judgement and experience. The assessment will therefore draw on previous experience of projects of a similar type, professional judgement and knowledge of the local landscape, within which the Proposed Development would be delivered.

### 1.3 Structure of this appendix

1.3.1 This appendix is split into the following sections:

- Section 2: LVIA for the daytime effects.
- Section 3: LVIA for night-time effects where the methodology is different to daytime effects.



## 2 LVIA methodology – daytime effects

### 2.1 Overview of the assessment process

2.1.1 The following steps will be undertaken in the production of the LVIA:

- A review to take account of relevant standards, guidance and planning policy.
- Definition of the study area.
- Establishing the environmental baseline conditions and identify viewpoint locations and receptors.
- Determining susceptibility, value and sensitivity of landscape and visual receptors, with reference to public perception of the landscape where public consultation allows.
- Determining the magnitude of effect arising from the Proposed Development.
- Identifying embedded and essential mitigation measures in order to reduce potential effects on landscape and visual receptors.
- Producing a landscape design with appropriate landscape mitigation measures illustrated on the project-wide Environmental Masterplan.
- Undertaking an assessment of the likely significance of residual effects on landscape and visual receptors.
- Undertaking an assessment of the likely significance of the cumulative landscape and visual effects.

2.1.2 Further detail of these steps of the assessment are discussed below.

### 2.2 Identification of the study area

2.2.1 The study area for defining the baseline landscape and visual conditions is informed by considering the nature of the development, and the extent to which the Proposed Development is likely to be visible from the surrounding landscape. Paragraph 5.2 of GLVIA3 advises that the study area should be proportionate and should *‘cover the site itself and its wider context, within which the proposed development may influence it in a significant manner’*.

2.2.2 In the first instance, a digital Zone of Theoretical Visibility (ZTV), is produced based on a ‘bare earth’ scenario to illustrate the theoretical extent of visibility to initially identify the extent of views and potential visual receptors. The ZTV for the reservoir site and water treatment works will extend to 10km from the Scoping boundary for these components. The ZTV for pumping stations, inter-catchment water treatment, water treatment works, and service reservoirs will extend to 3km from the Scoping boundary for these above ground components. A ZTV for the pipeline will not be produced as the proposed works will be temporary with no other large permanent above ground features.

- 2.2.3 To help confirm the extent of visibility, a more detailed ZTV will then be produced based on the emerging design (as part of the iterative design process) that incorporates screening features, comprising buildings and large woodland blocks. The ZTV incorporating screening features will be based on buildings from Ordnance Survey (OS) MasterMap and woodland blocks from the National Forest Inventory Woodland Map (Forest Research, 2020) (see Section 2.3). However, in reality there will be additional screening features present in the landscape, such as hedgerows and individual trees that are not modelled. The ZTVs, therefore, are not precise and are an indication only of the area within which visual effects may be expected.
- 2.2.4 The potential for significant landscape and visual effects diminishes with increasing distance from a proposed development. This has been taken into consideration when determining the 10km study area for the reservoir site and the water treatment works, and 3km for the sources of supply and upstream water transfers and downstream treated water transfers. The study area for the pipelines will extend to 2km from the Scoping boundary. Whilst there may be more distant views available, this would likely affect a very small part of an overall view and likely to be barely perceptible. The study area will also include the maximum extent of all character areas, which have the potential to be affected either directly or indirectly. The study area extent will also be informed by considerations raised through engagement with stakeholders.

## 2.3 Zone of theoretical visibility methodology

- 2.3.1 The ZTV mapping will be generated using the latest version of ArcGIS software with the 'Viewshed' tool under the 'Surface' section of the Spatial Analyst software extension. Viewsheds are used to display where there is theoretical intervisibility between a designated target point, to reflect the location and height of part of the Proposed Development and the surrounding topography. GLVIA3 states that ZTV mapping should '*assume that the observer height is between 1.5 and 1.7m above ground level*'. A height of 1.7m above ground level will be used to represent eye level for the ZTV modelling.
- 2.3.2 The ZTV will illustrate the theoretical maximum extents to which the proposals may be visible from within 10km or 3km of the Scoping boundary. It is the starting point for defining the area from which the Proposed Development could be seen.
- 2.3.3 It is important to note that ZTV mapping is theoretical and illustrates the worst-case scenario, in that they are based upon a 'bare earth' topographical ground model and OS mapping for buildings and NFI Woodland Map data. Physical features which might potentially provide screening will not be included in the computer modelling, such as smaller groups of trees and hedgerows. The ZTVs are therefore only an indication of the areas within which visual effects may be expected to occur.

## Topography layer

- 2.3.4 The ZTV mapping will be generated and based upon a digital terrain model (DTM). Three datasets have been used to generate viewsheds:
- A topography layer in raster format.
  - A point dataset of target points along the top of the reservoir embankment with target points at 200m intervals.
  - Target points for other large-scale facilities, for example, the water treatment building.
- 2.3.5 For the initial ZTV, the DTM model will be used without any modifications, representing ‘bare earth’.
- 2.3.6 For the ZTV with screening features, the DTM model will be modified to include the screening effects of buildings and trees, based upon the following assumptions:
- Buildings within the study area have been incorporated, based upon data obtained from OS MasterMap, with a 10m modelled height for all buildings.
  - Blocks of trees and woodlands identified in the NFI Woodland Map will be incorporated, based upon trees modelled at 10m tall, with the following exception: trees within the extent of the Scoping boundary have been omitted in order to represent a worst-case scenario, where all existing vegetation within the Scoping boundary would be removed. The NFI data does not include all trees but is focused on woodland of at least 0.5ha and minimum 20m width. While the NFI data include blocks of deciduous woodland, the blocks are considered to generally provide an effective screen even during winter, due to the width of the blocks.

## Theoretical range of visibility

- 2.3.7 The final output of the ZTV mapping is a raster image. The resulting raster image generated contains value columns, where 0 is not visible and numbers 1 and above are visible. A symbology will be automatically applied to the raster dataset as it is loaded into ArcGIS. The ZTVs show a multiple point analysis approach to identify how much of the Proposed Development would be theoretically visible from a point in the study area.

## 2.4 Baseline conditions

- 2.4.1 In establishing the existing baseline conditions, the assessment will include a description and analysis of the existing landscape character and visual quality of the study area. This will draw on available information considered during scoping and supplemented with field studies to account for any environmental trends or new features.

- 2.4.2 The landscape character assessment will be based on published information from local landscape character assessments (district and country level assessments), and Natural England's National Character Area Profiles, National Character Areas (NCA).
- 2.4.3 A winter baseline survey will be undertaken to verify the landscape and visual resource within the study area, and field notes and photographs will be used to record the existing landscape and visual environment in winter without foliage when views are most open. The winter survey findings will be recorded, against which comparisons can be made against summer with foliage.
- 2.4.4 Visual receptors will include residents, visitors to heritage or tourist attractions; users of the public rights of way (PRoWs), bridleways, cycle routes and other recreational routes; travellers through the landscape, including train travellers and motorists; and outdoor workers, visitors to community facilities and holiday accommodation.

## 2.5 Identification of receptors

### Landscape

- 2.5.1 Landscape receptors may include landscape or townscape character areas; specific landscape character types or sub-types; and locally designated areas and features (e.g. Special Landscape Areas and Areas of Great Landscape Value).
- 2.5.2 For this assessment, landscape receptors include district level landscape and/or townscape character areas and types within the detailed study area. Where published information is to be used, a professional judgement will be made as to its accuracy and suitability.
- 2.5.3 The changes to constituent landscape features and elements/components of the LCAs, such as trees, woods, hedgerows, hedgerow trees, landform and field patterns, have been considered in combination as part of the effects on landscape character and not as individual receptors. This proportionate approach is in line with GLVIA3.

### Visual

- 2.5.4 GLVIA3 promotes a landscape and visual impact assessment that is proportional to the scale and nature of the proposals, and the likely landscape and visual effects. The visual impact assessment, therefore, does not identify effects on every individual receptor. Instead, the visual baseline and assessment will use a series of representative viewpoints in line with GLVIA3 guidance. The number, location and density of the representative viewpoints will be considered that cover the range and locations where visual impacts could occur. Access to receptors and viewpoints to be assessed will be restricted to publicly accessible areas.
- 2.5.5 The location of the representative viewpoints will be identified and agreed with local authority officers as part of an agreed consultation process. This will take into account the phase of work to be represented and the proposed locations.

- 2.5.6 All photography will be prepared in accordance with the Landscape Institute's Technical Guidance Note (TGN) 06/19 Visual Representation of Development Proposals and its supporting Technical Information Notes (TINs) (Landscape Institute, 2019a to 2019d).

## 2.6 Assessment of landscape and visual effects

- 2.6.1 Assessing the significance of effect on identified landscape and visual receptors is a key part of the LVIA process that combines an evidence-based process with professional judgement. The assessment is based on a combination of receptor sensitivity and magnitude of effect. An illustrative guide to the process is shown in Image 2.1.

