

SUFFOLK WATER RECYCLING, TRANSFER & STORAGE

SCHEME DEVELOPMENT SUMMARY

ACRONYMS AND ABBREVIATIONS

Acronym	Definition
ALC	Agricultural Land Classification
A-W	AWRP to River Waveney pipeline corridor
AWRP	Advanced Water Recycling Plant
B-C	Barsham WTW to CSR pipeline corridor
BMV	Best and Most Versatile
C-S	CSR to Saxmundham Water Tower pipeline corridor
C-W	CSR to WSR pipeline corridor
CSR	Central Service Reservoir
CWS	County Wildlife Site
EIA	Environmental Impact Assessment
ESW	Essex & Suffolk Water
GIS	Geographical Information System
GWDTE	Groundwater Dependent Terrestrial Ecosystems
HRA	Habitat Regulation Assessment
IP	Intermediate Pressure
LV	Low Voltage
ML	Million litres
ML/D	Million litres per day
NCN	National Cycle Network
NISTA	National Infrastructure & Service Transformation Authority
NSIP	National Significant Infrastructure Project
NWL	Northumbrian Water Limited
RAG Assessment	Red Amber Green Assessment
RPG	Registered Park and Garden
PRoW	Public Right of Way
PSC	Potential Source of Contamination

Acronym	Definition
SCL	Special Category Land
SAC	Special Area of Conservation
SPA	Special Protection Area
S-S	Saxmundham Water Tower to SZC pipeline corridor
SSSI	Site of Special Scientific Interest
SWRTS	Suffolk Water Recycling Transfer and Storage
SZC	Sizewell C Nuclear Power Station
WFD	Water Framework Directive
WRC	Water Recycling Centre
WRMP24	Water Resource Management Plan 2024
WRZ	Water Resource Zone
WSR	Western Service Reservoir
WTW	Water Treatment Works
UXO	Unexploded Ordnance

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1 Introduction

1.1 Overview

- 1.1.1 This document has been prepared on behalf of Essex & Suffolk Water (ESW), as part of Northumbrian Water Limited (NWL), to summarise the scheme development process and outcomes for 'Suffolk Water Recycling, Transfer and Storage' (the Proposed Development).
- 1.1.2 The Proposed Development is being progressed as a Project of National Significance in accordance with the Planning Act 2008, the Conservation of Habitats and Species Regulations 2017, and other relevant statutory frameworks.

1.2 Purpose of this Document

- 1.2.1 The purpose of this document is to provide an overview of the decision-making and scheme development processes of Stages 1 and Stage 2. This process has resulted in the selection of the options for the Proposed Development which are now being consulted on as part of our 2025 Non-Statutory Consultation (NSC).
- 1.2.2 The options presented are being consulted on as part of a NSC process in advance of the formal Development Consent Order (DCO) application.
- 1.2.3 This document is structured to guide the reader through the background, methodology, assessment stages, and outcomes. Each section is designed to be accessible to both technical and non-technical readers, with explanatory notes and references provided throughout, a Glossary is provided in **Appendix A**.
- 1.2.4 This document is structured as follows:
- Section 2 sets out an overview of the stages of the scheme development process;
 - Section 3 describes Stage 1 of the scheme development process including the methodology and outcomes;

- Section 4 describes Stage 2 of the scheme development process, including the methodology, a summary of the multi criteria assessment for each option and the outcomes; and
- Section 5 sets out the next steps.

1.3 Limitation of assessment

1.3.1 This document and the assumptions made within it relies on information, which is presumed to be accurate at the time of assessment (April 2025).

Further information and investigations, e.g., geotechnical inspections, ground/land parcel investigation or water quality sampling, planning baseline and appropriate engagement with the affected landowner(s), occupiers and other consultees will be required and may modify the assumptions included in this document or in future project phases. This document and the assessments should be read in conjunction with the following limitations and data restrictions:

- This document is based on information available at the time of assessment, including planning data as of 1st April 2025. It reflects conditions as understood at that time and may be subject to change as further information becomes available. Monitoring of the planning baseline post NSC will be undertaken and throughout the pre-application phase to help inform the Proposed Development.
- The assessment was carried out on a desktop basis from publicly available data and is subject to revision following detailed investigation and engagement with relevant landowners, occupiers, and consultees which will form part of Stage 3 and 4 assessments.
- Some content is based on third-party data considered reliable. Data may change over time, and the findings should not be considered valid indefinitely.

1.4 Background

1.4.1 Water Resource Management Plans (WRMPs) set out how water companies ensure a secure, resilient, and sustainable water supply while protecting the environment. WRMPs forecast supply and demand in each Water Resource Zone (WRZ) over a minimum of 25 years, considering factors like abstraction licence changes, population growth, and climate change. When a deficit is forecast, a range of supply and demand options are identified and appraised to determine the best value plan for customers,

society, and the environment. ESW's WRZs for Suffolk (**Figure 1.1**) consist of:

- The Blyth WRZ;
- The Hartismere WRZ; and
- The Northern Central WRZ.

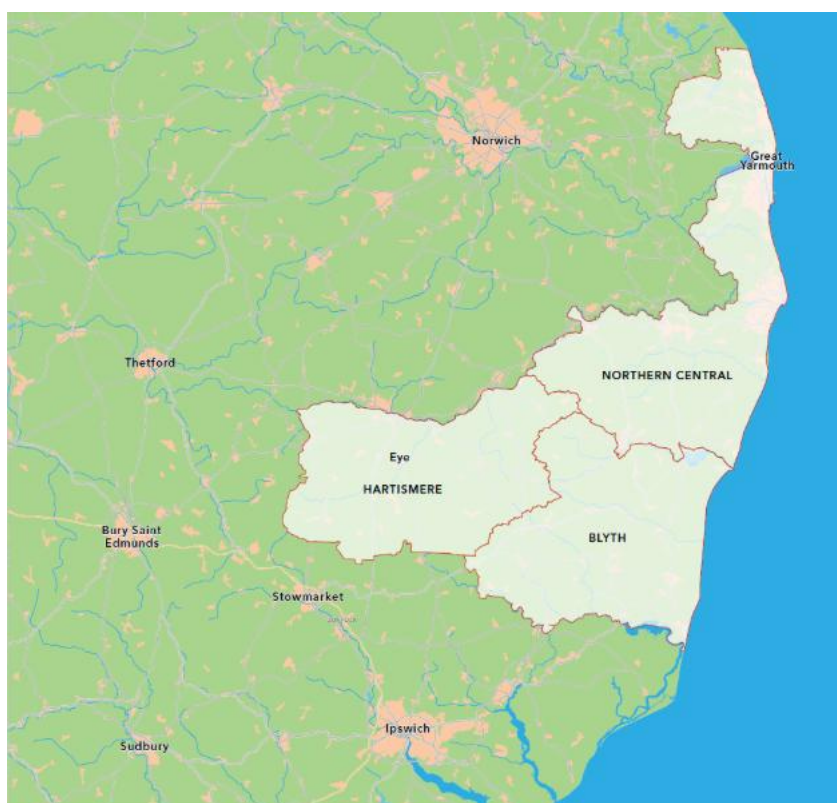


Figure 1.1: ESW's WRZ for Suffolk

- 1.4.2 As set out in ESW WRMP24, the baseline forecasts indicate a supply deficit in the Blyth and Hartismere WRZs from 2026/27 and 2025/26, respectively, due to new abstraction licence reductions, non-household demand, and climate change. The Northern Central WRZ has a small surplus until 2031/32 but will face a deficit thereafter.
- 1.4.3 ESW is currently operating a moratorium¹ in the Hartismere WRZ due to the lack of available water, expected to remain until approximately 2033. Adaptive planning is used to account for uncertainties in supply and

¹ a temporary prohibition on new connections or increases in supply from existing connections where the mains water will be used for non-domestic purposes

demand forecasts, ensuring a resilient water supply. The main uncertainty in ESW's supply forecast relates to the size of further reductions in abstraction licence annual licence quantity that the Environment Agency is likely to require ESW to make under the Conservation of Habitats and Species Regulations 2017 – these are known as Habitats Regulations Sustainability Reductions². As such, ESW has included a Habitats Regulations Adaptive Plan within WRMP24.

- 1.4.4 The EA is currently considering further Habitats Regulations Sustainability Reductions, which are expected to be confirmed by early 2027. ESW must plan for the effects of these reductions on water supply. If the reductions are severe, the Northern Central WRZ will face a deficit from 2026/27. Due to existing and forecasted deficits, new water sources are required. WRMP24 proposed the Suffolk Strategic Network and Storage Enhancement and Lowestoft Reuse projects to address these needs which, combined, is titled the 'Suffolk Water Recycling, Transfer and Storage' project (the Proposed Development). (the Proposed Development).

1.5 The Proposed Development

- 1.5.1 The principal elements of the Proposed Development comprise the following:
- 1.5.2 An Advanced Water Recycling Plant (AWRP) with a maximum daily deployable output of up to 11 MI/d. The site for the AWRP is likely to require approximately 9 hectares (ha). The AWRP will receive up to 16 MI/d of treated wastewater from the existing Lowestoft Water Recycling Centre (WRC) which is owned and operated by Anglian Water Services.
- 1.5.3 Construction of a new pumping station and potential minor modifications to the existing works at the Lowestoft WRC, to divert treated wastewater to the AWRP.

² Habitats Regulations Sustainability Reductions: Reductions in water abstraction required by law to protect sensitive habitats and species, ensuring water companies do not harm the environment.

- 1.5.4 Two proposed Service Reservoirs (SRs) for storage of drinking water, located at strategic locations for onward supply and storage. The two SRs are to be sized to provide 36 hours of storage (as per ESW asset standards). The Central SR will have a capacity of approximately 17MI and the Western SR will be approximately 13MI. It is likely the SRs will require a construction site size of approximately 4ha each.
- 1.5.5 A network of proposed pipelines, connecting existing infrastructure to proposed infrastructure, transferring new water sources to be treated for onward supply and storage. These consist of the following key pipeline routes, totalling approximately 120km. The Proposed Development comprises the following pipelines:
- Pipeline from Lowestoft WRC to the AWRP, transferring approximately 16 MI/d of treated wastewater.
 - Pipeline from the AWRP to a proposed outfall along the River Waveney transferring approximately 11 MI/d recycled water to be discharged into the River Waveney located within the Broads National Park. Abstraction from the River Waveney would be via the existing Barsham Water Treatment Works (WTW) abstraction point near Shipmeadow.
 - A long sea outfall pipeline is proposed from the AWRP, to discharge concentrated residual water.
 - Pipeline from the existing Barsham Water Treatment Works (WTW) to the Central SR transferring approximately 18 MI/d of drinking water. A pipeline connection will be required from the Central SR to the existing ESW Lodgewood Water Tower. In addition, a pipeline connection will be made to Walpole WTW.
 - Pipeline from the Central SR to the Western SR transferring approximately 10 MI/d of drinking water.
 - Pipeline from Central SR to the existing Saxmundham Water Tower transferring approximately 9 MI/d of drinking water.
 - Pipeline from near Saxmundham Water Tower to Sizewell C Nuclear Power Station (SZC), which was granted a Development Consent Order in 2022.
 - Pipelines from the Western SR to the existing local water network for the distribution of drinking water to customers.



Figure 1.2: Overview of the Proposed Development

2 Scheme Development Overview

2.1 Overview

2.1.1 The evolution of the Proposed Development is following a staged process which is set out in **Figure 2.1** below. The selection assessment has four stages with the final stage outlining the selection of the preferred option for each element of the Proposed Development, which will be taken forward to Statutory Consultation. The four stages are:

- a. Identification of study areas and high-level constraints.
- b. Detailed assessment of options (including multi criteria assessment).
- c. Shortlisting and refinement of options.
- d. Selection of preferred options for Statutory Consultation.

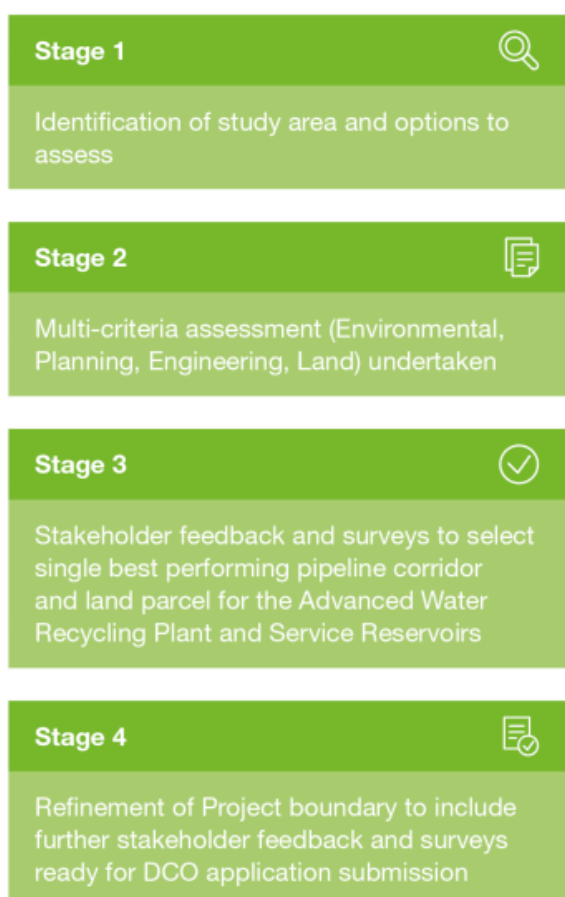


Figure 2.1: Assessment stages

2.1.2 The staged methodology ensures that the site and route selection process is grounded in technical, environmental, and planning evidence and is a

transparent and criteria-based process, demonstrating that a range of reasonable alternatives has been considered.

2.1.3 Stage 1 and Stage 2 have been undertaken for each of the elements of the Proposed Development. This document provides an overview of Stages 1 and 2 and the outcomes to provide an explanation of how the options presented at NSC were developed.

2.1.4 There are three elements of the Proposed Development for which options are being assessed in parallel, set out in **Table 2.1** below:

Table 2.1: Elements of SWRTS

Element	Description
Advanced Water Recycling Plant	
Advanced Water Recycling Plant	Wastewater from the existing Lowestoft WRC will undergo advanced water recycling treatment at the AWRP.
Service Reservoirs	
Western Service Reservoir	The WSR will be located near Eye to provide further intermediate network storage to ensure efficient distribution and network resilience. The WSR is located at the western end of pipeline C-W.
Central Service Reservoir	The CSR will provide intermediate network storage along the route from abstraction at the River Waveney and existing boreholes to Saxmundham Water Tower. The CSR is located between pipelines B-C and C-W.
Pipelines	
A-W (AWRP to River Waveney)	A pipeline route A-W will transfer recycled water from the AWRP to a proposed outfall location along the River Waveney. At Stage 1, this route is referred to as the Lowestoft pipeline.
B-C (Barsham WTW to CSR)	A pipeline route B-C will transfer water from Barsham WTW to the CSR for intermediate network storage before C-W and C-S pipelines. At Stage 1, this route is referred to as Barsham to Lodgewood (B-C).
C-W (CSR to WSR)	A pipeline route C-W will transfer water from the CSR to the WSR for storage ahead of distribution. At Stage 1, this route is referred to as CSR to WSR (C-W).
C-S (CSR to Saxmundham Water Tower)	A pipeline route C-S will transfer water from the CSR to the existing Saxmundham Water Tower for storage ahead of distribution. At Stage 1, this route is referred to as CSR to Saxmundham Water Tower (C-S).
S-S (Saxmundham Water Tower to SZC)	A pipeline route S-S will transfer water from Saxmundham Water Tower to Sizewell C Nuclear Power Station. At Stage 1, this route is referred to as Saxmundham to Sizewell C (S-S).

2.1.5 Following the NSC, the proposals will be refined ahead of a further consultation, where a preferred pipeline route and the preferred site of above ground infrastructure will be presented. Further detail on each of the elements will be presented at Statutory Consultation in 2027, including further detail on the long sea outfall from the AWRP, which has not been

assessed at Stages 1 and 2. It is also anticipated that the locations of construction compounds and temporary working areas and the locations of potential sites for ecological mitigation will be presented at the Statutory Consultation.

2.2 Design Principles

2.2.1 The evolution of the Proposed Development follows a set of Project level design principles. The purposes of the design principles include having an overarching vision with a locally contextual design narrative, being informed by affected people and groups, being inclusive and identifying opportunities for wider benefits and outcomes beyond the project itself.

2.2.2 The design principles presented in **Table 2.2** have been informed by National Infrastructure & Service Transformation Authority³ (NISTA) principles and commitment to embedding good design into all NSIPs:

- Climate: Mitigate greenhouse gas emissions and adapt to climate change;
- People: Reflect what society wants and share benefits widely;
- Places: Provide a sense of identity and improve the environment; and
- Value: Achieve multiple benefits and solve problems well.

2.2.3 The following table sets out the project’s design principles and shows how each aligns with the NISTA framework.

Table 2.2: Project Level Design Principles

Project Level Design Principle	NISTA Alignment
Customer-Focused Water Innovation Deliver a tried and tested, future-ready resilient water recycling and supply system that meets the needs of communities, industry, and the natural environment, ensuring safe, reliable and high-quality water services across Suffolk.	Value, Climate, People
Environmental Stewardship Protect and enhance the River Waveney and surrounding ecosystems by integrating advanced treatment technologies and sustainable discharge practices, in full compliance with environmental regulations and incorporating good environmental practice, mitigation and where possible, enhancement.	Climate

³ NISTA is the government body responsible for infrastructure standards, formed in April 2025 to bring together the functions of the National Infrastructure Commission and the Infrastructure and Projects Authority

Project Level Design Principle	NISTA Alignment
Respectful Design The design will respect the site's location and unique landscape setting and demonstrate sensitivity to environmental designations and surrounding local communities.	Places
Ethical and Responsible Delivery Operate transparently and responsibly, ensuring the lifecycle of the project reflects a commitment to environmental stewardship, community wellbeing, and regulatory integrity.	Value, People
Innovative by Design Embrace innovation in water treatment, network design and construction to create a system that is efficient, adaptable and future proof.	Climate, People
Collaborative & meaningful engagement The design process will be informed by consultation with stakeholders and local communities, ensuring transparency and responsiveness to local priorities and concerns to shape a project that reflects shared values and delivers meaningful benefits.	People
One Team Culture Foster collaboration across disciplines and delivery partners to share knowledge and best practice, ensuring a unified and efficient approach to design, construction and long-term operation.	Value

3 Stage 1: Identification of Study Areas and High-Level Constraints

3.1 Overview

- 3.1.1 For each element of the Proposed Development (the AWRP, SRs and pipelines), Stage 1 included three main steps:
- The identification of a study area;
 - The identification of land parcels (AWRP and SRs) or segments (pipelines); and
 - A high-level review of constraints including the identification of Major Constraints (statutory, planning, environmental, or engineering factors that would present significant challenges to obtaining consent or delivering the Proposed Development, as listed in **Appendix B**).
- 3.1.2 At the end of Stage 1, for each element a set of viable options were identified and progressed to Stage 2 for the multi criteria assessment.

3.2 Stage 1 – Advanced Water Recycling Plant

- 3.2.1 Stage 1 of the scheme development process for the AWRP followed three steps:
- Defining the study area boundary;
 - Identifying ‘areas’ within the study boundary; and
 - Identifying potential viable land parcels free of key engineering and environmental constraints for assessment within the ‘areas’.

Defining the Study Area Boundary

- 3.2.2 The study area for the AWRP was determined by major natural and physical boundaries that confine the study area and location criteria.
- 3.2.3 Examination of aerial mapping of the area around Lowestoft Water Recycling Centre identifies the following natural and physical boundaries:
- Urban areas of Gorleston-on-Sea to the north and Lowestoft to the south;
 - The A143 road to the northwest;
 - The river Waveney to the west and southwest; and

- The North Sea coast to the east.
- 3.2.4 Identification of appropriate areas outside of these limits would result in additional crossings through these constrained areas. The study area is therefore located in the area between these boundaries, as shown on **Figure 3.1**.
- 3.2.5 The location criteria for the AWRP are:
- Proximity to Lowestoft Water Recycling Centre (WRC). The source water for the AWRP will come from the treated effluent stream of the WRC, which is owned and operated by Anglian Water (AW). To minimise the engineering, environmental and financial impact of the pipelines and pumping, it is preferable that the AWRP is as close as practical to the existing WRC.
 - Proximity to the Coast. The concentrated residual water from the AWRP process cannot be treated at the WRC and will need to be disposed of either into the sea via its own dedicated outfall pipe or through the existing long sea outfall operated by AW. Locating a site for the AWRP that is as close as practicable to the sea and /or the existing outfall is therefore preferable.
- 3.2.6 **Figure 3.1** below shows the study area based on these criteria and the natural and physical boundaries listed above.

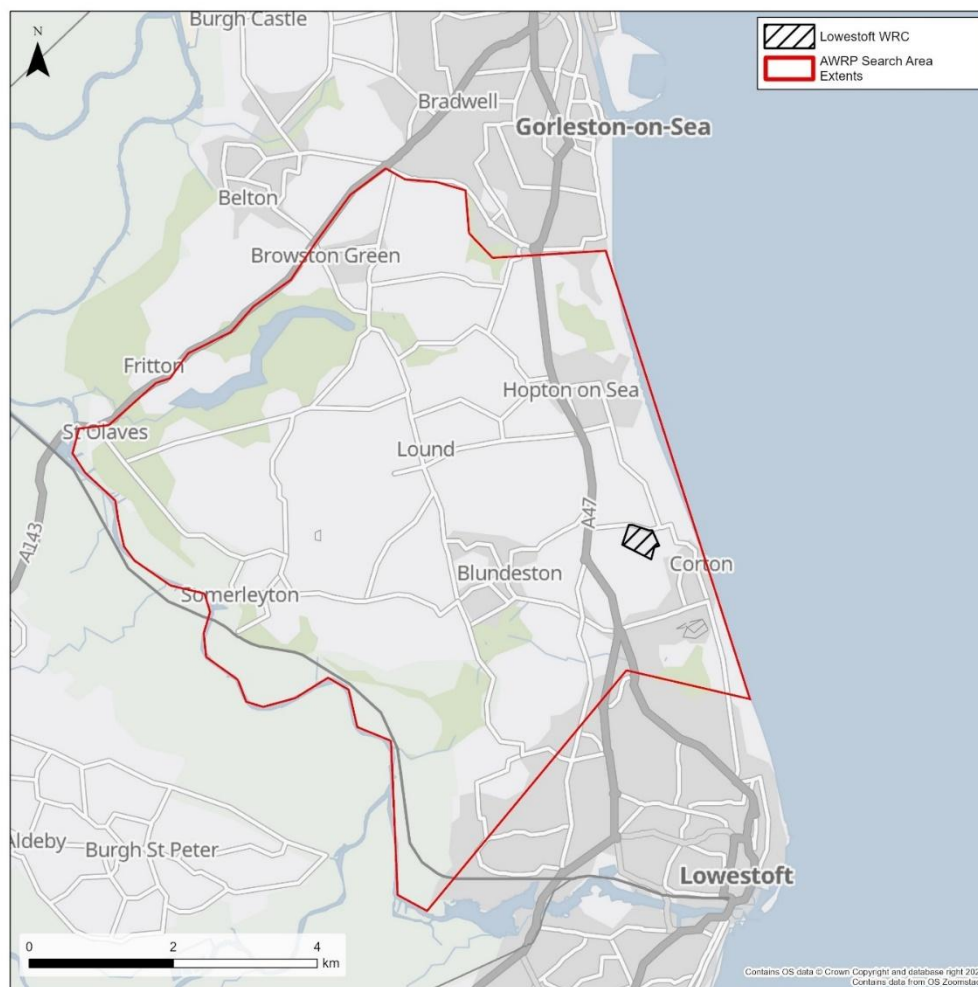


Figure 3.1: AWRP Study Area

Identifying Locations within the Study Area

- 3.2.7 The initial Stage 1 investigation utilised a Geographic Information System (GIS) to identify available areas for AWRP development, and to identify areas which are not considered viable to develop due to the presence of Major Constraints. Major Constraints include statutory, planning, environmental, and engineering factors that could prevent development or make it unviable (see **Appendix B** for details).

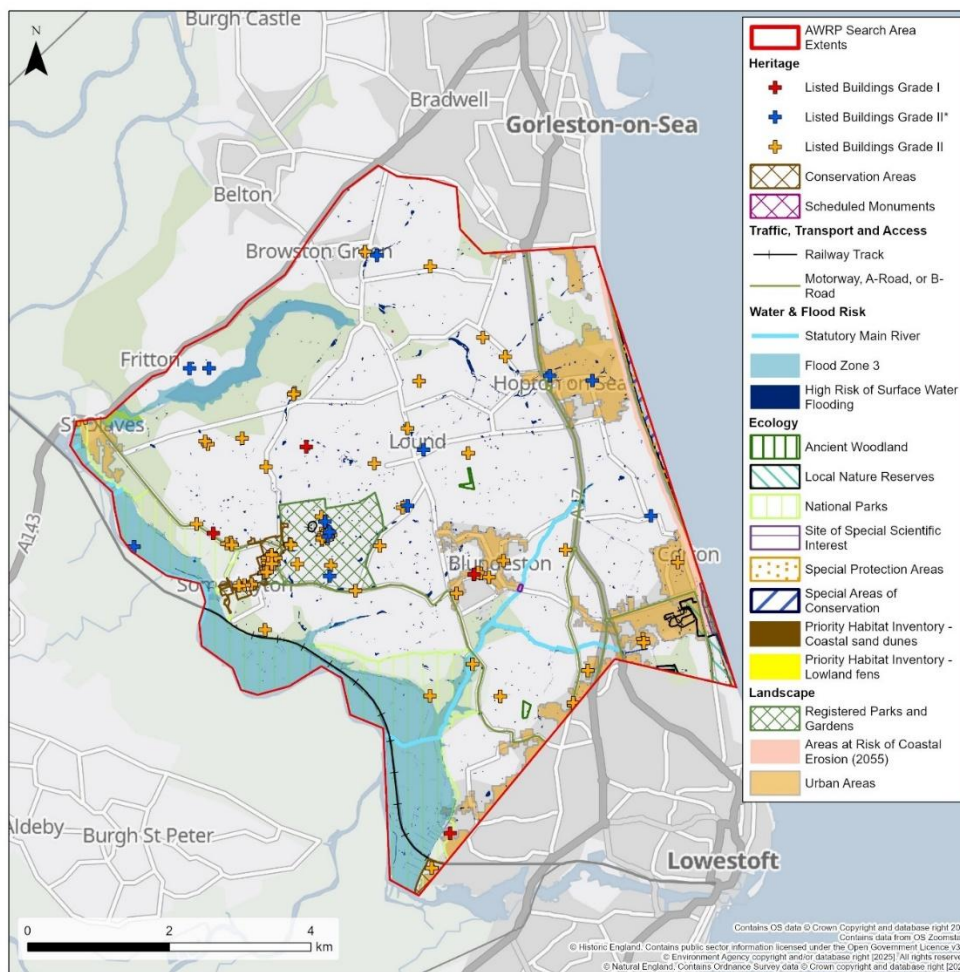


Figure 3.2: AWRP Major Constraints

- 3.2.8 **Figure 3.2** shows the study area with the Major Constraints (environmental and engineering). These areas were avoided as far as reasonably practicable. The area within the study area shown in white is the area within which AWRP development would be free from Major Constraints.
- 3.2.9 Based on these constraints and considerations, six potentially viable areas were identified. These are large areas (1 to 6) within which potential AWRP land parcels could be located.

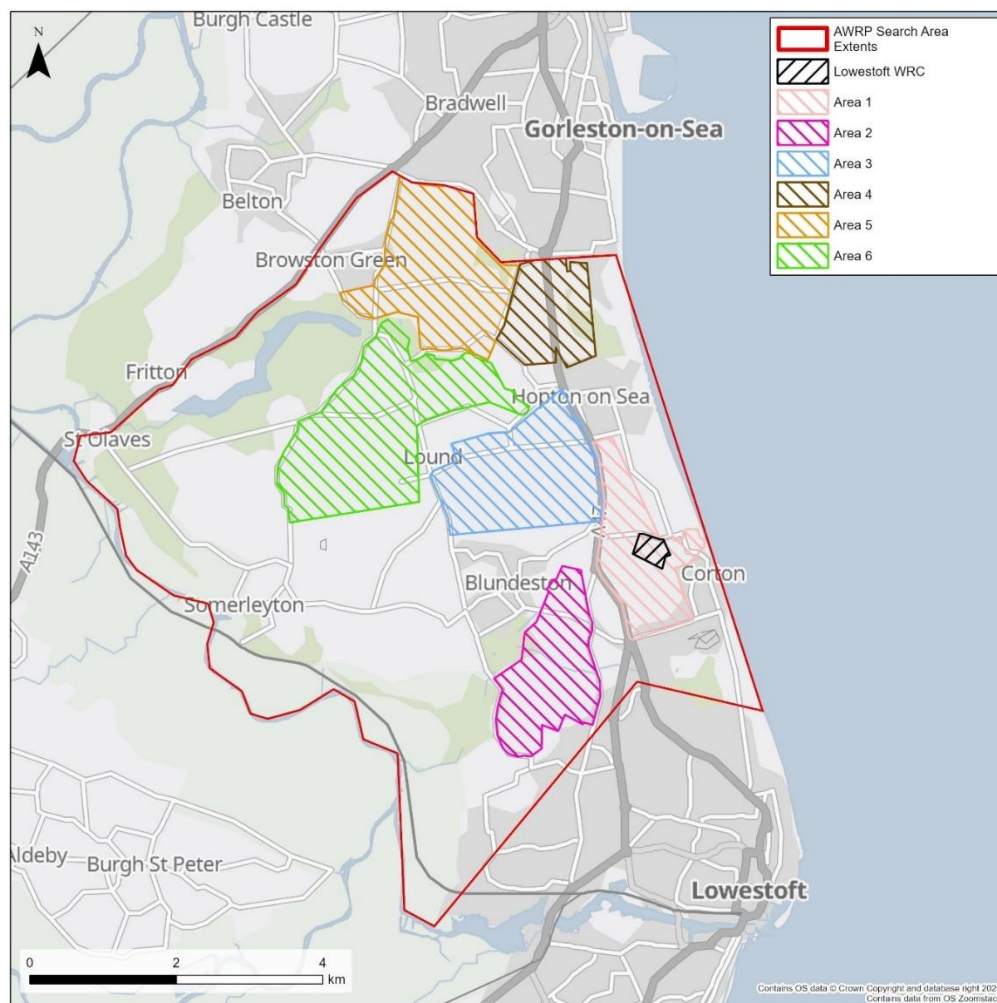


Figure 3.3: Potentially Viable Areas for AWRP

- 3.2.10 The Major Constraints identified at Stage 1 were not found to significantly limit the search for potential site locations.

Identifying AWRP Land Parcels within Viable Areas

- 3.2.11 Potential AWRP land parcels were identified for further assessment which were large enough to accommodate the conceptual AWRP site footprint.
- 3.2.12 The drawing rules for identifying land parcels included:
- Land parcels that are located approximately 500m from major trunk roads ('A-Roads'). These land parcels are considered to be the most appropriate to access with minimal disturbance to residents living close by.

- Land parcels were selected using existing defined site boundaries e.g., fence lines and hedgerows, existing roads, property boundaries, streams/ditches etc.
- Existing land and sites owned by ESW were assessed; ESW own two areas of land close to the existing Lound WTW.
- Anglian Water's Lowestoft WRC and adjacent sites were included in the assessment.
- Existing Brownfield Site Opportunities within the study area boundary were also assessed.

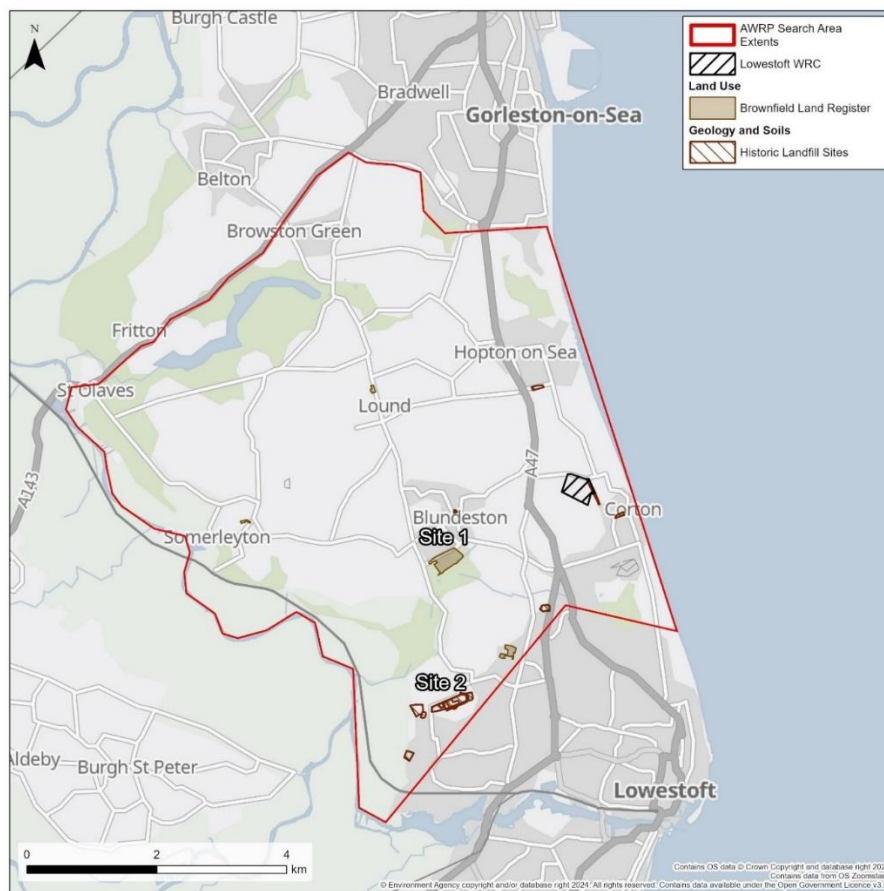


Figure 3.4: Location of Brownfield Sites in the AWRP Study Area

- 3.2.13 **Figure 3.4** shows the brownfield sites within the study area, all of which were considered for the development of the AWRP, however, only two of the land parcels are a size that might be suitable for AWRP development (which is greater than 5ha). These sites are labelled Site 1 and Site 2.
- 3.2.14 Site 1 is within 1km of the Broads National Park and within a site of high risk of potential land contamination. This site was carried forward to the multi criteria assessment at Stage 2 as AWRP 2.4.

- 3.2.15 Site 2 is already owned by a developer, and a housing development has been delivered on the site. This site therefore was not carried forward to the multi criteria assessment at Stage 2.
- 3.2.16 Based on the drawing rules identified above (Paragraph 3.2.12) and the initial large areas (1 to 6), further potentially viable land parcels were drawn and progressed for Stage 2 multi criteria assessment. Note that whilst parts of the northern extents of Area 5 are greater than 500m from an 'A' road, these border the B1534 (which was the only B road identified within the potentially available areas) which provides comparable access provisions and direct routes onto 'A' roads within the drawing rules. Consequently AWRP 5.4 and 5.5 were also considered to be viable and added to the Stage 2 assessment.

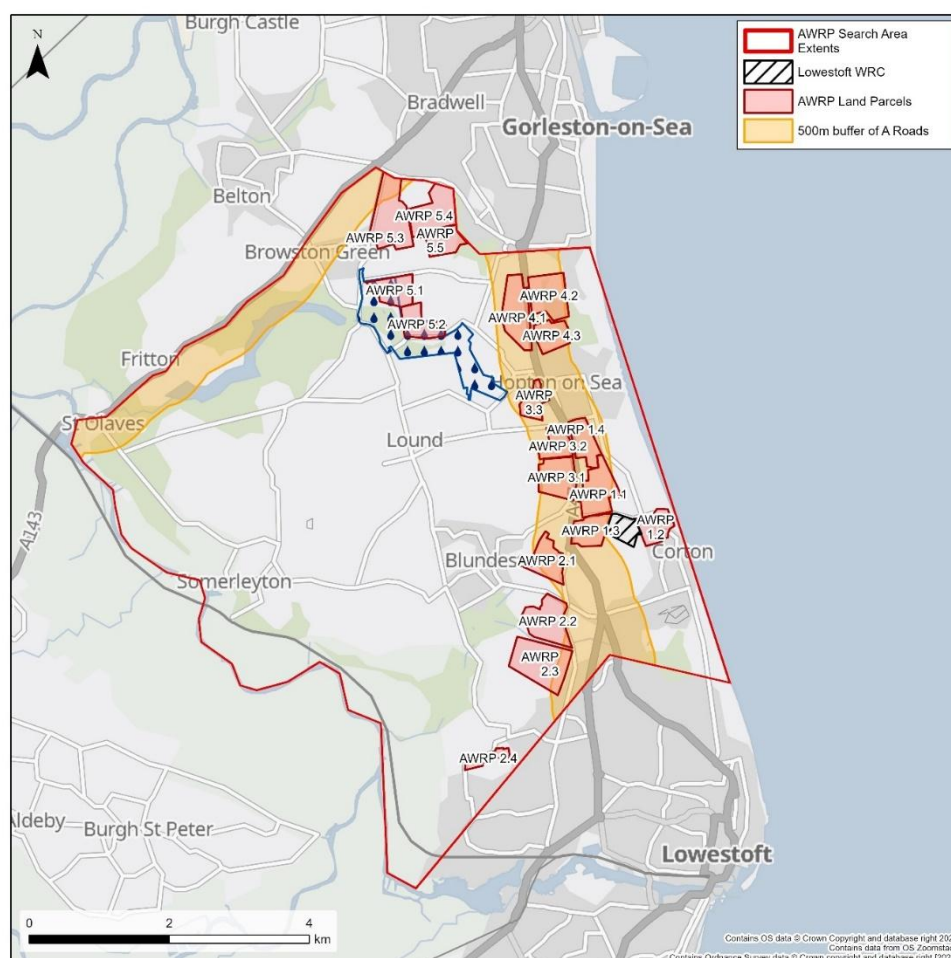


Figure 3.5: Location of Potentially Viable AWRP land parcels used in multi criteria assessment

3.3 Stage 1 - Service Reservoirs

3.3.1 Stage 1 of the scheme development process for the SRs followed three steps:

- Identifying the strategic location for each of the two SRs;
- Defining the study areas based on the strategic locations; and
- Identifying land parcels for each of the SRs within their study areas.

Identifying the Strategic Location for the Service Reservoirs

3.3.2 The locations of the proposed SRs are primarily dictated by the strategic water resources need, which requires a SR to serve the Hartismere Water Resource Zone (WSR) and a SR to serve the Blyth Water Resource Zone (CSR).

3.3.3 The WRMP24 identifies Eye Airfield as the strategic location for the WSR and Holton as the strategic location for the CSR. Hydraulic modelling was undertaken at Stage 1 to confirm the strategic location of each SR.

Hydraulic modelling - WSR

3.3.4 An initial desktop-based review and site walkover identified several significant constraints including a National Gas Transmission pipeline, the exclusion zones of an adjacent National Gas Transmission site and ongoing residential development at Eye Airfield.

3.3.5 Two alternative locations for the WSR were identified to the west and to the north of Eye Airfield which are existing points on the water network for the Proposed Development to tie into. These two options were assessed to determine which was preferable in terms of hydraulic considerations. The hydraulic modelling found that there was a marginal difference between the two alternative area options, however the option west of Eye Airfield would necessitate a longer strategic pipeline (approximately 2km longer) to connect to the proposed CSR, so the option north of Eye Airfield was identified as the preferred strategic location for the WSR. The WSR would connect to the local distribution network at the strategic connection location

at Redgrave to Syleham trunk main, this is the centre point for the study area.

Hydraulic modelling - CSR

- 3.3.6 Four locations were identified as potential strategic locations for the CSR: Shadingfield, Holton, Walpole and Lodgewood. Based on hydraulic modelling of the four options, the Lodgewood area was identified as the preferred strategic location as it had the shortest pipeline route and lowest combined pumping power requirements. The CSR would connect to the local distribution network at the Lodgewood Water Tower, this is the centre point for the study area.

Defining the Study Area

- 3.3.7 Once the strategic location was identified for both SRs, a 1km study area boundary from the centre point of the preferred locations for each SR was identified. An initial 1km boundary was considered appropriate based on the size of the SRs and a 1km study area boundary would also reduce the final length of the pipeline and the pumping requirements between the SR and the connection to the existing network.
- 3.3.8 Subject to the amount of land identified by applying the 1km boundary and considering existing physical linear boundaries (rivers, roads, railways), the methodology allowed for the 1km boundary to be extended in 500m increments to allow for the consideration of additional areas of land if no suitable land parcels were identified from the initial search.

WSR

- 3.3.9 An initial 1km study area was selected around the strategic connection location at Redgrave to Syleham trunk main, as shown in **Figure 3.6**.