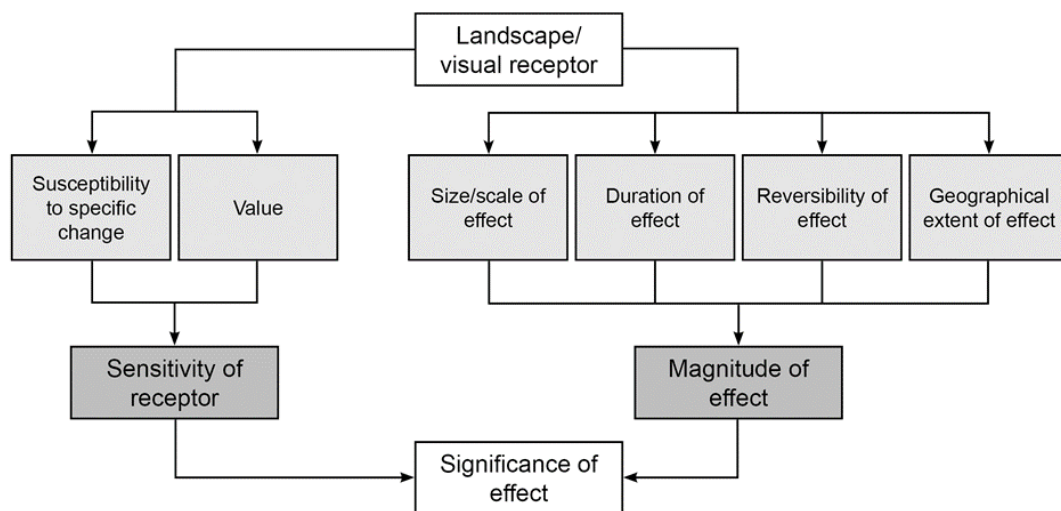


Image 2.1: LVIA process for determining significance of effect

## 2.7 Assessment stages

- 2.7.1 An assessment considers landscape and visual effects at the following stages of the Proposed Development:

- Construction phase, short-term (temporary) effects: Considers construction activities, temporary works (including compounds and haul roads) and construction traffic during the construction period. Assessments for each landscape and visual receptor would be considered for a worst-case scenario at a time of peak construction activity, when there is likely to be the greatest change for visual receptors. The seasonal differences in winter without foliage, and summer with foliage, will be described.
- Winter year one of operation (operational year), medium-term (temporary) effects: Considers impacts on a winter's day and a summer's day during year one following completion of all construction, but before mitigation planting would

have sufficiently established to provide landscape integration or visual screening, or both. The completed development and other infrastructure will be considered. The judgement with regards the level and significance of effect on each visual receptor refers to winter. Visual effects experienced during winter months are considered to show the worst case in assessment terms. A judgement will be made for a summer's day in year 1, when vegetation is in leaf and views tend to be more enclosed.

- Summer year 15 of operation (future year), long-term (residual) effects: Considers the impacts on a summer's day and a winter's day in the 15<sup>th</sup> year of operation, when mitigation planting becomes sufficiently established to provide integration and screening. The judgement with regards the level and significance of effect on each visual receptor refers to summer. Visual effects experienced during summer months are considered to show the effectiveness of mitigation planting in assessment terms. A judgement will also be made for a winter's day in year 15 when vegetation is without leaf and views tend to be more open.

2.7.2 The night-time changes have been considered separately; refer to Section 3 of this methodology.

## 2.8 Iterative process and mitigation

2.8.1 Mitigation measures will be developed following a hierarchical approach to environmental assessment and design, as described in Section 4 of GLVIA3. Firstly, through prevention and avoidance, and then reduction (embedded mitigation). Where it is not possible to avoid or reduce a significant adverse effect from the Proposed Development on LCAs and visual receptors, remediation measures (essential mitigation) will be used to offset the effect.

2.8.2 Embedded mitigation will be incorporated into the design, as part of an iterative process to avoid, reduce or offset adverse effects. Essential mitigation will be proposed in response to the identification of the effects of the Proposed Development on landscape and visual receptors.

2.8.3 The assessment of likely significant effects will take into account mitigation proposals developed as an integral part of the overall Proposed Development design. The aim of the mitigation measures will be to reduce, where possible, the magnitude of effect, and therefore the significance of effect to below moderate adverse levels, as a result of the Proposed Development.

## 2.9 LVIA assessment criteria

2.9.1 The criteria for assessing the sensitivity of receptors, magnitude of effects and significance of effects is presented below.

2.9.2 The nature of landscape and visual effects may be beneficial or adverse. Beneficial effects are those that enhance and/or reinforce characteristics that are valued. Adverse effects are those that remove and/or undermine characteristics that are valued.



## **Sensitivity**

- 2.9.3 Sensitivity is defined by GLVIA3 as ‘the nature of the receptor likely to be affected’. The assessment of landscape and visual sensitivity combines judgements on the value attached to that receptor, and the susceptibility of the receptor to the specific type of development proposed.
- 2.9.4 GLVIA3 defines landscape value as ‘The relative value that is attached to different landscapes by society’. A review of existing designations is the starting point in understanding the value of landscape receptors and views experienced by visual receptors. However, GLVIA3 recognises that landscape value is not always signified by designation. Other areas of landscape (or individual elements or features of the landscape contributing to its character or views) may not be recognised by formal designation, but may nevertheless have value. The range of factors provided within the Technical Guidance Note TGN 02/21: Assessing landscape value outside national designations (Landscape Institute, 2021), will be considered in the identification of landscape value in the LVIA.
- 2.9.5 For the purposes of this assessment, susceptibility to change will be defined, in keeping with GLVIA3, as the ability of the landscape or visual receptor to accommodate a development without undue, adverse consequences. Judgements on susceptibility have taken the nature of the Proposed Development into account.
- 2.9.6 Sensitivity will be assessed on a five-point scale of very high, high, medium, low or negligible. Tables 2-1 and 2-2 summarise the key criteria for landscape and visual value and susceptibility to change used to inform the assessment of sensitivity.
- 2.9.7 The application of these criteria is not a formulaic process, and the tables only indicate general categories of sensitivity. A receptor may be considered to be of high value, but it does not necessarily follow that the same receptor is automatically of high susceptibility to the nature of the proposed change and therefore of high sensitivity. For example, a National Landscape, though of high value, may be able to accommodate appropriate forms of development without undue effects and therefore not be considered to be of high sensitivity to all changes. Conversely, landscapes considered to be of lower landscape value may be highly susceptible to the nature of the proposed change. Judgements are therefore made about each receptor, with the criteria serving as a guide and balanced accordingly. A receptor of high value and low susceptibility (or vice versa) may for instance be considered to be of overall medium sensitivity.

## **Landscape sensitivity**

- 2.9.8 Susceptibility of landscape receptors to change will be assessed using the criteria in Table 2-1 based on GLVIA3 (Landscape Institute and IEMA, 2013) and DMRB LA 107 Assessment of Landscape and Visual Effects (Highways England, 2020).

**Table 2-1: Criteria for determining landscape value and susceptibility**

	<b>Value/susceptibility criteria</b>
<b>Very High</b>	<p><b>Value:</b> Designated landscape of very high international and national importance, containing very distinctive elements or features that are very rare and could not be replaced, for instance UNESCO World Heritage Sites, National Parks, National Landscapes (previously Area of Outstanding Natural Beauty (AONB)). The landscape is very highly valued for its exceptional perceptual qualities, such as remoteness and tranquility with almost no detracting features present.</p> <p><b>Susceptibility:</b> The landscape is very highly susceptible to the nature of the Proposed Development because the relevant characteristics or elements of the landscape have no, or extremely limited, ability to accommodate the development without undue effects, for example, because the proposals would result in the loss of one or more characteristics that are a very important component of the landscape.</p>
<b>High</b>	<p><b>Value:</b> Designated landscapes of high national importance, containing distinctive elements or features that are rare and could not be easily replaced. The landscape has very good perceptual qualities, such as a high level of remoteness and tranquility.</p> <p>Undesignated landscapes, elements and/or features considered to have a high value: predominately intact and/or in good condition; picturesque quality and very attractive; unique, rare or important examples of landscape types, elements or features; rich cultural and/or nature conservation content; strong recreational experience; wild, tranquil or unspoilt landscapes with limited detractors; or highly valued associations.</p> <p><b>Susceptibility:</b> The landscape is highly susceptible to the nature of the Proposed Development because the relevant characteristics or elements of the landscape have no, or very limited, ability to accommodate the development without significantly altering effects. For example, because the proposals would result in in high degree of change to a characteristic such as pattern, grain, use, scale and fabric that are important components of the landscape.</p>
<b>Medium</b>	<p><b>Value:</b> Landscapes, elements and/or features of local importance at the local authority or regional level (e.g. Special Landscape Areas or Areas of Great Landscape Value).</p> <p>Undesignated landscapes, elements and/or features considered to have moderate value: some areas intact and in reasonable condition; some degree of scenic quality; some distinctive landscape types, elements or features; some cultural and/or nature conservation content; some contribution to recreational experience; some detractors and valued perceptual qualities; or moderately valued associations.</p> <p><b>Susceptibility:</b> The landscape is moderately susceptible to the nature of the Proposed Development because the relevant characteristics or elements of the landscape including scale, pattern, grain, land use of the prevailing character have some ability to accommodate the development without significantly altering effects.</p>



Value/susceptibility criteria	
<b>Low</b>	<p><b>Value:</b> Undesignated landscapes, elements and/or features considered to have low or minimal value: few areas intact and/or in poor condition; limited aesthetic or scenic quality; few examples of unique, rare or important landscape types, features or elements; limited cultural and/or nature conservation content; limited or no contribution to recreational experience; prominent detractors and few valued perceptual aspects; or poorly valued associations.</p> <p><b>Susceptibility:</b> The landscape has a low susceptibility to the nature of the Proposed Development because the character of the local area, including pattern, grain, use, scale and mass are generally able to accommodate the development without significantly altering effects.</p>
<b>Negligible</b>	<p><b>Value:</b> Undesignated landscapes, considered to have minimal value to communities containing no distinctive elements and features or perceptual qualities of importance. Many discordant or detracting elements and features may be present.</p> <p><b>Susceptibility:</b> The landscape is generally tolerant to the nature of the Proposed Development because the relevant characteristics or elements of the landscape are able to accommodate the development without undue effects.</p>

2.9.9 Table 2-2 sets out the criteria used to assess the sensitivity of landscape receptors. It incorporates the above assessment of value and susceptibility, along with professional judgement, to determine the overall landscape sensitivity.

**Table 2-2: Landscape sensitivity criteria**

Sensitivity	Criteria
<b>Very high</b>	Landscapes of very high international/national importance and rarity or value with no, or very limited, ability to accommodate change without substantial loss/gain (i.e. National Parks, National Landscapes, internationally acclaimed landscapes –UNESCO World Heritage Sites).
<b>High</b>	Landscapes of high national importance containing distinctive features/elements with limited ability to accommodate change without incurring substantial loss/gain (i.e. designated areas, areas of strong sense of place –registered parks and gardens, country parks).
<b>Medium</b>	Landscapes of local or regional recognition of importance able to accommodate some change (i.e. features worthy of conservation, some sense of place or value through use/perception). Some ability to accommodate the Proposed Development without undue harm.
<b>Low</b>	Local landscape areas or receptors of low to medium importance with ability to accommodate change (i.e. non-designated or designated areas of local recognition or areas of little sense of place).
<b>Negligible</b>	Landscapes of very low importance and rarity able to accommodate change (i.e. areas unlikely to be designated, with very little sense of place).

## Visual sensitivity

2.9.10 The susceptibility of different visual receptors to changes in views and visual amenity is mainly a function of:

- The occupation or activity of people experiencing the view at particular locations.
- The extent to which their attention or interest may therefore be focused on the views and the visual amenity they experience at particular locations.

2.9.11 Table 2-3 (based on generic guidance in GLVIA3) will be used to help evaluate the susceptibility of different types of receptors and the value of the views in relation to designations, and helps to equate sensitivity to other factors, for example, residential views.

**Table 2-3: Criteria for determining visual value and susceptibility**

	Value/susceptibility criteria
<b>Very High</b>	<p><b>Value:</b> Views that are associated with designated landscapes of very high international and national importance or very important heritage assets, for instance UNESCO World Heritage Sites, National Parks and National Landscapes. Promoted in sources such as maps and tourist literature, linked with major visitor attractions where the view forms a recognised part of the visitor experience, or which have very important cultural associations, such as views that are formally ‘protected’.</p> <p>Visitors to heritage assets or other major visitor attractions where views of the surroundings are an essential part of the experience. Receptors engaged in specific activities for enjoyment of dark skies.</p> <p><b>Susceptibility:</b> Receptors for whom the nature of the view forms a very important part of their experience and visual amenity. These include people engaged in types of outdoor recreation where their attention is likely to be very focused on particular views; visitors to very important heritage assets or other major visitor attractions where views of the surroundings are an essential part of the experience. Likely to include users of National Trails and other nationally promoted recreational routes within designated landscapes.</p>
<b>High</b>	<p><b>Value:</b> Views that are associated with designated landscapes of high national importance, for instance important heritage assets, promoted in sources such as maps and tourist literature, linked with popular visitor attractions where the view forms a recognised part of the visitor experience, or which have important cultural associations.</p> <p><b>Susceptibility:</b> Receptors for whom the nature of the view forms an important part of their experience and visual amenity. These include residents in their homes and people engaged in outdoor recreation including users of PROWs, whose attention is likely to be focused on the landscape and on particular views.</p> <p>Communities where views contribute to the landscape setting and are enjoyed by residents.</p> <p>Transient users of promoted scenic routes where awareness of views is likely to be particularly high.</p>

	Value/susceptibility criteria
<b>Medium</b>	<p><b>Value:</b> Views that are associated with locally designated landscapes or areas of equivalent landscape quality, or landscapes considered to be valued by local communities and which may be promoted by local sources and linked with locally important visitor attractions. A typical and/or representative view where neither discordant nor attractive features form a key part of the view composition.</p> <p><b>Susceptibility:</b> Receptors for whom the nature of the view contributes positively to their experience, including users of PRoWs; transient users of roads, rail or other transport routes; or where a viewer’s attention is generally less likely to be focused on views and visual amenity, although views can still be appreciated. May involve outdoor pursuits, where although such views can still be appreciated, the primary focus is the activity itself e.g. golf.</p>
<b>Low</b>	<p><b>Value:</b> Views that are not associated with designated or otherwise high-quality landscapes or popular visitor attractions, and have minimal or no widely recognised cultural associations. Views where discordant or unattractive features are prevalent.</p> <p><b>Susceptibility:</b> Receptors for whom the nature of the view is entirely secondary to their activity or occupation, including people engaged in outdoor sport or recreation which does not involve an appreciation of views; people at their place of work, where the setting is not important to the quality of working life; or travellers where the potentially affected view is incidental to the journey such as main roads.</p>
<b>Negligible</b>	<p><b>Value:</b> Views with very little value to local people and not associated with local attractions and with no cultural associations.</p> <p><b>Susceptibility:</b> Receptors for whom the nature of the view is of no importance.</p>

2.9.12 The sensitivity of visual receptors to changes in their views have been evaluated in accordance with the criteria provided in Table 2-4, based on the receptor susceptibility to change and the value of views.

**Table 2-4: Visual sensitivity criteria**

	Value/susceptibility criteria
<b>Very high</b>	<p>Static views from and of major tourist attractions.</p> <p>Views from, and of, very important national/international landscapes, cultural/historical sites (e.g. National Parks, UNESCO World Heritage sites).</p> <p>Receptors engaged in specific activities for enjoyment of dark skies.</p>
<b>High</b>	<p>Receptors where the changed view is of high value and importance and/or where the receptor will notice any change to visual amenity by reason of the nature of use and their expectations. Receptors where the view is important to users will be considered to be of high sensitivity, such as residential or PRoW/long distance routes.</p>
<b>Medium</b>	<p>Receptors where the changed view is incidental, but not critical to amenity and/or the nature of the view, is not a primary consideration of the users (receptors where users are likely to spend time outside or participation in an</p>

	<b>Value/susceptibility criteria</b>
	activity looking at the view, and industrial receptors that have offices with windows that take advantage of views).
<b>Low</b>	Receptors where the changed view is unimportant and/or users are not sensitive to change (outdoor receptors where users are unlikely to consider the views an important element of their usage of the site will generally be assessed to be of low sensitivity).
<b>Negligible</b>	Quick transient views such as from fast moving vehicles. Views from industrial area, land awaiting re-development. Views from landscapes of no importance with no variety or distinctiveness.

## 2.10 Evaluation of magnitude of landscape and visual effect

2.10.1 The magnitude of effect is defined by GLVIA3 as ‘the nature of the effect likely to occur’. It combines judgements on the size and scale of the effect; the geographical extent of the area over which it occurs; whether the effect is reversible or irreversible; and the duration of the effect.

2.10.2 The overall magnitude of effect is judged on individual merit rather than by a formulaic process but is guided by the criteria set out below.

### **Magnitude of landscape effect**

2.10.3 The magnitude of landscape effect will be assessed in terms of its size or scale, the geographical extent of the area that would be influenced, its duration and reversibility. This judgement takes into consideration the following factors:

#### **Size/scale**

- The extent or proportion of landscape elements lost or added.
- The contribution of that element to landscape character, and the degree to which aesthetic or perceptual aspects are altered.
- Whether the change is likely to alter the key characteristics of the landscape, which are critical to its distinctive character.

#### **Geographical extent**

2.10.4 The geographical extent of landscape changes to consider how far reaching the changes will be at the following scales:

- Within the immediate setting.
- Landscape character areas/types.
- At a larger scale, influencing several LCAs.

**Duration and reversibility**

2.10.5 Duration and reversibility of the changes is categorised as follows:

- Short-term/reversible – change that is reversible and would last up to two years.
- Medium-term/reversible – change that is theoretically reversible but would last for between two and five years.
- Long-term/reversible – change that is theoretically reversible but would last for between five and 15 years.
- Permanent/irreversible – change that would last for 15 years or more, which are deemed as permanent or irreversible.

2.10.6 The criteria used to assess the size, scale and geographic extents of landscape effects is based upon the amount of change that would occur as a result of the Proposed Development, as described in Table 2-5.