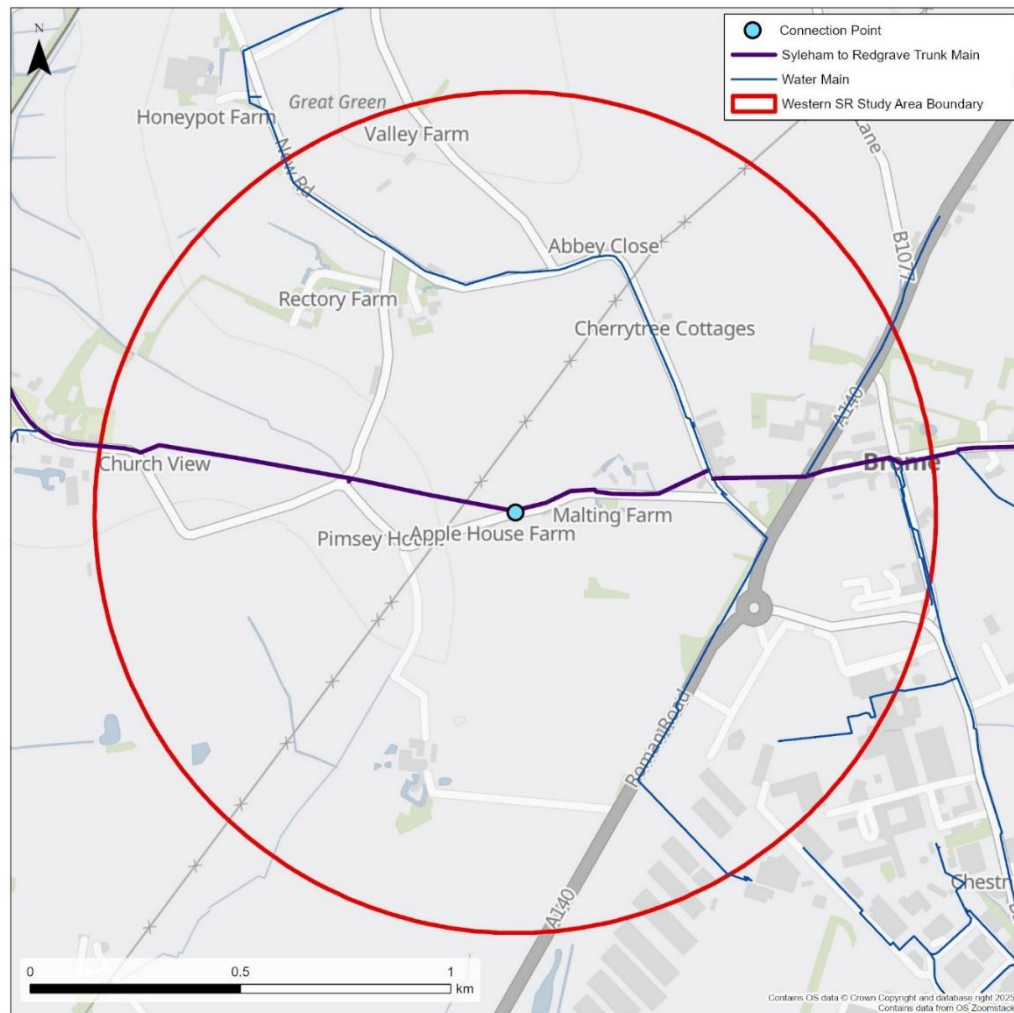


Figure 3.6: WSR study area boundary

CSR

- 3.3.10 An initial 1km study area was selected around the strategic connection location at Lodgewood Water Tower, as shown in **Figure 3.7**.

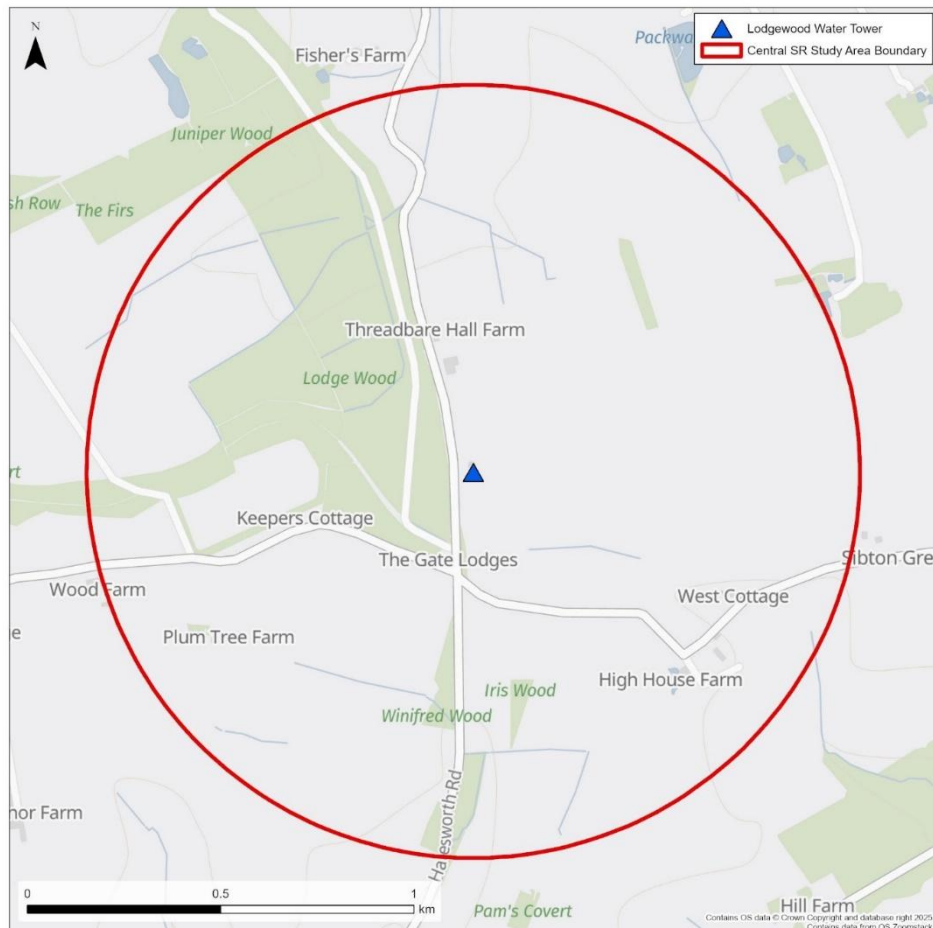


Figure 3.7: CSR study area boundary

Identifying Land Parcels for the Service Reservoirs

- 3.3.11 Once the study areas were defined, land parcels for each of the SRs were identified within the 1km study area (with the potential for controlled piecemeal expansion of the study area as explained above). The minimum land parcel size was determined based on the construction and operational footprint required for each of the proposed SRs.
- 3.3.12 Environmental and engineering constraints were identified through desk-based assessment of the defined initial study area as shown in Figures 3.8 and 3.10 below. Major Constraints (**Appendix B**) which carry significant

challenges to obtaining consent and the delivery of the Proposed Development were avoided where practicable, as per the 'drawing rules' set out below.

3.3.13 The following drawing rules were applied when drawing potential land parcels:

- Avoid Major Constraints (environmental and engineering as detailed above)
- Avoid blocks or dense lines of vegetation (hedgerows and trees).
- Use existing infrastructure and natural boundaries (e.g. roads, rivers, hedgerows)
- Avoid excessive topographical variation
- Avoid settlements, other urban areas and existing development and its curtilage.
- Minimum site area: 3ha for the WSR and 3.5ha for the CSR
- Minimum site width of 110m for the WSR and 120m for the CSR based on the required site size to safely construct and operate the SRs when a single water cell has aspect ratio of 3.8.
- Topographical level above 35m for the WSR and above 45m for the CSR.

3.3.14 The drawing rules were applied spatially using GIS mapping tools, incorporating the Major Constraints previously identified. This process enabled the systematic identification of land parcels that met the minimum site size, topographical and boundary criteria.

Western Service Reservoir

3.3.15 Major Constraints to be avoided (as far as practicable) were identified within the WSR study area including Thrandeston Conservation Area (small overlap on western edge of study area). These constraints are shown on **Figure 3.8**.

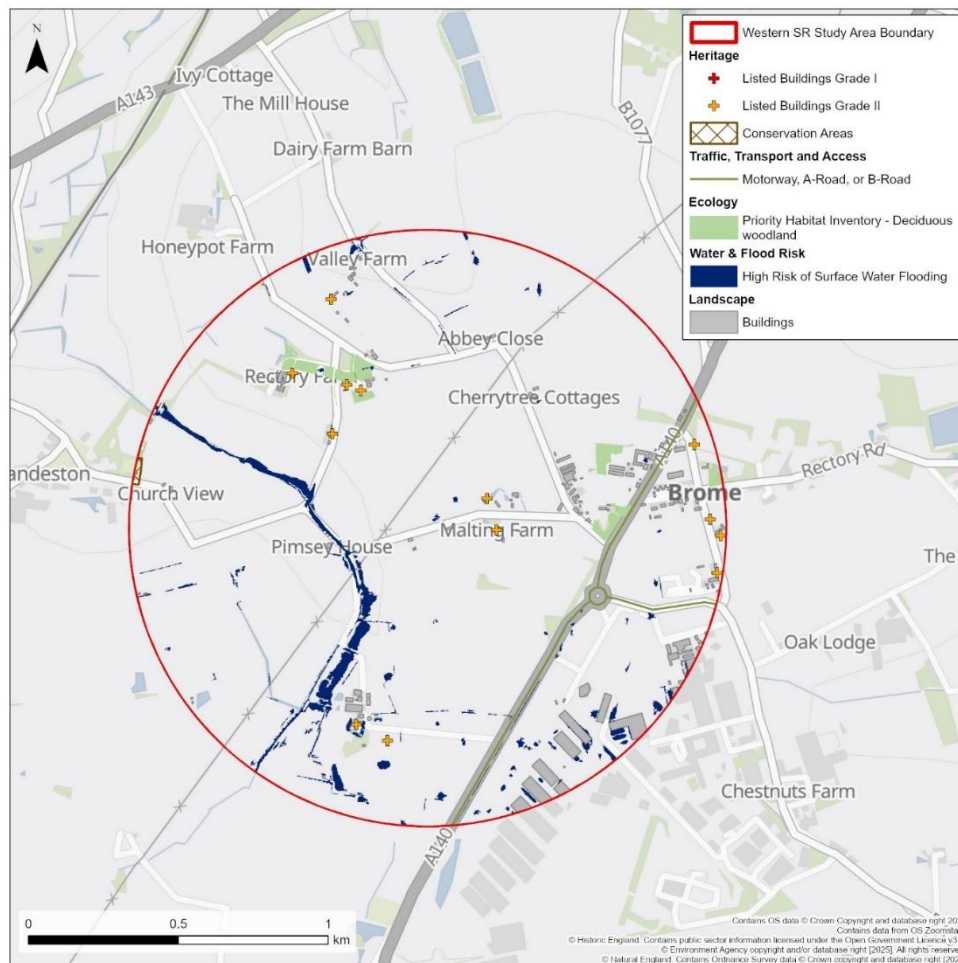


Figure 3.8: Major Constraints within Western Service Reservoir study area

3.3.16 19 potentially viable land parcels were identified within the study area to be progressed to multi criteria assessment at Stage 2, which are shown on **Figure 3.9**. The study area did not need to be expanded as potentially viable land parcels were identified within the initial 1km study area.

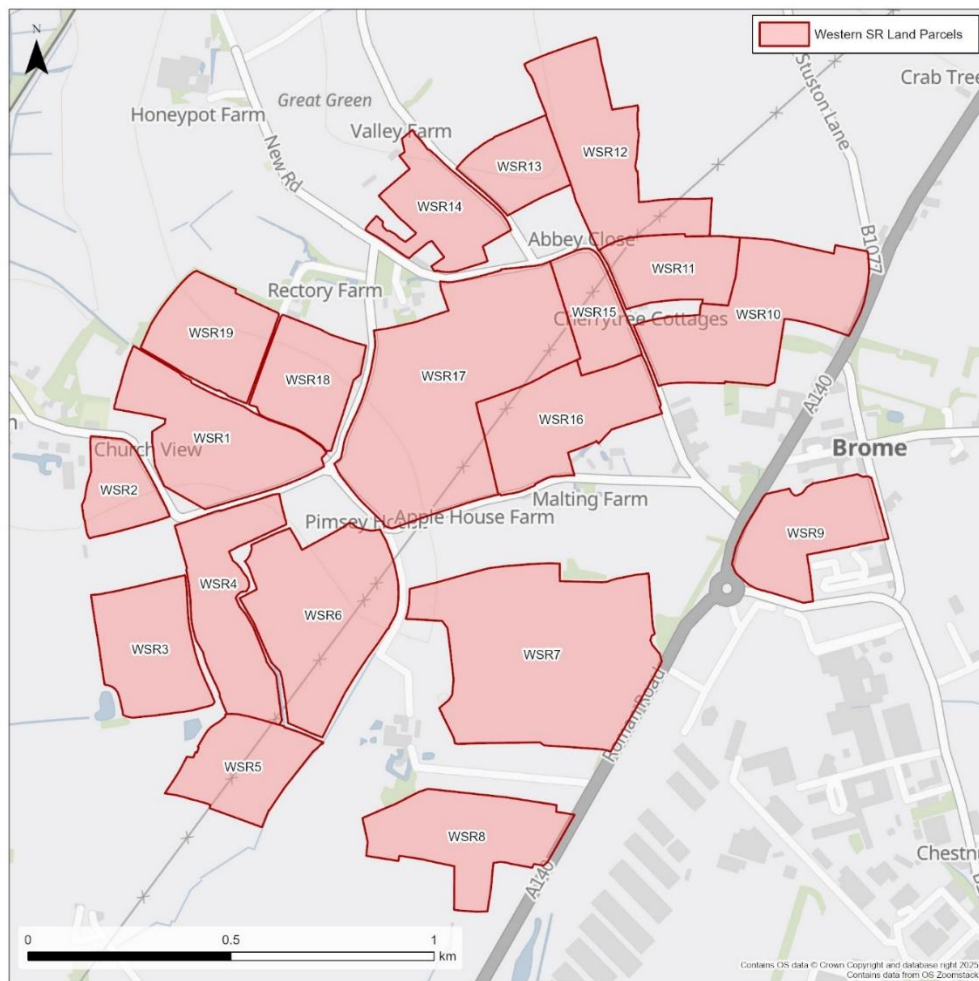


Figure 3.9: Western Service Reservoir Land Parcels identified at Stage 1

Central Service Reservoir

- 3.3.17 Major Constraints to be avoided (as far as practicable) were identified within the CSR study area, as shown on **Figure 3.10**. The Major Constraints identified are Heveningham Hall Registered Park and Garden (Grade II Listed), associated Grade I Listed Building (Heveningham Hall), and Grade II* Listed Buildings (entrance gates).

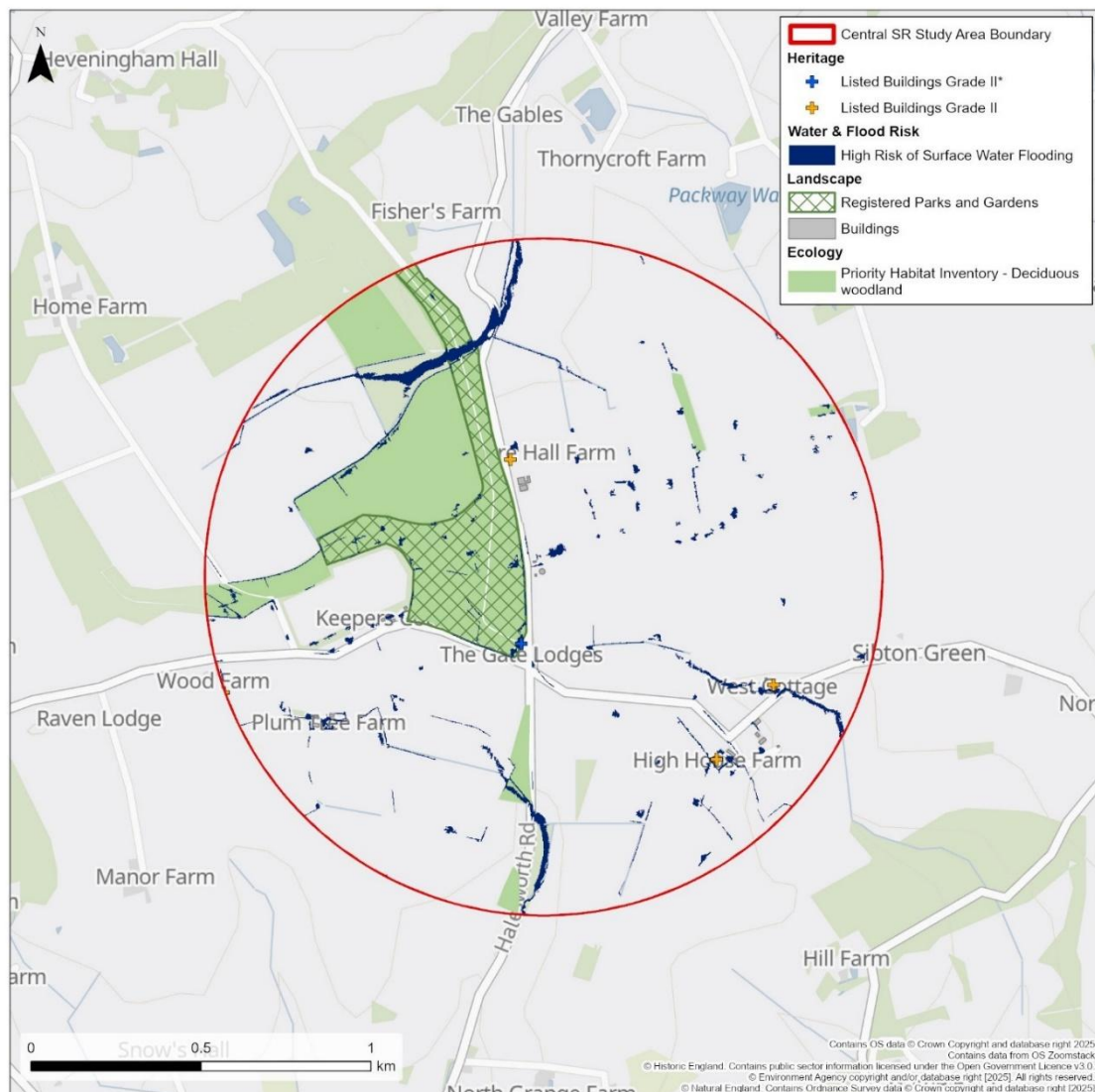


Figure 3.10: Major Constraints within Central Service Reservoir study area

- 3.3.18 14 potentially viable land parcels were identified within the study area for progression to multi criteria assessment at Stage 2, which are shown on **Figure 3.11**. The study area did not need to be expanded as potentially viable land parcels were identified within the initial 1km study area.

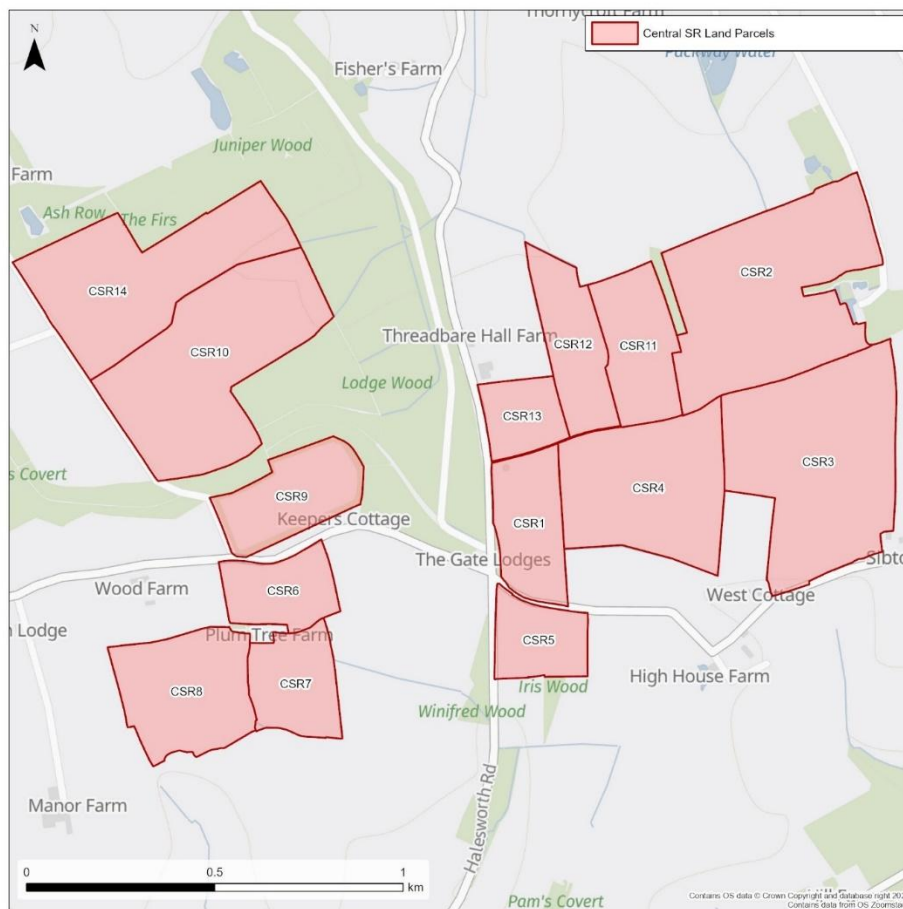


Figure 3.11: Central Service Reservoir Land Parcels identified at Stage 1

3.4 Stage 1 - Pipelines

Pipeline Stage 1 Methodology

3.4.1 The terminology used within the pipeline methodology and assessment is as follows:

- Pipeline route – this is the A to B of a pipeline.
- Pipeline options – pipeline options, per route, to get from A to B will be drawn.
- Pipeline segments – the pipeline options will be split / segmented at nodes with other pipeline segments or crossings.
- Pipeline corridor – developed following selection of best performing pipeline segments to form a corridor for which the working area (construction) would be refined over the pre-application process.

3.4.2 Stage 1 comprised the identification of the five pipeline routes which need to be developed and the search area for each pipeline route, the details of

which are set out below. Within the search area for each pipeline route, a set of pipeline options were then drawn following a set of general principles, which are set out at Paragraph 3.4.11 below. The final step of Stage 1 was splitting the pipeline options into pipeline segments which were then taken forward into Stage 2 for assessment. Pipeline options were split into segments at nodes with other pipeline segments or where there is an infrastructure (e.g. utilities, road, rail or river) crossing. This segmentation enabled a granular multi criteria assessment of environmental, planning, engineering, and land constraints at Stage 2.

Identification of Search Areas

- 3.4.3 The first step of Stage 1 was identifying search areas within which pipeline options would be drawn.
- 3.4.4 The identification of the search areas considered the following:
- **Start and end point** - For each of the proposed pipeline routes (A-W, B-C, C-W, C-S, S-S), a search area was identified and defined based upon the likely start and end points of each pipeline route. Where the start and/or end point were subject to their own site selection process (e.g. the CSR and WSR), the centre point of the site study area was used, otherwise the start and end points were fixed by the position of existing infrastructure (e.g. Saxmundham Water Tower and the Lowestoft WRC).
 - **Minimising environmental and social impact** – The maximum extent of the search area was defined by the location of large areas of statutory environmental designations (e.g. the Broads National Park) and large settlements or clusters of settlements, to exclude these sensitive features from pipeline corridor production.
 - **Avoiding unnecessary infrastructure crossings** – Existing physical linear infrastructure (e.g. railway lines, roads in the strategic road network, watercourses) which follows a similar alignment to the direct pipeline route between the start and end points was used as the boundary to the search area to limit multiple crossings of existing infrastructure.
- 3.4.5 **Figure 3.12** presents the study areas for each pipeline route which is in accordance with the methodology set out above.

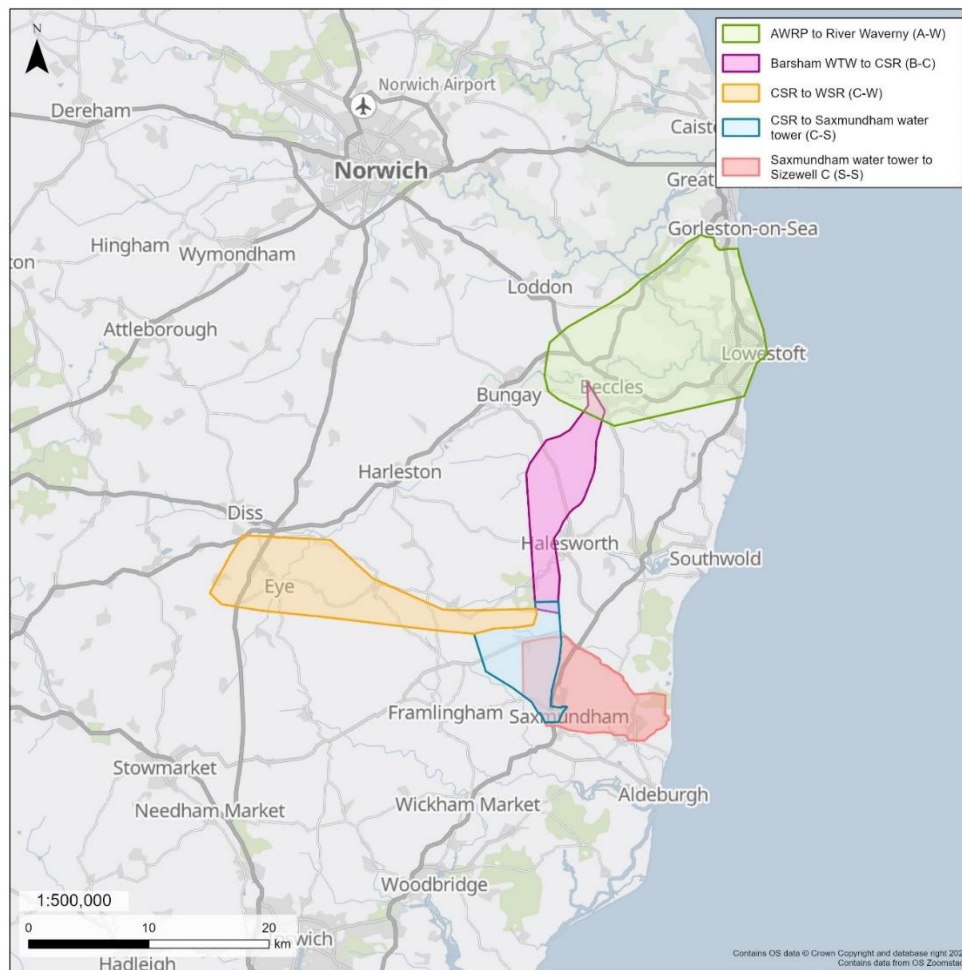


Figure 3.12: Pipeline Route Study Area(s)

- 3.4.6 The **AWRP to River Waveney (A-W)** study area is defined by the start point (the existing Lowestoft WRC) to the east and the end point (the proposed discharge point at the River Waveney). Due to the presence of the Broads National Park between the start and end point, the study area includes the Broads National Park as well as Lowestoft to the south to provide flexibility in route direction.
- 3.4.7 The **Barsham WTW to CSR (B-C)** study area is defined by the start point (the existing Barsham WTW) to the north and the end point (the existing Lodgewood Water Tower which is the centre point for the CSR study area) to the south. It is bound to the east by the East Suffolk Railway and to the west by the River Waveney and the Beck, all of which follow a north to south alignment.

- 3.4.8 The **CSR to WSR (C-W)** study area is defined by the start point (the existing Lodgewood Water Tower which is the centre point for the CSR study area) to the east and the end point (the centre point of the WSR study area) to the west, as well as the existing railway line (Great Eastern Main Line) to the west. To the north it is bound by the River Blyth and the villages of Hoxne, Chickering, Stradbroke, Laxfeld and Ubbeston Green, and to the south it is bound by a run of horizontal alignment of built-up area (Brundish, Worlingworth, Southolt, Occold).
- 3.4.9 The **CSR to Saxmundham Water Tower (C-S)** study area is defined by the start point (the existing Lodgewood Water Tower which is the centre point for the CSR study area) to the north and the end point (the existing Saxmundham Water Tower) to the south. To the east it is bound by the River Fromus and the A12 and to the West it is bound by the River Alde, all of which run parallel to the route.
- 3.4.10 The **Saxmundham Water Tower to SZC (S-S)** study area is defined by the start point (Saxmundham Water Tower) to the west and the end point (the approved SZC) to the east. To the north it is bound by the B1122 (to the north of the Sizewell B Nuclear Power Station and the SZC Order Limits) and to the south it is bound by the villages of Benhall, Sternfield and Coldfair Green. The study area extends north and west to allow potential pipeline option which could be tied in from the proposed C-S pipeline instead of starting at Saxmundham Water Tower.

Drawing Pipeline Options and Segments

- 3.4.11 Following the identification of the search areas, pipeline options were drawn according to a set of general principles. The general principles are summarised below:
- Minimisation of key crossing points - To aid constructability, and to reduce the potential for disruption to infrastructure during construction at key pipeline crossings (where the pipeline options or pipeline segments could cross railways, watercourses, roads within the strategic road network), crossings of these linear features should be minimised/avoided where possible.

- Pipeline options and pipeline segments length - The pipeline options and the pipeline segments should be as short and as direct as possible to minimise cost during the construction and operation phases and limiting embedded and operational carbon emissions.
- Pipeline hydraulics - The pipeline options should be routed to avoid major topographical changes to support the flow of water within the pipeline and reduce pumping requirements. Frequent and major changes in direction of the pipeline should also be avoided to minimise loss of head and pressure.
- Minimisation of consenting risks - The Major Constraints identified in Appendix B will be avoided (where practicable) when developing the pipeline options/ Pipeline Corridors, so that potential impacts associated with the construction and operation of the Pipeline Corridors are minimised as far as reasonably practicable. Constructability - The following principles will be considered to support ease of construction.
 - Generally, align the pipeline options within open space and fields.
 - Avoid or skirt major towns and villages.
 - Align the pipeline options parallel to suitable local roads (major roads such as dual carriageways or motorway) for access (major roads and motorways do not offer the same benefit).
 - Avoid construction in/ along roads where possible or consider using trenchless techniques to minimise disruption and traffic delay.
 - Ensure enough working area is available.
- Operability - The Pipeline Corridor should consider whether safe and suitable access can be achieved to the pipeline once installed, for maintenance, monitoring and repair purposes.

3.4.12 The Major Constraints identified for each pipeline route are set out in the **Table 3.1:**

Table 3.1: Pipeline Major Constraints

Route	Major Constraints
A-W	• Proximity to Blundeston Hall Scheduled Monument and Lowland Fen (irreplaceable habitat). • Minimise crosses through the Broads National Park. • Proximity to an area of Ancient Woodland.
B-C	• Proximity/avoidance of Heveningham Hall Registered Park and Garden (Grade II Listed) and associated Grade I Listed Building (Heveningham Hall) and Grade II* Listed Buildings (entrance gates).

Route	Major Constraints
	Avoidance of pockets of Ancient Woodland south of Ringsfield Common.
C-W	Proximity to scheduled monument, Denham College Moated Site.
C-S	Proximity/avoidance of Heveningham Hall Registered Park and Garden (Grade II Listed) and associated Grade I Listed Building (Heveningham Hall) and Grade II* Listed Buildings (entrance gates).
S-S	- Proximity to Suffolk Coast & Heaths National Landscape, Sizewell Marshes SSSI, Minsmere-Walberswick Heath and Marshes SSSI, Minsmere-Walberswick Heaths and Marshes SAC, Outer Thames Estuary SPA, Minsmere-Walberswick Ramsar site and Lowland Fens and Coastal Sand Dunes irreplaceable habitat. - Presence of Saxmundham Conservation Area and associated designated heritage assets including Lady Grace Scheduled Monument.

- 3.4.13 When drawing pipeline options, buffer distances from sensitive features were applied in accordance with the general principles, where practicable. For example, 25 m from Ancient Woodland, and 8m from watercourses, unless otherwise justified by site-specific constraints.
- 3.4.14 The pipeline options were split at nodes with other pipeline options or crossings to create a set of pipeline segments to assess at Stage 2. Since the pipeline options and segments identified were screened from major environmental and engineering constraints at Stage 1, these pipeline options and segments were considered to be potentially viable for the development of the pipeline. **Figures 3.13 to 3.22** present the constraints maps for each pipeline route study areas to enable the development of the pipeline options and segments.

Pipeline Stage 1 Outcomes

AWRP to River Waveney (A-W)

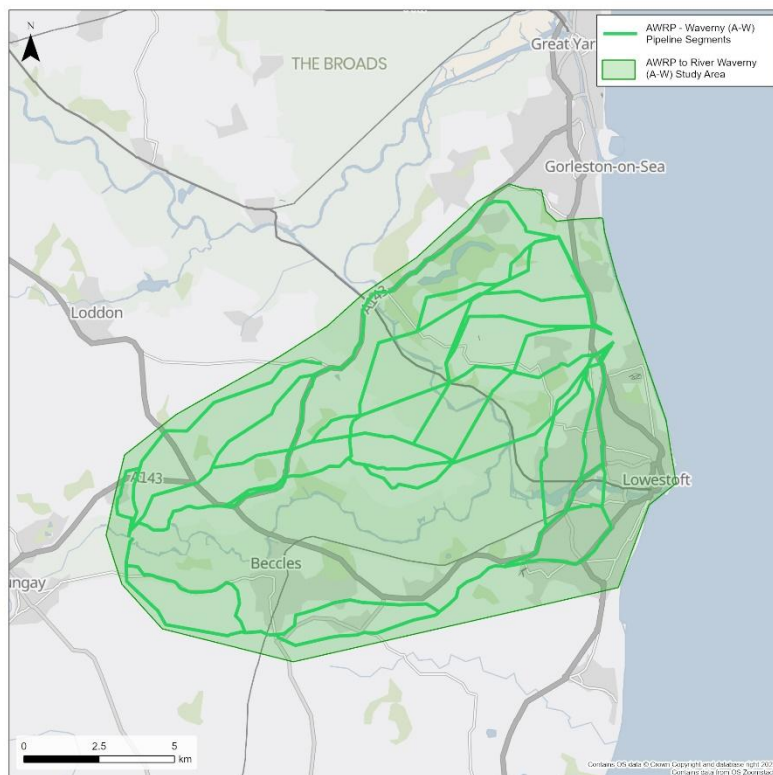


Figure 3.13: Major Constraints within A-W Study Area

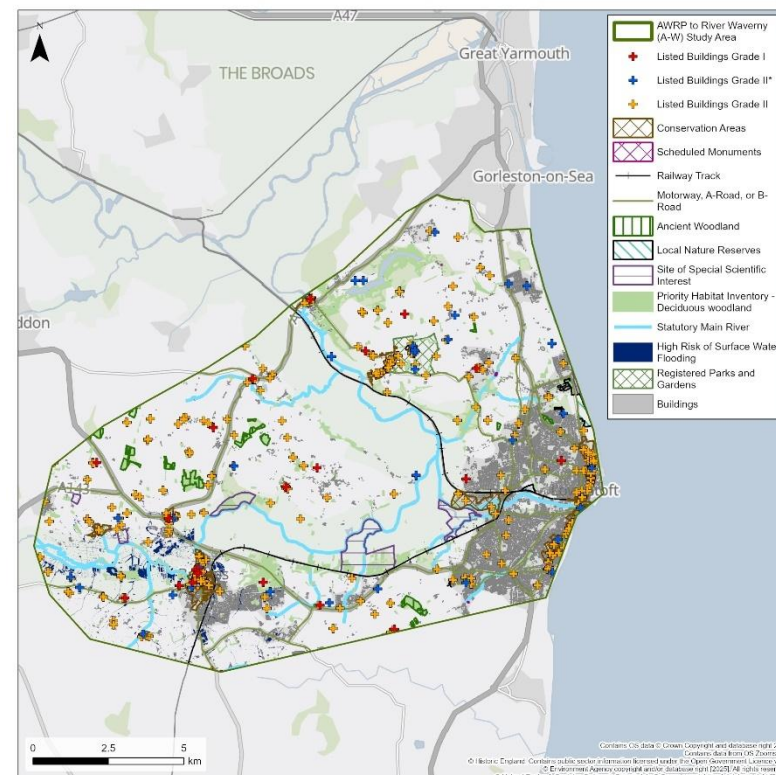


Figure 3.14: A-W Stage 1 Pipeline Segments

3.4.15 The route options shown above were progressed to Stage 2, comprising 45 segments for assessment.

Barsham WTW to CSR (B-C)

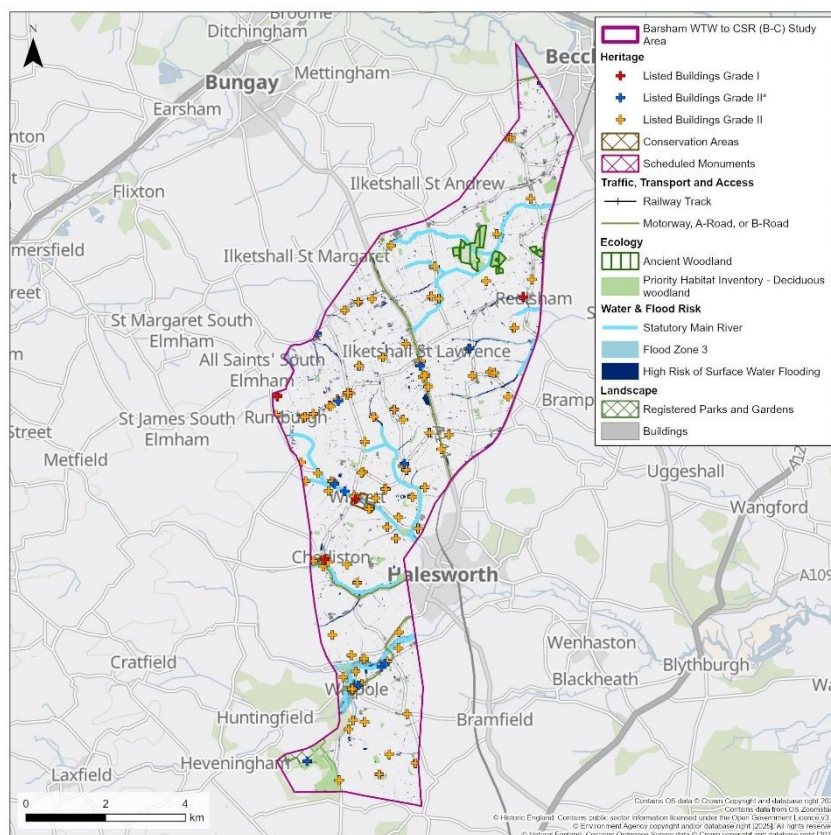


Figure 3.15: Major Constraints within B-C Study Area

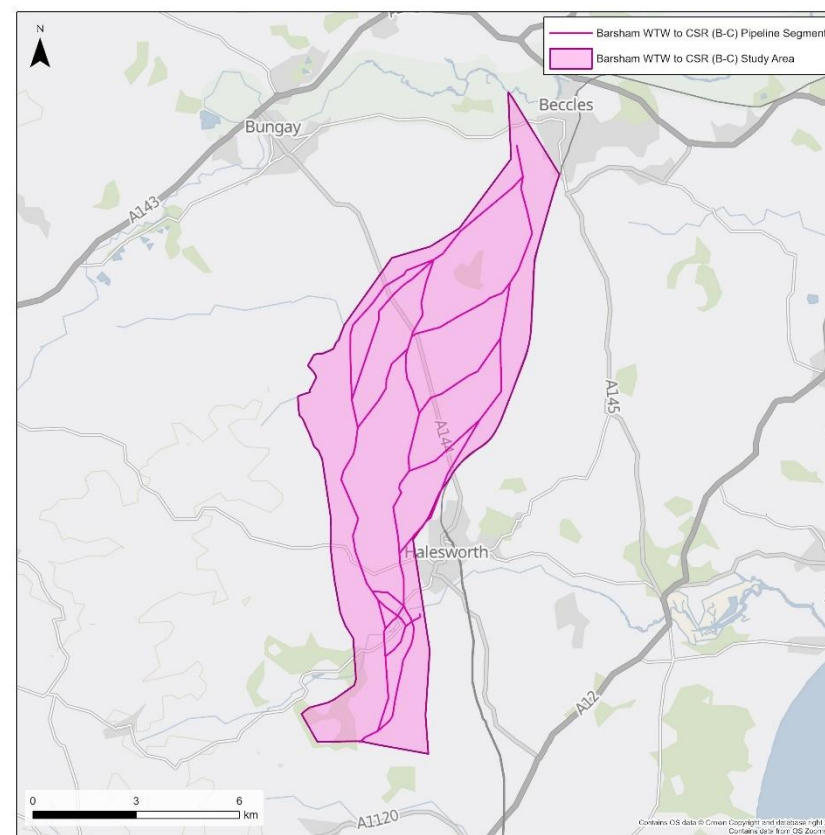


Figure 3.16: B-C Stage 1 Pipeline Segments

3.4.16 The route options shown above were progressed to Stage 2, comprising 33 segments for assessment.

CSR to WSR (C-W)

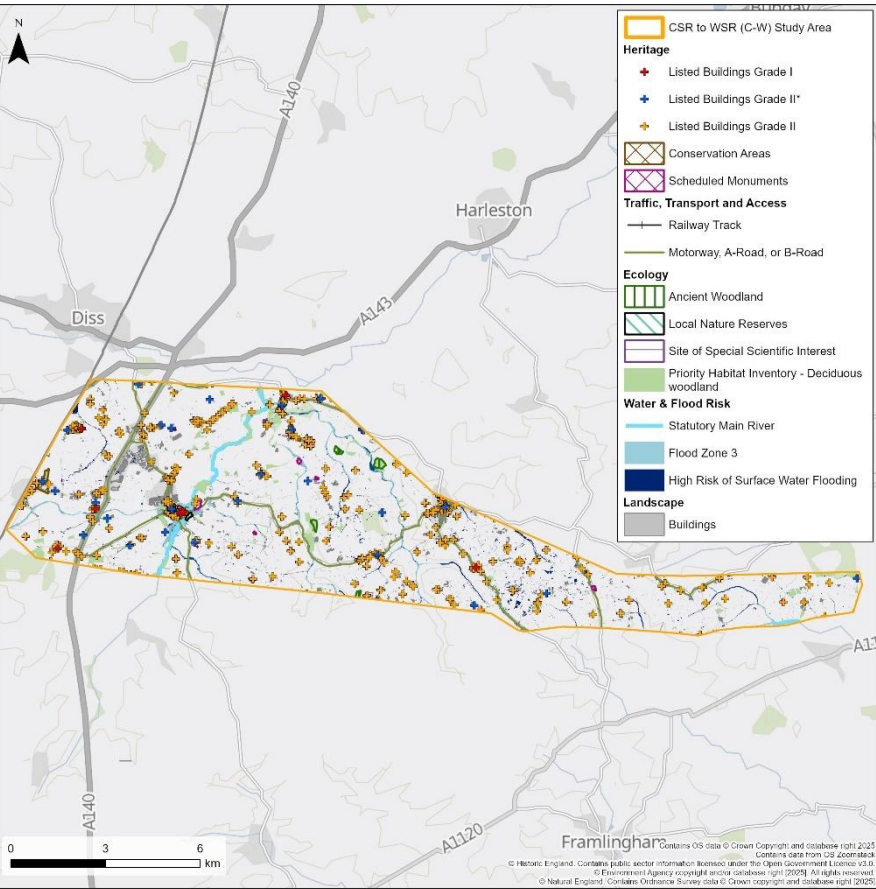


Figure 3.17: Major Constraints within C-W Study Area

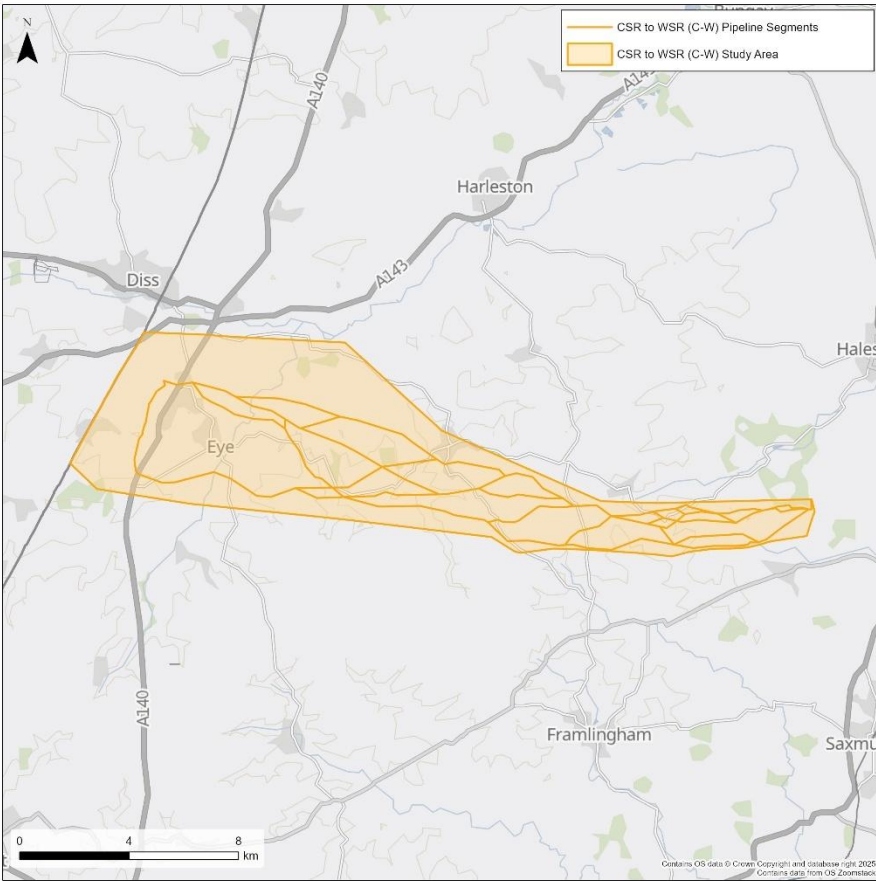


Figure 3.18: C-W Stage 1 Pipeline Segments

3.4.17 The route options shown above were progressed to Stage 2, comprising 62 segments for assessment.

CSR to Saxmundham Water Tower (C-S)

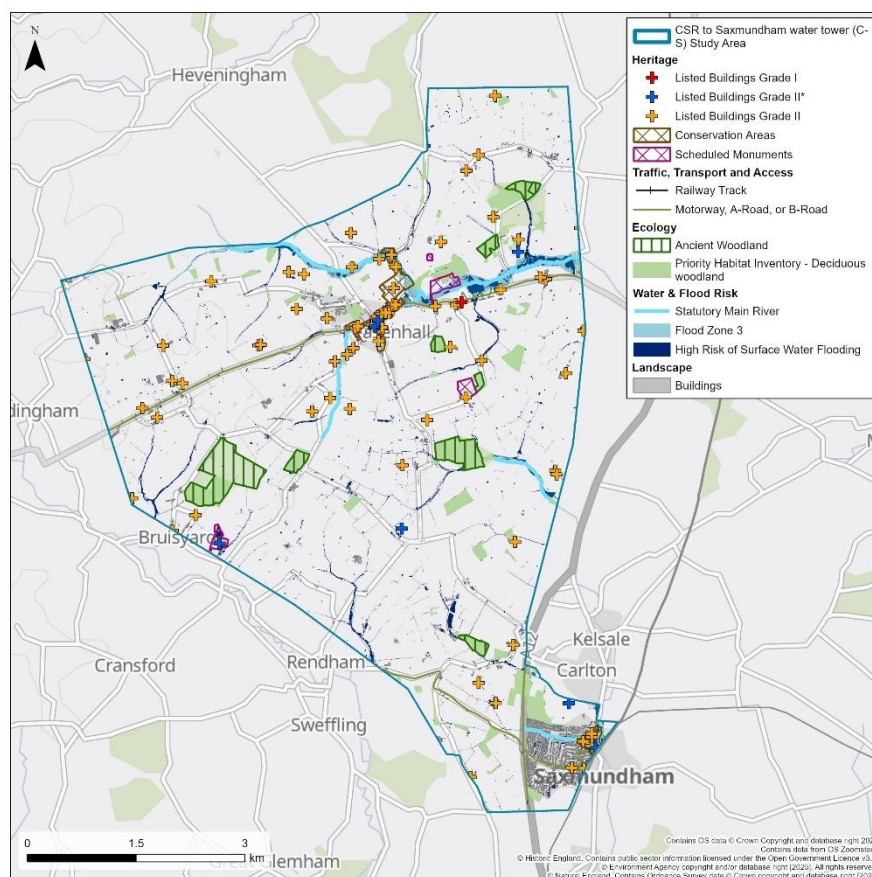


Figure 3.19: Major Constraints within C-S Study Area

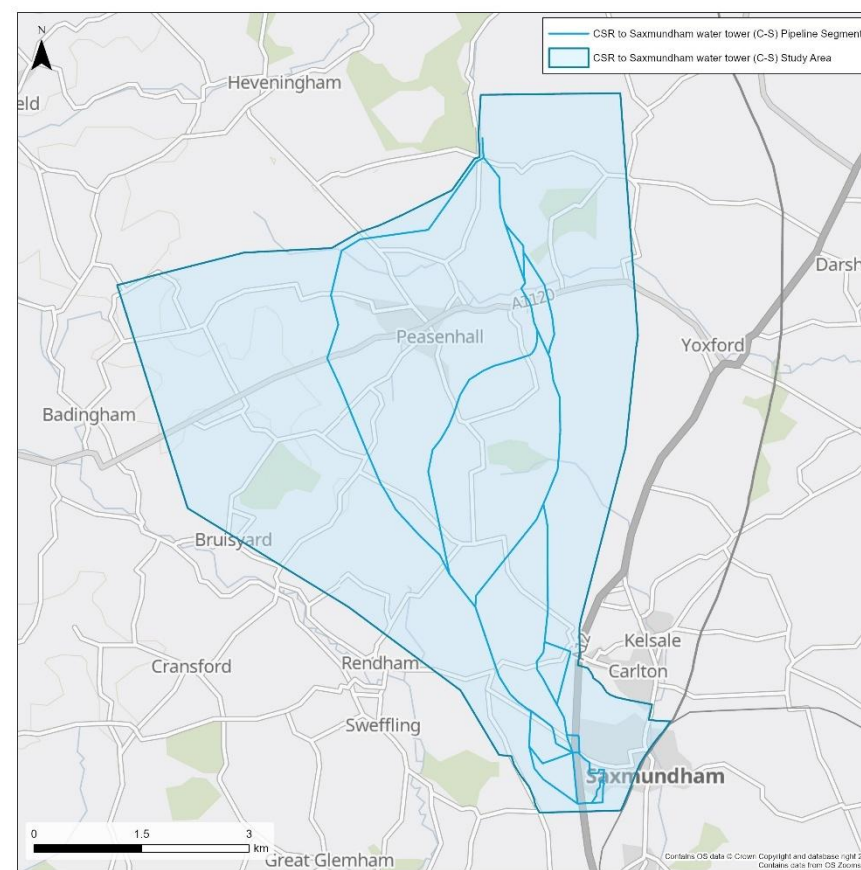


Figure 3.20: C-S Stage 1 Pipeline Segments

3.4.18 The route options shown above were progressed to Stage 2, comprising 32 segments for assessment.

Saxmundham Water Tower to SZC (S-S)

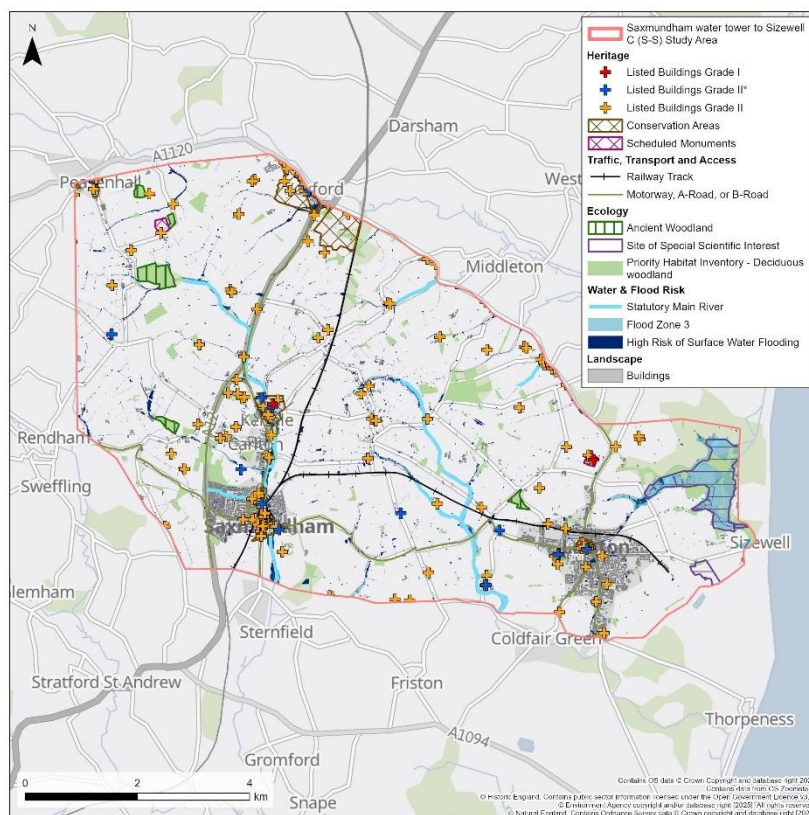


Figure 3.21: Major Constraints within S-S Study Area

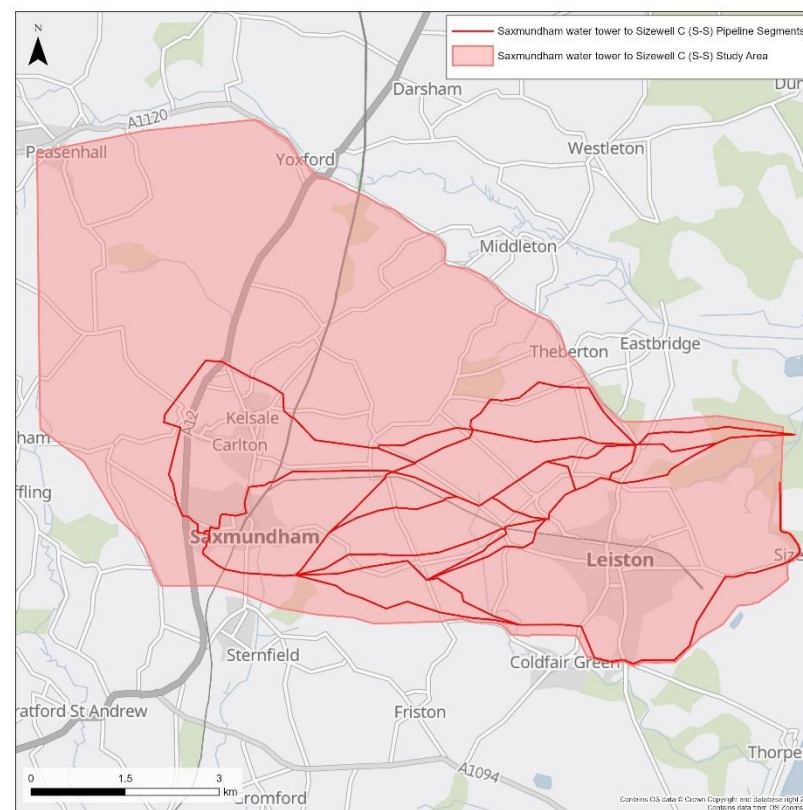


Figure 3.22: S-S Stage 1 Pipeline Segments

3.4.19 The route options shown above were progressed to Stage 2, comprising 37 segments for assessment.

4 Stage 2: Multi Criteria Assessment

4.1 Stage 2 Methodology

Multi Criteria Assessment

- 4.1.1 The land parcels and pipeline segments identified at Stage 1 were assessed at Stage 2 against planning, environmental, engineering and land criteria within a multi criteria assessment. The multi criteria assessment was developed to determine the consenting risk of potential land to be included within the area for the Proposed Development.
- 4.1.2 The main engineering, environmental, planning and land categories that have been assessed for the potential land parcels and pipeline segments are shown in **Table 4.1**.
- 4.1.3 The assessment varied slightly between the components of the Proposed Development to reflect each proposed use, in particular, due to different engineering considerations for pipeline segments versus AWRP / SR land parcels. Where criteria only applied to some elements of the Proposed Development, this is indicated in brackets. As a general point, operational criteria were only applied to AWRP / SR land parcels as the pipelines will be below-ground infrastructure with limited potential for operational impacts.

Table 4.1: Assessment Criteria

Assessment Criteria	Description
Engineering Criteria	
Construction Working Area Complexity	- Area to facilitate the Construction Site set up which is comprised of: Trench construction for pipeline installation area, Working Area for Staff and Vehicle movements, and Construction Compound Size for site office and welfare, equipment and materials storage space etc. - Construction Working width – typical width would be 40m (pipeline only). - Flood Risk Zones impacting the pipeline installation during construction period (pipeline only).
Trenchless Construction Complexity (Pipeline only)	- Construction Complexities – trenchless installation method lengths, set up, launch/reception difficulties. - Area to facilitate the setup of Trenchless Crossings construction sites.

Assessment Criteria	Description
Vehicle Access to Site	- Working Site access and vehicle movements to and from site. - Requirement to build temporary access roads.
Geotechnical and Ground Conditions	- Difficult ground conditions, e.g., running sands, collapsible and compressible soils, Peat, significant ground movement, faulting - Potential Sources of Contamination (PSC) - Previous Land Use - Aggressive Ground - Groundwater levels – potential difficulty in dewatering trenches - Geotechnical sub-categories: Man-made mining cavities, Natural cavities / soluble rocks, Landslides, Collapsible soils, Compressible soils, Running sand, Subsidence and heave due to volumetric change in the ground
Infrastructure	- Infrastructure constraints including: - Existing Railways - Major and Minor roads - Watercourses – Main river and ordinary watercourses
Utilities	Disruption to major third Party Services inc. HV overhead cables and buried pipes including high pressure gas and trunk water mains.
Suitability for SR (SR only)	- Topographic Features - Land Parcel Geometry - Connection to Assets - Discharge Overflow
Suitability for AWRP (AWRP only)	- Topographic Features - Site Geometry - Proximity to Coast (for discharge of brine produced by the Reverse Osmosis to a sea outfall) - Photo-Voltaic Suitability
Environmental Criteria	
Biodiversity Flora and Fauna	- Statutory designated Sites: - Ramsar site or potential Ramsar site - Special Area of Conservation (SAC) or candidate SAC - Special Protection Area (SPA) or potential SPA - Site of Special Scientific Interest (SSSI) (including SSSI Impact Risk Zone (IRZ)) - National Nature Reserve (NNR) - Local Nature Reserve (LNR) - Marine Conservation Zone
	- Non-statutory Designated Sites: - County Wildlife Site (CWS) - Local Wildlife Site (LWS)
	- Irreplaceable habitats including: - Ancient Woodland - Ancient and veteran trees - Coastal sand dunes

Assessment Criteria	Description
	- Spartina saltmarsh swards - Mediterranean saltmarsh scrub - Lowland fen
	Groundwater Dependent Terrestrial Ecosystems (GWDTE)
	Priority Habitats
Geology & Soil	Agricultural Land Classification (ALC)
	Contaminated Land
	Geological SSSI
Water	Flood Zones and Risk of Surface Water Flooding (RoSWF)
	Water Framework Directive (WFD)
	Source Protection Zones (SPZ)
	Hydromorphology
Landscape and Visual	Landscape designations: - National Landscape (formerly Area of Outstanding Natural Beauty (AONB)) - National Park - Ancient Woodland - Tree Preservation Order - Ancient and Veteran trees - Registered Park and Garden (RPG) - Dark Sky Reserve
	Visual Impacts (Construction and Operation)
Historic Environment	Heritage designations: - World Heritage Site - Scheduled Monument - Registered Battlefield - Listed Building - Registered Park and Garden (RPG) - Conservation Area
Population and Human Health	Land take due to construction
	Disturbance to residential and community receptors due to disruption and/or disturbance to existing communities as a result of the combined effects of visual, noise, dust and traffic and impacts.
Socio-Economics	Economy – disturbance to businesses due to impacts during construction and operation
Noise and Vibration	Construction Impacts.
Air Quality	Air Quality Management Area (AQMA)
	Construction Impacts

Assessment Criteria	Description
Traffic and Transport	Sensitivity of location during Construction and Operation (Residential streets, shopping streets, tourist areas, schools, play areas, hospitals, bus routes), distance from A Roads Traffic and Transport – Sensitivity of the Non-Motorised Construction (Walking, Cycling, Horse Rider, PRoW) Traffic Route during construction (Footpath, cycle route meeting LRN; proximity to nearest town).
Planning Criteria	
Local Plan and Land Use Allocation	Unfavourable/favourable land allocations or policies (excluding linear allocations such as settlement boundaries, movement routes, etc.)
Minerals and Waste	Minerals and Waste allocations/safeguarding/consultation zones
Neighbourhood Plan	Made and emerging Neighbourhood Plan Areas (including local green space allocations)
Major Development Proposals	- Proposed and committed major developments including those under construction registered in the past 5 years. - Major applications include those for 10 or more dwellings or those with a site area of 1ha or above. - Applications refused in the past 6 months from the time of the search - DCO / NSIP applications, Outline applications and Reserved Matters linked to Outline Applications - Regulation 3 applications - Applications with a floor space of 1,000 sqm or over
Land Criteria	
Sensitive Properties	Minimise loss or proximity to sensitive properties, i.e. residential, commercial, green belt, common land, historical or community assets due to project delivery
Special Category Landowners	Assessment of Special Category Landowners (SCLs) including crown land, National Trust, common land and Network Rail
Disruptions Landowners Access during Construction	Minimise disruptions of landowners' access to their land required for temporary works and permanent works
Land Costs	Impact on cost from compensation claims arising from permanent and temporary works
Land Consenting Risks	Level of risk of not obtaining powers of compulsory acquisition or other potential impacts on the consenting process

4.1.4 These constraints have been informed by the following:

- National Policy Statement for Water Resources Infrastructure (NPSWRI)
- National Planning Policy Framework (NPPF)
- Habitats Regulations Assessment (HRA)
- Water Framework Directive (WFD) and
- Engineering best practice

- 4.1.5 The land parcels and pipeline segments have been evaluated according to the multi criteria assessment using an initial desk-based review undertaken by subject matter experts to identify the environmental, planning, land and engineering risks and constraints. The initial desk-based approach allowed a large number of land parcels and pipeline segments to be assessed.
- 4.1.6 Professional judgement has been applied to the data and information collected for each location.
- 4.1.7 The multi criteria assessment classifications did not automatically exclude options, however they were used to identify the potential presence or absence of important constraints and / or project risks relating to that option. This then informed the shortlisting process and allowed preferable options to be identified.
- 4.1.8 The multi criteria assessment has been used to identify the best-performing land parcels and pipeline segments for consultation at NSC and for further assessment at Stage 3.

Multi Criteria Assessment presented in the Scheme Development Summary

- 4.1.9 For the purposes of this summary document, the multi criteria assessment constraints have been compiled into nine broad topic headings. Within each of the topics, constraints identified in the multi criteria assessment have been summarised. **Table 4.2** below shows the full list of constraints which has fed into the broader topic headings presented within this summary document.
- 4.1.10 A tenth category has been included for the AWRP multi criteria assessment summary, 'Suitability for AWRP', which summarises the engineering constraints specific to AWRP development (distance to coastline, topographic features, land parcel geometry, and photovoltaic suitability). A tenth category has been included for the SR multi criteria assessment summary, 'Suitability for SR', which summarises the engineering constraints

specific to SR development (connection to assets, topographic features, land parcel geometry, and discharge overflow).

- 4.1.11 Where operational impacts are referenced within **Table 4.2**, this refers only to the AWRP and SRs. As the pipelines are below-ground infrastructure, with limited potential for operational impacts.

Table 4.2: Multi Criteria Assessment input to Scheme Development Summary

Topics presented within the Scheme Development Summary	Multi Criteria Assessment Constraints
Land Use	Population and Human Health (Land Take)
	Population and Human Health (Disturbance to residential and community receptors)
	Socio-Economics (Economy – disturbance to businesses)
	Noise and Vibration (Construction and Operational)
	Air Quality (Air Quality Management Area)
	Air Quality (Construction Impacts and Operational Impacts)
	Construction Working Area Complexity
	Infrastructure
	Sensitive properties
	Special Category Landowners
	Disruption to landowners' access during construction
	Land costs
	Land consenting risk
Planning	Local Plan and land use allocation
	Minerals and Waste
	Neighbourhood Plan
	Major development proposals (Major applications, TCPA/DCO)
Landscape and Visual	Landscape and Visual (Landscape Designations)
	Landscape and Visual (Visual impacts (construction) and Visual impacts (operation))
Biodiversity	Biodiversity Flora and Fauna (Statutory Designated Sites)
	Biodiversity Flora and Fauna (Non-Statutory Designated Sites)
	Biodiversity Flora and Fauna (Irreplaceable Habitats)
	Biodiversity Flora and Fauna (Priority Habitats)
	Biodiversity Flora and Fauna (Groundwater Dependent Terrestrial Ecosystems)
	Construction Working Area Complexity
Heritage	Historic environment (Designated Heritage Assets)
Water & Flood Risk	Water (Flood Zones and Risk of Surface Water Flooding)
	Water (Water Framework Directive)
	Water (Source Protection Zones)

Topics presented within the Scheme Development Summary	Multi Criteria Assessment Constraints
	Construction Working Area Complexity
	Infrastructure
	Trenchless Construction Complexity
Geology and Soils	Geology and Soils (Agricultural Land Classification)
	Geology and Soils (Contaminated Land)
	Geology and Soils (Geological SSSI)
	Geotechnical and Ground Conditions
Traffic, Transport and Access	Traffic and Transport (Sensitivity of location during Construction)
	Traffic and Transport (Sensitivity of the Non-Motorised Traffic)
	Vehicle Access to Site
	Construction Working Area Complexity
	Infrastructure
	Trenchless Construction Complexity
Utilities	Utilities
	Construction Working Area Complexity
Suitability for AWRP	Distance to Coastline
	Topographic Features
	Land Parcel Geometry
	Photovoltaic Suitability
Suitability for SRs	Connection to Assets
	Topographic Features
	Land Parcel Geometry
	Discharge Overflow

Typical Mitigation

- 4.1.12 The process of identifying potential land parcels and corridors for the Proposed Development has avoided areas where there could be significant impacts where practicable, through the identification and avoidance of Major Constraints (as set out in Appendix B) at Stage 1. The remaining impacts are considered to be manageable through the implementation of further mitigation. A 'manageable' impact is one where, based on professional judgement and industry standards, the identified risk can be reduced to an acceptable level through the application of standard or enhanced mitigation measures.
- 4.1.13 The exact mitigation can only be determined once a single option is selected for the Proposed Development and environmental assessments

have been progressed. **Table 4.3** lists examples of possible mitigation techniques which may be considered, which is based on regulatory guidance, best practice, and previous project experience.

Table 4.3: Typical Mitigation

Constraint	Typical Mitigation - Pipelines	Typical Mitigation – Above Ground Infrastructure
Disruption to residential properties, community assets and businesses	Potential construction impacts are considered capable of mitigation through the application of best-practice construction techniques.	
Crossing the boundaries of a planning application		It is assumed that the SR/AWRP can be designed to avoid conflict with this proposed development through engagement and coordination with the developer.
Crossing a local plan allocation		It is assumed that the SR/AWRP can be designed to avoid conflict with this allocation through engagement and coordination if an application were to come forward.
Crossing a safeguard area for sewage treatment works etc	Careful siting of the pipeline would aim to minimise interaction with the safeguarded area for sewage treatment works and any infrastructure.	The layout would be designed to minimise interaction with the area of safeguarded sewage treatment works and any infrastructure.
Within a minerals consultation area		Engagement with the relevant Minerals Planning Authority would be undertaken to ensure that SR/AWRP does not sterilise mineral resources and is compatible with relevant minerals safeguarding policies.
Proximity to landscape designation or visual receptors	Through scheme development, careful siting of the pipeline and screening may be required to reduce visual impacts / impacts on the landscape designation during construction.	Through scheme development, careful siting of the SR/AWRP and screening may be required to reduce visual impacts / impacts on the landscape designation during construction and operation.
Crossing an ecological designation	Careful siting of the pipeline would aim to minimise interaction with sensitive habitats.	Careful siting of the SR/AWRP would aim to minimise interaction with sensitive habitats.
Proximity to a heritage asset	Through the scheme development, careful siting of the pipeline and screening may be required to reduce impacts on the heritage asset during construction.	Through the scheme development, careful siting of the SR/AWRP and screening may be required to reduce impacts on the heritage asset during construction and operation.
Crossing areas of high flood risk / main river	To reduce impacts on water quality and areas of flood risk, careful siting of the pipeline and continuous engagement with the Environment Agency and, where relevant, the	To reduce impacts on water quality and areas of flood risk, careful siting of the SR/AWRP and continuous engagement with the Environment Agency and,

Constraint	Typical Mitigation - Pipelines	Typical Mitigation – Above Ground Infrastructure
	Local Planning Authorities would be undertaken to minimise impacts.	where relevant, the Local Planning Authorities would be undertaken to minimise impacts.
Crossing areas of BMV	Land and soil identified as Best and Most Versatile would be excavated, temporarily stored and reinstated where possible following construction to minimise impact on agricultural land.	Land and soil identified as Best and Most Versatile subject to temporary land take for construction would be excavated, temporarily stored and reinstated where possible to minimise impact on agricultural land.
Construction in areas of poor ground conditions		The scheme development may require detailed surveys to be undertaken to establish the appropriate SR/AWRP siting in areas assessed to have the most suitable ground conditions.
Crossing or adjacent to landfill / historic landfill	Careful siting of the pipeline would aim to minimise interaction with the landfill / historic landfill.	The layout would be designed to minimise interaction with the landfill / historic landfill.
Crossing A and B roads	Engagement with the relevant Transport Authority would be undertaken to minimise disruption.	N/A
Crossing minor roads	Minor roads may be crossed by either temporary road closures or utilising traffic management systems.	N/A
Crossing railway line	This is likely to require trenchless construction for the pipeline crossing to minimise disruption and engagement with Network Rail.	
Disrupting a NCN route	NCN route could be re-routed with traffic management during construction.	N/A
Construction vehicle access on narrow roads	To enable construction vehicle access, hedgerow removal and road widening may be required. Replanting after completions would be proposed where possible.	
Crossing utilities		The SR/AWRP would be designed to avoid conflict with utilities where reasonably practicable, and where diversions are required, co-ordination with the relevant utility providers would be undertaken.

4.2 Stage 2 – AWRP

- 4.2.1 Each of the viable land parcels identified were assessed using the multi criteria assessment at Stage 2.
- 4.2.2 Based on the conclusions of the Stage 2 assessment, there are a number of land parcels which have not been progressed and are not part this NSC or for further assessment at Stage 3, these are shown in **Figure 4.1**.

- 4.2.3 **Table 4.4** lists the land parcels which have not been progressed based on the multi criteria assessment results, alongside the justification for this decision. The justification covers the constraints identified during the multi criteria assessment which were the key factors in the decision.
- 4.2.4 The multi criteria assessments for the land parcels which are recommended for further assessment at Stage 3 are summarised in **Tables 4.5** to **4.8**. The multi criteria assessments have been summarised into the nine broad categories (land use, planning, landscape and visual, ecology, heritage, water and flood risk, geology and soils, traffic, transport and access, and utilities), as per **Table 4.2** above, with an additional ‘Suitability for AWRP’ category, which summarises the engineering constraints specific to AWRP development (distance to coastline, topographic features, land parcel geometry, and photovoltaic suitability (based on additional land available for the photovoltaic within the land parcel (3-5ha)).

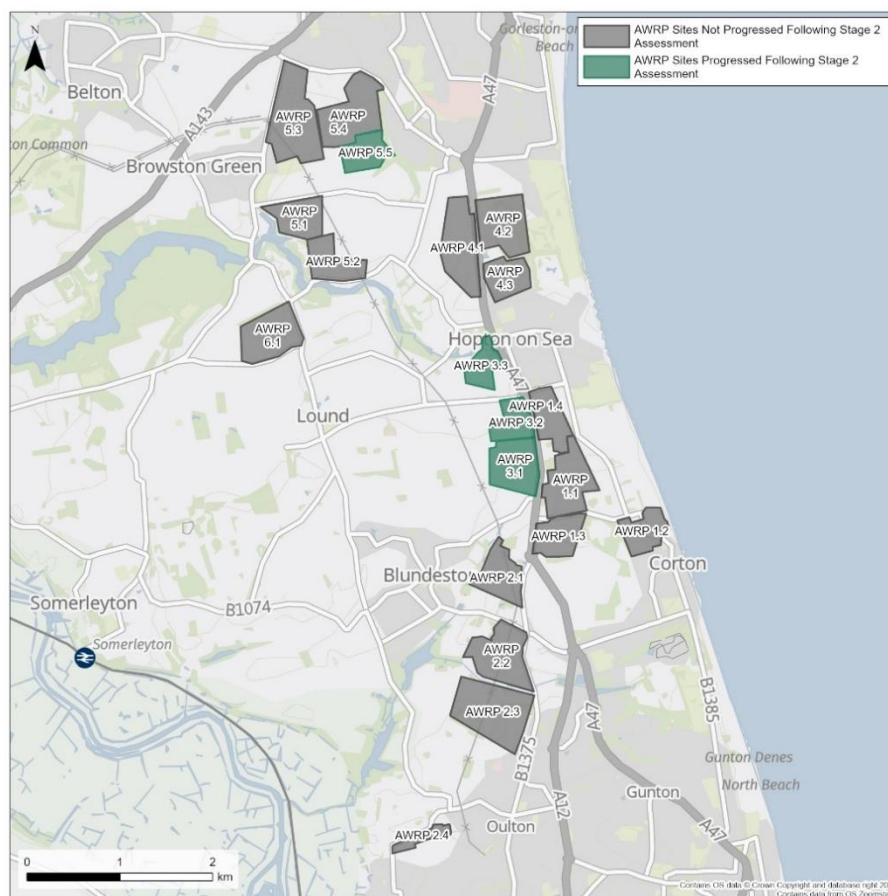


Figure 4.1: AWRP Land Parcels Progressed and not Progressed following Stage 2

AWRP Land Parcels – Not Progressed

Table 4.4: AWRP – Land Parcels not progressed following Stage 2 assessment

Segment – Not Progressed	Justification Summary
Lowestoft WRC	Lowestoft WRC should not be progressed to Stage 3. Sharing the site of the existing Lowestoft WRC causes several issues. Lack of available space on the land parcel; the WRC occupies the centre of the land parcel. Adding a new AWRP would likely require remodelling of the existing WRC process layout/units and adopting a complex process geometry. The land parcel includes an area of deciduous woodland priority habitat. Part of the available area on the land parcel (which is established woodland) is safeguarded with a covenant that states it must be kept open for public use.
AWRP 1.1	AWRP 1.1 should not be progressed to Stage 3. The difficulty and complicated nature of developing a safe new access for construction and operational traffic exclude this land parcel from further study. The land parcel is also very close to proposed developments.
AWRP 1.2	AWRP 1.2 should not be progressed to Stage 3. The land parcel is geotechnically unstable; a recorded landslide in Corton Cliffs and ongoing coastal erosion. There are infrastructure problems, including the crossing an old disused railway and a high-pressure gas pipeline and other gas pipes and sewers crossing the land parcel. Construction traffic from this land parcel is likely to have substantial impacts on local traffic and sensitive traffic receptors. Construction traffic from this land parcel is likely to have substantial impacts on local traffic and sensitive traffic receptors. The land parcel is also close to proposed development.
AWRP 1.3	AWRP 1.3 should not proceed to Stage 3. The land parcel falls within East Suffolk Council Waveney Local Plan allocation for mixed use development, specifically residential (1,300 dwellings), a retirement community comprising a care home and extra care/sheltered dwellings, employment, primary school and local shops (WLP2.13 North of Lowestoft Garden Village).
AWRP 1.4	AWRP 1.4 should not proceed to Stage 3. The land parcel lacks direct access, and the potential route via Longfulans Lane and Lowestoft Road may require widening and junction modifications. Construction traffic is expected to have substantial impacts on local traffic and sensitive traffic receptors. The land parcel is also bisected by a high-pressure gas main and there are high-voltage power lines nearby.
AWRP 2.1	AWRP 2.1 should not proceed to Stage 3. It is bisected by 132kV National Grid overhead lines and towers, 33kV DNO overhead lines and towers as well as 11kV overhead lines and poles. These power lines limit developable area and increase risks and costs associated with construction and operations.
AWRP 2.2	AWRP 2.2 should not proceed to Stage 3. It is bisected by 132kV National Grid overhead lines and towers, 33kV DNO overhead lines and towers as well as 11kV overhead lines and poles. These lines limit developable area and increase risks and costs associated with construction and operations. The land parcel is within 1km of (considered to be within the setting of) The Broads National Park.
AWRP 2.3	AWRP 2.3 should not proceed to Stage 3. It is crossed by HV (11kV) and EHV (33kV and 132kV) power lines, and a 250mm Anglian Water sewer. The land parcel intersects with and has the potential to permanently damage and affect the overall integrity and key characteristics of a CWS. The footprint also includes areas of Priority Habitat. Parts of the land parcel fall within Flood Zone 3, as well as some areas of high surface

Segment – Not Progressed	Justification Summary
	water flood risk. The land parcel is within 1km of (considered to be within the setting of) The Broads National Park. The land parcel falls under the Oulton Neighbourhood Plan, covering Policy areas 4 and 5 on biodiversity, green corridors, and local green spaces.
AWRP 2.4	AWRP 2.4 should not proceed to Stage 3. Land parcel geometry severely restricts site design. The land parcel is also 4.2km from the coast raising route and costing issues for the long sea outfall. Access to the land parcel is likely to require upgrades to Hall Road and construction traffic from this land parcel is likely to have substantial impacts on local traffic and sensitive traffic receptors. The land parcel is within 1km of the Broads National Park (considered to be within its setting). Finally, the land parcel falls under several planning restrictions, including impacts to Oulton Neighbourhood Plan area and several approved developments.
AWRP 4.1	AWRP 4.1 should not progress to Stage 3. Developing safe access would require significant modification to existing roads; widening to create acceleration/ deceleration lanes.
AWRP 4.2	AWRP 4.2 should not proceed to Stage 3. Developing safe access is a significant issue as there is no current access to the A47. The land parcel also falls within Policy GN1 Land allocated for 500 dwellings.
AWRP 4.3	AWRP 4.3 should not be included in Stage 3. Construction traffic from this land parcel is likely to have substantial impacts on local traffic and sensitive traffic receptors. There is no direct access to the land parcel from the adjacent A47. The land parcel directly borders residential areas and the creation of access would be through these existing areas. There are existing sensitive visual receptors (residents), and a proposed major residential development, in proximity with direct views into the land parcel.
AWRP 5.1	AWRP 5.1 should not be included in Stage 3. Access onto Hobland Road and other country roads is not feasible due to complexities of upgrade treatment to road widths required. More than half of this land parcel is within areas of Priority Habitat. The land parcel also intersects with and has the potential to permanently damage and adversely affect the overall integrity and key characteristics of a CWS.
AWRP 5.2	AWRP 5.2 should not proceed to Stage 3. The land parcel is approximately 1.7km from A143. Hall Road is subject to a 3 tonne weight restriction and current width only provides for single direction flow. In addition, existing junction to A47 is Left In/ Left out only so would require 2km detour to access southbound carriageway. More than a third of this land parcel is within areas of Priority Habitat. The land parcel also intersects with and has the potential to permanently damage and adversely affect the overall integrity and key characteristics of a CWS.
AWRP 5.3	AWRP 5.3 should not proceed to Stage 3. The land parcel is bisected by 132kV National Grid Overhead lines and towers as well as 11kV overhead lines along this eastern edge. The land parcel is also more than 3000m from the coast raising route and costing issues for the long sea outfall.
AWRP 5.4	AWRP 5.4 should not proceed to Stage 3. The land parcel is 2700m from the coast and conflicts with Great Yarmouth Local Plan Policy CS18 Beacon Park Mixed Use Extension. Gorleston Lane not suitable in its present form. Currently used for farm access and utility land parcel and would require upgrade of lane and possible land take.

Land Parcels recommended for Further Assessment at Stage 3

Table 4.5: AWRP 3.1 Multi Criteria Assessment Summary

Topic	Summary
Land Use	To the east of the land parcel lies a cluster of residential properties along with a horticultural business. Additional residences are located within 150 m of the land parcel, with noise-sensitive receptors situated as close as 30 m from the land parcel. These receptors may be affected by potential impacts, including construction noise, reduced air quality, and general disruption to landowners. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Planning	No constraints identified.
Landscape and Visual	There is potential for visual impacts on residential properties in the surrounding area. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.
Ecology	An area of Ancient Woodland is located to the west, approximately 1.1 km from the land parcel. A local nature reserve lies approximately 2 km to the southeast. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Heritage	No constraints identified.
Water and Flood Risk	Small areas of the land parcel are at high risk of surface water flooding. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.
Geology and Soils	The land parcel is subject to geotechnical and geo-environmental constraints, including potentially compressible soils that may require removal during development. The land parcel also contains Grade 1 and 2 agricultural land which is considered Best and Most Versatile (BMV) land. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Traffic, Transport and Access	The A47 runs along the eastern side of the land parcel, which may create access constraints. Modifications could be required to facilitate contractor vehicle movements and allow access across adjacent parcels. In addition, a public footpath crosses the middle of the parcel, introducing potential visual impacts. Careful siting and the use of screening measures may therefore be necessary to minimise visual effects during both construction and operation. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Utilities	No constraints identified.
Suitability for AWRP	The land parcel is approximately 1.2 km from the coastline.

Table 4.6: AWRP 3.2 Multi Criteria Assessment Summary

Topic	Summary
Land Use	There are no residential properties within the land parcel; however, residential receptors located approximately 20 m to the south may be affected by noise and air quality impacts during the construction phase. Within 250 m of the land parcel, construction routes from the potential land parcel could also be impacted by dust emissions. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Planning	No constraints identified.
Landscape and Visual	No constraints identified.

Topic	Summary
Ecology	A veteran tree is located approximately 5 -10 m north of the land parcel. Two areas of Ancient Woodland are also present within the wider area: one located around 1.2 km to the west and another approximately 3 km to the south. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Heritage	No constraints identified.
Water and Flood Risk	No constraints identified.
Geology and Soils	The land parcel is subject to geotechnical and geo-environmental constraints, including potentially compressible soils that may require removal during development. The land parcel also contains Grade 1 and 2 agricultural land, which is considered BMV land. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Traffic, Transport and Access	The A47 passes along the land parcel, toward its eastern side, which may create access constraints. Modifications may be required to accommodate contractor vehicles and to provide access across adjacent parcels. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Utilities	There is potential for interaction with above ground infrastructure, including overhead lines running west to east along the northern edge of the land parcel and north to south by the eastern edge of the parcel. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Suitability for AWRP	The land parcel is approximately 1.2 km from the coastline. The size of the land parcel may constrain the AWRP process development options. Similarly, the land parcel space and geometry may constrain photovoltaic installation.

Table 4.7: AWRP 3.3 Multi Criteria Assessment Summary

Topic	Summary
Land Use	There are residential properties located in the surrounding area, 37 of which are present within 30m of the land parcel. Construction routes within 250m of the land parcel could also be affected by dust emissions. As a result, there is potential for impacts on nearby residential properties. These impacts may include construction noise, reduced air quality, and general disruption to landowners. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Planning	No constraints identified.
Landscape and Visual	There is a potential for visual impacts during both the construction and operation on residential receptors in proximity to the land parcel. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Ecology	There is potential for impacts on designated ecological features, including a Veteran Tree located approximately 110m from the land parcel. The nearest Priority Habitat is Priority Habitat Deciduous Woodland, situated within 50m of the parcel. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Heritage	Potential impacts to a Grade II* Listed Church of St. Margaret, located north east to the land parcel. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.
Water and Flood Risk	Along the western boundary of the land parcel, as well as along the northern edge and a central patch, there are areas at high risk of surface water flooding. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.
Geology and Soils	No constraints identified.