**Table 2-5: Criteria for determining magnitude of landscape effect**

Magnitude	Criteria
<b>Large</b>	<p><b>Size and scale:</b> Substantial change to landscape character and key characteristics. Major loss of, or substantial change to, the existing landscape elements; and/or the introduction of major new elements.</p> <p><b>Geographical extent:</b> The change would affect a large part of the landscape character area/types; and/or a large part of a characteristic landscape element.</p> <p><b>Duration and reversibility:</b> Introduction of permanent/irreversible change.</p>
<b>Medium</b>	<p><b>Size and scale:</b> Noticeable change to landscape character and key characteristics. Partial loss or noticeable change to existing landscape elements; and/or the introduction of moderate new elements.</p> <p><b>Geographical extent:</b> The change would affect a moderate part of the landscape character area/types; and/or a notable proportion of a characteristic landscape element.</p> <p><b>Duration and reversibility:</b> Introduction of long-term/reversible change.</p>
<b>Small</b>	<p><b>Size and scale:</b> Minor change to landscape character and key characteristics. Minor loss or slight change to existing landscape elements; and/or the introduction of minor new elements.</p> <p><b>Geographical extent:</b> The change would affect a small part of the landscape character area/types; and/or a small proportion of a characteristic landscape element.</p> <p><b>Duration and reversibility:</b> Introduction of medium-term/reversible change.</p>
<b>Negligible</b>	<p><b>Size and scale:</b> Barely perceptible change to landscape character and key characteristics. Minimal loss or barely perceptible change to existing landscape elements; and/or the introduction of barely perceptible new elements.</p> <p><b>Geographical extent:</b> The change would affect a negligible part of the landscape character area/types; and/or a very small proportion of a characteristic landscape element.</p> <p><b>Duration and reversibility:</b> Introduction of a short-term/reversible change.</p>

Magnitude	Criteria
No change	<p><b>Size and scale:</b> No discernible change in landscape character or key characteristics.</p> <p><b>Geographical extent:</b> There would be no change to any part of the landscape.</p> <p><b>Duration and reversibility:</b> No change.</p>

## Magnitude of visual effect

2.10.7 Evaluation of the magnitude of effect on visual receptors will be carried out by considering the following factors:

### Size and Scale

- The scale of the change in the view with respect to the loss or addition of features and changes in its composition, including the proportion of the receptor’s available view affected by the Proposed Development.
- The degree of contrast or integration of any new features or changes in the landscape with the existing landscape elements and characteristics.
- The nature of the view of the Proposed Development, in terms of the relative amount of time over which it will be experienced and whether views will be full, partial or glimpsed.

### Geographical extent

- The angle of view relative to the main activity of the receptor.
- The distance of the viewpoint from the Proposed Development’s Scoping boundary.
  - Short distance – up to 500m from the Scoping boundary.
  - Middle distance – between 500m and 1km from the Scoping boundary.
  - Long distance/background – beyond 1km of the Scoping boundary.
  - The extent of the area over which changes would be visible.

### Duration and reversibility

- Duration and reversibility of the changes is categorised as follows:
  - Short-term/reversible – change that is reversible and would last up to two years.
  - Medium-term/reversible – change that is theoretically reversible but would last for between two and five years.
  - Long-term/reversible – change that is theoretically reversible but would last for between five and 15 years.
  - Permanent/irreversible – change that would last for 15 years or more, which are deemed as permanent or irreversible.



2.10.8 The criteria used to help determine the magnitude of visual effect are shown in Table 2-6.

**Table 2-6: Criteria for determining magnitude of visual effect**

Magnitude	Criteria
<b>Large</b>	<p><b>Size and scale:</b> Complete or very substantial change in the view, resulting in the loss of important features or the addition of major new ones, to the extent that this would substantially alter the composition of the view and visual amenity.</p> <p><b>Geographical extent:</b> The view is available from all or most parts of a specific location; or from the majority of a linear route; and/or is within the direct frame of view; and/or experienced at close proximity from the receptor that the Proposed Development would form part of the foreground of the view.</p> <p><b>Duration and reversibility:</b> Introduction of permanent/irreversible change.</p>
<b>Medium</b>	<p><b>Size and scale:</b> Clearly noticeable change in the view, resulting from the loss of features or the addition of new ones, to the extent that this would alter to a moderate degree the composition of the view and visual amenity.</p> <p><b>Geographical extent:</b> the view is available from a moderate proportion of a specific location; or from the moderate part of a linear route; and/or is at a slightly oblique angle; and/or experienced at a distance from the receptor that the Proposed Development would form part of the middle ground of the view.</p> <p><b>Duration and reversibility:</b> introduction of long-term/reversible change.</p>
<b>Small</b>	<p><b>Size and scale:</b> Perceptible change in the view, resulting from the loss of features or the addition of new ones, to the extent that this would, to a limited extent, alter the composition of the view and visual amenity.</p> <p><b>Geographical extent:</b> the view is available from a small proportion of a specific location; or from limited sections of a linear route; and/or is at an oblique angle; and/or experienced at a relatively long distance from the receptor that the Proposed Development would form part of the background of the view.</p> <p><b>Duration and reversibility:</b> introduction of medium-term/reversible change.</p>
<b>Negligible</b>	<p><b>Size and scale:</b> Barely perceptible change in the view, resulting from the loss of features or the addition of new ones, to the extent that this would not discernibly alter the composition of the view and the visual amenity.</p> <p><b>Geographical extent:</b> The view is available from hardly any part of a specific location; or from a very limited part of a linear route; and/or is at a very oblique angle; and/or experienced at such a distance from the receptor that the Proposed Development would form a barely noticeable feature or element of the view.</p> <p><b>Duration and reversibility:</b> introduction of a short-term/reversible change.</p>
<b>No change</b>	<p><b>Size and scale:</b> No perceptible change in the view.</p> <p><b>Geographical extent:</b> The proposal is not discernible by a receptor group or a section of a linear route or a specific location.</p> <p><b>Duration and reversibility:</b> no change.</p>

## 2.11 Evaluation of significance of effect

- 2.11.1 The resulting sensitivity and magnitude assessments will be applied together to determine the significance of effect on each landscape or visual receptor as shown in Image 6.1 in Chapter 6: EIA approach and methodology.
- 2.11.2 This image forms only a guide (i.e. an aide memoir) to the way that sensitivity and magnitude of effect give rise to a prediction of effects. The assessment of significance of effect relies upon common sense, experience and professional judgement, supported by substantiated reasoning. For example, in assessing the significance of an effect, an assessor may consider changes of a relatively low magnitude to be highly significant if they relate to a highly sensitive (or ‘important’ or ‘vulnerable’) landscape or visual resource, whilst a high magnitude of effect on a less sensitive receptor may be deemed to be relatively less significant.
- 2.11.3 Effects will be qualified as either ‘adverse’, ‘beneficial’ or ‘neutral’. The significance of landscape and visual effects will be assessed on a three-point scale of ‘major’, ‘moderate’, and ‘minor’, as set out in Table 2-7, which are based on professional judgement and informed by GLVIA3.
- 2.11.4 Neutral effects are those which overall are neither adverse nor beneficial but may incorporate a combination of both. The level of effect and whether it shall have a positive/beneficial or negative/adverse (or neutral) consequence are independent of each other, so that it is possible to report a major and neutral effect (i.e. an important change, but one which is neither better nor worse). For example, a major/large effect that is comprised of positive/beneficial and adverse changes, which may balance out as neutral overall, can be described as a ‘major’ effect that is neutral in direction. This allows identified significant effects to be reported on a consistent basis, even if the overall direction is neutral.

**Table 2-7: Criteria for determining significance of landscape and visual effect**

Category	Landscape	Visual
<b>Major beneficial effect – Significant</b>	The Proposed Development would fit well with the scale, landform and pattern and enhance the character (including quality and value) of the landscape; enable the restoration of characteristic features and elements lost as a result of changes from inappropriate management or development; or enable a sense of place to be enhanced.	The Proposed Development would create a new feature that would greatly enhance the view. For example, new feature or landmark of local importance.
<b>Moderate beneficial</b>	The Proposed Development would improve the character (including quality and value)	The Proposed Development would cause obvious improvement to a view from a receptor of medium



Category	Landscape	Visual
<b>effect – Significant</b>	of the landscape; enable the restoration of characteristic features and elements partially lost or diminished as a result of changes from inappropriate management or development; or enable a sense of place to be restored.	sensitivity or a perceptible improvement to a view from a more sensitive receptor.
<b>Minor beneficial effect</b>	The Proposed Development would complement the character (including quality and value) of the landscape; maintain or enhance characteristic features and elements; or enable some sense of place to be restored.	The Proposed Development would cause limited improvement to a view from a receptor of medium sensitivity or would cause greater improvement to a view from a receptor of low sensitivity.
<b>Minor adverse effect</b>	The Proposed Development would not quite fit the character (including quality and value) of the landscape; be at variance with characteristic features and elements; or detract from a sense of place.	Some measurable visual change in the features or pleasantness that make up the existing view; minor loss of, or alteration to, one (maybe more) key characteristics, features or elements of the view.
<b>Moderate adverse effect - Significant</b>	The Proposed Development would conflict with the character (including quality and value) of the landscape; have an adverse impact on characteristic features or elements; diminish a sense of place	A noticeable change in the view from new features that detract from the pleasantness or integrity of the existing view; partial loss of/damage to key characteristics, features or elements of the view.
<b>Major adverse effect - Significant</b>	The Proposed Development would be at complete variance with the character (including quality and value) of the landscape; or cause the integrity of characteristic features, elements and sense of place to be lost.	The Proposed Development would cause major deterioration or loss of a view and would constitute a major discordant element in the view.
<b>Major neutral effect</b>	The Proposed Development would result in considerable positive/beneficial and adverse changes to existing character which would balance out as neutral overall	The Proposed Development would result in considerable positive/beneficial and adverse changes to the view that would balance out as neutral overall and

Category	Landscape	Visual
	and can be described a major effect that is neutral in direction.	can be described a major effect that is neutral in direction.
<b>Moderate neutral effect</b>	The Proposed Development would result in noticeable positive/beneficial and adverse changes to the existing character which would balance out as neutral overall and can be described a moderate effect that is neutral in direction.	The Proposed Development would result in noticeable positive/beneficial and adverse changes to the view that would balance out as neutral overall and can be described a moderate effect that is neutral in direction.
<b>Minor neutral effect</b>	The Proposed Development would result in limited positive/beneficial and adverse to the existing character, which would balance out as neutral overall and can be described a minor effect that is neutral in direction.	The Proposed Development would result in limited positive/beneficial or adverse changes to the view which would balance out as neutral overall and can be described a minor effect that is neutral in direction.

## 3 LVIA methodology – night-time effects

### 3.1 Introduction

3.1.1 The night-time assessment of visual effects considers the potential effects of both temporary and permanent lighting that is proposed as part of the Proposed Development, specifically for residential receptors of high sensitivity that are within 500m of the Scoping boundary. Residential receptors will be those listed in Appendix 7.5 and identified on Figure 7-3.

3.1.2 For these receptors, the unmitigated/maximum visibility scenario of the proposals during the construction phase and during first year of winter operation will be assessed and will include the mitigated/minimum visibility scenario during year 15 of summer operation.

#### Lighting proposals

3.1.3 Features and aspects of lighting that are particularly relevant to the assessment of night-time visual effects comprise:

- Temporary lighting, during the construction phase, assumed to be required:
  - Overnight at main compound entrances, perimeter fence, welfare facilities and security offices.
  - Overnight at workers accommodation, parking and associated facilities.
  - Night-time working, e.g. road closures.
  - At the start and end of the day during winter months at main and satellite compounds.
- Permanent lighting, during the operational phases, assumed to:
  - Be limited to above ground infrastructure and buildings (for example pumping stations, water treatment works etc).
  - Be directional and with the lowest Lux value required for safety to limit light spill on to surrounding habitats and buildings.

### 3.2 Assessment methodology

3.2.1 Assessment of receptor sensitivity, the magnitude of effect in night-time view experienced by the receptor, and the qualitative significance of the effects will be made in the context of, and informed by, the desk study and site survey undertaken to evaluate the daytime visual effects of the Proposed Development only.

- 3.2.2 The methodology for the assessment of night-time visual effects is derived from the methodology used to evaluate the daytime visual effects of the Proposed Development, and while it is suggested that the night-time methodology be compared to the daytime methodology, it should be noted that the conclusions drawn from the night-time assessment should be considered as qualitative at this stage.
- 3.2.3 Summary changes to the methodology to render it suitable for night-time visual impact assessment comprise:
- Reclassification of the visual sensitivity of residential receptors to reflect the differences between baseline lighting conditions.
  - Rewording of the magnitude of visual effect descriptors to reflect night-time assessment.
- 3.2.4 Daytime and night-time changes for landscape and visual receptors are considered against the baseline situation. Night-time darkness surveys will not be undertaken but will rely on identifying existing levels of lighting that form the lit environment from street lighting columns and the extent of residential areas. As for day-time surveys, actual visibility will depend upon a variety of factors, which can include topography, aspect, tree cover, buildings or other visual obstructions, elevation, direction and distance of view.
- 3.2.5 However, it is not considered that assessment of effects on the night skies in their own right is required, due to the surrounding landscape context. This is because there are no dark skies identified by CPRE The Countryside Charity, or international dark sky reserves or National Landscapes within the study area.
- 3.2.6 The following definitions have been introduced in order to describe the potential night-time effects of the Proposed Development:
- Sky-glow: the general glow over a populated area as result of light reflecting from objects towards the sky, e.g. reduced ability to view the stars in the sky.
  - Glare: lighting that is directly orientated towards a receptor, for example vehicular headlights towards a pedestrian. It is the result of a contrast between bright and dark areas within a field of view.
  - Ambient Light: general lighting received that produces the ‘background’ illumination of an area, i.e. the overall light levels experienced by a receptor.

### 3.3 Receptor sensitivity

- 3.3.1 In a change to the methodology used to assess the daytime effects of the Proposed Development, the visual sensitivity of residential receptors have been reclassified to reflect differences between baseline lighting conditions. Night-time sensitivity of the residential visual receptors falling within scope of assessment, shall be reported in accordance with the criteria provided in Table 3-1.

**Table 3-1: Criteria for landscape/visual significance of effect**

Visual sensitivity	Typical description
<b>High</b>	Static views from residential areas and individual dwellings with baseline exposure to minimal/ no lighting, for example, within rural areas.
<b>Medium</b>	Static views from residential areas and individual dwellings with baseline exposure to moderate lighting, for example, on the edge of villages or other settlements.
<b>Low</b>	Static views from residential areas and individual dwellings with baseline exposure to high lighting levels, for example, within villages or towns.

### 3.4 Magnitude of effect

3.4.1 In a change to the methodology used to assess the daytime effects of the Proposed Development, the magnitude of visual effect descriptors has been reworded to describe potential night-time effects of the Proposed Development. The magnitude of the night-time visual effects shall be reported in accordance with the criteria provided in Table 3-2.

**Table 3-2: Magnitude of night-time visual effects and typical descriptions**

Magnitude of visual sensitivity	Typical description
<b>Major</b>	The Proposed Development, or a part of it, would cause sky glow glare/ambient light to become a dominant feature or focal point of the view.
<b>Moderate</b>	The Proposed Development, or a part of it, would cause noticeable changes to the degree of sky glow/glare/ambient light in the view, which is readily apparent to the receptor.
<b>Minor</b>	The Proposed Development, or a part of it, would cause perceptible changes to the existing lighting conditions, but would not alter the overall balance of sky-glow/glare/ambient light comprising the existing view.
<b>Negligible</b>	Only a very small part of the Proposed Development would be discernible, or being at such a distance it would form a barely noticeable change to the sky-glow/glare/ambient light comprising the existing lighting conditions.
<b>No change</b>	No part of the Proposed Development would change existing lighting conditions; no additional sky-glow/glare/ambient light would be discernible.

### 3.5 Significance of effect

3.5.1 The approach to deriving the qualitative night-time impact significance from night-time visual receptor sensitivity and night-time magnitude of effects, shall be the same as the approach to deriving daytime impact significance, i.e. shall be as shown in image 6.1 in Chapter 6: EIA approach and methodology.

## References

Department for Environment, Food and Rural Affairs (Defra) (2023). National Policy Statement for Water Resources Infrastructure.

Forest Research (2020). The National Forest Inventory Digital Woodland Map (2020). Available at: <https://www.forestresearch.gov.uk/tools-and-resources/national-forest-inventory/>. Accessed September 2023.

Highways England (2020). Design Manual for Roads and Bridges LA 107 Landscape and Visual Effects.

Landscape Institute (2019a). Landscape Institute's Technical Guidance Note (TGN) 06/19 Visual Representation of Development Proposals.

Landscape Institute (2019b). Technical Information Note: TIN 07/19 Visual Representation Glossary.

Landscape Institute (2019c). Technical Information Note: TIN 08/19 Camera Auto Settings.

Landscape Institute (2019d). Technical Information Note: TIN 09/19 Earth Curvature.

Landscape Institute (2021). Assessing Landscape Value outside National Designations.

Landscape Institute and Institute of Environmental Management and Assessment (IEMA) (2013). Guidelines for Landscape and Visual Impact Assessment.

Natural England (2024). National Character Area Profiles. Available at: <https://nationalcharacterareas.co.uk/#:~:text=Each%20NCA%20represents%20an%20area,and%20planning%20for%20future%20change>. Accessed September 2023.

Tudor, C. and Natural England (2014). An Approach to Landscape Character Assessment.

## APPENDIX 7.2: Scoping arboriculture methodology

# 1 Introduction

## 1.1 Overview

- 1.1.1 This appendix describes the proposed scope of the arboriculture survey strategy. This appendix should be read in conjunction with Chapter 7: Landscape and visual, of the EIA Scoping Report.