Topic	Summary
Traffic, Transport and Access	The A47 runs through the eastern section of the parcel, including a roundabout. This may create access constraints, as modifications could be required to accommodate large vehicles. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Utilities	There is potential for proximity to an LV power line crossing the south eastern corner of the land parcel. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.
Suitability for AWRP	The land parcel is approximately 1.4 km from the coastline. The size of the land parcel may constrain the AWRP process development options. Similarly, the land parcel space and geometry may constrain photovoltaic installation.

Table 4.8: AWRP 5.5 Multi Criteria Assessment Summary

Topic	Summary
Land Use	Construction activities have the potential to affect population and human health, particularly through noise impacts on residential receptors adjacent to the land parcel, most notably near the south-western corner. The proximity of residential properties may also result in disruption for landowners. Sensitive receptors are located as near as 20 m from the boundary and others within 30 m in relation to noise exposure. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Planning	No constraints identified.
Landscape and Visual	Construction and operational activities may result in visual impacts on residential properties, particularly near the south-western corner. A public right-of-way footpath runs along the southern edge of the land parcel, extending from west to east. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Ecology	The land parcel is adjacent to Priority Habitat Deciduous Woodland. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.
Heritage	No constraints identified.
Water and Flood Risk	There is a potential for surface water flood risk on the land parcel. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.
Geology and Soils	The land parcel contains Grade 1 and 2 agricultural land. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.
Traffic, Transport and Access	Hobland Lane runs along the western half of the land parcel, with no major roads located to the land parcel. The nearest is the B1534, approximately 300 m away. As a result, there is potential for access constraints, and modifications may be required to accommodate large vehicles. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Utilities	The land parcel is approximately 500m from the UKPN Bradwell primary substation. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.
Suitability for AWRP	The land parcel is approximately 2.3km from the coastline. This would require a longer pipeline to transfer residual concentrated waste produced by the reverse osmosis process to a sea outfall for discharge than AWRP 3.1 to 3.3.

4.3 Stage 2 – Service Reservoirs

- 4.3.1 Each of the viable land parcels identified at Stage 1 were assessed using the multi criteria assessment at Stage 2.
- 4.3.2 Based on the conclusions of the Stage 2 assessment, there are a number of land parcels which have not been progressed and are not part this NSC or are for further assessment at Stage 3, these are shown in **Figure 4.2 and 4.3**.
- 4.3.3 **Tables 4.9 (WSR) and 4.27 (CSR)** list the land parcels which will not be progressed based on the multi criteria assessment results, alongside the justification for this decision. The justification covers the main constraints identified during the multi criteria assessment.
- 4.3.4 The multi criteria assessments for the land parcels which are recommended for further assessment at Stage 3 are summarised in **Tables 4.10 to 4.26 (WSR) and 4.28 to 4.38 (CSR)**. The multi criteria assessments have been summarised into nine broad categories (land use, planning, landscape and visual, biodiversity, heritage, water and flood risk, geology and soils, traffic, transport and access, and utilities), as per **Table 4.2** above, with an additional ‘Suitability for SR’ category, which summarises the engineering constraints specific to the SR development (connection to assets, topographic features, land parcel geometry, and discharge overflow).

WSR – Stage 2 Outcomes

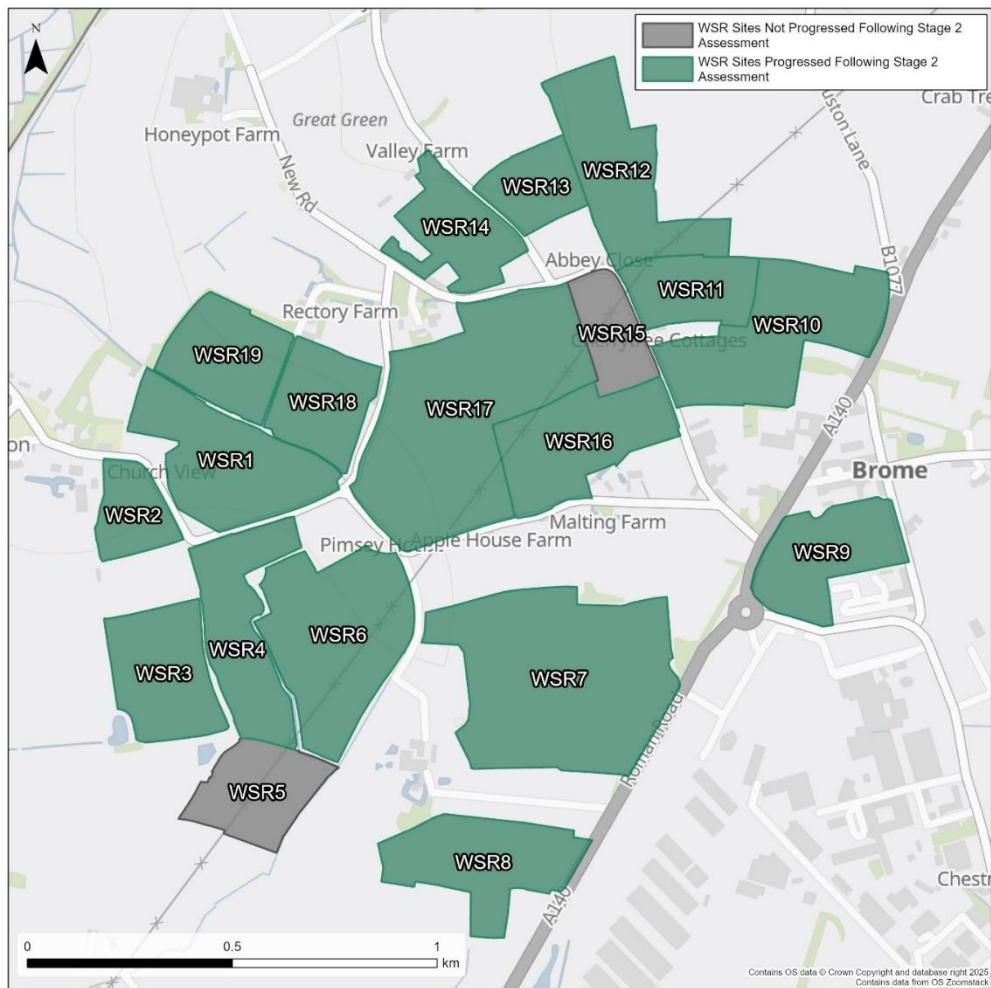


Figure 4.2: WSR Land Parcels Progressed and not Progressed following Stage 2

Land Parcels – Not Progressed

Table 4.9: WSR – Land Parcels not progressed following Stage 2 assessment

Land Parcel – Not Progressed	Justification Summary
WSR5	Parcel WSR5 is recommended not to be progressed following Stage 2 due to the buffers and statutory access required for the gas main, and the National Grid overhead line that runs across the land parcel, which is of a size that is not proposed to be diverted and therefore there is a lack of available space on the remaining land parcel.
WSR15	Parcel WSR15 is recommended not to be progressed following Stage 2 due to the buffers and statutory access required for the gas main, and the National Grid overhead line that runs across the land parcel, which is of a size that is not proposed to be diverted and therefore there is a lack of available space on the remaining land parcel.

Land Parcels recommended for Further Assessment at Stage 3

Table 4.10: WSR1 Multi Criteria Assessment Summary

Topic	Summary
Land Use	There is potential for disruption due to the proximity of residential and community receptors along the western boundary of the land parcel. Two residential properties and one community receptor lie within 20m, with two additional noise sensitive receptors located within 30m of the proposed works. Construction and operational air quality impacts may affect up to ten dwellings within 20 m of the land parcel. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Planning	The land parcel lies within 50m of several heritage designations identified in the Babergh and Mid Suffolk Local Plan (2023) under Policy LP19 – The Historic Environment. These include the Grade I Listed Church of St. Margaret, the Grade II Listed Blakely Monuments Located North of the Church, and the Thrandeston Conservation Area. The land parcel is also entirely within a Minerals Consultation Area. Through the scheme development, careful siting of the SR and screening may be required to reduce impacts on the heritage asset during construction and operation. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Landscape and Visual	There is potential for visual impacts during construction and operation due to the proximity of several residential receptors and open views from nearby PRoWs. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Ecology	There is potential for environmental impacts due to the presence of sensitive ecological receptors in the surrounding area. One SSSI, Gypsy Camp Meadows, Thrandeston, is located approximately 714m from the land parcel. There are also 39 parcels of Priority Habitat Deciduous Woodland within 2 km, with the closest located 12m away. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Heritage	There is potential for impacts on the historic environment due to the proximity of Thrandeston Conservation Area located approximately 13m from the land parcel. There are a number of heritage assets in the locality including the Grade I Listed Church of St. Margaret, the Grade II Listed Blakely Monuments Located North of the Church, and the Thrandeston Conservation Area. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Water and Flood Risk	No constraints identified.

Topic	Summary
Geology and Soils	There is potential for construction constraints due to challenging geological and geo-environmental conditions including aggressive ground conditions, running sand and medium plasticity soils, and Potential Sources of Contamination (PSCs) within 250m of the land parcel. The land parcel lies within Grade 2 Agricultural Land Classification (ALC and is considered to comprise BMV soil. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Traffic, Transport and Access	Access to the land parcel is via small single-track roads. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.
Utilities	There is potential for impacts due to the presence of high voltage overhead lines, with two sets of 11kV lines running along the eastern and western boundaries of the land parcel. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Suitability for SR	The land parcel lacks flat topography. The layout would need to be adapted to accommodate the topography of the land parcel, and ground levelling may be required. The connection to ESW existing water network is less than 1km away, however, a road crossing is required.

Table 4.11: WSR2 Multi Criteria Assessment Summary

Topic	Summary
Land Use	Construction may disrupt nearby residential, industrial, and commercial buildings within 50 m, including one community receptor just 20 m away. Between 30 and 300 m, there are 15 noise-sensitive and one vibration-sensitive receptors. Air quality impacts could affect up to 10 dwellings within 20 m of the land parcel. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Planning	The land parcel is located within 50 m of several heritage designations identified in the Babergh and Mid Suffolk Local Plan (2023) under Policy LP19 – The Historic Environment. These include the Grade I Listed Church of St. Margaret, the Grade II Listed Three Blakely Monuments Situated Approximately 5 to 15 m North of the Church, and the Thrandeston Conservation Area. The entire land parcel also falls within the Minerals Consultation Area. Through the scheme development, careful siting of the SR and screening may be required to reduce impacts on the heritage asset during construction and operation. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Landscape and Visual	There is potential for visual impacts during construction and operation due to the proximity of several residential receptors and open views from nearby PROWs. Through the scheme development, careful siting of the SR and screening may be required to reduce visual impacts during construction and operation. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Ecology	There is potential for ecological impacts due to the presence of sensitive habitats in the vicinity of the land parcel. 29 parcels of other Priority Habitat are located within 2 km, with the closest being a Traditional Orchard situated approximately 6 m from the land parcel. This orchard may experience direct or indirect impacts, such as the risk of encroaching on its root protection zone. In addition, one SSSI, Gypsy Camp Meadows, is located approximately 892 m from the land parcel. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Heritage	There is potential for impacts on the historic environment due to the proximity of Thrandeston Conservation Area and the Grade I listed Church of St Margaret located approximately 30 m north of the land parcel. Through the scheme development, careful siting of the SR and screening may be required to reduce

Topic	Summary
	impacts on the heritage asset during construction and operation. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Water and Flood Risk	No constraints identified.
Geology and Soils	There is potential for constraints related to the geological conditions of the land parcel including medium plasticity soil conditions and PSCs identified within 50 to 250 m of the land parcel. Additionally, the land parcel is located within Grade 2 ALC. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Traffic, Transport and Access	Access to the land parcel is via small single-track roads. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.
Utilities	There is potential for impacts due to the proximity of a high voltage overhead 11kV line and poles running across the eastern to western boundaries of the land parcel. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Suitability for SR	The land parcel lacks flat topography. The layout would need to be adapted to accommodate the topography of the land parcel, and ground levelling may be required. The connection to ESW existing water network is less than 1km away, however, a road crossing is required.

Table 4.12: WSR3 Multi Criteria Assessment Summary

Topic	Summary
Land Use	No constraints identified.
Planning	The entire land parcel is located within the Minerals Consultation Area. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.
Landscape and Visual	There is potential for construction and operational visual impacts on residential receptors, with the closest located approximately 300 m from the land parcel. There are also open views from nearby PRoWs that may be affected. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Ecology	No constraints identified.
Heritage	No constraints identified.
Water and Flood Risk	No constraints identified.
Geology and Soils	There is potential for constraints due to geo-environmental and geological conditions. PSCs have been identified within 50m of the land parcel, and the ground conditions are predominantly medium plasticity. The land parcel is also located within Grade 2 ALC. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Traffic, Transport and Access	There is potential for access constraints due to the land parcel being reachable only via small single-track roads, which are not suitable for larger vehicles. Direct access is currently available from a narrow private road. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Utilities	No significant utilities constraints have been identified for this parcel. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.
Suitability for SR	The discharge overflow would require more than 1 km of pipeline in order to be gravitated to a watercourse.

Topic	Summary
	The connection to ESW existing water network is less than 1 km away, however, a road crossing is required.

Table 4.13: WSR4 Multi Criteria Assessment Summary

Topic	Summary
Land Use	Three noise sensitive receptors are located between 30 m and 300 m from the proposed land parcel. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.
Planning	The entire land parcel is located within the Minerals Consultation Area. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.
Landscape and Visual	There is potential for construction and operational visual impacts on several residential receptors. In addition, open views from nearby PRoWs may also be affected. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Ecology	There is potential for ecological impacts due to the presence of Priority Habitat in close proximity to the land parcel. There are 36 Priority Habitat sites located within 2 km, with the closest being a Traditional Orchard situated 8 m from the land parcel. This habitat may experience direct or indirect impacts, such as the risk of encroaching on the root protection zone. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Heritage	No constraints identified.
Water and Flood Risk	No constraints identified.
Geology and Soils	There is potential for construction constraints due to geo-environmental and geotechnical conditions. PSCs have been identified on the land parcel, and the ground conditions are predominantly of medium plasticity. The land parcel is also located within Grade 2 ALC. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Traffic, Transport and Access	There is potential for access constraints due to the land parcel being reachable only via small single-track roads, which are not suitable for larger vehicles. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.
Utilities	There is potential for constraints due to the presence of EVH (274kV–400kV) overhead lines, which clip the south-east corner of the land parcel. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.
Suitability for SR	The discharge overflow would require more than 1 km of pipeline in order to be gravitated to a watercourse. The connection to ESW existing water network is less than 1 km away, however, a road crossing is required. The geometry of the land parcel is considered to have a non-preferred aspect ratio, which may influence site layout and design. The layout can be adapted to accommodate the non-preferred aspect ratio.

Table 4.14: WSR6 Multi Criteria Assessment Summary

Topic	Summary
Land Use	The geometry of the land parcel is considered to have a non-preferred aspect ratio, which may influence site layout and design. Three noise sensitive receptors are located between 30m and 300m from the proposed construction area. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.

Topic	Summary
Planning	The entire land parcel is located within the Minerals Consultation Area. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.
Landscape and Visual	There is potential for construction and operational visual impacts on several residential receptors within 220m. In addition, open views from nearby PRoWs may also be affected. Through the scheme development, careful siting of the SR and screening may be required to reduce visual impacts during construction and operation. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Ecology	No constraints identified.
Heritage	No constraints identified.
Water and Flood Risk	Within the land parcel, Climate Change Surface Water flood risk has been identified, along with the need to cross one Surface Water Pathway. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.
Geology and Soils	Geo-environmental constraints include the presence of PSCs within and up to 50 m of the area, and geotechnical constraints arising from predominantly medium plasticity ground conditions and potential aggressive ground conditions due to iron sulfide and calcium carbonate. The land parcel is located within Grade 2 ALC. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Traffic, Transport and Access	There is potential for access constraints due to the land parcel being reachable only via small single-track roads, which are not suitable for larger vehicles. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.
Utilities	There is potential for constraints due to the presence of high voltage overhead lines and national grid pylons, which run through the southwest to northeast corner of the parcel. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.
Suitability for SR	The discharge overflow would require more than 1km of pipeline in order to be gravitated to a watercourse. The connection to ESW existing water network is less than 1km away, however, a road crossing is required. The land parcel is not of flat topography.

Table 4.15: WSR7 Multi Criteria Assessment Summary

Topic	Summary
Land Use	The land parcel has the potential to cause disruption to adjacent landowners due to its proximity to residential properties. Eight noise sensitive receptors are located between 30m and 300m from the land parcel. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Planning	The land parcel is located approximately 20m from an outline application for a petrol and electric vehicle charging facility with an associated shop and roadside restaurant, which was validated on 31 January 2022 and is awaiting a decision. It is adjacent to two planning applications for new storage buildings, both of which have been granted consent, and is approximately 20m from the Eye Airfield Strategic Employment Land parcel (Babergh and Mid Suffolk Policy SP05 – Employment Land). The land parcel is approximately 20m from Safeguarded Land surrounding Waste Land parcel (Incinerator with Energy Recovery) and lies within the Minerals Consultation Area. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Landscape and Visual	There is potential for construction and operational visual impacts on Goswold Hall (Grade II Listed Building) within 150m, as well as on nearby residential receptors. In addition, views from one PRoW may also be affected. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.

Topic	Summary
Ecology	There is potential for ecological impacts due to the presence of Priority Habitat in close proximity to the land parcel. 24 parcels of other Priority Habitat are located within 2km, with the closest being adjacent to the land parcel (unspecified category 'No Main Habitat but Additional Habitats'), which may experience direct or indirect impacts, such as the risk of encroaching on the root protection zone. Two Non-Statutory Designated Sites are also located within 2km, the closest being Broom Field CWS, adjacent to the east of the land parcel. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Heritage	No constraints identified.
Water and Flood Risk	Present Day and Climate Change Surface Water flood risk has been identified, along with the need to cross one Surface Water Pathway. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Geology and Soils	Geo-environmental constraints include the presence of PSCs within the land parcel, and geotechnical constraints arise from predominantly medium plasticity ground conditions and potential ground aggressivity due to iron sulfide and calcium carbonate. The land parcel is also classified as Grade 2 ALC. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Traffic, Transport and Access	Access to the land parcel requires modifications to the A140, which will involve liaising with the highways authorities to manage potential impacts. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.
Utilities	There is potential for constraints due to the presence of an intermediate pressure gas main along the eastern boundary of the land parcel and proximity to high voltage overhead powerlines, including an 11kV line and poles clipping the eastern corner of the parcel. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Suitability for SR	The discharge overflow would require more than 1km of pipeline in order to be gravitated to a watercourse. The connection to the ESW water network is less than 1km away, however, a road crossing is required. The land parcel is not of flat topography. The layout would need to be adapted to accommodate the topography of the land parcel, and ground levelling may be required.

Table 4.16: WSR8 Multi Criteria Assessment Summary

Topic	Summary
Land Use	There is potential for disruption to adjacent landowners during construction. One noise sensitive receptor and four vibration sensitive receptors are located between 30m and 300m from the proposed land parcel. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Planning	The land parcel is located approximately 50m from two EIA screening opinions, both for the installation of a Battery Energy Storage Systems, both determining that an EIA is not required. It is also within 50m of a planning application for a temporary access road related to the construction of the Progress Power Limited Power Station, with consent granted in December 2019 and conditions discharged within the last five years. The land parcel is within 50m of Babergh and Mid Suffolk Local Plan Policy LP19 designations for the historic environment, including the Grade II Listed Building 'Dovecote about 120m east south east of Goswold Hall', and is approximately 20m from the Eye Airfield Strategic Employment Land parcel (Policy SP05). Additionally, the land parcel is around 20m from safeguarded land surrounding a Waste Land Parcel (incinerator with energy recovery) and located within the Minerals Consultation Area. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.

Topic	Summary
Landscape and Visual	There is potential for construction and operational visual impacts on Goswold Hall (Grade II Listed Building) within 100m, as well as on nearby residential receptors. In addition, views from one PRoW may also be affected. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Ecology	No constraints identified.
Heritage	Goswold Hall, a Grade II Listed Building, is located within 14m of the land parcel. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.
Water and Flood Risk	Within the land parcel, there is concern with present-day and Climate Change scenario Surface Water flood risk, including crossing one Surface Water Pathway. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.
Geology and Soils	Geo-environmental constraints include the presence of three PSCs identified within the land parcel. The land parcel is subject to geotechnical constraints arising from predominantly medium plasticity ground conditions and potential ground aggressivity due to iron sulfide and calcium carbonate. The land parcel is classified as Grade 3 ALC. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Traffic, Transport and Access	Access to the land parcel requires modifications to the A140, which will involve liaising with the highways authorities to manage potential impacts. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.
Utilities	No constraints identified.
Suitability for SR	The discharge overflow would require pumping. The connection to ESW existing water network is less than 1km away, however, a road crossing is required. The land parcel is not of flat topography.

Table 4.17: WSR9 Multi Criteria Assessment Summary

Topic	Summary
Land Use	The land parcel borders residential properties on the southern and northern edges, with potential disruption to adjacent landowners, nearby businesses, and a mobile home park. Ten residential receptors are located within 20m, along with 19 noise sensitive receptors up to 30m from the land parcel. There may also be operational air quality impacts on over ten dwellings within 20m of the land parcel. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Planning	The land parcel is located within the Eye Airfield Strategic Employment Land parcel (Babergh and Mid Suffolk Policy SP05 – Employment Land) and within 50m of Babergh and Mid Suffolk Local Plan Policy LP19 designations for the historic environment, including the Grade II Listed Buildings ‘Stone Cottage’, ‘Nos. 30 and 32 Eye Road’, and ‘Mill House’. The land parcel is approximately 20m from an outline application for a petrol and electric charging facility with an associated shop and roadside restaurant with drive-through (DC/22/00416), validated on 31 January 2022 and awaiting a decision. The land parcel is also located within the Minerals Consultation Area. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Landscape and Visual	There is potential for construction and operational visual impacts on two abutting private gardens and several nearby residential receptors. In addition, open views from PRoWs may also be affected. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Ecology	There is potential for ecological impacts due to the presence of two Non-Statutory Designated Sites within 2km of the land parcel, the closest being Broom Field CWS adjacent to the northeast within 25m. Additionally, 77 parcels of Priority

Topic	Summary
	Habitat are located within 2km, with the closest approximately 15m from the land parcel. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Heritage	There are three Grade II Listed Buildings within 50m of the land parcel, with the closest, Stone Cottage, is located approximately 14m away. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Water and Flood Risk	No constraints identified.
Geology and Soils	Geo-environmental constraints include the presence of PSCs within 50m of the land parcel and geotechnical constraints arising from predominantly medium plasticity ground conditions. The land parcel is classified as Grade 2 ALC. Additionally; one historic landfill is located within 150m from the land parcel. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Traffic, Transport and Access	Access to the land parcel requires modifications to the B1077. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.
Utilities	There are belowground infrastructure constraints due to sewer lines and electric lines running across the land parcel. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.
Suitability for SR	The discharge overflow would require pumping to the nearest waterflow. The connection to ESW existing water network is more than 1km away, and would cross two Priority Habitats, an intermediate pressure gas main, multiple properties and the A140.

Table 4.18: WSR10 Multi Criteria Assessment Summary

Topic	Summary
Land Use	The land parcel borders residential properties on the western and eastern edges, with potential disruption to adjacent landowners and nearby businesses, including a hotel. One residential receptor is located within 20m, alongside one noise sensitive receptor up to 30m from the land parcel. Construction and operational air quality impacts may affect between one and ten dwellings within 20m of the land parcel. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Planning	The land parcel is currently under consideration as part of the EcoPower Suffolk Solar DCO, with a DCO application expected in Q2 2026. Draft Order Limits will be proposed following consultation feedback and technical assessment, which may reduce the extent of land included. The land parcel has a small area of overlap with the Safeguarding Zone surrounding the Sewage Treatment Works at Stuston-Abbey. The entirety of the land parcel is located within the Minerals Consultation Area. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Landscape and Visual	There is potential for construction and operational visual impacts on four abutting private gardens and several nearby residential receptors. In addition, clear open views from PRoWs may also be affected. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Ecology	There is potential for ecological impacts due to the presence of 65 parcels of Priority Habitat Deciduous Woodland within 2km, with the closest parcel adjacent to the land parcel. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Heritage	There are two Grade II Listed Buildings located within approximately 119m of the land parcel. The closest being Heale Cottage approximately 111 m away. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.

Topic	Summary
Water and Flood Risk	No constraints identified.
Geology and Soils	Geo-environmental constraints include the identification of three PSCs within 50m of the land parcel. The ground conditions are predominantly medium plasticity (Class C). The majority of the land parcel sits within Grade 2 ALC, with the remaining area classified as Grade 3. Land and soil identified as BMV will be excavated, temporarily stored and reinstated where possible, on temporary land take, following construction to minimise impact on agricultural land. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Traffic, Transport and Access	The land parcel is located adjacent to the A140; however, there is no existing access to the land parcel, so modifications will be required, potentially involving liaison with highway authorities. There may also be an impact on a PRoW, with a temporary alternative potentially required. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Utilities	Four sets of HV 11kV lines run across the land parcel, converging near the middle and effectively splitting the parcel into four separate areas. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Suitability for SR	The nearest watercourse for discharge overflow is over 1km away. The connection to ESW existing water network is less than 1km away, however, a road crossing is required.

Table 4.19: WSR11 Multi Criteria Assessment Summary

Topic	Summary
Land Use	The land parcel borders a residential property on the southern edge, with potential disruption to adjacent landowners due to proximity to residential property. One residential receptor is located within 20m, along with one noise sensitive receptor up to 30m from the proposed construction area. Construction and operational air quality impacts may affect between one and ten dwellings within 20m of the land parcel. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Planning	The entire land parcel is located within the Safeguarding Zone surrounding the Sewage Treatment Works at Stuston-Abbey, as well as within the Minerals Consultation Area. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Landscape and Visual	There is potential for construction and operational visual impacts on residential receptors, with the closest located approximately 10m from the southern boundary. An adjacent PRoW may also be affected. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Ecology	No constraints identified.
Heritage	No constraints identified.
Water and Flood Risk	No constraints identified.
Geology and Soils	The land parcel is subject to geotechnical and geo-environmental constraints including PSCs within 250m and medium plasticity soils. Half of the land parcel sits in Grade 2 ALC, with the remainder classified as Grade 3. Land and soil identified as BMV will be excavated, temporarily stored and reinstated where possible, on temporary land take, following construction to minimise impact on agricultural land. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Traffic, Transport and Access	Accessibility to the land parcel is only possible via small roads, which are not suitable for accommodating larger vehicles. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.

Topic	Summary
Utilities	National Grid OHL and pylons are present on the northwest corner of the land parcel. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.
Suitability for SR	The nearest watercourse for discharge overflow is over 1km away. The connection to ESW existing water network is less than 1km away, however, a road crossing is required.

Table 4.20: WSR12 Multi Criteria Assessment Summary

Topic	Summary
Land Use	The land parcel borders a residential property on the south-western edge. There is potential for disruption to adjacent landowners due to proximity to residential property, with two residential receptors within 20m and two noise sensitive receptors within 30m of construction. Construction and operational air quality impacts could affect between one and ten dwellings within 20m of the proposed construction area. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Planning	The land parcel is currently under consideration for the EcoPower Suffolk Solar DCO, with the application expected in Q2 2026. Draft Order Limits will be refined following consultation feedback and technical assessments, which may reduce the extent of land included. The majority of the land parcel lies within the safeguarding zone for the Stuston-Abbey Sewage Treatment Works, and the entire land parcel is located within the Minerals Consultation Area. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Landscape and Visual	Potential construction and operational visual impacts on four residential receptors, the closest being within 10m of the land parcel, as well as open views from the PRoW network. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Ecology	No constraints identified.
Heritage	No constraints identified.
Water and Flood Risk	There are concerns regarding present-day and climate change scenario surface water flood risk. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.
Geology and Soils	The land parcel is subject to geotechnical and geo-environmental constraints including the presence of seven PSCs within 50 to 250m of the land parcel, and geotechnical constraints arising from predominantly medium plasticity ground conditions. The land parcel sits within Grade 2 ALC. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Traffic, Transport and Access	Accessibility to the land parcel is only possible via small roads that are not suitable for larger vehicles. There may be disruption to one PRoW, with the potential requirement to provide an alternative route. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Utilities	National Grid OHL and pylons are present on the south-east of the land parcel. There is additionally a sewer along the western edge of the land parcel which connects to a pumping station on the western edge. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Suitability for SR	The connection to ESW existing water network requires a road crossing.

Table 4.21: WSR13 Multi Criteria Assessment Summary

Topic	Summary
Land Use	There is potential for disruption to adjacent landowners due to proximity to residential property. Construction and operational visual impacts may affect four residential dwellings located approximately 125m south of the land parcel, as well as nine noise sensitive receptors situated between 30m and 300m from the land parcel. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Planning	The entire land parcel is located within the safeguarding zone surrounding the Sewage Treatment Work at Stuston-Abbey, as well as within the Minerals Consultation Area. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.
Landscape and Visual	No constraints identified.
Ecology	No constraints identified.
Heritage	No constraints identified.
Water and Flood Risk	There are concerns regarding present-day and Climate Change scenario Surface Water flood risk. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.
Geology and Soils	The land parcel is subject to geotechnical and geo-environmental constraints including the presence of PSCs within 50 to 250 m of the land parcel and predominantly medium plasticity ground conditions. The land parcel is situated on Grade 3 ALC. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Traffic, Transport and Access	Accessibility to the land parcel is only possible via small roads that are not suitable for larger vehicles. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.
Utilities	Below-ground infrastructure includes an Intermediate Pressure gas main running along the western edge of the land parcel. Additionally, 33kV overhead power lines and pylons run north-south through the middle of the land parcel. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Suitability for SR	The connection to ESW existing water network requires a road crossing.

Table 4.22: WSR14 Multi Criteria Assessment Summary

Topic	Summary
Land Use	The land parcel borders residential properties on the northern and southern edges. There is potential disruption to adjacent landowners and nearby businesses, including the Granary Hotel within 20m. Three residential receptors are located within 20m, alongside three noise sensitive receptors up to 30m from construction. Construction and operational air quality impacts may affect between one and ten dwellings within 20m of the land parcel. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Planning	Approximately half of the land parcel is located within the safeguarding zone surrounding the Sewage Treatment Work at Stuston-Abbey, and the entire land parcel lies within the Minerals Consultation Area. The parcel is located within 50 m of Babergh and Mid Suffolk Local Plan (2023) Policy LP19 designations for the historic environment, including the Grade II Listed Building 'Hawthorn Farm House'. It is also within 50 m of a full planning application for the change of use of agricultural land to private equestrian use and the erection of post and rail fencing (3.5 hectares) under reference DC/22/01650, consented on 23 May 2022. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.

Topic	Summary
Landscape and Visual	There are open views affecting two residential receptors, with potential visual impacts during construction and operation on two PRoWs. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Ecology	There is one statutory designated site within 2 km of the land parcel, namely Gypsy Camp Meadows Thrandeston SSSI, located approximately 903 m west of the land parcel. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Heritage	One Grade II Listed Building, Hawthorn Farm House, is located within 40 m of the land parcel. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.
Water and Flood Risk	No constraints identified.
Geology and Soils	The land parcel is subject to geotechnical and geo-environmental constraints including the presence of PSCs, with some located within 50m of the parcel and four additional PSCs within 50 to 250m. Geotechnical constraints relate to predominantly medium plasticity ground conditions. The land parcel sits within Grade 3 ALC. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Traffic, Transport and Access	Accessibility to the land parcel is only possible via small roads that are not suitable for larger vehicles. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.
Utilities	There is proximity to a high voltage 11kV overhead power lines and poles that run across the land parcel. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Suitability for SR	The discharge overflow would require more than 1km of pipeline The connection to ESW existing water network would require a road crossing. The parcel has a narrow geometry with a non-preferred aspect ratio. The layout can be adapted to accommodate the narrow aspect ratio.

Table 4.23: WSR16 Multi Criteria Assessment Summary

Topic	Summary
Land Use	The land parcel is adjacent to a residential property, raising potential disruption to adjacent landowners due to proximity. One residential receptor is located within 20 m, with one Noise Sensitive Receptor up to 30 m from the construction area. Construction and operational air quality impacts may affect between one and ten dwellings within 20 m of the proposed construction area. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Planning	The land parcel is currently under consideration for the EcoPower Suffolk Solar DCO, with the application expected in Q2 2026. Draft Order Limits will be proposed following consultation feedback and technical assessment, potentially reducing the extent of land included. The parcel has a small area overlapping the Safeguarding Zone surrounding the Sewage Treatment Work at Stuston-Abbey Close Household Special Waste, and the entire parcel is within the Minerals Consultation Area. It is located within 50 m of the Babergh and Mid Suffolk Local Plan (2023) policy designation for the Grade II Listed Building 'Home Farmhouse' (Policy LP19 – The Historic Environment. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Landscape and Visual	There is potential for construction and operational visual impacts on two residential receptors located within 15 m of the land parcel. Open views from adjacent PRoWs may also be affected. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Ecology	There are 33 parcels of other Priority Habitat within 2 km of the land parcel, with the closest being a Traditional Orchard located approximately 10.75 m away. This habitat may experience direct or indirect impacts, such as the risk of encroaching

Topic	Summary
	on the root protection zone. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Heritage	Home Farm House, a Grade II Listed Building, is located within 15.8 m of the land parcel. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.
Water and Flood Risk	No constraints identified.
Geology and Soils	The land parcel is subject to geotechnical and geo-environmental constraints including the presence of PSCs within the land parcel, and predominantly medium plasticity ground conditions. The land parcel sits within Grade 2 ALC. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Traffic, Transport and Access	Accessibility to the land parcel is only possible via small, narrow roads. There is potential disruption to one PRoW, with the possibility that an alternative route may need to be provided. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Utilities	Below-ground infrastructure includes an IP gas main running through the eastern part of the parcel. Additionally, 33kV high voltage overhead power lines run along the eastern part of the land parcel. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Suitability for SR	The discharge overflow would require more than 1km of pipeline to gravitate towards the nearest watercourse.

Table 4.24: WSR17 Multi Criteria Assessment Summary

Topic	Summary
Land Use	The land parcel is adjacent to residential properties to the west, raising potential disruption to adjacent landowners due to proximity. Three noise sensitive receptors are located within 30m of construction. Construction and operational air quality impacts may affect between one and ten dwellings within 20m of the proposed construction area. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Planning	A small area of the land parcel overlaps with the Safeguarding Zone surrounding the Sewage Treatment Work at Stuston-Abbey Close Household Special Waste, and the entire parcel lies within the Minerals Consultation Area. The land parcel is located within 50 m of Babergh and Mid Suffolk Local Plan Policy LP19 designations for the Grade II Listed Buildings 'Abbey Farm House' and 'Rose Cottage'. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Landscape and Visual	Potential construction and operational visual impacts may affect two residential receptors within 10m and three residential receptors within 20m of the land parcel. Open views from nearby PRoWs may also be affected. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Ecology	There are 34 parcels of Priority Habitat within 2 km of the land parcel, with the closest being the directly adjacent Priority Habitat Deciduous Woodland. This habitat may experience direct or indirect impacts, such as the risk of encroaching on the root protection zone. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Heritage	Two Grade II Listed Buildings are located near the land parcel, with the closest being Rose Cottage within 9.5m. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Water and Flood Risk	There are potential impacts from present-day and Climate Change Surface Water flood risk affecting the land parcel. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.

Topic	Summary
Geology and Soils	The land parcel is subject to geotechnical and geo-environmental constraints including the presence of two PSCs within 50m of the land parcel and another two between 50 and 250m away. The land parcel sits within Grade 2 ALC. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Traffic, Transport and Access	Accessibility to the land parcel is only possible via small, narrow roads. There is potential disruption to one PRow, with the possibility that an alternative route may need to be provided. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Utilities	Below-ground infrastructure includes an IP gas main running north-south along the eastern edge of the parcel. Additionally, National Grid overhead power lines and pylons cross the south-east corner of the land parcel. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Suitability for SR	No constraints identified.

Table 4.25: WSR18 Multi Criteria Assessment Summary

Topic	Summary
Land Use	The land parcel is adjacent to residential properties to the north, creating potential disruption to nearby landowners. Two residential receptors are located within 20 m of the land parcel and two noise-sensitive receptors are within 30 m of construction. Construction and operational air quality impacts may affect between one and ten dwellings within 20 m of the proposed construction area. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Planning	A full planning application (ref. DC/21/05684) for change of use of agricultural land to private equestrian use lies within 50 m of the land parcel (consent granted 10 January 2022). The land parcel is located within 50 m of Babergh and Mid Suffolk Local Plan (2023) Policy LP19 designations for the Grade II Listed Building 'Rose Cottage'. The entire land parcel lies within the Minerals Consultation Area. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Landscape and Visual	Potential construction and operational visual impacts may affect two residential receptors within 10m. Open views from nearby PRowS may also be affected. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Ecology	There is one statutory designated site within 2km of the land parcel, Gypsy Camp Meadows, Thrandeston (SSSI), located 883m to the north-west. Within 2km there are 70 parcels of Priority Habitat, the closest being Deciduous Woodlands 40m away. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Heritage	One Grade II Listed Building, Rose Cottage, is located 13m away from the parcel. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.
Water and Flood Risk	There are concerns regarding present-day and Climate Change scenario Surface Water flood risk. One Surface Water Pathway would also be crossed on this land parcel. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Geology and Soils	The land parcel is subject to geotechnical and geo-environmental constraints. Geotechnical constraints arise from the presence of highly compressible strata and corrosive topsoil conditions. There are additional geotechnical concerns due to possible running sand conditions and ground conditions being predominantly medium plasticity. Two PSCs have been identified within 50 m of the land parcel. The land parcel sits within Grade 2 ALC. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.

Topic	Summary
Traffic, Transport and Access	Accessibility to the land parcel is only possible via small, narrow roads. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.
Utilities	High voltage overhead power lines and poles due to an 11kV line run across the south-west corner of the land parcel. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Suitability for SR	The land parcel has a very steep topography with close contours, which would require extensive ground works and may place excessive loads on the reservoir structure. The connection to ESW existing water network would require a road crossing.

Table 4.26: WSR19 Multi Criteria Assessment Summary

Topic	Summary
Land Use	Infrastructure constraints arise from the presence of a residential p within 50m of the land parcel. There is potential disruption to adjacent landowners due to proximity to residential properties. Noise sensitive receptors are located between 30m and 300m from construction, and construction and operational air quality impacts may affect between one and ten dwellings within 20m of the proposed construction area. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Planning	A full planning application (ref. DC/21/05684) for change of use of agricultural land to private equestrian use lies within 50m of the land parcel (consent granted 10 January 2022). The entire land parcel lies within the Minerals Consultation Area. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Landscape and Visual	Potential construction and operational visual impacts may affect several residential receptors and open views from nearby PRoWs. The Thrandeston Conservation Area is located approximately 150 m to the southwest, with 12 residential and two community receptors within 300 m of the land parcel. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Ecology	There is one statutory designated site within 2 km of the land parcel, Gypsy Camp Meadows, Thrandeston (SSSI), located 634 m away. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.
Heritage	No constraints identified.
Water and Flood Risk	There are concerns regarding present-day and Climate Change scenario Surface Water flood risk. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.
Geology and Soils	The land parcel is subject to geotechnical and geo-environmental constraints. Geotechnical constraints arise from highly compressible soil strata and topsoil with ground conditions that may be corrosive to iron. Additional geotechnical concerns include predominantly medium plasticity ground conditions and the presence of PSCs within 50 m of the land parcel. The land parcel sits within Grade 2 ALC. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Traffic, Transport and Access	Accessibility to the land parcel is only possible via small, narrow roads. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.
Utilities	High voltage overhead power lines and poles due to an 11kV line run across the north-east to south-of the land parcel. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Suitability for SR	The land parcel has a very steep topography with close contours, which would require extensive ground works and may place excessive loads on the reservoir structure. The connection to ESW existing water network would require a road crossing.

CSR – Stage 2 Outcomes



Figure 4.3: CSR Land Parcels Progressed and not Progressed following Stage 2

Land Parcels – Not Progressed

Table 4.27: CSR – Land Parcels not progressed following Stage 2 assessment

Land Parcel – Not Progressed	Justification Summary
CSR9	Parcel CSR9 is recommended not to be progressed following Stage 2 due to proximity to the Registered Park and Garden and complexities with the pipeline connection to the Lodgewood Water Tower as it would have to navigate a small private road which has the potential for impacts to a residential dwelling during construction. In addition, it is not possible to discharge overflow from the CSR, as it is not possible to gravitate the overflow from the land parcel to a local watercourse.
CSR10	Parcel CSR10 is recommended not to be progressed following Stage 2 due to the proximity to the Registered Park and Garden and complexities with the pipeline connection to the Lodgewood Water Tower as it would have to navigate a small private road between two Priority Habitats, and which has the potential for impacts to a residential dwelling during construction. In addition, it is not possible to discharge overflow from the CSR as it is not possible to gravitate the overflow from the land parcel to a local watercourse.
CSR14	Parcel CSR14 is recommended not to be progressed following Stage 2 due to the proximity to the Registered Park and Garden and complexities with the pipeline connection to the Lodgewood Water Tower as it would have to navigate a small private road which has the potential for impacts to a residential dwelling during construction. In addition, it is not possible to discharge overflow from the CSR as it is not possible to gravitate the overflow from the land parcel to a local watercourse.

Land Parcels recommended for Further Assessment

Table 4.28: CSR1 Multi Criteria Assessment Summary

Topic	Summary
Land Use	There is potential that residential receptors, located approximately 210m to the north of the land parcel may experience noise impacts during the construction phase. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.
Planning	No constraints identified.
Landscape and Visual	There is potential for visual impacts on Heveningham Hall Registered Park and Garden, located approximately 15m to the west. An unscreened Public Right of Way (PRoW) runs along the northern boundary of the land parcel, which may result in visual impacts. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Ecology	A veteran tree is located approximately 5–10m from the land parcel, and two areas of Ancient Woodland are present within 2km of the land parcel. In addition, a Deciduous Woodland Priority Habitat lies approximately 8m west of the land parcel. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Heritage	There are multiple heritage assets within proximity of the land parcel. Threadbare Hall (a Listed Building located approximately 250m south) and the Heveningham Hall Registered Park and Garden (located approximately 15m to the west). There are six Listed Buildings within 1km of the land parcel, the closest being the Grade II* Heveningham Hall Gate Lodges, located approximately 40m to the west. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.