## 1.2 Purpose of arboricultural survey strategy

- 1.2.1 The purpose of this arboricultural survey strategy is to set out the approach and rationale for identifying, capturing and recording data on trees, woodlands, potential and verified veteran and ancient trees, and on trees that are likely to be lost or impacted by the Proposed Development.
- 1.2.2 The intention is to allow for a proportionate and appropriate tree survey to provide category and definition criteria, together with information to provide adequate tree protection during construction in line with the British Standard 5837 2012 Trees in Relation to Design, Demolition and Construction – Recommendations (BS 5837: 2012) (British Standards Institution, 2012). In addition, the tree survey data can be utilised to inform biodiversity net gain (BNG) calculations.
- 1.2.3 Following the completion of the tree survey, the data will be used to produce an Arboricultural Impact Assessment (AIA) report that will accompany the application for development consent.
- 1.2.4 The proposed survey strategy covers the Proposed Development and the associated infrastructure.



## 2 Approach to arboricultural surveys

### 2.1 Desk study

2.1.1 Desk study information will be used to target resources where field surveys are required. This will include high-resolution digital aerial photography, National Tree Map, Geographical Information System (GIS) and other project information available at the time of assessment. Existing public domain data, such as the Woodland Trust's Ancient Tree Inventory (Woodland Trust, 2024), will be referenced to identify known ancient and veteran trees that may be located within 30m of the Scoping boundary prior to mobilisation for any further surveys.

### 2.2 Field survey

2.2.1 A full tree survey, in accordance with BS 5837: 2012 will be conducted within the Scoping boundary for the reservoir site and up to 15m (30m if a tree is considered a veteran) outside of any boundary delineating these areas, forming the study area. This is in recognition of the uncapped Root Protection Area (RPA) of veteran trees based on a x15 stem diameter –BS5837:2012 caps all RPAs at 15m.

2.2.2 Groups of trees and areas of woodland will be recorded based on their general characteristics including average stem diameter, average canopy spread, average height and species composition.

2.2.3 When surveying tree groups and woodlands, the canopy outline will be traced around the relevant National Tree Map and National Hedgerow Map (Bluesky International Limited, 2024) canopy outlines to create a representative combined canopy area.

2.2.4 Managed hedgerows will not be surveyed. A managed hedgerow is subjected to regular cutting regimes to maintain a hedge profile. The survey of such hedgerows will be undertaken as part of ecological surveys, see Appendix 8.1: Ecology survey methodologies for reservoir site. Hedgerows which are no longer managed, and have grown into lines of trees, cohesive groups, or would otherwise not be considered a functioning hedgerow, will be recorded as individual trees or groups, as appropriate, and notes made in the survey record to indicate their former status.

2.2.5 RPAs will be calculated based for surveyed trees and assumptions around the RPAs' information for tree groups and woodlands. The site surveys will also note any above ground constraints i.e. low branch formation and enabling pruning works to BS 3998 2010: Tree work – Recommendations (British Standards Institution, 2010).

### 2.3 Arboricultural surveying methodology

2.3.1 Table 2-1 sets out the survey elements and proposed approach for each element, and demonstrates the targeted methodology proposed to allow for a proportionate and appropriate survey.

**Table 2-1: Arboricultural survey elements and proposed survey methodology**

Feature and justification for scoping in/out	Proposed approach and benefits	Best practice and details of any deviations	Justification, precedents and solutions
Desk study	<p>Data search using the following sources:</p> <ul style="list-style-type: none"> <li>• Available web-based data, including those held by MAGIC maps (Defra, 2024) and the Woodland Trust.</li> <li>• Local authority records on Tree Preservation Orders (TPOs) and Conservation Areas.</li> <li>• Historical aerial photography.</li> <li>• Data from project ecology surveys.</li> <li>• The National Tree Map (Bluesky International Limited, 2024).</li> </ul>	N/A	Desk studies will focus on field surveys of notable trees potentially affected.
Tree data collection	<p>The study area will encompass the reservoir site Scoping boundary, plus:</p> <ul style="list-style-type: none"> <li>• 15m buffer extending 15m beyond.</li> <li>• 30m buffer for ancient and veteran trees.</li> </ul>	Consistent with best practice and BS 5837: 2012.	BS 5837: 2012 provides a maximum root protection area of 15m for any given tree feature. The Governments standing advice for applying an RPA of 15 x the stem diameter to ancient and veteran trees will be applied.
Woodlands	Where appropriate, woodlands within the Scoping boundary will be recorded, and the largest tree will be measured, and stem diameter used for off-setting the RPA area across the woodland block.	Consistent with BS 5837: 2012.	Applying the largest protection offset will protect all trees within the woodland area.
Tree groups	Wherever possible, trees will be grouped and, where appropriate, the largest measurements recorded and used for off-set calculations of RPAs.	Consistent with BS 5837: 2012.	It is likely that existing areas of continuous vegetation is at risk of removal and is suitable to be grouped for mitigation purposes.

Feature and justification for scoping in/out	Proposed approach and benefits	Best practice and details of any deviations	Justification, precedents and solutions
Hedgerows	Managed hedgerows will not be surveyed. A managed hedgerow is subjected to regular cutting regimes to maintain a hedge profile. The survey of such hedgerows will be undertaken as part of ecological surveys. Hedgerows which are no longer managed, and have grown into lines of trees, cohesive groups, or would otherwise not be considered a functioning hedgerow will be recorded as individual trees or groups, as appropriate, and notes made in the survey record to indicate their former status.	Deviation from BS 5837: 2012.	Hedgerows are to be assessed as part of the ecology surveys.

### Veteran and ancient trees

- 2.3.2 Veteran and ancient trees will be recorded as part of the surveys. These can be individual trees or groups of trees. They are found in ancient woodlands and as trees outside woods.
- 2.3.3 Ancient trees are exceptionally valuable for their biodiversity, cultural and heritage value. They are irreplaceable habitats that can:
- Be of a great age relative to others of the same species.
  - Be large, depending on species, site and management history.
  - Have significant decay features, such as hollowing and a crown structure typical of old age.
  - Have evidence of past use and management (such as pollarding).
- 2.3.4 Veteran trees may not be very old, but they have significant decay features, such as branch death and hollowing. These features contribute to their biodiversity, cultural and heritage value. They are also considered irreplaceable habitat.
- 2.3.5 All ancient trees are veteran trees, but not all veteran trees are ancient. This does not provide a definitive definition of ancient and veteran trees. The definition of veteran trees '*may not be very old, but they have significant decay features, such as branch death and hollowing*' could be subject to wide interpretation.

- 2.3.6 Of note, the National Planning Policy Framework (DLUHC, 2023) definition of ancient and veteran trees is ‘A tree which, because of its age, size and condition, is of exceptional biodiversity, cultural or heritage value’.
- 2.3.7 Page 13 of the Keepers of time policy document (Defra, 2022) states:  
*‘It is difficult to calculate the number of ancient and veteran trees that are currently in England. So far, we have recorded over 111,000 trees. We know the full extent of this resource is much greater, but we do not have the data to showcase this. To identify ancient and veteran trees, the most complete record currently available is the Ancient Tree Inventory which is run by the Woodland Trust.*  
*All ancient woodland and ancient and veteran trees are irreplaceable, regardless of whether they are present on the Ancient Woodland Inventory or Ancient Tree Inventory.’*
- 2.3.8 Further draft guidance is also available from the Ancient Tree Forum which is an amalgamation of numerous aspects of other aforementioned criteria above.
- 2.3.9 Schedule 1 (Irreplaceable Habitats), Paragraph 1 of the Biodiversity Gain Requirements (Irreplaceable Habitat) Regulations 2024 (the BNG Regulations) includes, in Table 2, the description of Ancient and Veteran Trees (Other habitats) as set out in Table 2-2 of this appendix.

**Table 2-2: Veteran Tree Criteria**

Ancient trees and veteran trees
<p><i>Ancient and veteran trees can be found as individual trees or collections of trees in any setting.</i></p> <p><i>Ancient trees have passed beyond maturity into an ancient life stage or are old in comparison with other trees of the same species which exhibit one or more of the following—</i></p> <p><i>(i) Demonstrably great age relative to others of the same species.</i></p> <p><i>(ii) Changes to their crown and trunk development indicative of the ancient life stage.</i></p> <p><i>Veteran trees are mature trees that share physical and other characteristics in common with ancient trees, due to their life or environment, but are neither developmentally nor chronologically ancient. All ancient trees are veteran trees, but not all veteran trees are ancient. Veteran and ancient trees which have died are still recognised as such because they retain significant biodiversity value for many decades.</i></p> <p><i>Veteran trees exhibit one or more of the following—</i></p> <p><i>(i) Significant decay features such as deadwood, hollowing or signs of advanced decay in the trunk or major limbs.</i></p> <p><i>(ii) A large girth, depending on and relative to species, site and management history.</i></p> <p><i>(iii) A high value for nature, especially in hosting rare or specialist fungi, lichens and deadwood invertebrates.</i></p>

### **Approach of this survey**

- 2.3.10 For the survey of the Proposed Development, the precedent set by the Broomhill/Brislington Meadows planning appeal (Planning Inspectorate, 2023) will

be followed. That is, that the NPPF definition of a veteran tree is one of great age, great size and with veteran features.