Topic	Summary
Water and Flood Risk	Small areas of the land parcel are at high risk of surface water flooding. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.
Geology and Soils	The land parcel is subject to geotechnical and geo-environmental constraints, including medium plasticity ground conditions, and PSCs. The land parcel also contains Grade 3 agricultural land, which may include BMV land. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Traffic, Transport and Access	No constraints identified.
Utilities	The land parcel contains overhead high-voltage infrastructure, including a 33kV line running north-south through the centre of the land parcel and an 11kV line along the western boundary. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Suitability for SR	The discharge overflow would require more than 1km of pipeline in order to be gravitated to a watercourse.

Table 4.29: CSR2 Multi Criteria Assessment Summary

Topic	Summary
Land Use	There is potential for noise and vibration impacts on the directly adjacent Packway Farm during construction, along with air quality concerns. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Planning	No constraints identified.
Landscape and Visual	There is potential for visual impacts during construction and operation on users of the PRoW along the eastern and southern edges of the land parcel. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.
Ecology	There is potential for impacts on a Priority Habitat, deciduous woodland adjacent to the eastern extent of the land parcel. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.
Heritage	Packway Farmhouse is a Grade II Listed Building and is located approximately 40m from the land parcel. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.
Water and Flood Risk	Areas of the land parcel, particularly in the south-east, are at a medium to high risk of surface water flooding. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.
Geology and Soils	The parcel is subject to geotechnical and geo-environmental constraints, including medium plasticity ground conditions and PSC. The land parcel also contains Grade 3 agricultural land, which may include BMV land. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Traffic, Transport and Access	There is potential for access constraints to the land parcel, as modifications may be required to accommodate contractor vehicles and enable access across adjacent parcels. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.
Utilities	There is potential for interaction with below ground infrastructure, including a high-pressure gas main running north to south along the western boundary of the land parcel. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Suitability for SR	No constraints identified.

Table 4.30: CSR3 Multi Criteria Assessment Summary

Topic	Summary
Land Use	There is potential for impacts on nearby residential properties, including those adjacent to the south-eastern and south-western corners of the land parcel. These include construction noise, air quality impacts, and general disruption to landowners, with several sensitive receptors located within 250m, three within 20m and one within 50m of the land parcel. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Planning	No constraints identified.
Landscape and Visual	There is potential for visual impacts during both construction and operation on residential receptors abutting the land parcel, as well as users of nearby PROWs with open views across the land parcel. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Ecology	There is potential for impacts on designated ecological features, including three Ancient Woodlands within 2 kilometres (the closest being Kendalls Wood, approximately 500 metres away) and 65 Priority Habitats within 2 kilometres, with the nearest being a Priority Habitat Deciduous Woodland located just 2 metres from the land parcel. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Heritage	There is potential for impacts on the heritage asset of the Grade II-listed West Cottage within 20 metres. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.
Water and Flood Risk	No constraints identified.
Geology and Soils	The land parcel is subject to geotechnical and geo-environmental constraints, including medium plasticity ground conditions and PSC. The land parcel also contains Grade 3 agricultural land, which may include BMV land. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Traffic, Transport and Access	There is potential for access constraints to the land parcel, as modifications may be required to accommodate large vehicles. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.
Utilities	There is potential for proximity to high voltage overhead power lines, including an 11kV line running along the southern boundary of the land parcel. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Suitability for SR	The discharge overflow would require more than 1km of pipeline in order to be gravitated to a watercourse.

Table 4.31: CSR4 Multi Criteria Assessment Summary

Topic	Summary
Land Use	There is potential for disruption to landowners and construction noise impacts on residential receptors within 180m of the land parcel. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Planning	No constraints identified.
Landscape and Visual	There is potential for construction and operational visual impacts on residential receptors. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.
Ecology	There is one Veteran Tree within 500 metres and two Ancient Woodlands within 2 kilometres, the closest being Kendalls Wood approximately 700 metres away.
Heritage	Heveningham Hall Registered Park and Garden is located within 200m. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.

Topic	Summary
Water and Flood Risk	There is potential for flood risk and drainage-related impacts, including a small area of the land parcel being at high risk of flooding. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Geology and Soils	The land parcel is subject to geotechnical and geo-environmental constraints, including medium plasticity ground conditions and PSC within 50-250m of the parcel. The land parcel also contains Grade 3 agricultural land, which may include BMV land. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Traffic, Transport and Access	There is potential for access constraints to the land parcel, as modifications may be required to accommodate contractor vehicles and enable access across adjacent parcels. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.
Utilities	There is potential for interaction with below ground infrastructure, including a high-pressure gas main running north to south across the middle of the land parcel. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Suitability for SR	The discharge overflow would require more than 1km of pipeline in order to be gravitated to a watercourse.

Table 4.32: CSR5 Multi Criteria Assessment Summary

Topic	Summary
Land Use	No constraints identified.
Planning	No constraints identified.
Landscape and Visual	There is potential for visual impacts on Heveningham Hall Registered Parks and Garden approximately 85m to the north west and a PRoW located 175m to the east. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Ecology	There are two Ancient Woodlands within 2 km (the closest being Big Wood approximately 1.1 kilometres away), two Veteran Trees within 500 metres, and 62 Priority Habitats within 2 km, the closest being a Priority Habitat Deciduous Woodland located 8 metres from the land parcel. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Heritage	There is potential for impacts on heritage assets, including one Registered Park and Garden (Heveningham Hall) located within 75 metres and six Listed Buildings within 1 kilometre, the closest being the Grade II* Heveningham Hall Gate Lodges approximately 100m away. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Water and Flood Risk	There is potential for flood risk and drainage-related impacts, including a small area of the land parcel being at high risk of surface water flooding. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.
Geology and Soils	The land parcel is subject to geotechnical and geo-environmental constraints, including medium plasticity ground conditions and PSC within the parcel. The land parcel also contains Grade 3 agricultural land, which may include BMV land. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Traffic, Transport and Access	There is potential for access constraints to the land parcel, as modifications may be required to accommodate large vehicles. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.
Utilities	There is potential for interaction with high voltage infrastructure, with 33kV overhead lines running north to south through the middle of the land parcel, which would require diversion. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.

Topic	Summary
Suitability for SR	The discharge overflow would require more than 1km of pipeline in order to be gravitated to a watercourse. The connection to Lodgewood Water Tower is less than 1km away, however, a road crossing is required.

Table 4.33: CSR6 Multi Criteria Assessment Summary

Topic	Summary
Land Use	There are potential construction impacts to residential properties adjacent to the south-west corner of the land parcel, those near Plum Tree Farm, and two further receptors to the south, with several located within 20m. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Planning	No constraints identified.
Landscape and Visual	There is potential for construction and operational visual impacts on several abutting residential properties, the Heveningham Hall Registered Park and Garden, and open views from the PRoW network. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Ecology	No constraints identified.
Heritage	There is potential for impacts on Heveningham Hall Registered Park and Garden located 100m northeast from the land parcel. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.
Water and Flood Risk	There is potential for flood risk and drainage-related impacts, including a small area of the land parcel being at high risk of surface water flooding. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.
Geology and Soils	The land parcel is subject to geotechnical and geo-environmental constraints, including medium plasticity ground conditions and PSC within 50m of the parcel. The land parcel also contains Grade 3 agricultural land, which may include BMV land. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Traffic, Transport and Access	There is potential for access constraints to the land parcel, as modifications may be required to accommodate large vehicles. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.
Utilities	There is potential for interaction with overhead utilities, with an 11kV high voltage power line running along the southeastern edge of the land parcel. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Suitability for SR	The discharge overflow would require more than 1km of pipeline in order to be gravitated to a watercourse. The connection to Lodgewood Water Tower is less than 1km away, however, a road crossing is required.

Table 4.34: CSR7 Multi Criteria Assessment Summary

Topic	Summary
Land Use	There is potential for construction adjacent to the land parcel, particularly near the north-west corner. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.
Planning	No constraints identified.
Landscape and Visual	There is potential for construction and operational visual impacts on residential properties to the northwestern corner of the land parcel, the Heveningham Hall Registered Park and Garden, and open views from the PRoW network. Typical

Topic	Summary
	Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Ecology	No constraints identified.
Heritage	There is potential for impacts on Heveningham Hall Registered Park and Garden located 300m northeast from the land parcel. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.
Water and Flood Risk	There is potential for flood risk and drainage-related impacts, including a small area of the land parcel being at high risk of surface water flooding. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.
Geology and Soils	The land parcel is subject to geotechnical and geo-environmental constraints, including medium plasticity ground conditions and PSC (PSC) within 50m of the parcel. The land parcel also contains Grade 3 agricultural land, which may include BMV land. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Traffic, Transport and Access	There is potential for access constraints to the land parcel, as modifications may be required to accommodate large vehicles and enable access across adjacent parcels. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.
Utilities	There is potential for interaction with overhead utilities, with an 11kV high voltage power line running along the north and west of the land parcel. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Suitability for SR	The discharge overflow would require more than 1km of pipeline in order to be gravitated to a watercourse. The connection to Lodgewood Water Tower is less than 1km away, however, a road crossing is required.

Table 4.35: CSR8 Multi Criteria Assessment Summary

Topic	Summary
Land Use	There is potential construction impact to residential properties, including those at Plum Tree Farm and two properties to the north-east of the land parcel. Construction activities may result in noise and air quality impacts, particularly for high sensitivity receptors located within 20 metres. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Planning	No constraints identified.
Landscape and Visual	There is potential for construction and operational visual impacts on the abutting residential properties to the northeast and to the open views from the PRoW network. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Ecology	No constraints identified.
Heritage	No constraints identified.
Water and Flood Risk	There is potential for flood risk and drainage-related challenges, including a very small area of the land parcel at high risk of surface water flooding. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.
Geology and Soils	The land parcel is subject to geotechnical and geo-environmental constraints, including medium plasticity ground conditions and PSC within the parcel. The land parcel also contains Grade 3 agricultural land, which may include BMV land. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.

Topic	Summary
Traffic, Transport and Access	There is potential for access constraints to the land parcel, as modifications may be required to accommodate large vehicles and enable access across adjacent parcels. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.
Utilities	There is potential for interaction with high voltage (11kV) overhead power lines that split the land parcel into three sections, with one line running east to south and another extending directly north. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Suitability for SR	The discharge overflow would require more than 1km of pipeline in order to be gravitated to a watercourse. The connection to Lodgewood Water Tower is less than 1km away, however, a road crossing is required.

Table 4.36: CSR11 Multi Criteria Assessment Summary

Topic	Summary
Land Use	No constraints identified.
Planning	No constraints identified.
Landscape and Visual	There is potential for construction and operational visual impacts on residential receptors, including those at Threadbare Hall, as well as open views from the PRow. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Ecology	There is potential for impacts on ecological features, with 64 Priority Habitats located within 2 km of the land parcel, the closest being Priority Habitat Deciduous Woodland directly adjacent. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Heritage	There is potential for impacts on the Heveningham Hall Registered Park and Garden, located within 350 metres of the land parcel. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.
Water and Flood Risk	There is potential for flood risk, with a small area of the land parcel identified as being at high risk of surface water flooding. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.
Geology and Soils	The land parcel is subject to geotechnical and geo-environmental constraints, including medium plasticity ground conditions and PSC within 50-250m of the parcel. The land parcel also contains Grade 3 agricultural land, which may include BMV land. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Traffic, Transport and Access	There is potential for access constraints to the land parcel, as modifications may be required to accommodate large vehicles and enable access across adjacent parcels.
Utilities	There is potential for interaction with below ground infrastructure, including a high-pressure gas main located in the southeast corner of the land parcel. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Suitability for SR	No constraints identified.

Table 4.37: CSR12 Multi Criteria Assessment Summary

Topic	Summary
Land Use	There is potential for noise impacts on a residential receptor located 140m to the west. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.
Planning	No constraints identified.
Landscape and Visual	There is potential for construction and operational visual impacts on residential receptors, including those at Threadbare Hall, and on an unscreened PRow to the south. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Ecology	No constraints identified.
Heritage	No constraints identified.
Water and Flood Risk	There is potential for flood risk, with a small area of the land parcel identified as being at high risk of surface water flooding. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.
Geology and Soils	The land parcel is subject to geotechnical and geo-environmental constraints, including medium plasticity ground conditions. The land parcel also contains Grade 3 agricultural land, which may include BMV land. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Traffic, Transport and Access	There is potential for access constraints to the land parcel, as modifications may be required to accommodate large vehicles and enable access across adjacent parcels. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.
Utilities	There is potential for interaction with below ground infrastructure, including a high-pressure gas main located in the southeast corner of the land parcel. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Suitability for SR	There is potential for constraints related to the land parcel's narrow geometry, which results in a non-preferred aspect ratio. The layout can be adapted to accommodate the narrow aspect ratio.

Table 4.38: CSR13 Multi Criteria Assessment Summary

Topic	Summary
Land Use	There is potential for disruption due to the proximity of residential and industrial/commercial buildings within 50m of the land parcel. Construction phase noise impacts may affect a farm compound to the north, while air quality impacts could affect nearby receptors. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Planning	There is a major development proposal for an agricultural storage building immediately bordering the land parcel (DC/21/4652/FUL). Satellite imagery indicates that this storage building was constructed between 2021 and 2023. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.
Landscape and Visual	There is potential for construction and operational visual and heritage impacts to adjacent receptors, including Heveningham Hall Registered Park and Garden located immediately to the west, and a PRow adjacent to the south of the land parcel with unscreened views. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Ecology	There is potential for impacts on ecological features, including a veteran tree approximately 250 metres south of the land parcel and a Priority Habitat located immediately adjacent to the west. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Heritage	There is potential for impacts on heritage assets, including Heveningham Hall Registered Park and Garden, located immediately adjacent to the west of the

Topic	Summary
	land parcel. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Water and Flood Risk	There is potential for flood risk and drainage-related challenges, including a small area in the south of the land parcel identified as being at high risk of surface water flooding. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Geology and Soils	The land parcel is subject to geotechnical and geo-environmental constraints, including medium plasticity ground conditions and the presence of PSCs within the parcel. The land parcel also contains Grade 3 agricultural land, which may include BMV land. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Traffic, Transport and Access	There is potential for access constraints to the land parcel, as modifications may be required to accommodate large vehicles and enable access across adjacent parcels. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.
Utilities	There is potential for impacts due to proximity to high voltage overhead power lines, including 33kV lines running north to south through the middle of the land parcel that may require diverting, and an 11kV line running along the western boundary. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Suitability for SR	The discharge overflow would require more than 1km of pipeline in order to be gravitated to a watercourse.

4.4 Stage 2 - Pipelines

- 4.4.1 Each of the viable pipeline segments identified at Stage 1 was assessed using the multi criteria assessment at Stage 2.
- 4.4.2 Following the Stage 2 assessment, there are a number of segments which will not be taken forward for consideration at this NSC and for further assessment at Stage 3 (**Figures 4.4 to 4.8**).
- 4.4.3 **Table 4.39** lists the segments which will not be progressed based on the multi criteria assessment results, alongside the justification for this decision. The justification covers the main constraints identified during the multi criteria assessment.
- 4.4.4 Whilst all segments were assessed individually in accordance with the multi criteria assessment, it should be noted that in arriving at a decision for the best performing segments, consideration was given to all segments ‘in the round’ within that pipeline route, i.e. a segment which is identified as low-risk but is ‘booked-ended’ by high-risk segments would not be recommended to be progressed.

- 4.4.5 The segments which have been recommended for further assessment at Stage 3 have been combined spatially into ‘best-performing pipeline corridors’ and combined textually in the summarised multi criteria assessment results in **Tables 4.40 to 4.72**. The naming convention of the pipeline segments to pipeline corridors has been updated to provide a consistent approach for this NSC and to streamline the pipeline corridor names. These pipeline corridors are typically 200m in width. This is to provide flexibility to the design should any further information be identified during our programme of surveys and engagement.
- 4.4.6 The ‘Best-Performing Pipeline Corridors’ section below (**Tables 4.40 to 4.72**) includes a summary of the main constraints for consideration for each of the best-performing pipeline corridors.

Pipelines – Stage 2 Results

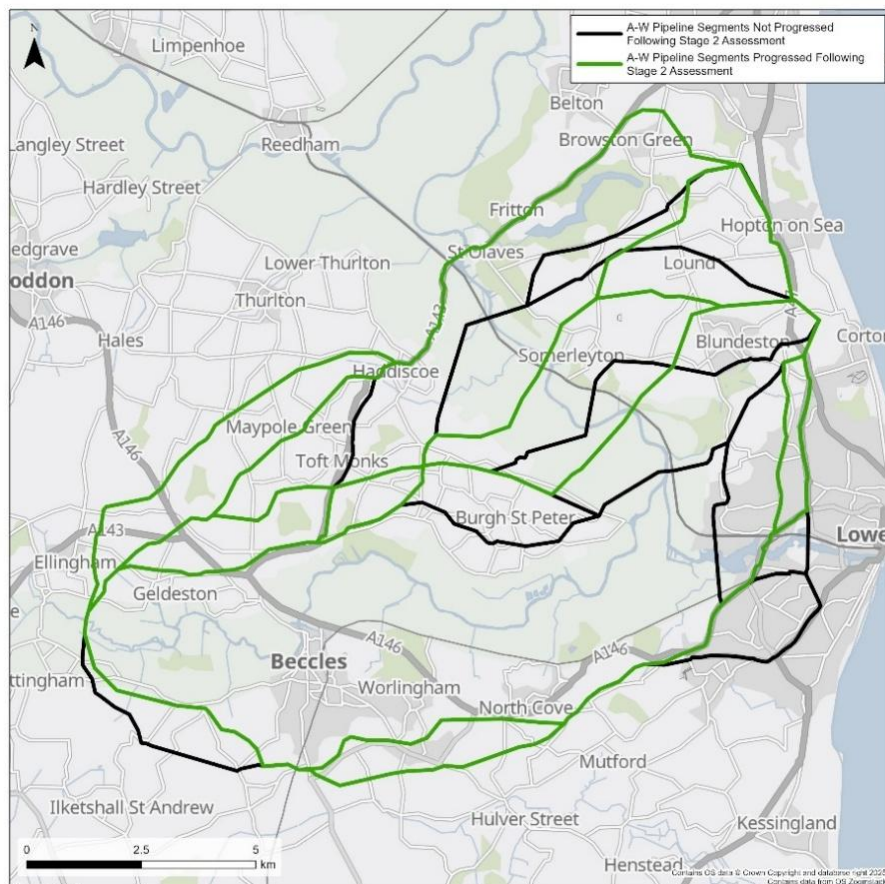


Figure 4.4: A-W Segments Progressed and not Progressed following Stage 2

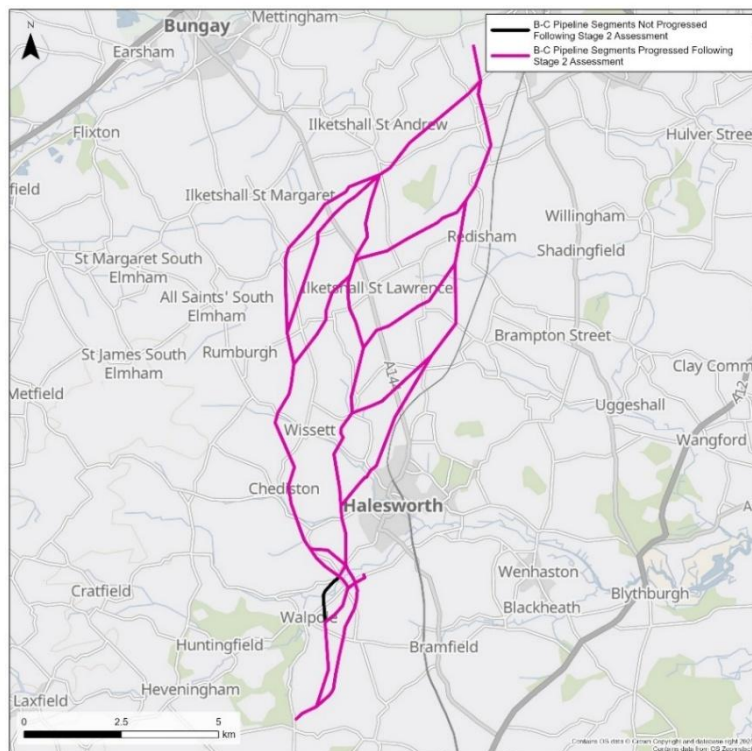


Figure 4.5: B-C Segments Progressed and not Progressed following Stage 2

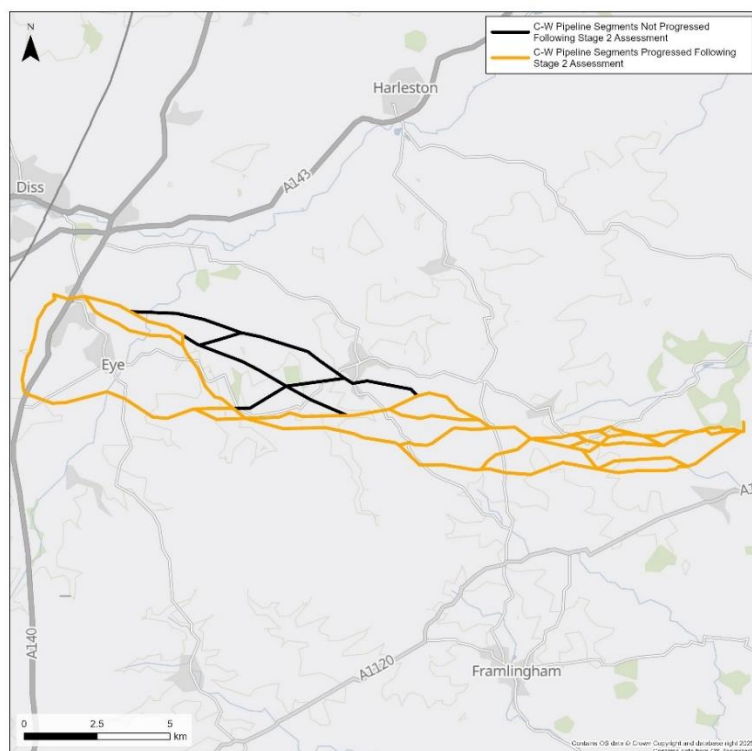


Figure 4.6: C-W Segments Progressed and Not Progressed following Stage 2

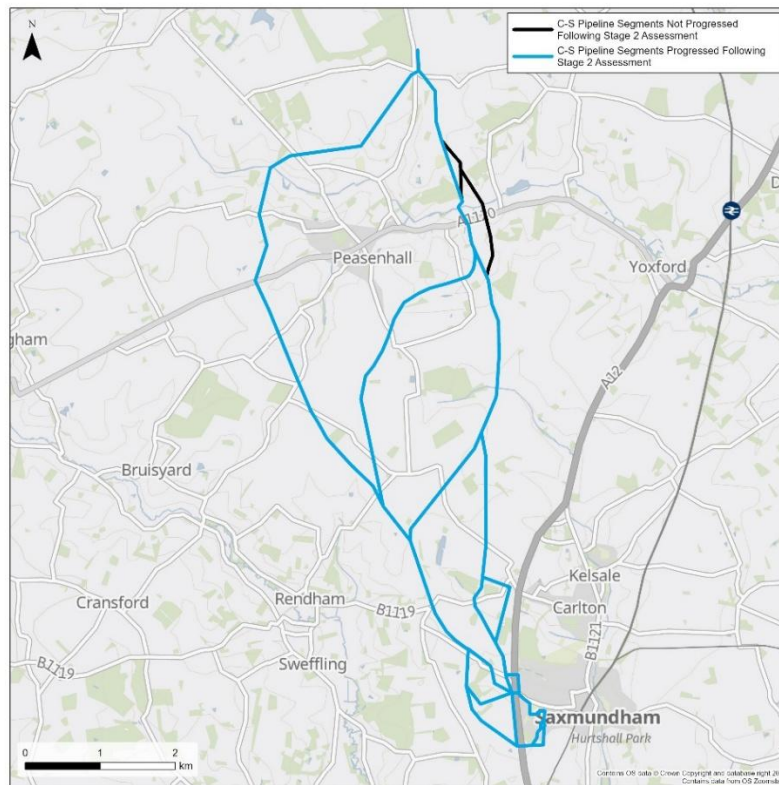


Figure 4.7: C-S Segments Progressed and not Progressed following Stage 2

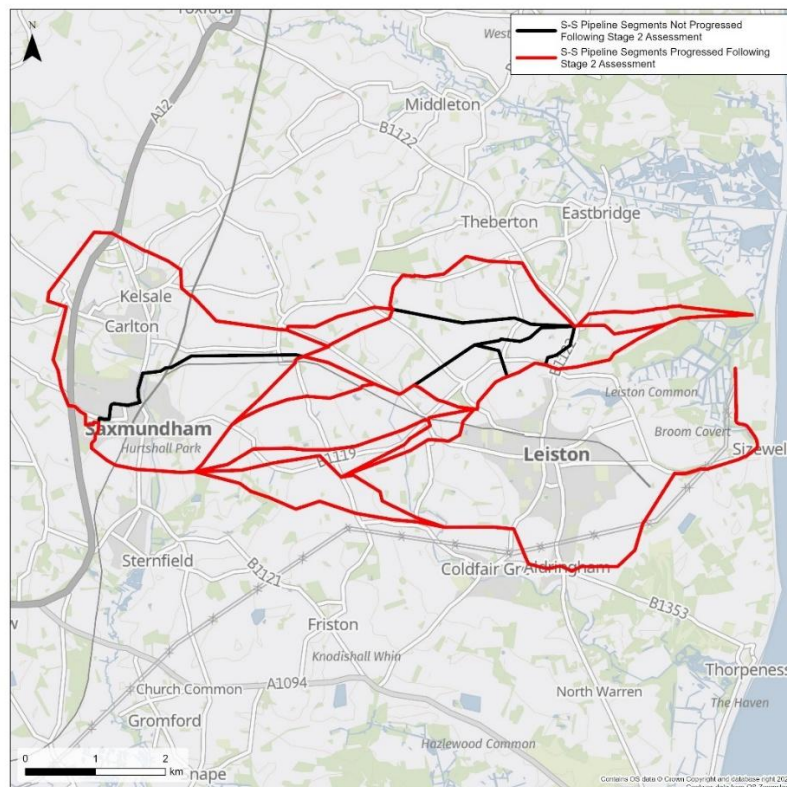


Figure 4.8: S-S Segments Progressed and not Progressed following Stage 2

Segments – Not Progressed

Table 4.39: Pipeline Corridor segments not progressed following Stage 2 assessment

Segment – Not Progressed	Justification Summary
AWRP – River Waveney	
East C	Segment East C is recommended to not be progressed to Stage 3 due to multiple crossings of major gas main, longer than alternatives segment in East, requires crossing of Mill Water. Connects to a segment which will not be progressed (Central B). In addition, there is a veteran tree (irreplaceable habitat) and residential property in close proximity to the segments.
East E	Segment East E is recommended to not be progressed to Stage 3 as the segment passes along a road through Blundeston in close proximity to a Scheduled Monument and presents re-routing difficulties. Increased length required to connect to AWRP land parcels compared to alternatives. There are two veteran trees (irreplaceable habitats) and residential properties within close proximity of the segment.
East G	Segment East G is recommended to not be progressed to Stage 3 as the segment would likely impact an area of Priority Habitat Coastal and Floodplain Grazing Marsh. Increased length is required to connect to AWRP land parcels.
East H	Segment East H is recommended to not be progressed to Stage 3 as the segment connects to a segment which will not be progressed (Central B). There is potential for some rerouting to a different segment, but this would add a longer route for no added benefit. Segment is likely to impact Priority Habitat Wood Pasture and Parkland. This habitat also has very high distinctiveness. Residential properties in close proximity to segment.
Central B	Segment Central B is recommended to not be progressed to Stage 3 due to the presence of high pressure gas main along the abandoned railway line. An alternative route adjacent to the railway line could be considered but would not be located on the railway embankment and would be in adjacent fields. However, working in close proximity to the gas main requires additional mitigations. Segment would likely impact a long stretch (2.4km) of Priority Habitat Coastal and Floodplain Grazing Marsh. Segment is within close proximity to residential properties.
Central D	Segment Central D is recommended to not be progressed to Stage 3 as the segment is the longest trenchless crossing (1.2km) introducing significant complexity. The segment is likely to be trenched through approximately 30m of Priority Habitat Deciduous Woodland.
Central F	Segment Central F is recommended to not be progressed to Stage 3 as access to river Waveney from both east and west banks is more isolated than other options. Site access to west end of segment is longer than other options and access is along country lanes. Furthest distance from A road on east of the Broads National Park.
West C	Segment West C is recommended to not be progressed to Stage 3 as the segment is likely to impact Priority Habitat Coastal and Floodplain Grazing Marsh. Segment runs along A143 for approximately 280m and is likely to have impacts on local traffic and sensitive receptors (residential properties in close proximity to segment).
West F1	Segment West F1 is recommended to not be progressed to Stage 3 as the segment has lengthy and complex vehicle access for construction from main roads.
West H	Segment West H provides an alternative Eastern option in the event that Section F is blocked by future constraints, however, it is recommended to not be progressed to Stage 3 as: Segment crosses three known areas at high risk of surface water flooding.

Segment – Not Progressed	Justification Summary
	Segment is within 30m of residential properties (potential extensive disturbance effects, specifically visual and noise). Approximately 20m of this segment runs through an area of Grade 2 agricultural land. However, this is minimal compared to some of the other options and it should be possible to avoid through a minor diversion to south. There are better performing segments, therefore, this section segment will not be progressed.
South A	Segment South A is recommended to not be progressed to Stage 3, as length of trenchless crossings would be over the maximum potentially feasible drive distances. The segment is likely to impact areas of Priority Habitat, notably Priority Habitat Coastal and Floodplain Grazing Marsh, and Priority Habitat Wood Pasture and Parkland (very high distinctiveness). The segment is likely to be impacted by two historic landfill sites: Camps Heath and White's Pit. In addition, there are residential properties in close proximity to the segment.
South C2	Segment South C2 is recommended to not be progressed to Stage 3 as the segment intersects the East Suffolk Council Waveney Local Plan allocation WLP2.4 'Kirkley Waterfront and Sustainable Urban Neighbourhood' and is within close proximity of the existing planning application within the allocation for mixed use development (planning ref: DC/24/2381/OUT). In addition, the segment is likely to impact an area of Priority Habitat Deciduous Woodland.
South D	Segment South D is recommended to not be progressed to Stage 3 as the segment is the longest overall segment and is along a busy B-road with potential impact on the road infrastructure and traffic. There would be construction working area restrictions and there is a high number of utilities present. There are a large number of community and residential properties within close proximity to this segment.
South E	Segment South E is recommended to not be progressed to Stage 3 as the segment connects to a segment which will not be progressed (South C2). There would be construction working area restrictions and there is a high number of utilities present. There are a large number of community and residential properties within close proximity to this segment. There are a large number of community and residential properties within close proximity to this segment.
South G	Segment South G is recommended to not be progressed to Stage 3 as the segment is likely to impact an area of Priority Habitat Coastal and Floodplain Grazing Marsh for approximately 620m. Construction vehicle access to site would be complex and there are multiple High Voltage powerlines running across the proposed segment.
Barsham to Lodgewood	
B-C10	Segment B-C10 is recommended to not be progressed to Stage 3 due to its connection with segment B-C11 which will not be progressed. Therefore, no connection to this segment can be provided.
B-C11	Segment B-C11 is recommended to not be progressed to Stage 3 as there are multiple critical utility crossings creating safety and coordination issues. The segment crosses the River Blyth, where a high-pressure gas main is also present, making construction complex. Trenchless construction is likely to be required but would present construction challenges due to the proximity of the gas main and poor ground conditions. The segment is also likely to impact an area of Priority Habitat Coastal and Floodplain Grazing Marsh.
CSR to WSR	
C-W11	Segment C-W11 is recommended to not be progressed to Stage 3 as the segment connects to other segments which will not be progressed due to risks associated with former airfield (RAF Horham).

Segment – Not Progressed	Justification Summary
C-W12	Segment C-W12 is recommended to not be progressed to Stage 3 as the segment is within close proximity to a Scheduled Monument (Denham College Moated Site) and potential realignment of the segment to avoid the scheduled monument would move the segment closer to another scheduled monument.
C-W13	Segment C-W12 is recommended to not be progressed to Stage 3 as the segment is within close proximity to a Scheduled Monument (Denham College Moated Site) and potential realignment of the segment to avoid the scheduled monument would move the segment closer to a further scheduled monument to the north of the segment. In addition, the segment crosses Hoxne Neighbourhood Plan Area Local Landscape Sensitivity under Policy HOX6.
C-W45	Segment C-W45 is recommended to not be progressed to Stage 3 as the segment passes through the former RAF Horham site, where multiple PSCs have been identified, including a former airfield and infilled pond, with associated risks of UXO, historic fuel storage, and uncontrolled infilling. It also crosses the B1117, three Ordinary Watercourses, and five PRowS, with limited diversion options. The segment passes near residential receptors, with open views across the pipeline corridor contributing to potential visual and noise impacts.
C-W46	Segment C-W46 is recommended to not be progressed to Stage 3 as the segment passes through the former RAF Horham site, where based on desk studies, the risk of UXOs, fuel contamination, below ground structures and uncontrolled infilling and dumping of waste including the potential for hazardous chemical contamination such as Radium were identified. These potential contaminants pose health and safety challenges during construction and operation.
C-W47	Segment C-W47 is recommended to not be progressed to Stage 3 as the segment passes through the former RAF Horham site, which presents risk of UXOs, fuel contamination, below ground structures and uncontrolled infilling and dumping of waste including the potential for hazardous chemical contamination such as Radium. These potential contaminants pose health and safety challenges during construction and operation.
C-W48	Segment C-W48 is recommended to not be progressed to Stage 3 due to its connection with segment C-W12 which will not be progressed. Therefore, no connection to this segment can be provided.
C-W50	Segment C-W50 is recommended to not be progressed to Stage 3 due to its connection with segments C-W47 and C-W48 which will not be progressed. Therefore, no connection to this segment can be provided.
C-W55	Segment C-W55 is recommended to not be progressed to Stage 3 as the segment is located within the former RAF Eye airbase, a PSC, which presents risk of UXOs, fuel contamination, below ground structures and uncontrolled infilling and dumping of waste including the potential for hazardous chemical contamination such as Radium. These potential contaminants pose health and safety challenges during construction and operation.
CSR to Saxmundham Water Tower	
C-S3	Segment C-S3 is recommended to not be progressed to Stage 3 due to construction challenges including additional interaction with a high-pressure main (twice) and overhead lines and has limited working space for construction, lack of direct vehicle access requiring a haul road which would cross the River Yox and likely require significant tree and hedgerow removal.
C-S4	Segment C-S4 is recommended to not be progressed to Stage 3 due to its connection with segment C-S3 which will not be progressed. Therefore, no connection to this segment can be provided.
C-S26	Segment C-S26 is recommended to not be progressed to Stage 3 due to its connection with segments C-S3 and C-S4 which will not be progressed. Therefore, no connection to this segment can be provided. Furthermore, is likely to impact Priority Habitat Coastal and Floodplain Grazing Marsh, designated

Segment – Not Progressed	Justification Summary
	and Sibton Park (Park and Garden of Historic or Landscape Interest (SCLP11)) which combined presents a major challenge to mitigation.
Saxmundham to SZC	
S-S2	The segment is recommended to not be progressed to Stage 3 due to a combination of significant construction, utility, environmental, and infrastructure challenges. The segment crosses 13 sections of road, the River Fromus, one PRoW, a woodland and a railway track segment, which in addition to several buildings present, would restrict the construction working area. There are additionally several utilities crossing the segment including nine ESW mains, two UKPN overhead lines (and associated HV poles within the pipeline corridor). The railway track crossing and river crossing would both require trenchless construction; however, the ground conditions are challenging for trenchless construction. There are additionally several environmental concerns, including the segment crossing Priority Habitat Wood Pasture and Parkland, its siting within a Conservation Area and proximity to a Grade II* Listed Building.
S-S5	Segment S-S5 is recommended to not be progressed to Stage 3 due to its location within the former RAF Leiston airbase, which is a PSC, which presents risk of UXOs, fuel contamination, below ground structures and uncontrolled infilling and dumping of waste including the potential for hazardous chemical contamination such as Radium. These potential contaminants pose health and safety challenges during construction and operation.
S-S6	Segment S-S6 is recommended to not be progressed to Stage 3 due to its location within the former RAF Leiston airbase, which is PSC, which presents risk of UXOs, fuel contamination, below ground structures and uncontrolled infilling and dumping of waste including the potential for hazardous chemical contamination such as Radium. These potential contaminants pose health and safety challenges during construction and operation.
S-S18	Segment S-S18 is recommended to not be progressed to Stage 3 due to close proximity to a Scheduled Monument (Leiston Abbey and Moated Site), realigning the segment is likely to impact other nearby constraints and there are other segment options available.
S-S25	Segment S-S25 is recommended to not be progressed to Stage 3 due to its location within the former RAF Leiston airbase, which is a PSC, which presents risk of UXOs, fuel contamination, below ground structures and uncontrolled infilling and dumping of waste including the potential for hazardous chemical contamination such as Radium. These potential contaminants pose health and safety challenges during construction and operation.
S-S26	Segment S-S26 is recommended to not be progressed to Stage 3 due to its location within the former RAF Leiston airbase, which is a PSC, which presents risk of UXOs, fuel contamination, below ground structures and uncontrolled infilling and dumping of waste including the potential for hazardous chemical contamination such as Radium. These potential contaminants pose health and safety challenges during construction and operation.

- 4.4.7 The remaining segments have been identified as the best-performing pipeline segments based on the lowest level of risk according to their multi criteria assessment. These segments were recommended for further assessment at Stage 3 and are presented for consideration at NSC.

Best-Performing Pipeline Corridors

- 4.4.8 The best-performing pipeline segments which were recommended for further assessment have been compiled into pipeline corridors which are approximately 200m (100m either side of the pipeline options), with narrower areas where pipeline corridors are ‘pinched-in’ so as not to include unnecessary constraints within the pipeline corridor (reducing the corridor width).
- 4.4.9 Each of the pipeline routes has between two and four main pipeline corridor options and a number of sub-options indicated by A/B/C/D after the main pipeline reference number. The AWRP pipeline route has four main options and a number of sub-options, indicated by A/B after the main pipeline reference number.
- 4.4.10 These best-performing pipeline corridors are the options to be consulted upon at NSC.
- 4.4.11 The Book of Plans provides plans of all of the pipeline corridor sections described below.

AWRP – River Waveney (A-W)

Table 4.40: A-W1 Multi Criteria Assessment Summary

Topic	Summary
Land Use	The pipeline siting would need to account for multiple residential, community, and business receptors along its length, particularly in the east of the pipeline corridor where it follows the A143 through residential areas such as Fritton and St Olaves, passing within proximity of numerous residential properties and close to businesses including St Olaves Marina. Several eastern sections of the pipeline corridor are also more susceptible to construction phase air quality impacts due to the proximity of residential properties. In the west, the pipeline corridor passes mainly through open fields but still crosses near farmsteads and agricultural land. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Planning	The eastern section of the pipeline corridor lies mostly within the Great Yarmouth Authority Area and crosses allocations under Policy GSP1 at St Olaves and Fritton, as well as passing through an allocation under Policy L1 for holiday accommodation areas. South of Hopton-on-Sea, the pipeline corridor enters East Suffolk and crosses allocation WLP2.13 for the North of Lowestoft Garden Village, proposed for 1,000–1,300 dwellings, and also passes through Joint Belton Neighbourhood Plan designations for important views and settlement gaps. Near St Olaves, the pipeline corridor intersects Policy POSOL1 riverside moorings allocation within the Local Plan for the Broads. The pipeline corridor lies within neighbourhood plan areas for Hopton-on-Sea and Corton, although no plans have

Topic	Summary
	yet been prepared. An EIA screening request (DC/24/1267/SCO) for the Garden Village has been approved as requiring EIA, though no full application has been submitted. The eastern part of the pipeline corridor is also within a safeguard area around the Lowestoft Sewage Treatment Works, which is the intended connection point for the pipeline. The pipeline corridor also passes into a sand and gravel mineral safeguarding area in South Norfolk. Further west, the pipeline corridor passes entirely through a Norfolk County Council sand and gravel safeguarding area in, crosses an existing mineral extraction consultation area and through a minerals safeguarding area on the western end of the pipeline corridor. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Landscape and Visual	The pipeline corridor passes through the Broads National Park (150m in the eastern section, around 3km in the central area, and 650m in the western section), with much of the remainder lying within the Broads National Park setting. There is potential for temporary construction-related visual impacts on nearby residential properties, visitors to St Olaves Marina, and users of public rights of way and National Cycle Network routes. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Ecology	The pipeline corridor passes near a range of statutory and non-statutory designated sites and Priority Habitats. In the eastern section of the pipeline corridor, it lies around 850m west of the Outer Thames Estuary SPA and Southern North Sea SAC, within SSSI impact risk zones, and runs adjacent to Priority Habitat Lowland Fens, Priority Habitat Deciduous Woodland, and Priority Habitat Coastal and Floodplain Grazing Marsh, with a veteran tree within the pipeline corridor. In the central section of the pipeline corridor through the Broads National Park, it is within SSSI IRZs, about 330m west of Priority Habitat Lowland Fens and runs adjacent to Priority Habitat Coastal and Floodplain Grazing Marsh along the A143. In the western section, it passes through Coastal and Floodplain Grazing Marsh, Lowland Meadows, Lowland Fen, and Deciduous Woodland, intersecting around 45–200m of Priority Habitat, with ancient and veteran trees and CWS sites located close to the pipeline corridor. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Heritage	Several heritage assets lie in proximity to the pipeline corridor. In the eastern section, St Olave's Priory Scheduled Monument, the Grade I Listed Building St Olave's Priory, the Grade II* Church of St Margaret and Grade II listed buildings (The Priory and The Bell Inn) are excluded from the pipeline corridor but lie in proximity to its boundary. In the central section, the pipeline corridor passes beneath Halvergate Marshes Conservation Area, and lies adjacent to Grade II listed buildings including Milestone, The Bell Inn, and The Crown Public House. In the western section, the pipeline corridor is in proximity to, but avoids, the Grade I listed St Mary's Church Grade II listed buildings including Haddiscoe War Memorial and the Monument to William Salter. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Water and Flood Risk	The pipeline corridor intersects several areas of flood risk and water sensitivity along its length. In the eastern section, it passes through approximately 410m of flood zone, including around 380m within Flood Zones 2 and 3, and crosses areas at high and medium surface water flood risk. The pipeline corridor intersects Fritton Decoy, which is within a Nitrate Vulnerable Zone, and has potential receptor pathways to the Bure and Waveney waterbody, Broadland Rivers Chalk and Crag groundwater, and, at its eastern edge, the Southern North Sea SPA/SAC. In the central section of the pipeline through the Broads National Park, around 3km lies within Flood Zones 2 and 3 (approximately 800m is proposed to be trenchless construction), and the pipeline corridor passes near the Bure, Waveney, Yare, and Lothering waterbodies, with potential hydrological connections to nearby SSSIs and Priority Habitats. In the western sections, flood zone infringements range from 50 m to 700 m, with areas of high and medium surface water flood risk, and the pipeline corridor has potential receptor pathways to the Waveney (Ellingham Mill – Burgh St Peter) waterbody and Broadland Rivers Chalk and Crag groundwater. Sections of the pipeline corridor are within Source Protection Zones (SPZ) 1 and 2.