- 2.3.11 Qualifying veteran features will be identified, and candidate trees will be surveyed using a survey proforma based on the Veteran Trees Initiative (VTI) Specialist Survey Form (SSF) (English Nature, Ancient Tree Initiative and Treework Environmental Consultancy, 1997).
- 2.3.12 As no definitive definition of a veteran tree exists at the time of reporting, a precautionary approach will be taken during the survey to record any tree which would appear to meet the majority of the indicators (such as great size, without veteran features). By using the VTI SSF proforma and using the precedent set by the Broomhill/Brislington Meados planning appeal (Planning Inspectorate, 2023). Information on each tree can be collected in a robust and consistent fashion to allow for detailed interpretation.

### **Site data collection**

- 2.3.13 A pragmatic approach to collecting tree information will be adopted which seeks to reduce the number of features surveyed by grouping trees, where appropriate. An example of the standard data collected for each feature is contained within Table 2-3.
- 2.3.14 The collection of tree data will be targeted to include notable arboricultural features. Where the presence of a TPO is known, these will be included within the tree survey.
- 2.3.15 Each individual tree, group of trees or woodland block will be given a unique reference based on its location. References that will be used include 'T', 'G', 'W' or 'H'. These will be used to group trees, groups of trees, woodland and those hedgerows as per proposed approach described in Table 2-1 respectively.
- 2.3.16 Data recorded for tree groups, woodland blocks and hedgerows will provide a generic RPA offset based on the largest stem size recorded.
- 2.3.17 The arboricultural surveyors will use professional judgement and experience, based on observed features and proposed distances to construction areas, to determine the extent of the trees to be surveyed (the maximum protection radius applied within BS 5837: 2012 is 15m). Fixed point information and handheld global positioning system (GPS) devices will be used to map the trees.
- 2.3.18 As far as reasonably practicable, vegetation will be surveyed in groups with the largest tree measurements recorded. Information relating to the total number of trees likely to be impacted within a group or woodland will be estimated. Distometers (handheld laser measuring device), clinometers (handheld height measuring device) and diameter measuring tapes will be used to record tree measurements.
- 2.3.19 The following data are to be collected:
- Unique tree reference number.

- Height of tree features will be measured to the nearest metre.
- Stem diameter will be recorded in millimetres.
- The cardinal points will be used to determine crown spread, recorded to the nearest metre.
- Life stage will be recorded using young, semi-mature, early mature, mature and over-mature.
- Overall condition will be determined using ground based visual tree assessment techniques and will consider structural and physiological factors.
- General observations and comments will detail particular tree features and significant defects such as habitat holes, storm damage fractures and prolific ivy.
- Category grading will follow that of BS 5837: 2012.
- Veteran and ancient trees (including trees with the potential to be classified as such) will be recorded in detail using a specific survey proforma adapted from the Veteran Tree Initiative Specialist Survey Form (English Nature, Ancient Tree Initiative and Treework Environmental Consultancy, 1997). This will include numerous photos of each tree.

2.3.20 Table 2-3 indicates the data fields to be collected for the tree survey.

## 2.4 Reporting

2.4.1 Following the completion of the tree survey, the data will be used to produce an AIA report, which will be submitted as part of the application for development consent.

2.4.2 It will report on the following:

- Individual trees – tree stem location based on either aerial imagery or GPS enabled device, canopy extents based on the four cardinal compass point measurements, and a calculated RPA as a circular area.
- Tree groups, woodlands and hedgerows – an indicative polygon shape representing the canopy area, as per the aerial imagery used during the survey and plotted whilst in the field. The RPA buffer applied to the polygon based on the largest tree stem diameter recorded for that feature. This would be applied as either a buffer to the canopy extents or off-set with canopy spread data for the group, thus reducing the RPA to extend from generic tree stem locations.

**Table 2-3: Example of tree survey schedule produced for reporting**

Tree ref no.	Species	Height (m)	DBH* (mm)	Crown spread (m)				Life Stage	Overall condition	General observations and comments	BS category grading	Designation status (verified veteran/ancient/notable tree – or potential candidate)
				N	E	S	W					

Notes: \* Diameter at chest height

## References

Bluesky International Limited (2024). National Tree Map. Available at: <https://bluesky-world.com/ntm/>. Accessed June 2024.

British Standards Institution (2010). Tree work – Recommendations 2010. BS 3998:2010. London: British Standards Institution.

British Standards Institution (2012). Trees in Relation to Design, Demolition and Construction – Recommendations 2012. BS 5837: 2012. London: British Standards Institution.

Department for Environment, Food and Rural Affairs (Defra) (2022). Keepers of time: Ancient and Native Woodland and Trees Policy in England.

Department for Environment, Food and Rural Affairs (Defra). (2024) Magic Map (MAGIC). Available at: <https://magic.defra.gov.uk/MagicMap.aspx>. Accessed March 2024.

Department for Levelling Up, Housing and Communities (DLUHC) (2023). National Planning Policy Framework (NPPF).

English Nature, Ancient Tree Initiative and Treework Environmental Consultancy (1997). Veteran Trees Initiative Specialist Survey Method.

Planning Inspectorate (2023). Appeal Decision by O S Woodward BA(Hons.) MA MRTPI an Inspector Appointed by the Secretary of State.

The Biodiversity Gain Requirements (Irreplaceable Habitat) Regulations 2024. SI 2024/48. London: The Stationery Office.

Woodland Trust (2024). Ancient Tree Inventory. Available at: [https://opendata-woodlandtrust.hub.arcgis.com/datasets/9d2d13b04d654ceb9ba6e0697c1e0c29\\_0/explore](https://opendata-woodlandtrust.hub.arcgis.com/datasets/9d2d13b04d654ceb9ba6e0697c1e0c29_0/explore). Accessed June 2024.



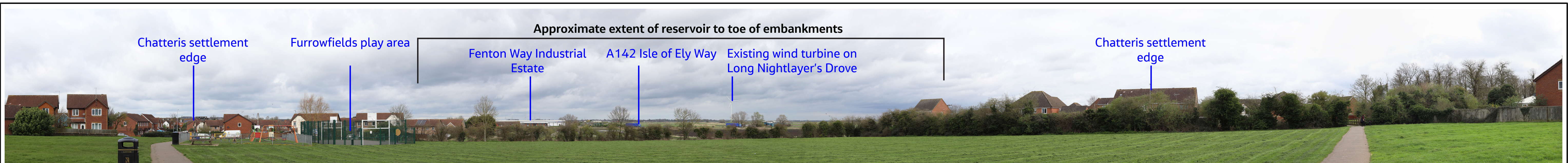
## APPENDIX 7.3: Scoping reservoir site panoramas

# Appendix 7.3 Scoping Reservoir Site Panoramas

## Notes

1. This appendix document should be read in conjunction with Chapter 7: Landscape and visual of the EIA Scoping Report, Figure 7.3 Preliminary representative viewpoints and Appendix 7.5 Scoping representative viewpoint tables.
2. The panoramas provide contextual information of typical landscape character baseline, and of views within that landscape. They are not intended to be representative of a specific viewpoint, or to a scale that would be representative of the view from that location. The panoramas have not been developed to follow Landscape Institute Technical Guidance Note 06/19 Visual Representative of Development Proposals (Landscape Institute 2019). Photographs that comply with the guidance will be produced for the assessment once viewpoints have been agreed with stakeholders.
3. The panoramas show the indicative location of the embankment slopes for the reservoir site.





VP2 - 180° View north-east from Furrowfields play area and open space, Chatteris.





VP7 - 180° View south-east from Primrose Hill, Doddington.



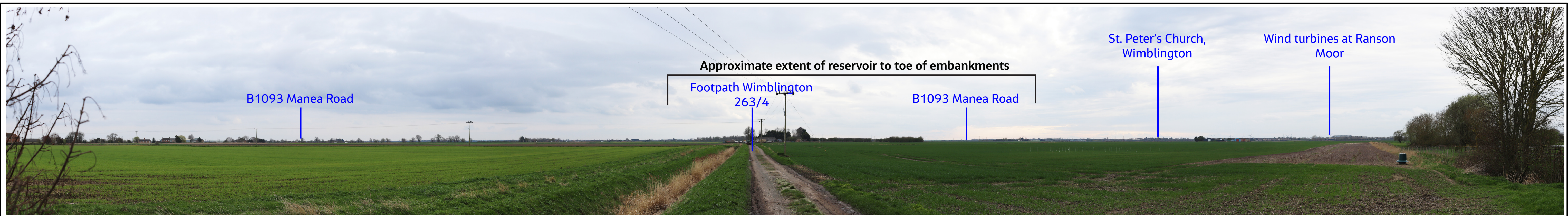
VP11 - 180° View east from Footpath Wimblington 263/21.