Topic	Summary
	Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Geology and Soils	The pipeline corridor passes through a range of geological conditions, including superficial glacial deposits of sand and till, Breydon Formation clays and silts, Braydon Peat, localised head deposits, and areas of made or worked ground. Registered mineral sites include plantation gravel pits along the A143 Beccles Road and the Waveney Valley Brick Works. Ground levels range from 0 mAOD to 27 mAOD generally with gradual declines and no high slopes. Sections of the pipeline corridor are located on BMV agricultural land, including approximately 2.9 km within Grade 1 land and several sections within Grade 2 land. The remainder of the pipeline corridor is predominantly within Grade 3 agricultural land, with some areas of lower quality land. The pipeline corridor is also located near sensitive sites, including historic landfill at Oak View Farm and the Leet Hill, Kirby Cane Geological SSSI. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Traffic, Transport and Access	The pipeline corridor includes sections alongside or near the A47, A143, A134 and A146, with some stretches running directly along these roads. These areas are adjacent to residential properties, community facilities and commercial premises, and in places coincide with bus routes, meaning works could cause local delays and disruption. Multiple minor road crossings occur along the pipeline corridor, including Jay Lane, Hall Road, Sidegate Road, Hobland Road, Browston Lane, Loddon Road, Bulls Green Road, Raveningham Road, Pound Lane, Rectory Road, Yarmouth Road and Geldeston Road. The pipeline corridor intersects a number of PRoWs and sections of the National Cycle Network (NCN) Route 1. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Utilities	The pipeline corridor is constrained in several locations by major utilities crossings. The highest concentration is in the eastern section, where multiple overhead power lines are present, alongside high-pressure gas pipelines. Further high-pressure gas pipeline crossings and 11 kV overhead power lines occur in the central section, with additional overhead power lines, including 132 kV, present in the western section. Given that parts of the pipeline corridor run along or adjacent to roads, the presence of further buried services is likely. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.

Table 4.41: A-W1A Multi Criteria Assessment Summary

Topic	Summary
Land Use	The pipeline corridor passes predominantly through open fields with few immediate constraints, although localised restrictions may be required at hedgerows and field boundaries. The pipeline siting would need to consider residential properties and community receptors along the length of the pipeline corridor, including noise and vibration-sensitive properties such as a dwelling on Thurlton Road. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Planning	The pipeline corridor is located within a Mineral Safeguarding Area for sand and gravel allocated by Norfolk County Council. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.
Landscape and Visual	The pipeline corridor includes approximately 600 m within the Broads National Park at its western end and passes through the setting of the National Park at both ends. It also lies in proximity to Raveningham Hall registered Park and Garden. The alignment is scattered with a small number of residential properties, particularly near Haddiscoe and Ellingham, with potential for temporary visual impacts during construction. The pipeline corridor crosses several PRoW and two NCN routes, where users may experience short-term visual disruption during works. While the pipeline would not be visible in operation, some tree loss at field boundaries within the Broads National Park could alter views for receptors. Typical

Topic	Summary
	Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Ecology	The pipeline corridor passes near a range of statutory and non-statutory designated sites and Priority Habitats. In the eastern section, it lies close to Leet Hill SSSI and within SSSI impact risk zones for Geldeston Meadows SSSI, Stanley and Alder Carrs, Adelby SSSI, Hardley Flood SSSI and Halvergate Marshes SSSI. One area of Ancient Woodland is located adjacent to the pipeline corridor boundary, and an ancient/veteran tree located north in Stockton. The pipeline corridor directly intersects around 170 m of Priority Habitat Coastal and Floodplain Grazing Marsh, and includes additional areas of Priority Habitat Deciduous Woodland. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Heritage	Several heritage assets lie in proximity to the pipeline corridor. In the eastern section, St Olave's Priory Scheduled Monument, the Grade I listed St Olave's Priory, the Grade II* Church of St Margaret and Grade II listed buildings (The Priory and The Bell Inn). In the central section, the pipeline corridor passes beneath Halvergate Marshes Conservation Area, with trenchless construction entry and exit pits 50–150 m from the designation, and lies adjacent to Grade II listed buildings including Milestone, The Bell Inn, and The Crown Public House. In the western section, the pipeline corridor is close to but excludes the Grade I listed St Mary's Church and Grade II listed buildings including Haddiscoe War Memorial and the Monument to William Salter. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Water and Flood Risk	The pipeline corridor passes through approximately 280 m of flood zones, primarily on approach to the outfall location, with sections within Flood Zone 3 and Flood Zone 2. While it does not cross any areas at high risk of surface water flooding, parts lie in medium-risk areas. The pipeline corridor does not intersect any WFD-designated waterbodies but links to the Waveney (Ellingham Mill – Burgh St. Peter) waterbody, which has moderate ecological status and good biological status. There is also a potential receptor pathway to the Broadland Rivers Chalk and Crag groundwater, currently at poor overall status. Approximately 660 m of the pipeline corridor is located within SPZ1. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Geology and Soils	There are some considerations around ground conditions along the pipeline corridor relating to the presence of superficial glacial deposits of sands and gravels, till (diamicton), and Breydon clay and silt associated with peat at the southern end. Levels range from 0 mAOD to 33 mAOD, generally with a gradual decline and no high slopes. The pipeline corridor intersects an authorised landfill at E.E. Green & Son Limited. 4km of the pipeline corridor passes through Grade 2 agricultural land, considered BMV. The remainder of the pipeline corridor traverses Grade 3 or lower agricultural land, which may be subject to further assessment of its quality. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Traffic, Transport and Access	The pipeline corridor crosses the A146 and the A143. There are further road crossings along its length including the B1136 and Loddon Road, Green Lane, Beccles Road, Raveningham Road, and Thurlton Road. The pipeline corridor also crosses multiple PRoW and two sections of the NCN. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Utilities	The pipeline corridor is constrained by multiple utilities crossings throughout. In the northern section, the main constraints comprise a high-pressure Cadent gas pipeline. Across the remainder of the pipeline corridor, overhead power lines are present, with associated high-voltage poles, requiring careful planning for safe working. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.

Table 4.42: A-W2 Multi Criteria Assessment Summary

Topic	Summary
Land Use	The pipeline corridor passes predominantly through open fields. Residential receptors located particularly within Blundeston and Somerleyton on Church Lane, Burrows Green, and Hollow Way Hill may experience moderate disturbance from noise, visual, traffic, and vibration effects during construction. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Planning	The pipeline corridor crosses Stirrups Lane within an allocation under the Waveney Local Plan for the North of Lowestoft Garden Village, a mixed-use site proposing 1,000–1,300 dwellings. Across its length, the pipeline corridor interacts with a variety of local plan policies and neighbourhood plan designations, including non-designated heritage assets, local green spaces, and housing allocations such as South Saxmundham Garden Neighbourhood and Land at Highbury Cottages, Saxmundham Road. The pipeline corridor also crosses the Joint Belton Neighbourhood Plan allocation for gaps between Browston and Bradwell and through the Lound with Ashby, Herringfleet, and Somerleyton Neighbourhood Plan area, the Hopton-on-Sea Neighbourhood Plan area, and the Corton Neighbourhood Area, although no plans have been prepared or adopted for the latter two areas. The pipeline corridor intersects safeguarded land associated with the Somerleyton-Marsh La STW and the Lowestoft STW. The pipeline corridor crosses sand and gravel Mineral Safeguarding Areas allocated by Norfolk County Council, and it falls largely within the Suffolk County Council Minerals Consultation Area. In South Norfolk and Broadland, the pipeline corridor passes through sites associated with proposed (although refused within the last 6 months) reservoir, including references 2023/1821 and 2023/3557. Other nearby planning applications include an expansion of roadside services near the pipeline corridor and various residential and mixed-use allocations under East Suffolk and South Norfolk Local Plans. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Landscape and Visual	The pipeline corridor passes extensively through the Broads National Park and its setting, including areas near Hopton-on-Sea, Somerleyton Park, Yarmouth Road, Sidegate Lane, Wissett, Waterloo, West End, and Horse Watering Cottage. Construction within the National Park and its setting has the potential to cause temporary visual impacts, including some tree loss along field boundaries, although the pipeline corridor will not be visible in operation. Small numbers of residential properties along these sections may experience temporary visual effects during construction. The pipeline corridor also crosses a number of PRoWs and NCN routes, which could be affected temporarily during works. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Ecology	The pipeline corridor passes through and near multiple statutory and non-statutory ecological designations. In the east, sections lie within the Broads National Park and its setting, and run through or close to Lound Lakes Nature Reserve/CWS, Wheatacre Marshes CWS, River Waveney CWS, Herringfleet Hills CWS, and Coastal and Floodplain Grazing Marsh, Deciduous Woodland, Purple Moor Grass and Rush Pastures, Reedbeds, and Open Mosaic habitats. Veteran trees are present near Border Lane, Somerleyton, and St Michael and All Angels' Church. Further west, the pipeline corridor is within SSSI Impact Risk Zones for Stanley and Alder Carrs, Aldeby SSSI, Barnby Broad & Marshes SSSI, Sprat's Water and Marshes SSSI, Geldeston Meadows SSSI, and other areas of Lowland Fen. Several Ancient Woodland sites are located within 1 km of the pipeline corridor. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Heritage	There are a number of listed buildings and conservation areas within close proximity of the pipeline corridor, including the Grade II* Church of St Margaret and Somerleyton Park (Grade II* Registered Park and Garden and Grade I Listed Building), Gillingham Conservation Area, and St Michael's and All Angels Church

Topic	Summary
	(Grade II*). Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Water and Flood Risk	The pipeline corridor crosses several watercourses and areas at medium and high risk of surface water flooding. Some sections fall within Flood Zones 2 and 3 and SPZs. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Geology and Soils	The pipeline corridor crosses areas of variable ground conditions, including sands, clay, silt, peat, glacial deposits, and head deposits. Several sections are within Grade 2 and Grade 3 agricultural land, with approximately 2.9 km of Grade 1 land sections of the eastern end of the pipeline corridor. The pipeline corridor near historic landfill sites, including Oak View Farm, Hollow Way Road, and Hill House Farm. A geological SSSI, Leet Hill, Kirby Cane, is located within proximity to the pipeline corridor. Minor areas of worked ground and recorded gravel pits are present along parts of the pipeline corridor. There are no significant topographical constraints, with levels generally declining gradually along the pipeline corridor. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Traffic, Transport and Access	The pipeline corridor crosses multiple minor roads along its length, with a concentration of crossings near settlements and along the A143. Other road crossings such as the B1074 may cause disruption to traffic during construction. Sections of the pipeline corridor may require use of the working width as haul roads, and boundary fence, hedge, or tree removals may be necessary to facilitate construction access. There are a number of PRoWs and NCN routes crossed by the pipeline corridor. These crossings are likely to have moderate impacts on local traffic and non-motorised users. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Utilities	The pipeline corridor crosses a dense network of utilities including a high-pressure gas main, several overhead lines with associated high-voltage poles within the pipeline corridor. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.

Table 4.43: A-W3 Multi Criteria Assessment Summary

Topic	Summary
Land Use	The pipeline siting would need to account for multiple residential and community receptors along its length which may experience noise and vibration during construction. The pipeline corridor passes through predominantly open agricultural fields, including arable land and Crown Land, with some localised constraints on working width due to drainage ditches, field boundaries, and flood zones. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Planning	In the eastern section of the pipeline corridor, the pipeline corridor crosses land allocated under East Suffolk Council's Waveney Local Plan (ref. WLP2.13) for a mixed-use Garden Village north of Lowestoft, with proposals for 1,000–1,300 dwellings. The eastern section also lies within the safeguard area surrounding Lowestoft Sewage Treatment Works. The western part of the pipeline corridor falls within the Lound, Ashby, Herringfleet, and Somerleyton Neighbourhood Plan area, while the eastern part of the pipeline corridor lies within the Corton Neighbourhood Area, which has been approved but not yet adopted. An EIA Scoping submission for the Garden Village at Stirrups Lane (DC/24/1267/SCO) has been determined to require EIA, although no full application has yet been submitted. Further west, the pipeline corridor crosses multiple Mineral Safeguarding Areas for sand and gravel, including areas allocated by Norfolk County Council, and passes close to an existing mineral extraction consultation area. The southern part of the pipeline corridor intersects safeguarded sand and gravel resources representing potential encroachment. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.

Topic	Summary
Landscape and Visual	The pipeline corridor passes close to the Broads National Park, with sections of the pipeline corridor both within the setting and, at its western and eastern ends, partially within the National Park boundary. Construction works have the potential to cause temporary visual impacts on residential properties, particularly in Blundeston, West End, and near Horse Watering Cottage, as well as on farmsteads such as Upland Farm. Several PROWs and National Cycle Network routes are crossed along the pipeline corridor, and users may experience temporary visual impacts during construction. While the pipeline corridor will not be visible once operational, some tree loss along field boundaries within the National Park could alter views for nearby receptors. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Ecology	The pipeline corridor passes close to a number of designated sites and Priority Habitats. In the east, it runs near the Outer Thames Estuary SPA and Southern North Sea SAC, and within the SSSI Impact Risk Zones for Halvergate Marshes, Barnby Broad & Marshes, Sprat's Water and Marshes, and Carlton Colville SSSIs. It also passes close to an area of Ancient Woodland. Along its length, the pipeline corridor traverses areas of Priority Habitat Coastal and Floodplain Grazing Marsh, Priority Habitat Reedbeds, and Priority Habitat Deciduous Woodland. Construction is trenchless through the Priority Habitat Reedbeds, Priority Habitat Deciduous Woodland, and parts of Priority Habitat Coastal and Floodplain Grazing Marsh, and entry and exit pits are sited more than 50m from sensitive habitats. Further west, the pipeline corridor remains within SSSI IRZs for Stanley and Alder Carrs, Aldeby, and Geldeston Meadows SSSIs, passing close to multiple areas of Ancient Woodland and Lowland Fen. There are potential hydrological links exist with nearby Ramsar, SAC, SPA, and CWS sites. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Heritage	No constraints identified.
Water and Flood Risk	The pipeline corridor crosses several main rivers, including the River Waveney, Bure, Yare, and Lothing in its eastern sections, where trenchless construction techniques is proposed to minimise impacts. There are also numerous smaller watercourses along the pipeline corridor, with some sections passing through areas of high and medium surface water flood risk. There is potential vulnerability to water quality during construction, particularly where the pipeline corridor intersects the Waveney (Ellingham Mill – Burgh St. Peter) and associated transitional waterbodies, which have moderate ecological status. Certain sections of the pipeline corridor lie within SPZs 1 and 2, while the remainder is within zones of lower sensitivity. Flood risk is more significant in the central and western sections, with stretches of the pipeline corridor crossing Flood Zone 2 and 3, and some areas requiring careful management to avoid construction impacts on adjacent groundwater and watercourse receptors. Potential pathways to the Broadland Rivers Chalk and Crag groundwater, which is at poor overall status, also require consideration. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Geology and Soils	There are some minor considerations around ground conditions along the pipeline corridor, with variable geology including sands and gravel, diamicton, Head deposits, and Breydon Peat, which may increase construction complexity in localised areas. Topography varies along the pipeline corridor, generally declining gradually with no high slopes. There are also two historic sand pits in the eastern section of the pipeline corridor and one former brickworks near Station Road, which may require consideration during construction. Approximately 3 km of the eastern section of the pipeline corridor is located on Grade 1 agricultural land, with a further 1.9 km on Grade 2 land, while much of the remainder of the pipeline corridor lies within Grade 3 land. The pipeline corridor passes in proximity to a historic landfill site east of Wheatacre Hall and close to the geological SSSI at Leet Hill, Kirby Cane. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.

Topic	Summary
Traffic, Transport and Access	The pipeline corridor largely runs cross-country through fields and open land, with only occasional crossings of major roads such as the A47, A143, A146, and B1074/B1062, which would require trenchless construction for the pipeline crossing to minimise disruption. Minor roads are crossed at multiple points. Multiple PRowS and sections of National Cycle Network Route 1 are crossed along the pipeline corridor. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Utilities	No constraints identified.

Table 4.44: A-W3A Multi Criteria Assessment Summary

Topic	Summary
Land Use	The pipeline siting would need to consider a residential property; construction may cause moderate disturbance from visual impacts, traffic, and noise, air quality, noise and vibration impacts. The pipeline corridor also crosses arable land, potentially affecting root crops, and passes close to multiple roads, farms, and mature trees. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Planning	The pipeline corridor passes through land safeguarded in the Broads Authority Area and areas associated with Somerleyton-Marsh La and Lowestoft Sewage Treatment Works. It also crosses an allocation for the North of Lowestoft Garden Village under East Suffolk Council's Waveney Local Plan (WLP2.13), with proposals for 1,000–1,300 dwellings, and lies within the Lound with Ashby, Herringfleet, and Somerleyton Neighbourhood Plan area. The pipeline corridor is outside major development proposals in the Greater Yarmouth Authority area, though an EIA Scoping submission for the Garden Village has been made, with EIA required. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Landscape and Visual	The pipeline corridor passes through the Broads National Park and its setting, with approximately 330 m of the pipeline corridor within the NP. There is potential for temporary visual impacts during construction on nearby residential properties in Blundeston and Somerleyton, and on users of PRowS crossed by the pipeline corridor. The pipeline will not be visible in operation, though some tree loss along field boundaries may alter views. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Ecology	The pipeline corridor is in proximity to an area of Ancient Woodland and intersects areas of priority habitats, including deciduous woodland and areas classified as 'No main habitats but additional habitats present'. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Heritage	The pipeline corridor passes close to Somerleyton Park Grade II* Registered Park and Garden, Grade I listed Church of St Margaret and Grade II listed buildings all of which have been excluded from the pipeline corridor. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Water and Flood Risk	The pipeline corridor crosses a small area of medium surface water flood risk and some areas of low risk, with no nearby WFD-designated waterbodies. There is a potential receptor pathway to the Broadland Rivers Chalk and Crag groundwater, and the eastern edge lies within 1 km of the Southern North Sea SAC/SPA, requiring HRA assessment for likely significant effects. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Geology and Soils	The pipeline corridor crosses areas of Grade 1, Grade 2, and Grade 3 agricultural land. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.
Traffic, Transport and Access	The pipeline corridor crosses the A47 and B1074. The pipeline corridor also crosses a number of minor roads, including Stirrups Lane, Flixton Road, Green Lane, and Market Lane. This pipeline corridor is likely to have moderate impacts on non-motorised traffic because multiple PRowS are crossed by the pipeline

Topic	Summary
	corridor. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Utilities	The pipeline corridor crosses a total of seven major utilities, including seven overhead power lines. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.

Table 4.45: A-W3B Multi Criteria Assessment Summary

Topic	Summary
Land Use	The pipeline siting would need to consider a residential properties and community receptors due to potential construction impacts, including noise, visual impacts, and traffic impacts and air quality impacts though minimal. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Planning	The pipeline corridor crosses through a Mineral Safeguarding Area (Sand and Gravel) allocated by Norfolk County Council. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.
Landscape and Visual	The pipeline corridor passes through the setting of the Broads National Park, with potential for temporary visual impacts on nearby residential properties, including Wissett Cottages, and on users of PRoW in the vicinity. The pipeline will not be visible in operation, though some tree loss along field boundaries may alter views. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Ecology	The pipeline corridor is northeast of Broadland Ramsar site, Broadland SPA, The Broads SAC, and Stanley and Alder Carrs, Aldeby SSSI. It also lies within the SSSI impact risk zone for Stanley and Alder Carrs, Aldeby SSSI, and is close to an area of Ancient Woodland. An area of Lowland Fens is located within 1km of the pipeline corridor. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Heritage	No constraints identified.
Water and Flood Risk	The pipeline corridor crosses two areas at high risk of surface water flooding, as well as areas of medium risk, and does not pass near any WFD designated surface water bodies. There is a potential pathway to the Broadland Rivers Chalk and Crag groundwater. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Geology and Soils	The pipeline corridor is wholly located within Grade 3 agricultural land. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.
Traffic, Transport and Access	The pipeline corridor crosses several minor roads, including Waterheath Road, Burrows Green, and Church Lane. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Utilities	No constraints identified.

Table 4.46: A-W4 Multi Criteria Assessment Summary

Topic	Summary
Land Use	There are large numbers of community and residential receptors within close proximity through Lowestoft. Potential construction impacts from noise, air quality, visual and traffic to sensitive receptors namely along the A1117, Normanston Drive and Beccles Road. Beyond the town sections, the pipeline corridor moves into open fields where constraints ease, though hedgerows, field boundaries, and farm access may be affected. The pipeline corridor passes close to clusters of farm and residential buildings, with community receptors nearby, and intersects with Common Land, Crown Land, and Network Rail land, which could restrict access. Proximity to an airfield may require operational restrictions. Multiple road closures may occur

Topic	Summary
	during construction. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Planning	The pipeline corridor crosses WLP2.13 'North of Lowestoft Garden Village' and the associated mixed-use Scoping Opinion site (DC/24/1267/SCO), as well as a solar farm EIA scoping request (DC/23/1259/SCO). The pipeline corridor also crosses through the Lowestoft STW Safeguard Area and the Barrow Sewage Treatment Works Safeguard Area, and crosses in close proximity to a Waste Transfer Facility (P W Waters Ltd). The pipeline corridor crosses through the Minerals Consultation Area. The pipeline corridor passes through WLP8.23 'Protection of Open Space' allocations, the Oulton Neighbourhood Plan Area, and local green space and biodiversity designations. It continues along the A1117 through WLP8.12 'Existing Employment Areas', WLP2.11 'Oulton Broad District Shopping Centre', WLP2.6 'Western End of Lake Lothing', and Broads Local Plan OUL3 'Oulton Broad District Shopping Centre'. The pipeline corridor then passes WLP2.19 'Oakes Farm, Carlton, Colville', nearby WLP8.23 allocations, and through Carlton Colville and Oakes Farm Neighbourhood Plan areas. The pipeline corridor intersects Mutford Neighbourhood Plan allocation MNP2 and a permitted photovoltaic array and passes near Ellough Airfield and employment allocations at Beccles Business Park, Ellough Industrial Estate, and Moor Business Park. More southerly sections of the pipeline corridor cross Dark Sky Zones 1 and 2, New Dyke Local Nature Conservation designation and the Beccles Neighbourhood Plan Area. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Landscape and Visual	The pipeline corridor passes close to the Broads National Park and the Suffolk Coast and Heaths National Landscape at multiple points along its length. The pipeline corridor passes close to Oulton, Oulton Broad, Normanston, Carlton Colville, Barnby, Ringsfield, Barsham, and the southern edge of Worlingham could be affected, as well as receptors within Oulton Broad Conservation Area. The pipeline corridor crosses a number of PRoWs, including Angles Way, NCN 517, and RCN 31, where temporary visual impacts to users may occur during construction. Trenchless construction is proposed where the pipeline corridor enters the National Park, but overall, visual impacts are anticipated during construction due to works along field boundaries and near trees, with potential changes to views for nearby receptors. Residential receptors and PRoWs are mainly clustered along the urban sections around Lowestoft and the Broads National Park setting. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Ecology	The pipeline corridor passes in close proximity to multiple statutory designated sites along its length. The eastern sections are near Broadland Ramsar and SPA, The Broads SAC, Sprat's Water and Marshes, Carlton Colville SSSI, and Leathes Ham LNR, as well as within SSSI IRZs for Sprat's Water and Marshes and Carlton Colville SSSI. Priority habitats including Lowland Fens and Deciduous Woodland occur in close proximity to the pipeline corridor, with some priority habitat located within the pipeline corridor. Central sections are similarly constrained by proximity to Broadland Ramsar and SPA, The Broads SAC, Sprat's Water and Marshes, Carlton Colville SSSI, Barnby Broads and Marshes SSSI, Lowland Fens, and areas of Ancient Woodland. The pipeline corridor intersects or passes adjacent to Deciduous Woodland priority habitat in several locations. Western sections of the pipeline corridor are within SSSI IRZs for Barnby Broads & Marshes SSSI and Geldeston Meadows SSSI. The pipeline corridor runs close to Ellough Airfield CWS, Coastal and Floodplain Grazing Marsh priority habitat, Good Quality Semi-Improved Grassland, Wood Pasture and Parkland, and several areas of Deciduous Woodland. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Heritage	The pipeline corridor is close to Oulton Broad Conservation Area. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.
Water and Flood Risk	The pipeline corridor crosses several main rivers and smaller watercourses along its length, with some sections likely to require trenchless construction. Flood risk varies along the pipeline corridor, including small areas of high, medium, and low risk, particularly near river crossings. Surface water flood risk is present in several locations, both in the present day and the climate change scenario.

Topic	Summary
	There is potential vulnerability to groundwater and surface water quality during construction. The pipeline corridor passes within proximity to multiple Water Framework Directive waterbodies, including transitional and heavily modified rivers with moderate ecological status, and the Broadland Rivers Chalk and Crag groundwater, which is at poor overall status. Potential receptor pathways exist to nearby SACs, SPAs, SSSIs, and Ramsar sites, including Sprat's Water & Marshes, Carlton Colville SSSI, Barnby Broads and Marshes SSSI, the Broads SAC, and Broadland SPA, although distance and site characteristics generally limit direct receptor pathways. Small sections of the pipeline corridor fall within SPZs, primarily SPZ1, with additional areas in SPZ2 and SPZ3. Flood risk and water quality sensitivities are concentrated around river crossings and adjacent floodplain areas. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Geology and Soils	The pipeline corridor crosses several sections of Grade 2 agricultural land, considered BMV, with the remainder generally on Grade 3 land and some lower-grade areas. Ground conditions vary along the pipeline corridor, including superficial glacial sands and gravels, alluvium, tidal deposits of clay and silt, head deposits, and made ground of unknown consistency. Topography is generally low-lying and flat, with levels ranging from 0 mAOD to 32 mAOD, with no significant slopes. Historic landfill sites are present and in proximity to the pipeline corridor, including Parkhill Tip, Slaters Pond, Fir Lane, Normanston Drive, Roman Hill, Burnt Hill House, Grove Road, and Ivy Farm. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Traffic, Transport and Access	The pipeline corridor crosses several major roads, including the A47, A1144, A1117, A146, A145, and B1062, and runs adjacent to or along these roads for significant distances. The pipeline corridor also crosses multiple minor roads, including Dairy Lane, Mutford Wood, Hollow Grove Way, Low Road, Clarke's Lane, Hall Road, Cromwell Road, Cucumber Lane, Church Road, and Brock Road. To enable construction vehicle access, hedgerow removal and road widening may be required. Replanting after completions will be proposed where possible. Several PRoWs and National Cycle Network routes (NCN 1, 31, and 517) are crossed by the pipeline corridor. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Utilities	The pipeline corridor is constrained by multiple utilities crossings throughout its length. There are several overhead power lines, with stand-off working distances and high-voltage safety plans required during construction. Given that significant portions of the pipeline corridors run along roads in built-up areas, there is a high density of buried services. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.

Table 4.47: A-W4A Multi Criteria Assessment Summary

Topic	Summary
Land Use	The pipeline corridor passes through approximately 2.5 km of roads in Lowestoft, including the B1375 and A1117, which constrains the working area considerably. Roads are largely lined by residential properties and there are a large number of community and residential receptors within close proximity to the pipeline corridor, which may experience constriction impacts. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Planning	The pipeline corridor crosses through land allocated in the Waveney Local Plan for residential development, including allocations under Policy WLP2.13 North of Lowestoft Garden Village and Policy WLP2.14 North of Union Lane, Oulton. The pipeline corridor also crosses the allocated employment areas at Oulton Industrial Estate and multiple sites designated for the protection of open space. The pipeline corridor intersects the Oulton Neighbourhood Plan area, including allocations for biodiversity and green corridors as well as local green spaces. It passes through a

Topic	Summary
	site subject to a Scoping Opinion for mixed-use development (DC/24/1267/SCO), for which it was determined on 21 May 2024 that an EIA is required. Additionally, the pipeline corridor crosses land subject to a hybrid planning application (DC/22/4993/FUL), which includes full planning permission for 45 dwellings and outline permission for up to 87 dwellings; the application is validated and awaiting decision. The pipeline corridor passes through the safeguarded area for Lowestoft Sewage Treatment Works and falls within a Minerals Consultation Area. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Landscape and Visual	The southern end of the pipeline corridor lies within the setting of the Broads National Park, where construction works are expected to have visual impacts. The pipeline corridor passes adjacent to several trees protected by Tree Preservation Orders. Potential visual receptors in Oulton and Oulton Broad may also experience temporary visual effects during construction. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Ecology	The pipeline corridor within 1 km from multiple statutory designated sites, including the Outer Thames Estuary SPA, Southern North Sea SAC, and Leathes Ham LNR. It is also within the SSSI Impact Risk Zone for Sprat's Water and Marshes, Carlton Colville SSSI. The pipeline corridor passes through Parkhill Wood County Wildlife Site for approximately 40 m. The pipeline corridor is also within multiple areas of Priority Habitat and in close proximity to Lowland Fens Priority Habitat and two areas of Ancient Woodland. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Heritage	The pipeline corridor is close to the Grade II* listed Manor House and the Grade II listed Blue Boar Inn. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Water and Flood Risk	Around 15 m of the pipeline corridor passes through Flood Zones 2 and 3 and intersects areas of high, medium, and low surface water flood risk. It is approximately 300 m from the Bure, Waveney, Yare and Lothering waterbody, with moderate ecological but poor biological status, and there is a potential pathway to the Broadland Rivers Chalk and Crag groundwater. The pipeline corridor lies within 1km from the Norfolk East Water Body, Southern North Sea SAC, and Outer Thames Estuary SPA. Approximately 350 m of the pipeline corridor is within SPZ2, with the nearest point around 70 m from SPZ1. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Geology and Soils	Approximately 2.2 km of the pipeline corridor passes through Grade 2 agricultural land, with additional sections through Grade 3, non-agricultural, and urban areas. The pipeline corridor lies within 250 m of Roman Hill and Park Hill Tip historic landfill sites. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Traffic, Transport and Access	The pipeline corridor follows the A47, B1375, and A1117. The pipeline corridor runs along the B1375 for approximately 2.1 km with potential for delays to local traffic and residential properties. A minor road crossing will require temporary closures and diversions which may cause disruption to traffic during construction. This pipeline corridor is likely to have moderate impacts on non-motorised traffic because multiple PRow are crossed by the pipeline corridor. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Utilities	The pipeline corridor crosses three overhead power lines. There are no high-pressure gas pipelines along this section. Given that the pipeline corridor runs along roads in a built-up area, a high density of other underground and overhead services is also likely. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.

Table 4.48: A-W4B Multi Criteria Assessment Summary

Topic	Summary
Land Use	The pipeline siting would need to consider a residential property; construction may cause moderate disturbance from visual impacts, traffic, and noise, air quality, noise and vibration impacts. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Planning	The pipeline corridor crosses a Waveney Local Plan mixed-use allocation for the Beccles and Worlingham Garden Neighbourhood (WLP3.1). It passes through several existing employment areas at Beccles Business Park, Ellough Industrial Estate, Moor Business Park, and Site 3, Ellough Road, Beccles. The pipeline corridor passes through Neighbourhood Plan allocation for key movement routes in Beccles. And a proposed small-scale energy recovery facility (ERF) that has been granted permission with solar PV. It also intersects a site subject to an EIA screening opinion for a Garden Neighbourhood, where EIA was required. The pipeline corridor passes through several safeguarded areas, including the Minerals and Waste Safeguard Areas around Beccles CB1, the V C Cooke Ltd Waste Transfer Facility, and the Secondary Aggregate Recycling site. It also traverses the Sewage Treatment Works Safeguard Area surrounding Worlingham-Ashtree Sewage Treatment Works and crosses part of a Minerals Consultation Area. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Landscape and Visual	The pipeline corridor is within 1km from the Suffolk Coast and Heaths National Landscape. The pipeline corridor crosses a number of PROWs and NCN 31, creating the potential for temporary visual impacts to users during construction. Potential visual receptors along the southern edge of Beccles and Worlingham may also experience temporary visual impacts during construction. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Ecology	The pipeline corridor is located within the SSSI Impact Risk Zones for Barnby Broad and Marshes SSSI and Stanley and Alder Carrs, Aldeby SSSI. It is not within 1 km of any other statutory designated sites, though there are potential hydrological links to Broadland Ramsar and SPA, The Broads SAC, and Barnby Broad and Marshes SSSI. The pipeline corridor intersects areas of Deciduous Woodland priority habitat. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Heritage	No constraints identified.
Water and Flood Risk	The pipeline corridor crosses several small areas of high surface water flood risk, as well as areas of medium and low risk. These impacts could be mitigated through appropriate flood risk management measures. The pipeline corridor crosses one watercourse, which is not a WFD-designated waterbody; however, there is a potential receptor pathway to the Bure, Waveney, Yare, and Lothing waterbody, which has moderate ecological status and poor biological status and directly connects to the Broads SAC and Broadland SPA. There is also a potential receptor pathway to the Broadland Rivers Chalk and Crag groundwater, which is at poor overall status. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Geology and Soils	Approximately 1.5 km of the pipeline corridor is within Grade 2 agricultural land, with additional sections passing through Grade 3 agricultural land. In addition, the North Cove historic landfill site is within the pipeline corridor. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Traffic, Transport and Access	The pipeline corridor crosses the A145 and runs approximately 70 m from the A146 at its eastern extent and crosses the B1062 at its western extent. The pipeline corridor also crosses several minor roads, including Brock Road, Ellough Road, and Sandpit Lane. Temporary road closures and diversions would be required at these locations which may cause disruption to traffic during construction. There may also be moderate impacts on non-motorised traffic, as the pipeline corridor crosses multiple PROW and one NCN. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.

Topic	Summary
Utilities	The pipeline corridor crosses six major utilities in total, all of which are overhead power lines. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.

Barsham Water Treatment Works – CSR (B-C)

4.4.12 Barsham Water Treatment Works to CSR pipeline corridors assessment outcomes.

Table 4.49: B-C5 Multi Criteria Assessment Summary

Topic	Summary
Land Use	The northern section of the pipeline corridor starts at Barsham Water Treatment Works and end at the Lodgewood Water Tower. The pipeline siting would need to consider multiple farm/residential buildings along the length of the corridor and two businesses within the southern section of the pipeline corridor (a horse paddocks and Nature's Way Raw Pet Food shop, both located north-east of Walpole) which may be impacted due to potential disruption to the road network and noise and vibration from construction. There is one residential dwelling within the northern section of the pipeline corridor to the east of Ilketshall Saint Andrew which may be impacted by construction air quality impacts. There are two religious community receptors (Walpole Old Chapel and cemetery) located in proximity to the southern section of the pipeline corridor which may be impacted during construction. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Planning	The pipeline corridor crosses through the Safeguard Area for Ilketshall St Lawrence Sewage Treatment Works at its connection with B-C6A. The pipeline corridor crosses through the Suffolk County Council Minerals Consultation Area in its northern section close to Ringsfield and towards the south between Halesworth and Walpole. The pipeline corridor passes adjacent to Waveney Local Plan policy allocation 'WLP8.23 Protection of Open Space for St Peters Church, Wash Lane', immediately north of its connection with B-C6C in Spexhall. The pipeline corridor briefly crosses through the Halesworth Neighbourhood Plan Area to the west of Halesworth, although there are no restrictive designations in its proximity. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Landscape and Visual	The Broads National Park is located approximately 500m to the north of the pipeline corridor. There is the potential for temporary construction related visual impacts on residential receptors, PRoWs, NCN and the road network which the pipeline corridor crosses through and in proximity to, as set out in the Land Use and Traffic, Transport and Access sections. There is also the potential for temporary construction related visual impacts in the southern section of the pipeline corridor on Grade II Listed Threadbare Farm (located in proximity to the pipeline corridor, though well screened) and Grade II Listed Packway Farm (located to the east of the pipeline corridor, may experience open mid distance views). Heveningham Hall Registered Park and Garden is located adjacent to the southern section of the pipeline corridor to its west, which is well screened. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Ecology	There are five parcels of Ancient Woodland to the east of the northern section of the pipeline corridor between Ringsfield and Ilketshall Saint Lawrence. The pipeline corridor crosses through a parcel of good quality semi-improved grassland priority habitat immediately north of Ilketshall Saint Lawrence. The pipeline corridor crosses through a parcel of coastal and floodplain grazing marsh priority habitat in its central section to the east of Wissett and in its southern section immediately south of its connection with B-C5A. The pipeline corridor crosses directly through three parcels of wood-pasture and parkland priority habitat in its southern section

Topic	Summary
	close to its connection to the CSR and has several further parcels of deciduous woodland in its proximity throughout its central and southern sections. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Heritage	There is one Grade II* Listed Building (Church of St Peter) and two Grade II Listed Buildings (Spexhall House and Spexhall War Memorial) located in Spexhall in proximity to the pipeline corridor, immediately north of its connection with B-C6C. Heveningham Hall Registered Park and Garden is located adjacent to the southern section of the pipeline corridor to its west. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Water and Flood Risk	The pipeline corridor crosses two main rivers in its northern section, one of which (Becks Green River) is likely to require trenchless construction. In its central section to the east of Wissett, the pipeline corridor crosses a main river (River New Reach, which may require trenchless construction) and six ordinary watercourses in quick succession. The pipeline corridor crosses River Blyth in its southern section of the pipeline corridor, which may require trenchless construction. The pipeline corridor additionally crosses several minor watercourses, creeks and ditches along its whole length. The pipeline corridor intersects a high flood risk area associated with the main river crossings. There are some areas which experience surface water flood risk both in the present day and the climate change scenario, located throughout the pipeline corridor. There is potential vulnerability to water quality during construction, especially to the south of the pipeline corridor in areas considered good or good/moderate as per the Water Framework Directive. A short section of the pipeline corridor at its northernmost point and a short section close to the River Blyth crossing are in SPZ 1, and there are small areas clustered around these points located within SPZ 2 and 3. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Geology and Soils	There are some minor considerations around ground conditions relating to the type of ground in the area and PSCs across the pipeline corridor potentially increasing construction complexity. Five short sections of the pipeline corridor are located on Grade 2 agricultural land, which is BMV. One of these sections is located at the northernmost point of the pipeline corridor near Ringsfield, one is in the central section between the connections to B-C6B and B-C6C, and the other three are towards the south of the pipeline corridor near Walpole. Most of the remainder of the pipeline corridor is located on Grade 3 agricultural land, which will be subject to further surveys during scheme development to establish its quality, with some areas crossing Grade 4 agricultural land which is not BMV. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Traffic, Transport and Access	The pipeline corridor crosses A144 Halseworth Road to the north near Ilketshall Saint Lawrence. The pipeline corridor also crosses B1117 and B1123 in its southern section which may cause disruption to traffic during construction. The pipeline corridor additionally crosses several minor roads near Ilketshall Saint Lawrence, Wissett and Chideston which may require road closure for works. Sections within the central section of the pipeline corridor near Spexhall, Wissett and Halesworth have limited vehicle access on narrow roads. The construction of a pipeline in this pipeline corridor would disrupt NCN Route 1 which it crosses towards the north between Ilketshall Saint Andrew and Ringsfield, and towards the south of the pipeline corridor near Walpole. This could be re-routed with traffic management during construction. The construction of a pipeline in this pipeline corridor has the potential to cause disruption to several PRowS along its route, most notably to multiple PRowS between Ilketshall St Andrew and Ringsfield which have no alternative routes available and would require pedestrians to use the carriageway. There are two further PRowS with no alternative routes available, one to the east of Wissett and one at the southern end of the pipeline corridor. The corridor also crosses several other PRowS along the pipeline corridor with alternatives available. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.

Topic	Summary
Utilities	The pipeline corridor is constrained throughout by multiple utilities crossings. There is a concentration of utilities at the northern section of which the main constraints comprise an intermediate pressure gas main and two water mains. The pipeline corridor crosses a further water main by Ilketshall Saint Lawrence, a high-pressure gas main and an Intermediate Pressure gas main to the east of Wissett. There is a concentration of water utilities crossings in the southern section of the pipeline corridor close to Lodgewood Water Tower including multiple distribution mains and a raw water main, and the pipeline corridor additionally crosses a high-pressure gas main in this area. The pipeline corridor also crosses several overhead lines with associated high-voltage poles within the pipeline corridor. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.