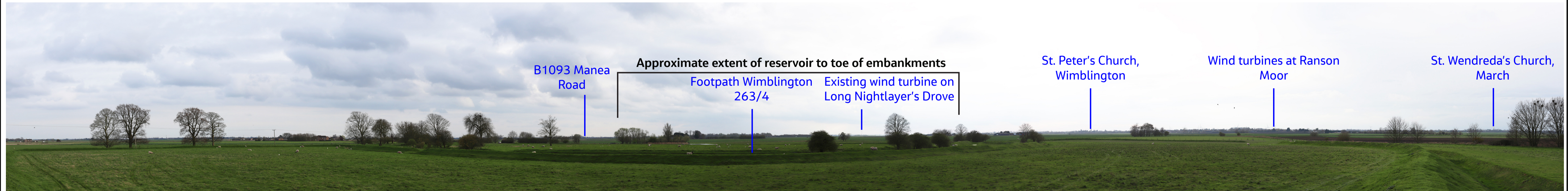
VP14 - 180° View south-east from Hook Road, Wimblington.

PROJECT TITLE <b>Fens Reservoir</b>	DRAWING TITLE EIA Scoping Report - Appendix 7.3 Scoping reservoir site panoramas	REVISION <b>P02</b>	STATUS CODE <b>S1</b>	SCALE	Author YZ	Checker AR	Reviewer KP	Approver LN	 	DRAWING No. <b>07634-XXX-OUSFWIWA-RWT-GAR-C-001</b>
		SHEET NUMBER <b>1 of 4</b>	ISSUE NO		COMMENTS	DATE	AUTH	<small>Thorp Wood House, Thorpe Wood, Peterborough, PE3 6WT Tel: 01733 414100 Fax: 01733 414111</small>		
Partner Company: JACOBS <a href="https://anglianwater.sharepoint.com/">https://anglianwater.sharepoint.com/</a>		Template version: P01								





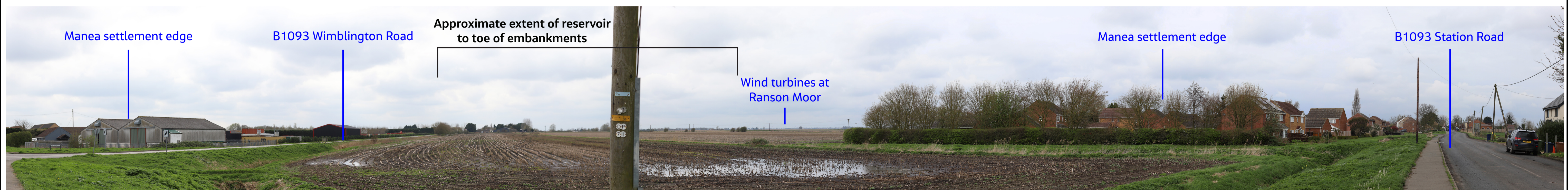
VP16 - 180° View south-west from Footpath Wimblington 263/4.





VP18 - 180° View south-west from timber viewing platform within Stonea Camp on Footpath Wimblington 263/4.



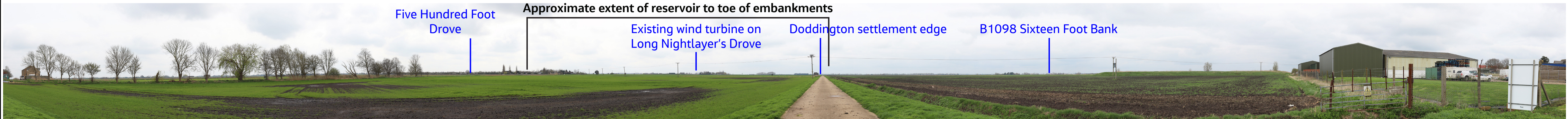
VP19 - 180° View south-west from the B1093 Wimblington Road.



VP24 - 180° View west from the B1093 Station Road, Manea.

PROJECT TITLE <b>Fens Reservoir</b>	DRAWING TITLE EIA Scoping Report - Appendix 7.3 Scoping reservoir site panoramas	REVISION <b>P02</b>	STATUS CODE <b>S1</b>	SCALE	Author YZ	Checker AR	Reviewer KP	Approver LN	 	DRAWING No. <b>07634-XXX-OUSFWIWA-RWT-GAR-C-001</b>
		SHEET NUMBER <b>2 of 4</b>			ISSUE NO	COMMENTS	DATE	AUTH		
					P01	INITIAL ISSUE	30/07/2024	YZ		
					P02	SECOND ISSUE	06/09/2024	YZ		

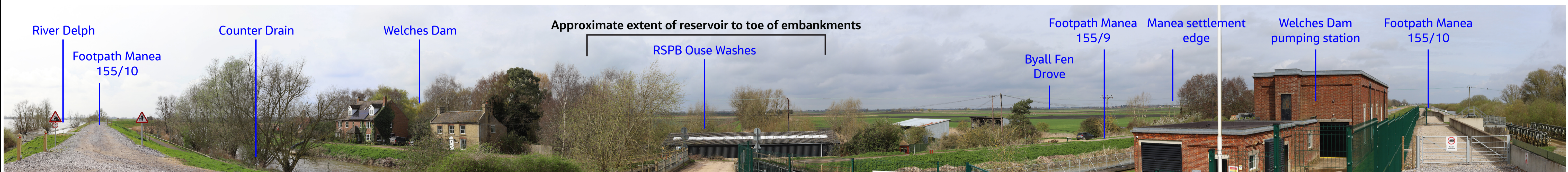




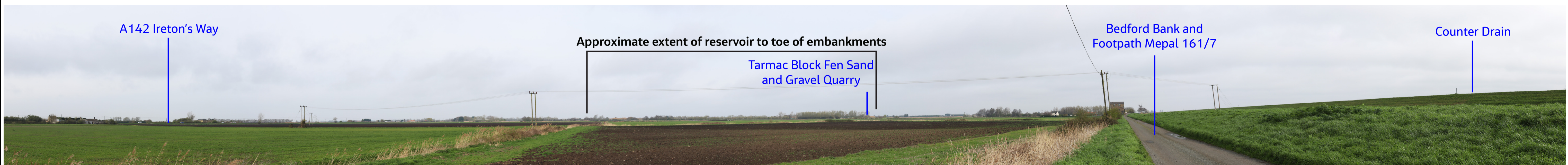
VP26 - 180° View west from Footpath 263/18 Wimblington along Five Hundred Foot Drove, Manea.





VP28 - 180° View west from Purl's Bridge Drove, Purls Bridge.



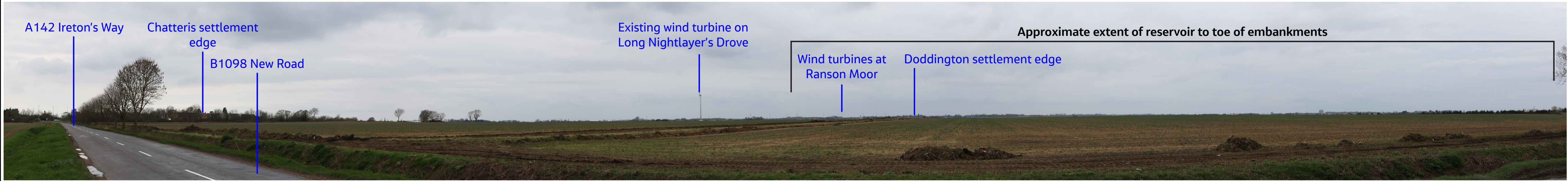
VP29 - 180° View north-west from Footpath Manea 155/10, Welches Dam.



VP34 - 90° View north-west from Footpath Mepal 161/4, Engine Bank.

PROJECT TITLE <b>Fens Reservoir</b>	DRAWING TITLE EIA Scoping Report - Appendix 7.3 Scoping reservoir site panoramas	REVISION <b>P02</b>	STATUS CODE <b>S1</b>	SCALE	Author YZ	Checker AR	Reviewer KP	Approver LN	 	DRAWING No. <b>07634-XXX-OUSFWIWA-RWT-GAR-C-001</b>
		SHEET NUMBER <b>3 of 4</b>	ISSUE NO P01		COMMENTS INITIAL ISSUE	DATE 30/07/2024	AUTH YZ	ISSUE NO P02		







VP39 - 170° View north from the B1098 New Road, Chatteris.



VP40 - 180° View north-east from the A142 Ireton's Way, Chatteris.



VP43 - 180° View east from Byway Doddington 64/20, Dykemoor Drove, Doddington.

PROJECT TITLE <b>Fens Reservoir</b>	DRAWING TITLE EIA Scoping Report - Appendix 7.3 Scoping reservoir site panoramas	REVISION <b>P02</b>	STATUS CODE <b>S1</b>	SCALE	Author YZ	Checker AR	Reviewer KP	Approver LN	 	DRAWING No. <b>07634-XXX-OUSFWIWA-RWT-GAR-C-001</b>
		SHEET NUMBER <b>4 of 4</b>	ISSUE NO		COMMENTS	DATE	AUTH	<small>Thorp Wood House, Thorp Wood, Peterborough, Cambridgeshire, PE3 6WT Tel: 01733 414100 Fax: 01733 414111</small> <small>50 Fildon Rd, Cambridge, CB1 3JF Tel: 01223 706050</small>		
					P01	INITIAL ISSUE	30/07/2024	YZ		
					P02	SECOND ISSUE	06/09/2024	YZ		



## Get in touch

### You can contact us by



Email [info@fensreservoir.co.uk](mailto:info@fensreservoir.co.uk)



Call Freephone on **0800 915 2492**



Write to us at Freepost Fens Reservoir



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