Table 4.50: B-C5A Multi Criteria Assessment Summary

Topic	Summary
Land Use	The pipeline siting would need to consider multiple farm/residential buildings and two businesses in proximity of the pipeline corridor (Valley Farm Vineyards, located north-west of Wissett, and Wissett Farm Holidays Self Catering Accommodation, located south-west of Wissett) which may be impacted by disruption to A144 Halesworth Road and noise and vibrations from construction. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Planning	The pipeline corridor crosses through the boundary of an application for Wissett Solar Farm which was approved in February 2025 by East Suffolk Council (DC/22/3313/FUL), located to the north of Wissett. The northern section of the pipeline corridor is in proximity of an application for the change of use of land to equestrian use (DC/22/2473/FUL) which was approved in October 2022 by East Suffolk Council. Much of the southern section of the pipeline corridor is located within the Suffolk County Council Minerals Consultation Area. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Landscape and Visual	There is the potential for temporary construction related visual impacts on residential/farm buildings towards the north of the pipeline corridor, PRoWs across the pipeline corridor and a NCN to the southwest of Halesworth. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Ecology	There are several woodland blocks in proximity to the area around Chediston and Wissett, three ancient/veteran trees as well as trees subject to a Tree Preservation Order (TPO) in proximity to the southern section of the pipeline corridor. The pipeline corridor crosses through the canopy and root protection area of the TPO trees. To the southern section, there is an area of Ancient Woodland and Priority Habitat Coastal and Floodplain Grazing Marsh. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Heritage	There is a Grade II* Listed Building (Hatton's Farmhouse) located to the east of the pipeline corridor at its approximate midpoint near Rumburgh. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.
Water and Flood Risk	The pipeline corridor crosses the River Blyth at several points and minor watercourses around Chediston. There is potential vulnerability to water quality during construction, especially to the south of the pipeline corridor in areas considered good or good/moderate as per the Water Framework Directive. A short section of the pipeline corridor to the south-east of Chediston crosses through an area of SPZ 2. The pipeline corridor intersects a high flood risk area associated with the River Blyth. There are some areas which experience surface water flood risk both in the present day and the climate change scenario, located in the northern section of the pipeline corridor and towards the south of the

Topic	Summary
	pipeline corridor. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Geology and Soils	There are some minor considerations around ground conditions relating to the type of ground in the area and PSCs across the pipeline corridor potentially increasing construction complexity. A short section of the pipeline corridor near Chediston and the southernmost section (close to the crossing of the B1117) is located on Grade 2 agricultural land, which is BMV. The remainder of the pipeline corridor is located on Grade 3 agricultural land, which will be subject to further surveys during scheme development to establish its quality. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Traffic, Transport and Access	This pipeline corridor crosses A144 Halesworth Road to the north. The pipeline corridor also crosses B1123 Chediston Street, and B1117 Walpole Road to the southeast which may cause disruption to traffic during construction. The construction of a pipeline in this pipeline corridor has the potential to cause disruption to several PRowWs along its route, most notably to six PRowWs clustered around the Wissett and Chediston area. There is a diversion available for the PRow by Nunns Hill, but there are no suitable diversions available for the other PRowWs in this cluster and would require pedestrians to use the carriageway. The pipeline corridor also crosses several other PRowWs with alternatives available. The construction of the pipeline in this pipeline corridor would disrupt the NCN route it crosses towards the south, which could be re-routed with traffic management during construction. The pipeline corridor additionally crosses several minor roads near Ilketshall Saint Lawrence, Wissett and Chideston which may require road closure for works. Some sections of the pipeline corridor around Wissett are over 2km from the nearest major A road and vehicle access to the pipeline corridor is limited. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Utilities	The pipeline corridor is constrained from its northern section to Wissett at its midpoint by multiple utilities crossings. The main utility constraints are crossing a high-pressure gas main (northwest of Ilketshall Saint Lawrence and southeast of Chediston), a water distribution main (north of Ilketshall Saint Lawrence and near Chediston), and a raw water main (to the south). The pipeline corridor also crosses several overhead lines with associated high-voltage poles. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.

Table 4.51: B-C5B Multi Criteria Assessment Summary

Topic	Summary
Land Use	The pipeline siting would need to consider multiple farm/residential buildings and two commercial receptors in proximity of the pipeline corridor, which may be impacted by disruption from construction including noise and vibration. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Planning	The pipeline corridor crosses through the boundary of an application for Wissett Solar Farm which was approved in February 2025 by East Suffolk Council (DC/22/3313/FUL), located to the north of Wissett. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.
Landscape and Visual	There is the potential for temporary construction related visual impacts on residential receptors, PRowWs that the pipeline corridor crosses and potential fleeting views from the road network. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Ecology	No constraints identified.
Heritage	No constraints identified.
Water and Flood Risk	The pipeline corridor crosses seven ordinary watercourses and several surface lines within a relatively short distance. There are some areas which experience

Topic	Summary
	surface water flood risk both in the present day and the climate change scenario. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Geology and Soils	There are some minor considerations around ground conditions relating to the type of ground in the area and PSCs across the pipeline corridor potentially increasing construction complexity. The pipeline corridor is located on Grade 3 agricultural land, which will be subject to further surveys during scheme development to establish its quality. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Traffic, Transport and Access	The pipeline corridor crosses two minor roads. The minor roads are narrow and not suitable for heavy construction vehicles without modification. The pipeline corridor crosses five PRowWs with alternatives available. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Utilities	The pipeline corridor crosses a dense network of utilities including a high-pressure gas main, several overhead lines with associated high-voltage poles within the pipeline corridor. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.

Table 4.52: B-C6 Multi Criteria Assessment Summary

Topic	Summary
Land Use	The northern section of the pipeline corridor starts at Barsham Water Treatment Works and the southern section of the pipeline corridor end at Lodgewood Water Tower. The pipeline siting would need to consider multiple farm/residential buildings along the length of the pipeline corridor, especially in its northern section where the pipeline corridor crosses near a cluster of residential buildings and community receptors in Ringsfield Corner. There are two businesses near the central section of the pipeline corridor (pheasant farming and Halesworth Fishing Lake) and two businesses within the southern section of the pipeline corridor (a horse paddocks and Nature's Way Raw Pet Food shop, both located north-east of Walpole) which may be impacted by disruption to the road network and noise and vibration from construction. There are two religious community receptors (Walpole Old Chapel and cemetery) located near the southern section of the corridor which may be impacted during construction. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Planning	The pipeline corridor crosses through the Safeguard Area for the Ringsfield-Redisham Road Sewage Treatment Works to the east of Ringsfield. The pipeline corridor crosses through the Suffolk County Council Minerals Consultation Area in its northern section close to Ringsfield and towards the south between Halesworth and Walpole. The pipeline corridor briefly crosses through the Halesworth Neighbourhood Plan Area to the west of Halesworth, although there are no restrictive designations in its proximity. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Landscape and Visual	The Broads National Park is located approximately 500m to the north of the pipeline corridor. There is the potential for temporary construction related visual impacts on residential receptors, PRowWs, NCN and the road network, especially in its northern section where the pipeline corridor crosses in proximity to Ringsfield Corner, as set out in the Land Use and Traffic, Transport and Access sections. There is also the potential for temporary construction related visual impacts in the southern section of the pipeline corridor on Grade II Listed Threadbare Farm (located near the pipeline corridor, though well screened) and Grade II Listed Packway Farm (located to the east of the pipeline corridor, may experience open mid distance views). Heveningham Hall Registered Park and Garden is located adjacent to the southern section of the pipeline corridor to its

Topic	Summary
	west, although this is well screened. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Ecology	There are nine parcels of Ancient Woodland near the northern section of the pipeline corridor between its connections with B-C5 and B-C6A. There are several parcels of woodland near the pipeline corridor between its connections with B-C6A and 6C. The pipeline corridor crosses through a parcel of Priority Habitat Coastal and Floodplain Grazing Marsh in its southern section immediately south of its connection with B-C6C. The pipeline corridor crosses directly through three parcels of Priority Habitat Wood-Pasture and Parkland in its southern section close to its connection to the CSR and has several further parcels of Priority Habitat Deciduous Woodland in its proximity throughout its central and southern sections. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Heritage	Heveningham Hall Registered Park and Garden is located adjacent to the southern section of the pipeline corridor to its west. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.
Water and Flood Risk	The pipeline corridor crosses the Hundred River in its northern section, a main river in its central section to the northeast of Halesworth, and the River Blyth in its southern section. The pipeline corridor additionally crosses several minor watercourses along its length. The pipeline corridor intersects a high flood risk area associated with the main river crossings. There are some areas which experience surface water flood risk both in the present day and the climate change scenario, located throughout the pipeline corridor. A short section of the pipeline corridor at its northernmost point and a short section close to the River Blyth crossing are in SPZ 1, and there are small areas clustered around these points located within SPZs 2 and 3. There is potential vulnerability to water quality during construction, especially to the south of the pipeline corridor in areas considered good or good/moderate as per the Water Framework Directive. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Geology and Soils	There are some minor considerations around ground conditions relating to the type of ground in the area and PSCs across the pipeline corridor potentially increasing construction complexity. Four short sections of the pipeline corridor are located on Grade 2 agricultural land, which is BMV. One of these sections is located at the northernmost point of the pipeline corridor near Ringsfield and the other three are towards the south of the pipeline corridor near Walpole. Most of the remainder of the pipeline corridor is located on Grade 3 agricultural land, which will be subject to further surveys during scheme development to establish its quality, with some areas crossing Grade 4 agricultural land which is not BMV. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Traffic, Transport and Access	The pipeline corridor crosses A144 Stone Street in the central section to the west of Broadway. The pipeline corridor also crosses B1117 and B1123 in its southern section which may cause disruption to traffic during construction. The pipeline corridor additionally crosses several minor roads near Ringsfield, Redisham and Broadway which may require road closure for works. Sections within the central portion of the pipeline corridor south of Redisham and near Halesworth have limited vehicle access on narrow roads. The construction of a pipeline in this pipeline corridor would disrupt NCN Route 1 which it crosses towards the north between Ilketshall Saint Andrew and Ringsfield, in its central portion near its connection with B-C6C, and towards the south of the pipeline corridor near Walpole. construction of a pipeline in this corridor has the potential to cause disruption to several PRowWs along its route, most notably to multiple PRowWs near Broadway which have no alternative routes available and would require pedestrians to use the carriageway. There is one further PRowWs with no alternative routes available at the southern end of the pipeline corridor. The pipeline corridor also crosses several other PRowWs along the corridor with alternatives available. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.

Topic	Summary
Utilities	The pipeline corridor is constrained throughout by multiple utilities crossings. There is a concentration of utilities at the northern portion of the pipeline corridor of which the main constraints comprise an Intermediated Pressure gas main, overhead line and two water mains, this has the ability to constrain the pipeline corridors working width. There is a concentration of water utilities crossings in the southern portion of the pipeline corridor close to Lodgewood Water Tower including multiple distribution mains and a raw water main, and the pipeline corridor additionally crosses a high-pressure gas main in this area. The pipeline corridor also crosses several overhead lines with associated high-voltage poles within the pipeline corridor. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.

Table 4.53: B-C6A Multi Criteria Assessment Summary

Topic	Summary
Land Use	The pipeline siting would need to consider multiple residential buildings within the pipeline corridor which may be impacted by construction disruption to Becks Green Lane and noise and vibration from construction. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Planning	The pipeline corridor crosses land safeguarded in Suffolk County Council's Minerals and Waste Plan associated with Ilketshall St Lawrence Sewage Treatment Works. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.
Landscape and Visual	There is the potential for temporary constructure related visual impacts on residential receptors, PRow's (including three sections which the pipeline corridor crosses), and the NCN which the pipeline corridor crosses at Becks Green Lane. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Ecology	There are nine parcels of Ancient Woodland within 2km of the pipeline corridor, including one parcel located immediately to the north of the eastern end of the pipeline corridor. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Heritage	No constraints identified.
Water and Flood Risk	The pipeline corridor crosses an unconstrained main river of less than 5m in width to the east of Ilketshall Saint Lawrence, and an ordinary watercourse adjacent to a field boundary to the west, which pose morphological constraints to the siting of the pipeline. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Geology and Soils	There are some minor considerations around ground conditions relating to the type of ground in the area and PSCs across the pipeline corridor potentially increasing construction complexity. The pipeline corridor is located on Grade 3 agricultural land, which will be subject to further surveys during scheme development to establish its quality. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Traffic, Transport and Access	The pipeline corridor crosses A144 Halesworth Road. The pipeline corridor also crosses Becks Green Lane which may cause disruption to traffic during construction. The construction of a pipeline in this pipeline corridor would cause disruption to five PRow's and the NCN (Route 1) on Becks Green Lane, for which a diversion is available which includes a minor distance of on-carriageway walking. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Utilities	The pipeline corridor is constrained by multiple utility crossings including crossing an overhead line twice, a BT crossing, and two water distribution main crossings along Halesworth Road and Becks Green Lane. Typical Mitigation

Topic	Summary
	(see table 4.3 above) is considered appropriate in respect of these potential impacts.

Table 4.54: B-C6B Multi Criteria Assessment Summary

Topic	Summary
Land Use	The pipeline siting would need to consider multiple farm/residential buildings on Butt's Road and one community receptor (allotment) in proximity of the pipeline corridor which may be impacted by disruption to the road network and noise and vibrations from construction. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Planning	No constraints identified.
Landscape and Visual	There is the potential for temporary construction related visual impacts on residential receptors, PRoWs including one which the pipeline corridor crosses and NCN Route 1 which the pipeline corridor crosses. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Ecology	No constraints identified.
Heritage	No constraints identified.
Water and Flood Risk	The pipeline corridor crosses minor watercourses along its route. There are some areas which experience surface water flood risk both in the present day and the climate change scenario. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Geology and Soils	There are some minor considerations around ground conditions relating to the type of ground in the area and PSCs across the pipeline corridor potentially increasing construction complexity. The pipeline corridor is located on Grade 3 agricultural land, which will be subject to further surveys during scheme development to establish its quality. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Traffic, Transport and Access	The pipeline corridor crosses A144 Stone Street. The pipeline corridor crosses Butt's Road, a minor road, which could require consecutive lane closure. The pipeline corridor also crosses one PRoW with diversion available. The construction of the pipeline in this pipeline corridor would disrupt NCN Route 1, which could be re-routed with traffic management during construction. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Utilities	The pipeline corridor crosses two water distribution mains and two high-voltage overhead lines. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.

Table 4.55: B-C6C Multi Criteria Assessment Summary

Topic	Summary
Land Use	The pipeline siting would need to consider multiple farm/residential buildings on Noller's Lane and one religious grounds (St Peters Church) which may be impacted by disruption to road network and noise and vibrations from construction. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Planning	The western portion of the pipeline corridor is located within the Suffolk County Council Minerals Consultation Area. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.
Landscape and Visual	There is the potential for temporary construction related visual impacts on residential buildings, one section of PRoW the pipeline corridor crosses, NCN

Topic	Summary
	Route 1 and the road network. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Ecology	No constraints identified.
Heritage	No constraints identified.
Water and Flood Risk	The pipeline corridor crosses an unconstrained ordinary watercourse and seven minor watercourses within a relatively short distance. There are some areas which experience surface water flood risk both in the present day and the climate change scenario. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Geology and Soils	There are some minor considerations around ground conditions relating to the type of ground in the area and PSCs across the pipeline corridor potentially increasing construction complexity. A short section of the pipeline corridor to the west is located on Grade 2 agricultural land, which is BMV. The remainder of the pipeline corridor is located on Grade 3 agricultural land, which will be subject to further surveys during scheme development to establish its quality. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Traffic, Transport and Access	The pipeline corridor crosses A144 Stone Street. The pipeline corridor additionally crosses three minor roads which may require road closure for works. The pipeline corridor crosses on PRoW with diversion available. The construction of the pipeline in this pipeline corridor would disrupt NCN route 1. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Utilities	The pipeline corridor is constrained by multiple utilities crossings including several overhead lines and associated high-voltage poles, and a water main. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.

CSR – WSR (C-W)

Table 4.56: C-W7 Multi Criteria Assessment Summary

Topic	Summary
Land Use	The pipeline corridor passes through a mix of residential, agricultural, and rural areas, with several clusters of residential and farm buildings located near the pipeline corridor. Around the B1117 and surrounding lanes, Badingham Road, Wells Corner, Rowe's Hill, and The Street, Eye Road where a large housing estate and the Four Oaks Caravan Park may experience construction impacts, including disturbance to large numbers of residential receptors, noise and vibration-sensitive properties, and potential construction phase air quality effects, particularly where private gardens and dwellings are in proximity to the pipeline corridor. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Planning	The pipeline corridor overlaps areas of major development proposals, including land under consideration for the EcoPower Suffolk Solar DCO, an EIA Scoping Boundary for a proposed reservoir and pipeline (DC/24/00515), an approved mixed-use development at Eye Airfield (DC/22/00416), and a proposed battery energy storage site (DC/24/05535). The pipeline corridor is in proximity of the Heveningham Hall Park and Garden of Historic or Landscape Interest allocated under policy SCLP11.8 of the Suffolk Coastal Local Plan. The pipeline corridor crosses several Neighbourhood Plan Areas, including Laxfield, Wilby, Halesworth, Hoxne, and Eye. Within the Wilby Neighbourhood Plan Area, the pipeline corridor passes close to a housing allocation under Policy WIL6 and a designated 'Viewpoint of Significance'.

Topic	Summary
	Parts of the pipeline corridor intersect Minerals and Waste safeguarded areas, including Laxfield STW, Wilby-Barley View STW, Eye-Hoxne Road STW, and safeguarded Waste Sites, as well as several Minerals Consultation Areas. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Landscape and Visual	Heveningham Hall Registered Park and Garden is located to the north of the pipeline corridor, with potential temporary construction-related visual impacts. There is the potential for temporary construction visual impacts from the pipeline, particularly where PRoWs, roads, farmsteads, campsites, and residential properties are within proximity to the pipeline corridor. Sections of the pipeline corridor have higher sensitivity associated with open views and receptors, while other sections having lower levels of impact due to partial screening or greater distance. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Ecology	There is a large number of parcels of Priority Habitat Deciduous Woodland within 2km of the pipeline corridor. The pipeline corridor crosses directly through Priority Habitat Wood-Pasture and Parkland and includes several small woodland crossings. The pipeline corridor includes multiple construction constraints, including dense woodland, established hedgerows, ponds, overhead powerlines, surface water features, and proximity to residential properties and farms. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Heritage	There is one Grade II* Listed Building (Heveningham Hall Gate Lodges) near the east of the pipeline corridor and a further Grade II* Listed Building (Heveningham Hall Gate), Heveningham Hall Registered Park and Garden, Wood Farmhouse (Grade II), Thatchers (Grade II) in proximity to the pipeline corridor. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Water and Flood Risk	The pipeline corridor crosses several main rivers and ordinary watercourses along its length (four crossings), including the Becks Green River, River New Reach, River Blyth, and River Dove. There are potential impacts on WFD status across multiple section of the pipeline corridor (mostly classified as good or good/moderate), with potential vulnerability during construction works. Several sections of the pipeline corridor also present surface water flood risks, with some areas experiencing present-day risk and higher under climate change scenarios. In addition, some parts of the pipeline corridor intersect fluvial flood zones (2/3), particularly near major river crossings, and certain areas lie within SPZs 1–3, increasing sensitivity around water quality. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Geology and Soils	There are some minor considerations around ground conditions relating to the type of ground in the area and PSCs across the pipeline corridor potentially increasing construction complexity. Most of the pipeline corridor crosses Grade 3 ALC, some of which is potentially BMV (BMV), some sections of the pipeline corridor cross Grade 2 ALC, which are of higher sensitivity and may require further assessment. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Traffic, Transport and Access	The pipeline corridor crosses several key roads, including the A140 (Roman Road) near the west, the B1117, B1118, and B1123, as well as multiple minor roads and private farm tracks throughout its length. Several of these crossings will require temporary full or partial road closures, including sections along Sibton Green, Halesworth Road, Rowe's Hill, and Wilby Lane. Vehicle access along the pipeline corridor is mixed, with some sections directly accessible via the B1117 and adjacent local roads, while other sections are subject to significant constraints due to narrow carriageways, overhanging trees, ditches, and private roads. In some cases, haul roads, junction works,

Topic	Summary
	hedgerow removals, and field entrances will be required to facilitate construction access. The pipeline corridor also intersects NCN Route 1 towards the north near Ilketshall St Andrew and Ringsfield, and again to the south near Walpole, which may require diversions, which could be re-routed with traffic management during construction. In addition, there are numerous Public Rights of Way (PRoWs) crossed along the alignment. Several PRoWs will experience temporary disruption, with some lacking suitable diversion options, particularly east of Wissett, south of the pipeline corridor, and between Ilketshall St Andrew and Ringsfield, with alternatives available. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Utilities	The pipeline corridor is constrained throughout by multiple utility crossings, including several UKPN 11kV and LV overhead lines and electricity poles along much of the route. There are also crossings of high-pressure and intermediate-pressure gas mains, as well as strategic trunk water mains and large diameter distribution mains in several areas. A National Grid substation is also located close to the pipeline corridor, further increasing constraints in this area. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.

Table 4.57: C-W7A Multi Criteria Assessment Summary

Topic	Summary
Land Use	The pipeline placement would need to consider the proximity to residential/ farm buildings on Dennington Road and impact on nearby farm access. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Planning	The pipeline corridor crosses through the Laxfield Parish Neighbourhood Plan Area, however there are no restrictive designations within the pipeline corridor. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.
Landscape and Visual	There are potential visual impacts on the PRoW network with open views. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Ecology	No constraints identified.
Heritage	No constraints identified.
Water and Flood Risk	The pipeline corridor includes five surface water lines. There are also concerns around surface water flood risk in the present day and climate change scenario. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Geology and Soils	There are some minor considerations around ground conditions relating to the type of ground in the area and PSCs across the pipeline corridor potentially increasing construction complexity. The pipeline corridor contains areas of Grade 3 agricultural land, which will be subject to further surveys during scheme development to establish its quality. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Traffic, Transport and Access	The pipeline corridor disrupts one PRoW with no alternatives and would require pedestrians to use the carriageway. The pipeline corridor crosses a minor road (B1116). In the pipeline corridor, access requires entrance works to be constructed. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Utilities	The pipeline corridor is constrained by significant utility infrastructure, including crossing several overhead lines with associated high-voltage poles within and

Topic	Summary
	an ESW distribution main. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.

Table 4.58: C-W7B Multi Criteria Assessment Summary

Topic	Summary
Land Use	The pipeline siting would need to consider multiple residential buildings within proximity of the pipeline corridor, which may be impacted by disruption from construction including noise. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Planning	The pipeline corridor passes the Wilby Neighbourhood Plan Area, however there are no restrictive designations within the pipeline corridor. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.
Landscape and Visual	There is the potential for temporary visual impacts on residential receptors and one PRow that the pipeline corridor crosses. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Ecology	No constraints identified.
Heritage	No constraints identified.
Water and Flood Risk	The pipeline corridor crosses three minor watercourses and two ordinary watercourses. There are some areas which experience surface water flood risk both in the present day and the climate change scenario. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Geology and Soils	There are some minor considerations around ground conditions relating to the type of ground in the area. The pipeline corridor is located on areas of Grade 3 agricultural land, which will be subject to further surveys during scheme development to establish its quality. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Traffic, Transport and Access	The pipeline corridor crosses the B1118, which may cause disruption to traffic during construction. The pipeline corridor also crosses two minor roads. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Utilities	The pipeline corridor crosses a network of gas mains and a distribution main. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.

Table 4.59: C-W7C Multi Criteria Assessment Summary

Topic	Summary
Land Use	The pipeline would need to consider the proximity to numerous residential and farming buildings as well as community receptors along the pipeline corridor. There are also noise and vibration sensitive receptors along the pipeline corridor. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Planning	Parts of the pipeline corridor lie within the Wilby-Barley View High Strength Water STW safeguard area and cross multiple Neighbourhood Plan boundaries (Laxfield, Stradbroke, and Wilby). However, the pipeline corridor does not sit within any restrictive designations. Additionally, the pipeline corridor crosses the boundary of the approved Wissett Solar Farm (DC/22/3313/FUL, approved February 2025, East Suffolk Council). Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Landscape and Visual	There is the potential for temporary construction related visual impacts on nearby residential receptors and PRows (near Russel's Green). Typical

Topic	Summary
	Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Ecology	The pipeline corridor runs close to a woodland area which runs parallels the pipeline corridor, narrowing at points characterized with hedgerows. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.
Heritage	No constraints identified.
Water and Flood Risk	The pipeline corridor contains two surface water line crossings, and there are some areas which experience surface water flood risk both in the present day and the climate change scenario.
Geology and Soils	The pipeline corridor is subject to geotechnical and geo-environmental constraints, including PSCs. The pipeline corridor is located on Grade 3 agricultural land, which will be subject to further surveys during scheme development to establish its quality. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Traffic, Transport and Access	The pipeline corridor crosses a minor local road and an additional local carriageway, which may require temporary closure during construction. The pipeline corridor also intersects with two Public Rights of Way (PRoWs), one of which would be disrupted without an alternative diversion which would require pedestrians to use the carriageway. Vehicle access along the pipeline corridor is constrained by narrow local roads, with the nearest suitable construction access point available via the B1118. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Utilities	The pipeline corridor crosses a dense network of utilities, including a high-pressure Cadent gas main and several overhead electricity lines with associated high-voltage poles located within the pipeline corridor. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.

Table 4.60: C-W7D Multi Criteria Assessment Summary

Topic	Summary
Land Use	The pipeline siting would need to consider potential impacts on nearby residential and farm properties along the pipeline corridor, as well as vibration-sensitive and noise-sensitive receptors. The pipeline corridor also crosses an unnamed road forming part of the NCN, where potential access requirements for construction traffic could result in temporary disruption. Careful planning of construction access and mitigation measures will be required to manage potential impacts on residents, sensitive receptors, and users of the NCN. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Planning	The pipeline corridor crosses through the Hoxne and Eye Parish Neighbourhood Plan Areas, though it is not located within a restrictive designation. A section of the pipeline corridor passes through a Hoxne Neighbourhood Plan Area of local landscape sensitivity, where any future development would need to demonstrate measures to mitigate potential impacts on the surrounding landscape. The pipeline corridor also intersects areas of major development proposals, including two parcels of land currently under consideration for the EcoPower Suffolk Solar Development Consent Order (DCO), with an application expected to be submitted in Q2 2026. Additionally, the pipeline corridor crosses through an EIA Scoping Boundary (DC/24/00515) for the construction of a proposed reservoir and associated pipeline. The pipeline corridor is near the Eye Airfield Strategic Employment Site, a 140.8-hectare area safeguarded for employment under Policy SP05 of the Babergh and Mid Suffolk Local Plan. The pipeline corridor is also located within the Suffolk County Council Minerals Consultation Area. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.

Topic	Summary
Landscape and Visual	There are potential for temporary construction related visual impacts on the residential receptors and the PRoWs (near Brome). There are also temporary visual impacts with views from the NCN. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Ecology	The pipeline corridor is constrained by environmental and construction factors, including a tree line and two woodland blocks impacting the pipeline corridor width. The pipeline corridor passes through Priority Habitat Coastal and Floodplain Grazing Marsh. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Heritage	No constraints identified.
Water and Flood Risk	The pipeline corridor is constrained by the River Dove crossing, a designated Main River, with associated morphological and WFD concerns, as well as two water mains impacting the construction width. Additional constraints include fluvial flood risk and surface water flood risk affecting a section of the pipeline corridor, under climate change scenarios. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Geology and Soils	Approximately half of the pipeline corridor lies on Grade 2 agricultural land which is BMV. The pipeline corridor is affected by several geotechnical constraints, relating to the type of ground in the area and PSCs across the pipeline corridor potentially increasing construction complexity. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Traffic, Transport and Access	The pipeline corridor intersects Three Public Rights of Way (PRoWs). Some of these have no alternative routes available, meaning construction would cause disruption to pedestrian access and would require pedestrians to use the carriageway. The pipeline corridor involves several minor road crossings, including Brome Avenue and Nick's Lane, which may not be suitable for construction vehicles without modifications. Vehicle access is constrained due to narrow local roads, with some sections likely requiring widening to accommodate construction traffic. Access is possible via Castleton Way, Hoxne Road, Nick's Lane, and Brome Avenue. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Utilities	The pipeline corridor presents several utility constraints including overhead lines and poles located in within the pipeline corridor, the crossing of a gas main and a water main running within the pipeline corridor for approximately 280m. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.

Table 4.61: C-W8 Multi Criteria Assessment Summary

Topic	Summary
Land Use	The pipeline siting would need to consider multiple residential and farm buildings along the length of the pipeline corridor, particularly near Dunwich Lane, New Road, The Street, Prospect Close, Low Road, Cranley Green Road, Yaxley Road, and Mellis Road. Across the pipeline corridor, there are numerous noise-sensitive receptors and several vibration-sensitive receptors, with potential for air quality impacts on a small number of sensitive private gardens. The pipeline corridor passes close to several community receptors, with up to two community facilities in some locations, and disruption to one PRoW where no alternative diversion is available. There are also impacts to farm access roads in several locations, including one requiring closure. Construction-related impacts are expected to be most significant where the pipeline corridor intersects existing residential clusters and farmsteads, but these can be managed through best-practice techniques, including restricted working hours, air quality controls, and coordinated traffic management where local carriageways are crossed. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.

Topic	Summary
Planning	The pipeline corridor passes in proximity to an application for a battery energy storage system (DC/24/05535), which remains under consideration. The pipeline corridor also passes through the Eye Airfield Strategic Employment Area, a 140.8 ha site protected for employment use under Policy SP05 of the Babergh and Mid Suffolk Local Plan. In terms of local plan and land-use designations, a portion of the pipeline corridor lies within 100m of Heveningham Hall Park and Garden of Historic or Landscape Interest, allocated under Policy SCLP11.8 of the Suffolk Coastal Local Plan. Several sections of the pipeline corridor also cross designated Neighbourhood Plan Areas, including Laxfield, Wilby, and Eye, though none intersect restrictive designations. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Landscape and Visual	The pipeline corridor has the potential for construction-related visual impacts on residential receptors, farmsteads, and the PRoW network along much of its length causing potential but more limited construction visual impacts, often moderated by partial screening. The PRoW network is crossed or closely paralleled in several locations, with potential for temporary open views of construction works. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Ecology	The pipeline corridor is subject to ecological constraints in its western section near Eye. 'Major Farm, Braiseworth' SSSI is located in close proximity to the pipeline corridor to the southwest of Eye. The pipeline corridor crosses through areas of Priority Habitat Coastal and Floodplain Grazing Marsh to the north and south of Eye and also crosses through and in proximity to multiple parcels of Priority Habitat Deciduous Woodland. The Pennings Local Natural Reserve statutory designated site is located in proximity to the pipeline corridor. There is also a GWDTE in proximity to the western section of the pipeline corridor. Woodland constraints affect the pipeline corridor, where the pipeline corridor passes within or close to tree canopies, hedgerows, and areas protected by Tree Preservation Orders (TPOs), as well as encountering pinch points where alignment crosses woodland directly. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Heritage	The pipeline corridor is located in proximity to several heritage and landscape designations, with key sensitivities concentrated around Heveningham Hall Registered Park and Garden (RPG) and a number of Grade II and Grade II* Listed Buildings (notably the Heveningham Hall Gate Lodges). The pipeline corridor passes close to a number of other heritage assets, including Rook Hall Barn and Bull's Hall with Attached Outbuildings (both Grade II*), close to Eye. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Water and Flood Risk	The pipeline corridor is subject to several water-related constraints, with multiple major and minor watercourse crossings and areas of flood risk. The pipeline corridor crosses the River Yox and the River Dove, both of which are significant watercourses likely to require careful construction planning, with trenchless techniques potentially needed. There are potential significant fluvial flood risks in places, particularly where the pipeline corridor passes through Flood Zones 2 and 3, including sections around the River Yox, River Dove. There are also potential WFD sensitivities, with some watercourses classified as having moderate status, requiring consideration of water quality protection during construction. In addition, a small part of the pipeline corridor lies within SPZs 2 and 3, highlighting the need to manage potential pollution risks. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Geology and Soils	The parcel is subject to geotechnical and geo-environmental constraints, including medium plasticity ground conditions and PSC. In several locations, there are additional hazards including compressible deposits, uneven settlement, slope instability, running sand conditions, and aggressive ground conditions, particularly around river and road crossings.

Topic	Summary
	The pipeline corridor passes through areas of both Grade 2 (Best and Most Versatile - BMV) and Grade 3 (potentially BMV) land. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Traffic, Transport and Access	The pipeline corridor intersects several A-roads, including the A1120 and the A140. The pipeline corridor crosses the B1077, which may result in temporary disruption, though alternative routes are available, which may cause disruption to traffic during construction. The pipeline corridor intersects a significant number of PRowWs some areas with alternatives available and others with no alternatives and would require pedestrians to use the carriageway. The pipeline corridor intersects NCN Route 30 once, which could be re-routed with traffic management during construction. Multiple minor road crossings occur throughout the pipeline corridor. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Utilities	The pipeline corridor is constrained throughout by multiple utility crossings and assets. There are multiple overhead power lines with poles located within the pipeline corridor at certain points, restricting available space. The pipeline corridor also crosses a gas main forming part of the National Gas Transmission System. Multiple water distribution mains are also encountered throughout the pipeline corridor. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.

Table 4.62: C-W8A Multi Criteria Assessment Summary

Topic	Summary
Land Use	The pipeline corridor is in proximity to residential and farm buildings which may be sensitive to construction impacts. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Planning	The pipeline corridor passes through the Laxfield Parish Neighbourhood Plan Area but there are no restrictive designations within the pipeline corridor. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.
Landscape and Visual	There are close-distance views for residential properties at the edge of the pipeline corridor and open views across the PRowW network. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Ecology	No constraints identified.
Heritage	No constraints identified.
Water and Flood Risk	The pipeline corridor is affected by surface water flood risk, and the pipeline corridor passes through two surface water pathways. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Geology and Soils	The pipeline corridor crosses Grade 3 ALC. The parcel is subject to geotechnical and geo-environmental constraints, including medium plasticity ground conditions and PSC. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Traffic, Transport and Access	The pipeline corridor crosses a carriageway requiring closure. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.
Utilities	No constraints identified.

CSR – Saxmundham Water Tower

4.4.13 CSR to Saxmundham Water Tower pipeline corridors assessment outcomes.

Table 4.63: C-S9 Multi Criteria Assessment Summary

Topic	Summary
Land Use	The pipeline corridor starts at Lodgewood Water Tower and ends at Saxmundham Water Tower. The pipeline siting would need to consider multiple farm/residential buildings along its route including a concentration of receptors south of its connection with C-S10B, associated with the holiday parks at Lonely Farm Country Park. The southern section of the pipeline corridor in Saxmundham passes in close proximity to a concentration of residential buildings and community assets (in particular, on Lincoln Avenue and Seaman Avenue which the pipeline corridor runs along) which may be impacted by disturbance from construction including noise and vibration, air quality, and disruption to access. The pipeline corridor includes Saxmundham Free School (playing field and access road) and Saxmundham War Memorial Playing Field and runs adjacent to Saxmundham Fire Station and Saxmundham Ambulance Station. There are also businesses in the proximity of the pipeline corridor in Saxmundham including 'POBs Pyro & Full Effect Fireworks'. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Planning	The pipeline corridor is adjacent to part of the Sizewell C DCO scheme boundary for the Sizewell Link Road which was granted consent by the Secretary of State in July 2022. The pipeline corridor is adjacent to a hybrid application in Saxmundham for 29 dwellings and outline consent for 17 dwellings (DC/22/2465/FUL) which is awaiting decision from East Suffolk Council. Suffolk Coastal Local Plan allocation SCLP11.8: Parks and Gardens of Historic or Landscape Interest at Heveningham Hall is located immediately to the north of the pipeline corridor. To the south in Saxmundham, the pipeline corridor crosses through the Saxmundham Neighbourhood Plan Area and is in proximity to multiple allocations under Policy SAX15 Local Green Spaces (one of which it overlaps at the War Memorial Playing Field) and it is adjacent to the allocation under Policy SAXFC1 Ex-Fromus and community garden (which is the same site as the hybrid allocation listed above). The pipeline corridor crosses through the Suffolk Coastal Local Plan designation under Policy SCLP12.29, South Saxmundham Garden Neighbourhood, Allocated Use for Employment. The South Saxmundham Garden Neighbourhood encompasses 66.6ha, development of for an education led scheme, approximately 800 dwellings, community facilities and employment land. The pipeline corridor crosses through the Suffolk County Council Minerals Consultation Area in its northern section and to the south by Saxmundham. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Landscape and Visual	The northern section of the pipeline corridor is adjacent to Heveningham Hall Registered Park and Garden, which is a landscape and heritage designation. There is the potential for temporary construction related visual impacts on residential receptors (particularly to the south where the pipeline corridor crosses through Saxmundham), PRoWs, NCN and the road network which the pipeline corridor crosses through and in close proximity to, as set out in the Land Use and Traffic, Transport and Access sections. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Ecology	There are seven parcels of Ancient Woodland within proximity of the central section of the pipeline corridor. There are further parcels of woodland in proximity to the pipeline corridor along its length, including multiple parcels of Priority Habitat Deciduous Woodland within and in proximity to the pipeline corridor at its southern section to the west of Saxmundham. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Heritage	The northern section of the pipeline corridor is adjacent to Heveningham Hall Gate (Grade II* Listed Building) and Heveningham Hall Registered Park and Garden. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.

Topic	Summary
Water and Flood Risk	The pipeline corridor crosses the River Yox in its northwestern section, which may require trenchless construction. The pipeline corridor additionally crosses several minor watercourses in its northwestern section. There are some short sections of the pipeline corridor which experience surface water flood risk both in the present day and the climate change scenario, located close to the River Yox crossing and in the south of the pipeline corridor near Saxmundham. A short section of the pipeline corridor where it joins to Saxmundham Water Tower is in SPZ 1, and there is a short section which crosses SPZs 2 and 3 to the west of Saxmundham. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Geology and Soils	There are some minor considerations around ground conditions relating to the type of ground in the area and PSCs across the pipeline corridor potentially increasing construction complexity. The pipeline corridor intersects Grade 2 agricultural land, which is considered to be BMV. These comprise short sections in the north of the pipeline corridor to the northwest of Peasenhall and at the south near Saxmundham Water Tower, and a longer section of the pipeline corridor (approximately 2.5km) on Grade 2 agricultural land in the central section around the connections to Corridors 10A and 10B. The remainder of the pipeline corridor is located on Grade 3 agricultural land, which will be subject to further surveys during scheme development to establish its quality. The pipeline corridor crosses through a historic landfill to the northwest of Saxmundham. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Traffic, Transport and Access	The pipeline corridor crosses the A1120 Badlingham Road to the west of Peasenhall and the A12 to the west of Saxmundham. The pipeline corridor also crosses the B1119 in its southern section to the west of Saxmundham, which may cause disruption to traffic during construction. The pipeline corridor additionally crosses several minor roads along its route which may require road closure for works. Part of the northern section of the pipeline corridor near Sibton have limited vehicle access on narrow roads. Whilst the area of the pipeline corridor immediately to the west of the A1120 near Saxmundham is in close proximity to the A-road for access, this would require a new temporary junction so it is likely that access would be provided via a haul road along the pipeline corridor to join the B1112 Rendham Road to the north. The construction of a pipeline in this pipeline corridor would disrupt NCN Route 1 which it crosses to the north near Sibton Green and to the southwest of Peasenhall. The construction of a pipeline in this pipeline corridor has the potential to cause disruption to several PRoWs along its route, notably to three PRoWs to the west of Saxmundham which have no alternative routes available and would require pedestrians to use the carriageway, and one PRoW to the north of Sibton which is used to access Peasenhall and Sibton Playing Field. The pipeline corridor also crosses several other PRoWs along the pipeline corridor with alternatives available. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Utilities	The pipeline corridor is constrained throughout by multiple utilities crossings, with a concentration of utilities crossing at its southern end in Saxmundham. Within Saxmundham, the pipeline corridor has crossings with multiple medium- and low-pressure gas mains, water mains, and above-ground gas infrastructure is located within the pipeline corridor. Elsewhere in the pipeline corridor, there are several crossings with water mains, crossings with a high-pressure gas main to the west of Saxmundham, and several crossings with overhead lines with associated high-voltage poles located within the pipeline corridor. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.

Table 4.64: C-S10 Multi Criteria Assessment Summary

Topic	Summary
Land Use	The pipeline corridor starts at Lodgewood Water Tower and ends at Saxmundham Water Tower. The pipeline siting would need to consider multiple farm/residential buildings along its route. The southern section of the pipeline corridor in Saxmundham passes in proximity to a concentration of residential buildings and community assets (in particular, on the B1119 Rendham Road which the pipeline corridor runs along and on Montagu Drive which the pipeline corridor crosses). The pipeline corridor also crosses through a public open space (Saxmundham War Memorial Playing Fields) and adjacent to an assisted living residence (Tru-Care) in Saxmundham. The pipeline corridor runs adjacent to Dawn's Boarding Cattery located to the east of Sibton, north of its connection with C-S10A. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Planning	The pipeline corridor crosses part of the Sizewell C DCO scheme boundary for the Sizewell Link Road which was granted consent by the Secretary of State in July 2022. Suffolk Coastal Local Plan allocation SCLP11.8: Parks and Gardens of Historic or Landscape Interest at Heveningham Hall is located immediately to the north of the pipeline corridor. To the south in Saxmundham, the pipeline corridor crosses through the Saxmundham Neighbourhood Plan Area and is in proximity to multiple allocations under Policy SAX15 Local Green Spaces (two of which it crosses at the War Memorial Playing Field and adjacent to the A12). The pipeline corridor is also adjacent to Saxmundham Water Tower, which is protected under Policy SAX11 Non Designated Heritage Assets. The pipeline corridor crosses through the Suffolk County Council Minerals Consultation Area in its northern section and to the south by Saxmundham. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Landscape and Visual	The northern section of the pipeline corridor is adjacent to Heveningham Hall Registered Park and Garden, which is a landscape and heritage designation. There is the potential for temporary construction related visual impacts on residential receptors (particularly to the south where the pipeline corridor crosses through Saxmundham), PRoWs, NCN and the road network which the pipeline corridor crosses through and in proximity to, as set out in the Land Use and Traffic, Transport and Access sections. There are also potential construction visual impacts on a recreational asset (Saxmundham War Memorial Playing Field) at the south of the pipeline corridor in Saxmundham. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Ecology	There are several parcels of Ancient Woodland in proximity along the length of the pipeline corridor with the exception of the southern section within Saxmundham. There are further parcels of woodland in proximity to the pipeline corridor along its length, including multiple parcels of Priority Habitat Deciduous Woodland within and in proximity to the pipeline corridor at its southern section to the northwest of Saxmundham. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Heritage	The northern section of the pipeline corridor is adjacent to Heveningham Hall Gate (Grade II* Listed Building) and Heveningham Hall Registered Park and Garden. The northern section of the pipeline corridor runs adjacent to a Scheduled Monument (Remains of Sibton Abbey) which is located to the east of Sibton. The Grade II Listed Carlton Green Farmhouse is adjacent to the pipeline corridor to the northwest of Saxmundham. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Water and Flood Risk	The pipeline corridor crosses the River Yox in its northeastern section, which may require trenchless construction, and a main river in its central section between its connections with Corridors 10A and 10B. The pipeline corridor additionally crosses several minor watercourses and surface water lines. There

Topic	Summary
	is potential vulnerability to water quality during construction, especially in the area around the crossing of the River Yox. The pipeline corridor intersects areas of high flood risk associated with the River Yox and the main river in the pipeline corridor's central section and located between Saxmundham and Curlew Green. There are some areas which experience surface water flood risk both in the present day and the climate change scenario. A short section of the pipeline corridor where it joins to Saxmundham Water Tower is in SPZ 1. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Geology and Soils	There are some minor considerations around ground conditions relating to the type of ground in the area and PSCs across the pipeline corridor potentially increasing construction complexity. Two short sections of the pipeline corridor are located on Grade 2 agricultural land, which is considered to be BMV. One of these sections is located in the north of the pipeline corridor to the east of Sibton, and the other is located at the south of the pipeline corridor in Saxmundham. The remainder of the pipeline corridor is located on Grade 3 agricultural land, which will be subject to further surveys during scheme development to establish its quality. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts. The pipeline corridor crosses a historic landfill to the northwest of Saxmundham.
Traffic, Transport and Access	The pipeline corridor crosses the A1120 Yoxford Road to the east of Peasenhall and the A12 to the west of Saxmundham. The pipeline corridor also crosses the B1119 in its southern section to the west of Saxmundham and then runs along a section of the B1119, which may cause disruption to traffic during construction. The pipeline corridor additionally crosses several minor roads along its route which may require road closure for works. Of note is the crossing of Montagu Drive in Saxmundham, a two-way single carriageway road which is the sole access road to many properties. Some sections of the pipeline corridor across its length except for the southern section in Saxmundham would have limited vehicle access to the pipeline corridor due to narrow roads unsuitable for construction vehicles. A northern section of the pipeline corridor would require a new access track as there are no existing road crossings in the area, and a section to the south of the A1120 crossing would require a ~300m haul road to be constructed to enable access. The construction of a pipeline in this pipeline corridor may disrupt NCN Route 1 which it crosses to the north near Sibton Green. This could be re-routed with traffic management during construction. The construction of a pipeline in this pipeline corridor has the potential to cause disruption to several PRoWs along its route, notably to one PRoW to the west of Sibton Green and one PRoW to the northwest of Saxmundham which have no alternative routes available and would require pedestrians to use the carriageway. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Utilities	The pipeline corridor is constrained throughout by multiple utilities crossings, with a concentration of utilities crossing the pipeline corridor at its southern end in Saxmundham. Within Saxmundham, the pipeline corridor has multiple crossings with medium-pressure gas mains and water mains. Elsewhere in the pipeline corridor, there are several crossings with medium- and high-pressure gas mains and a section of pipeline corridor to the west of Curlew Green which runs alongside a high-pressure gas main. The pipeline corridor crosses a water main in its northern section and has several crossings with overhead lines with associated high-voltage poles located within the pipeline corridor. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.

Table 4.65: C-S10A Multi Criteria Assessment Summary

Topic	Summary
Land Use	The pipeline siting would need to consider a number of noise and vibration sensitive receptors in its proximity. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Planning	The northeastern section of the pipeline corridor is located within the Suffolk County Council Minerals Consultation Area. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of this potential impact.
Landscape and Visual	There is the potential for temporary construction related visual impacts on residential buildings, users of four PRoWs which the pipeline corridor crosses and a further nine in its proximity. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Ecology	There are multiple parcels of Ancient Woodland with associated ancient and veteran trees within proximity to the pipeline corridor. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Heritage	No constraints identified.
Water and Flood Risk	The pipeline corridor crosses two minor watercourses and some areas which experience surface water flood risk both in the present day and the climate change scenario. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Geology and Soils	There are some minor considerations around ground conditions relating to the type of ground in the area and PSCs across the pipeline corridor potentially increasing construction complexity. A short section to the southwest of the pipeline corridor is located on Grade 2 agricultural land, which is considered to be BMV. The remainder of the pipeline corridor is located on Grade 3 agricultural land, which will be subject to further surveys during scheme development to establish its quality. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Traffic, Transport and Access	The pipeline corridor crosses four minor roads and four PRoWs. access to this pipeline corridor is via narrow lanes with overhanging tree canopies. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Utilities	The pipeline corridor crosses a water main and multiple overhead lines with associated high-voltage poles. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.

Table 4.66: C-S10B Multi Criteria Assessment Summary

Topic	Summary
Land Use	The pipeline siting would need to consider the receptors associated with the holiday parks at Lonely Farm Country Park (mobile homes and business). Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Planning	No constraints identified.
Landscape and Visual	There is the potential for temporary construction related visual impacts on residential/farm buildings, the caravan park at Lonely Farm Country Park, PRoWs including those crossed by the pipeline corridor. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Ecology	No constraints identified.
Heritage	No constraints identified.
Water and Flood Risk	The pipeline corridor crosses a surface water line and some areas which experience surface water flood risk both in the present day and the climate

Topic	Summary
	change scenario. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Geology and Soils	There are some minor considerations around ground conditions relating to the type of ground in the area and PSCs across the pipeline corridor potentially increasing construction complexity. A short section to the southwest of the pipeline corridor is located on Grade 2 agricultural land, which is considered to be BMV. The remainder of the pipeline corridor is located on Grade 3 agricultural land, which will be subject to further surveys during scheme development to establish its quality. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Traffic, Transport and Access	The pipeline corridor crosses a minor road and a local road which is the only access route to a private property. The pipeline corridor also crosses two PRoWs and one NCN, which could be re-routed with traffic management during construction. The pipeline corridor is approximately 1.8km from the nearest major A road and vehicle access to the pipeline corridor is limited. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Utilities	The pipeline corridor crosses a water main and multiple overhead lines with associated high-voltage poles. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.

Saxmundham Water Tower – SZC

Table 4.67: S-S11 Multi Criteria Assessment Summary

Topic	Summary
Land Use	The pipeline siting would need to consider multiple farm/residential buildings along the length of the pipeline corridor, in particular to the west near Curlew Green, Dorley's Corner and Kelsale, and in the central section near Leiston. There are three community receptors in Curlew Green and a community receptor (Leiston Abbey House) and a church/ruins within Leiston. These receptors may be impacted by disruption to the road network and noise and vibration from construction. Some residential receptors in the west of the pipeline corridor may also be subject to construction phase air quality impacts. The eastern section of the pipeline corridor is in proximity to areas of commercial forestry and the western section of the pipeline corridor crosses Network Rail property at the railway crossing and is in close proximity to an Essex and Sussex Water operational site. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Planning	The western section of the pipeline corridor crosses in proximity of a major hybrid application comprising a full application for 29 dwellings and outline consent for 17 dwellings (DC/22/2465/FUL) which was approved in March 2025 by East Suffolk Council. The eastern section of the pipeline corridor is close to the creation of two artificial badger setts in Kenton Hills (DC/22/1965/FUL) which was approved by East Suffolk Council in July 2022. The majority of the pipeline corridor is located within the Sizewell C DCO Order Limits which was granted consent by the Secretary of State in July 2022. The western and central sections of the pipeline corridor cross through the LionLink EIA Scoping Boundary (Onshore) in several locations, which relates to a DCO application which is expected to be submitted in Q1 2026. The eastern section of the pipeline corridor crosses in proximity to Suffolk Coastal Local Plan allocation SCLP11.5 Conservation Areas at Kelsale cum Carlton. The westernmost section of the pipeline corridor crosses through the Saxmundham Neighbourhood Plan and within one designation under Policy SAX15 Local Green Spaces. The central and eastern sections of the pipeline

Topic	Summary
	corridor cross through the Leiston Neighbourhood Plan Area but there are no restrictive designations within the pipeline corridor. The pipeline corridor crosses through the Minerals and Waste Safeguard Area for Shrublands Quarry Concrete Batching Plant at its western connection with S-S11A. The pipeline corridor crosses through the Suffolk County Council Minerals Consultation Area in its western and eastern sections. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Landscape and Visual	The eastern section of the pipeline corridor from its connection with A-W1A to its connection at SZC is located within Suffolk Coast and Heaths National Landscape. The central section of the pipeline corridor crosses through Buckles Wood Ancient Woodland landscape designation to the northwest of Leiston. There is the potential for temporary construction related visual impacts on residential receptors, PRowWs, and the road network which the pipeline corridor crosses through and in close proximity to, as set out in the Land Use and Traffic, Transport and Access sections. Residential receptors and PRowWs are mainly clustered towards the western and central sections of the pipeline corridor. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Ecology	The eastern section of the pipeline corridor is subject to several ecological constraints as it is in proximity to several statutory ecological designations. The easternmost point of the pipeline corridor is adjacent to Minsmere-Walberswick SPA, Minsmere to Walberswick Heaths & Marshes SAC, Sizewell Marshes SSSI, Minsmere-Walberswick Heath and Marshes SSSI, and a groundwater dependent terrestrial ecosystem. It is also in proximity to Minsmere-Walberswick Ramsar site, Minsmere RSPB reserve and several County Wildlife Sites, one of which the pipeline corridor crosses. The eastern section of the pipeline corridor is also in proximity to several Priority Habitats including Priority Habitat Lowland Fens, Priority Habitat Coastal and Floodplain Grazing Marsh, and Priority Habitat Deciduous Woodland and Lowland Heath. The central and western sections of the pipeline corridor are subject to fewer ecological constraints, although there are two parcels of Ancient Woodland in proximity of the pipeline corridor (Brushwood Ancient Woodland near the westernmost section and Buckle's Wood Ancient Woodland to the northwest of Leiston). There are a number of other woodland areas within proximity of the pipeline corridor in the western and central sections, and parcels of Priority Habitat including Priority Habitat Deciduous Woodland, Priority Habitat Parkland and Priority Habitat Traditional Orchard. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Heritage	The western section of the pipeline corridor is located adjacent to Kelsale Conservation Area and in proximity to listed buildings both within and outside of the conservation area. In its eastern section to the south of its connection with A-W1A, the pipeline corridor runs adjacent to Leiston Abbey (second site) and moated site Scheduled Monument. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Water and Flood Risk	The pipeline corridor crosses two main rivers which would likely require trenchless construction: in its western section it crosses and runs alongside the River Fromus, and in its central section it crosses the Hundred River. The easternmost section of the pipeline corridor runs adjacent to an unconstrained main river. The pipeline corridor additionally crosses several surface water lines in its western and central sections. There is potential vulnerability to water quality during construction, especially to the east of the pipeline corridor in areas considered good as per the WFD and due to potential pollution vulnerability and impact on Ramsar, SAC, SSSI and SPA designations (as per the Ecology constraints). A short section of the pipeline corridor at its westernmost point is located in SPZ 1, and there are small areas clustered around this points located within SPZs 2 and 3. The pipeline corridor intersects a high flood risk area associated with the main river crossings. There are some areas which experience surface water flood risk both in the present day and the climate change scenario, located throughout the

Topic	Summary
	pipeline corridor. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Geology and Soils	There are some minor considerations around ground conditions relating to the type of ground in the area and PSC across the pipeline corridor potentially increasing construction complexity. Of particular consideration is the central section of the pipeline corridor which crosses through the site of the former RAF Leiston airbase, which presents risk of unexploded ordnance, fuel spillage and uncontrolled infilling and dumping of waste, and the eastern section of the pipeline corridor which crosses a former railway works compound which poses a potential source of contamination. There is a landfill site in proximity to the western section of the pipeline corridor at Curlew Green. Two sections of the pipeline corridor are located on Grade 2 agricultural land, which is considered to be BMV. One of these sections is located towards the west of the pipeline corridor close to the railway crossing, and the other is a longer section in the central section of the pipeline corridor south of Theberton. Most of the remainder of the pipeline corridor is located on Grade 3 agricultural land, which will be subject to further surveys during scheme development to establish its quality, with an area of Grade 4 agricultural land to the east which is not BMV. The easternmost section of the pipeline corridor is located on non-agricultural land. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Traffic, Transport and Access	The pipeline corridor crosses the A12 and the B1121 in its western section at Dorley's Corner. The pipeline corridor also crosses the B1122 in its eastern section. The pipeline corridor additionally crosses several minor roads along its whole length, with a concentration of crossings to the west near Curlew Green. Minor road crossings may require road closure for works. The pipeline corridor crosses a railway line in its western section near Curlew Green. Sections within the central section of the pipeline corridor between the points of intersection with B-roads have limited vehicle access on narrow roads. A short distance of haul road would need to be constructed to allow access to the section of pipeline corridor to the southeast of East Green. The eastern section of the pipeline corridor passes close to the proposed Sizewell C Green Rail Link although details of its alignment and operation are not yet known. Vehicle access to the eastern section of the pipeline corridor may be restricted by the construction of the proposed Rail Link. The construction of a pipeline in this pipeline corridor has the potential to cause disruption to several PRowS along its route, including a cluster of PRowS crossing the eastern section of the pipeline corridor towards the coast with diversions available, and one PRow crossing in the western section of the pipeline corridor with no diversions available. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Utilities	The pipeline corridor is constrained throughout by multiple utilities crossings. There is a concentration of utilities at the western section of which the main constraints comprise low-, medium- and high-pressure gas mains, several water mains. There are also water mains crossed in the central section of the pipeline corridor. The pipeline corridor also crosses several overhead lines with associated high-voltage poles within the pipeline corridor. The western section of the pipeline corridor crosses through the Sizewell C DCO temporary construction area, for which the full extent of the proposed works are not yet known. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.

Table 4.68: S-S11A Multi Criteria Assessment Summary

Topic	Summary
Land Use	The pipeline siting would need to consider multiple farm/residential buildings along the length of the pipeline corridor. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Planning	The eastern section of the pipeline corridor is located within the Sizewell C DCO Order Limits which was granted consent by the Secretary of State in July 2022. The whole pipeline corridor is located within through the LionLink EIA Scoping Boundary (Onshore), which relates to a DCO application which is expected to be submitted in Q1 2026. The eastern section of the pipeline corridor crosses through the Leiston Neighbourhood Plan Area there are no restrictive designations within the pipeline corridor. The pipeline corridor crosses through the Minerals and Waste Safeguard Area for Shrublands Quarry Concrete Batching Plant at its western connection with S-S11. The pipeline corridor crosses through the Suffolk County Council Minerals Consultation Area in its eastern section. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Landscape and Visual	The eastern section of the pipeline corridor is located approximately 500m from Suffolk Coast and Heaths National Landscape. There is the potential for temporary construction related visual impacts on residential receptors, PRoWs, and the road network which the pipeline corridor crosses through and in proximity to, as set out in the Land Use and Traffic, Transport and Access sections. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Ecology	There are multiple woodland blocks within proximity of the pipeline corridor, including several parcels of Priority Habitat Deciduous Woodland and Theberton Woods which is adjacent to the pipeline corridor at its eastern connection to S-S11. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Heritage	No constraints identified.
Water and Flood Risk	The western section of the pipeline corridor crosses the Hundred River (main river which may require trenchless construction) and a minor watercourse. The pipeline corridor intersects a high flood risk area associated with the main river crossing. There are some areas which experience surface water flood risk both in the present day and the climate change scenario, located throughout the pipeline corridor. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Geology and Soils	There are some minor considerations around ground conditions relating to the type of ground in the area and PSCs across the pipeline corridor potentially increasing construction complexity. Of particular consideration is the eastern section of the pipeline corridor which crosses adjacent to the site of the former RAF Leiston airbase, which presents risk of unexploded ordnance, fuel spillage and uncontrolled infilling and dumping of waste, and the eastern section of the pipeline corridor which crosses a former railway works compound which poses a potential source of contamination. Two sections of the pipeline corridor are located on Grade 2 agricultural land, which is considered to be BMV. The remainder of the pipeline corridor is located on Grade 3 agricultural land, which will be subject to further surveys during scheme development to establish its quality. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Traffic, Transport and Access	The eastern section of the pipeline corridor runs adjacent to the B1122. The pipeline corridor crosses several minor roads which may require road closure for works. There is limited vehicle access to the pipeline corridor on narrow roads and roads subject to bridge restrictions due to railway crossing and overpasses.

Topic	Summary
	The construction of a pipeline in this pipeline corridor has the potential to cause disruption to PRowS along its route, with diversions available. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Utilities	The pipeline corridor is constrained throughout by multiple utilities crossings of which the main constraints comprise several water mains crossings. There are also water mains crossed in the central section of the pipeline corridor. The pipeline corridor also crosses several overhead lines with associated high-voltage poles within the pipeline corridor. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.

Table 4.69: S-S12 Multi Criteria Assessment Summary

Topic	Summary
Land Use	The pipeline siting would need to consider multiple farm/residential buildings along the length of the pipeline corridor, in particular to the southwest where it crosses through Saxmundham, where it also crosses in close proximity to multiple community receptors including Saxmundham War Memorial Playing Field which the pipeline corridor crosses, four commercial/community receptors (Wood Farm, Well-being and Mind massage therapist, World of Wellness Beauty Salon, Mover Man house clearance service), a children's playground and a Fire and Police Station. There is also a cluster of residential buildings and community receptors in proximity to the pipeline corridor at Leiston. These receptors may be impacted by disruption to the road network and noise and vibration from construction. Some residential receptors in the west of the pipeline corridor may also be subject to construction phase air quality impacts. In terms of business and commercial considerations, the western section of the pipeline corridor crosses Network Rail property at the railway crossing. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Planning	The western section of the pipeline corridor crosses in close proximity of a major hybrid application comprising a full application for 29 dwellings and outline consent for 17 dwellings (DC/22/2465/FUL) which was approved in March 2025 by East Suffolk Council. The eastern section of the pipeline corridor is close to an application for the creation of two artificial badger setts in Kenton Hills (DC/22/1965/FUL) which was approved by East Suffolk Council in July 2022. The pipeline corridor runs adjacent to an outline application to the northwest of Leiston for up to 187 dwellings (DC/16/1961/OUT) approved by East Suffolk in June 2017. The majority of the pipeline corridor is located within the Sizewell C DCO Order Limits which was granted consent by the Secretary of State in July 2022. The pipeline corridor cross through the LionLink EIA Scoping Boundary (Onshore) to the west of Leiston, which relates to a DCO application which is expected to be submitted in Q1 2026. The western section of the pipeline corridor crosses the Sea Link Order Limits near Saxmundham. The eastern section of the pipeline corridor crosses through Suffolk Coastal Local Plan allocation SCLP12.29 'Open Space / SANG / Existing Uses Allocation' (east) and 'Housing, primary school provision, community facilities, open space' for South Saxmundham Garden Neighbourhood. The westernmost section of the pipeline corridor crosses through the Saxmundham Neighbourhood Plan and within designations under Policy SAX11 Non-Designated Heritage assets and Policy SAX15 Local Green Spaces. The central and eastern sections of the pipeline corridor cross through the Leiston Neighbourhood Plan Area and within close proximity of housing allocation SA1 'Land at Highbury Cottages, Saxmundham Road'. The majority of the pipeline corridor is located within the Suffolk County Council Minerals Consultation Area. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Landscape and Visual	The eastern section of the pipeline corridor is located within Suffolk Coast and Heaths National Landscape. The central section of the pipeline corridor

Topic	Summary
	crosses through Buckles Wood Ancient Woodland to the northwest of Leiston. There is the potential for temporary construction related visual impacts on residential receptors, shops, PROWs, and the road network which the pipeline corridor crosses through and in close proximity to, in particular in the western section of the pipeline corridor by Saxmundham, as set out in the Land Use and Traffic, Transport and Access sections. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Ecology	The eastern section of the pipeline corridor is subject to several ecological constraints as it is in proximity to several statutory ecological designations. The easternmost point of the pipeline corridor is adjacent to Minsmere-Walberswick SPA, Minsmere to Walberswick Heath & Marshes SAC, Sizewell Marshes SSSI, Minsmere-Walberswick Heath and Marshes SSSI, and a groundwater dependent terrestrial ecosystem. It is also in proximity to Minsmere-Walberswick Ramsar site, Minsmere RSPB reserve and several County Wildlife Sites, one of which the pipeline corridor crosses. The eastern section of the pipeline corridor is also in proximity to several Priority Habitats including Priority Habitat Lowland Fens, Priority Habitat Coastal and Floodplain Grazing Marsh, and Priority Habitat Deciduous Woodland and Lowland Heath. The central and western sections of the pipeline corridor are subject to fewer ecological constraints, although there are multiple parcels of Ancient Woodland in close proximity of the pipeline corridor including Brushwood Ancient Woodland near the westernmost section and Buckle's Wood Ancient Woodland to the northwest of Leiston. There are a number of other woodland areas within proximity of the pipeline corridor in the western and central sections, and parcels of Priority Habitat including Priority Habitat Deciduous Woodland, Priority Habitat Parkland and Priority Habitat Traditional Orchard. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Heritage	There are a number of listed buildings within close proximity of the pipeline corridor along its route. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Water and Flood Risk	The pipeline corridor crosses two main rivers which may require trenchless construction: in its southwestern section it crosses the River Fromus, and in its central section it crosses the Hundred River. The easternmost section of the pipeline corridor runs adjacent to an unconstrained main river. There is potential vulnerability to water quality during construction, especially to the east of the pipeline corridor in areas considered good as per the WFD and due to potential pollution vulnerability and impact on Ramsar, SAC, SSSI and SPA designations (as per the Ecology constraints). The pipeline corridor crosses through SPZ 1 at its connection with Saxmundham Water Tower to the west. The pipeline corridor crosses through areas of SPZ 1, 2 and 3 to the west around Saxmundham. The pipeline corridor intersects a high flood risk area associated with the main river crossings. There are some areas which experience surface water flood risk both in the present day and the climate change scenario, located throughout the pipeline corridor. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Geology and Soils	There are some minor considerations around ground conditions relating to the type of ground in the area and PSCs across the pipeline corridor potentially increasing construction complexity. Of particular consideration is the crossing with the Great Eastern Railway line, which is a potential course of contamination. The central section of the pipeline corridor is in proximity to the former RAF Leiston airbase, although unlike S-S11, it does not cross the site. A historic landfill site named Abbey Pit is intersected by the pipeline corridor. Four sections of the pipeline corridor are located on Grade 2 agricultural land, which is considered to be BMV. One of these sections is located towards the west of the pipeline corridor south of Saxmundham, and the other three are in the central section of the pipeline corridor. Most of the remainder of the

Topic	Summary
	pipeline corridor is located on Grade 3 agricultural land, which will be subject to further surveys during scheme development to establish its quality, with an area of Grade 4 agricultural land to the east which is not BMV. The easternmost section of the pipeline corridor is located on non agricultural land. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Traffic, Transport and Access	The pipeline corridor crosses the B1121 in its western section to the south of Saxmundham. It crosses the B1119 in its central section near its connection to S-S12A, then runs along the B1119 to the east. It crosses the B1122 to the east, north of Leiston. The pipeline corridor additionally crosses several minor roads along its whole length, with a concentration of crossings to the southwest near Saxmundham. Minor road crossings may require road closure for works. The pipeline corridor crosses a railway line in its western section to the south of Saxmundham. Sections within the central section of the pipeline corridor between the points of intersection with B-roads have limited vehicle access on narrow roads. The eastern section of the pipeline corridor passes close to the proposed Sizewell C Green Rail Link although details of its alignment and operation are not yet known. Vehicle access to the eastern section of the pipeline corridor may be restricted by the construction of the proposed Rail Link. The construction of a pipeline in this pipeline corridor has the potential to cause disruption to several PRowS along its route, including a cluster of PRowS crossing the eastern section of the pipeline corridor towards the coast with diversions available. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Utilities	The pipeline corridor is constrained throughout by multiple utilities crossings. There is a concentration of utilities in the central and western sections, of which the main constraints comprise low-, medium- and high-pressure gas mains, several water mains. There are also water mains crossed in the central section of the pipeline corridor. The pipeline corridor also crosses several overhead lines with associated high-voltage poles within the pipeline corridor. The western section of the pipeline corridor crosses through the Sizewell C DCO temporary construction area, for which the full extents of the proposed works are not yet known. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.

Table 4.70: S-S12A Multi Criteria Assessment Summary

Topic	Summary
Land Use	The pipeline siting would need to consider multiple farm/residential buildings along the length of the pipeline corridor. In terms of business and commercial considerations, the southwestern section of the pipeline corridor is in proximity to the economic receptor of Woodside Farm and the northeastern section of the pipeline corridor crosses Network Rail property at the railway crossing. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Planning	The northeastern section of the pipeline corridor is located within the Sizewell C DCO Order Limits which was granted consent by the Secretary of State in July 2022. The pipeline corridor is located within the Sea Link DCO Order Limits and the LionLink EIA Scoping Boundary (Onshore), which relates to a DCO application which is expected to be submitted in Q1 2026. The pipeline corridor is located within the Saxmundham Neighbourhood Plan Area but is not within the proximity of any restrictive designations. The pipeline corridor briefly crosses into the Suffolk County Council Minerals Consultation Area in its central section. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Landscape and Visual	There is the potential for temporary construction related visual impacts on residential receptors, the caravan park PRowS, and the road network which

Topic	Summary
	the pipeline corridor crosses through and in proximity to, as set out in the Land Use and Traffic, Transport and Access sections. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Ecology	No constraints identified.
Heritage	No constraints identified.
Water and Flood Risk	The eastern section of the pipeline corridor crosses the Hundred River, which would likely require trenchless construction, and a surface water line to the southwest. The pipeline corridor intersects a high flood risk area associated with the main river crossing. There are some areas which experience surface water flood risk both in the present day and the climate change scenario, located close to the main river crossing. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Geology and Soils	There are some minor considerations around ground conditions relating to the type of ground in the area and PSCs across the pipeline corridor potentially increasing construction complexity. Of particular consideration is the railway crossing, which is a potential source of contamination. A very short central section of the pipeline corridor crosses Grade 2 agricultural land, which is considered to be BMV. The remainder of the pipeline corridor is located on Grade 3 agricultural land, which will be subject to further surveys during scheme development to establish its quality. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Traffic, Transport and Access	The southwestern section of the pipeline corridor crosses the B1119. The pipeline corridor additionally crosses a number of minor roads, which may require road closure for works. The northeastern section of the pipeline corridor crosses a railway line. The central section of the pipeline corridor may require localised modifications for access arrangements. The construction of a pipeline in this pipeline corridor has the potential to cause disruption to a number of PRowWs along its route, including one PRowW crossing in the southwestern section of the pipeline corridor with no diversions available. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Utilities	The pipeline corridor is constrained by a medium-pressure gas main, a number of water mains and overhead lines with associated high-voltage poles within the pipeline corridor. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.

Table 4.71: S-S12B Multi Criteria Assessment Summary

Topic	Summary
Land Use	The pipeline siting would need to consider multiple residential, community, and business receptors along the pipeline corridor, with clusters of properties located notably close in Aldringham. There are approximately 50 residential receptors, two community receptors and four businesses within proximity of the pipeline corridor. These areas may be subject to construction-phase disturbance, including noise, vibration, and air quality impacts. The pipeline corridor passes through the existing SZC site, with a National Grid Sub-Station in proximity to the pipeline corridor. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Planning	The pipeline corridor crosses through the Order Limits for Sea Link (proposed converter station site) and the LionLink EIA Scoping Boundary, which is at pre-application stage with a DCO submission expected in Q4 2025. The pipeline corridor also intersects the onshore application areas for East Anglia One and Two Offshore Wind Farms, including applications for Requirement 28

Topic	Summary
	(DC/25/1144/CCC and DC/25/1156/CCC), Requirement 21(2) (Ecological Management Plan), and Requirement 26 (Onshore Preparation Work Management Plan) (DC/22/1820/DRR and DC/22/1821/DRR). The pipeline corridor is adjacent to a hybrid application for administration, welfare and canteen facilities, and a visitor centre, including demolition of existing structures (DC/20/4646/FUL). It is also located within the Sizewell C DCO Order Limits, which was granted consent by the Secretary of State in July 2022. The pipeline corridor is adjacent to Suffolk Coastal Local Plan allocation SCLP12.42 'Land to the east of Aldeburgh Road, Aldringham', designated for housing. It also crosses through the Saxmundham Neighbourhood Plan Area, although there are no restrictive designations within the pipeline corridor, and through the Leiston Neighbourhood Plan Area. The pipeline corridor crosses the Suffolk County Council Minerals Consultation Area. It also intersects safeguarded waste sites at Sizewell B, including the EDF Waste Site, GVA Waste Site, and BNFL Magnox Generation Waste Sites, and associated Minerals and Waste Safeguard Areas. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Landscape and Visual	The eastern section of the pipeline corridor is located within Suffolk Coast and Heaths National Landscape. There is the potential for temporary construction related visual impacts on residential receptors and PRoWs which the pipeline corridor crosses through and in close proximity to, as set out in the Land Use and Traffic, Transport and Access sections. The pipeline corridor is located within close proximity of a long-distance coastal path. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Ecology	The pipeline corridor is subject to several ecological constraints as it is in proximity to several statutory ecological designations. The eastern section of the pipeline corridor passes adjacent to Sandlings SPA, Leiston-Aldeburgh SSSI and Sizewell Marshes SSSI. It is also in proximity to Minsmere-Walberswick SPA, Minsmere to Walberswick Heaths & Marshes SAC, Southern North Sea SPA, Minsmere-Walberswick Heath and Marshes SSSI, a groundwater dependent terrestrial ecosystem, and Minsmere-Walberswick Ramsar site. The pipeline corridor passes in proximity to several woodland blocks and parcels of Priority Habitat including Priority Habitat Deciduous Woodland, Priority Habitat Lowland Heath and Priority Habitat Lowland Dry Acid Grassland. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Heritage	The pipeline corridor passes adjacent to two Grade II Listed Building in Aldringham (The Parrot and Punchbowl Public House and Elm Tree Farmhouse). There is a Schedule Monument in close proximity to a Scheduled Monument (Two bowl barrows on Aldringham Green). Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Water and Flood Risk	The pipeline corridor crosses the Hundred River, which may require trenchless construction, and several surface water lines. It intersects areas of fluvial flood risk and surface water flood risk at present day and under climate change scenarios. The pipeline corridor also passes through Flood Zones 2 and 3, SPZ 2, and areas with pollution vulnerability, particularly near designated ecological sites including SACs, SSSIs, SPAs, and Ramsar sites. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Geology and Soils	The parcel is subject to geotechnical and geo-environmental constraints, including medium plasticity ground conditions and PSCs. There are also areas with aggressive ground conditions. The pipeline corridor intersects ALC grades 2, 3, and 4, with most of the pipeline corridor falling within Grade 2 and Grade 3, and some areas of non-

Topic	Summary
	agricultural land. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Traffic, Transport and Access	The pipeline corridor crosses several minor and major roads including Church Road, Grove Road, Fristonmoor Lane, the B1069, B1353, B1122, and Sizewell Gap. . Vehicle access is generally feasible, though some areas may require hedgerow removal or tree trimming. The pipeline corridor intersects multiple PRoWs, with up to seven crossings in some sections of the pipeline corridor, leading to temporary closures or diversions. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Utilities	The pipeline corridor is constrained throughout by multiple utilities crossings, especially to the northeast where the pipeline corridor crosses in close proximity to Sizewell B and Sizewell C construction. The pipeline corridor is within close proximity to a National Grid Substation, and crosses a number of medium and low pressure has mains and overhead lines. A National Grid A/C cable and private water supply are within the pipeline corridor to the northeast. The pipeline corridor also crosses a number of water mains along its whole length. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.

Table 4.72: S-S12C Multi Criteria Assessment Summary

Topic	Summary
Land Use	The pipeline siting would need to consider multiple residential and community receptors along the corridor, including one in proximity on Grove Road. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Planning	The pipeline corridor crosses through the LionLink EIA Scoping Boundary, which is at pre-application stage with a DCO submission expected in Q4 2025. It also crosses within 100m of the onshore application areas for East Anglia One and Two Offshore Wind Farms. The majority of the pipeline corridor is located within the Suffolk County Council Minerals Consultation Area. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Landscape and Visual	There is the potential for temporary construction related visual impacts on residential receptors which the corridor crosses in close proximity to, as set out in the Land Use section. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Ecology	No constraints identified.
Heritage	No constraints identified.
Water and Flood Risk	The pipeline corridor crosses the Hundred River, which would likely require trenchless construction. It intersects areas of fluvial flood risk and surface water flood risk. There is concern that the construction of a pipeline in this pipeline corridor could compromise the river from achieving a 'good' WFD status in the future. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Geology and Soils	The majority of the corridor is in Grade 2 ALC which is BMV, with the remainder in Grade 3 ALC which may be BMV. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Traffic, Transport and Access	The pipeline corridor crosses two minor roads. It also crosses two PRoWs. Vehicle access is possible via School Road and the B1069. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.
Utilities	The pipeline corridor crosses a Cadent gas MP main, an ESW trunk main and an OHL crossing. Typical Mitigation (see table 4.3 above) is considered appropriate in respect of these potential impacts.

5 Consultation and Next Steps

- 5.1.1 The best-performing pipeline corridors and land parcels identified at the end of Stage 2 are presented at this NSC, to regulators, host and neighbouring LPAs and Parish Councils, environmental stakeholders, landowners and the local community.
- 5.1.2 Feedback received during NSC will feed into the assessment undertaken at Stage 3, ensuring that responses from stakeholders is integrated into the decision-making process. Consultation will include engagement with statutory consultees (such as the Environment Agency, Natural England, and Historic England), host and neighbouring local planning authorities, parish councils, landowners, and other stakeholders with an interest in the proposed development.
- 5.1.3 At the end of Stage 3, based on a further assessment of the best-performing land parcels and pipeline corridors and feedback from NSC, we will select the preferred land parcel option for the AWRP, CSR, WSR and preferred pipelines corridor (per pipeline route) to take forward to Stage 4, this will be announced in Q3 2026.
- 5.1.4 Stage 4 will include refinement of the pipeline corridors and land parcels to ensure proportionate land take for the Proposed Development. The land parcels will be refined at Stage 4 to consider the layout, orientation and space requirements based on survey information and stakeholder and landowner feedback. At this stage, a proposed pipeline alignment will be drawn within the preferred pipeline corridor. If a constraint is identified at Stage 4 from surveys or feedback, an alternative orientation or alignment will be drawn and a high-level appraisal undertaken to determine which option should be progressed. Statutory Consultation in 2027 will help further refine the Proposed Development where required.

Appendix A Glossary

Key Project Terminology

Term	Abbreviation	Description of Use
Anglian Water	AW	Anglian Water Services Limited is a water and wastewater company operating in the East of England and Hartlepool. AW are the Statutory Undertaker of the wastewater network in Essex & Suffolk Water's operational region.
Development Consent Order	DCO	A Development Consent Order (DCO) application is made under the PA 2008 for permission for NSIPs or projects of national significance resulting from a s35 Direction from the SoS. If the DCO application is confirmed by the SoS it is a legal instrument that grants permission for the Proposed Development to be constructed and is required under Regulation 5 of the Infrastructure Planning (Applications: Prescribed Forms and Procedure Regulations 2009).
The draft Development Consent Order	(dDCO)	The draft Development Consent Order (dDCO) submitted as part of the DCO application for the Proposed Development
Essex & Suffolk Water	ESW	ESW are part of Northumbrian Water Limited, a trading division of Northumbrian Water Limited which is a group company of the Northumbrian Water Group.
Local Planning Authority	LPA	The local government body responsible for overseeing and granting planning permissions within its administrative area and jurisdiction and preparing Local Plans.
Nationally Significant Infrastructure Project	NSIP	Nationally Significant Infrastructure Projects are major infrastructure projects as defined by the PA 2008. The PA 2008 created a new consenting process for NSIPs. Projects that exceed the thresholds set out in the PA 2008, automatically qualify as a NSIP.
National Policy Statement for Water Resources Infrastructure	NPSWRI	The National Policy Statement for Water Resources infrastructure, hereafter referred to as the 'NPSWRI', sets out the need and government's policies for, development of NSIPs and projects of national significance (PNSs) for water resources supply in England. It provides planning policy that must be taken into account in preparing, considering and determining water resource infrastructure projects, as defined in the PA 2008.
Northumbrian Water Limited	NWL	The regional water company responsible for delivering the Proposed Development. Northumbrian Water Limited (NWL) is the statutory water undertaker for parts of South Essex, Suffolk and Norfolk. In the Essex, Suffolk and Norfolk area of supply, NWL trades as ESW. ESW has been part of NWL since 2000.
Order Limits	-	This is the boundary within which the Proposed Development may be carried out under any approved DCO.
The Planning Act 2008	PA 2008	The PA 2008 is the relevant primary legislation for national infrastructure planning. Documents should refer to the Planning Act 2008 in full initially, then the abbreviation PA 2008 used. The term 'the Act' should not be used.

Term	Abbreviation	Description of Use
The Planning Inspectorate	PINS	The Planning Inspectorate examines and recommends decisions on DCO applications, ensuring NSIPs and PNS meet legal, environmental, and public consultation standards.
Projects of National Significance	PNS	If a project does not exceed the thresholds set out in the PA 2008, but submits a section 35 request for a direction to the SoS, the SoS can choose to direct a scheme as a PNS to be consented under the PA 2008 regime.
Secretary of State	SoS	A senior government minister responsible for making decisions on NSIPs, including issuing directions under Section 35. The SoS for this Project is - Secretary of State for Environment, Food and Rural Affairs.
Suffolk Water Recycling, Transfer and Storage	SWRTS	The Suffolk Water Recycling, Transfer and Storage is the Proposed Development (and being delivered under the umbrella term Suffolk Water Supply Projects).
Sizewell C Nuclear Power Station	SZC	The consented DCO scheme for a nuclear power plant requiring a secure water supply
Water Resources Management Plan 2024	WRMP24	Essex and Suffolk Water's final Water Resources Management Plan 2024 (WRMP24) sets out Essex and Suffolk Water's plan for water resources in the Essex, Suffolk and Norfolk area of supply over the next 25 years and beyond. The WRMP24 was published in October 2024.

Proposed Development Components and Water Terminology

Term	Abbreviation	Description of Use
Advanced water recycling Plant	AWRP	A proposed facility using processes like reverse osmosis to purify water. This takes treated wastewater from a sewage treatment plant, and produces a high quality effluent for use in water reuse.
Barsham Water Treatment Works	Barsham WTW	This is an existing facility owned and operated by ESW. Barsham WTW takes water from boreholes, as well as the River Waveney and treats Raw Water to drinking water standards.
Concentrated residual water	-	Waste product from the advanced water recycling process (at the AWRP), that has been treated to strict regulatory standards and is typically released to the sea. This is the remaining liquid products, solids and salts that are removed in the recycling process and are released to the environment in a controlled manner.
Deployable Output	DO	The maximum yield a water company can achieve from its water sources under defined constraints with no drought management restrictions.
Drinking water	-	Water that has been treated to strict regulatory standards, ready for supply to domestic and non-domestic customers and is fit for human consumption. It is also known as wholesome and potable water.
Long Sea Outfall	LSO	A 'Long Sea Outfall' is a pipeline that discharges liquid into the sea at a significant distance offshore. It is designed to ensure the safe disposal

Term	Abbreviation	Description of Use
		of effluent while minimizing environmental impact by dispersing the discharge over a wide area, away from the shoreline and sensitive ecosystems.
Lowestoft (Corton) Water Recycling Centre	Lowestoft WRC	This is an existing facility owned and operated by AW. The Lowestoft WRC receives wastewater to treat and then safely discharge into the sea via a Long Sea Outfall.
Pumping Station (which maybe a Water Pumping Station or a Water Booster Station)	PS WPS WBS	Infrastructure that moves water through pipelines using mechanical pumps. These will take the form of either a Water Pumping Station (WPS) which moves the large volumes of water from one strategic location to another, or Water Booster Stations (WBS) which boosts the local pressure for distribution into the local network and operate 24hours 7 days a week.
Raw water	-	Raw water is river water or water from a borehole and is water that is used as a source for drinking water. This water is treated to strict regulatory standards at the Barsham WTW before being supplied to customers. Raw water will be abstracted from the River Waveney. This is also known as source water in the industry.
Recycled Water	-	Recycled water is water that has been purified through the advanced treatment process making it safe to release to the natural environment but to higher standards than treated wastewater. Recycled water is not fit for human consumption.
Reverse Osmosis	RO	A water treatment process that removes contaminants using a semi-permeable membrane.
Service Reservoir	SR	A covered structure that receives water from water treatment works and stores it prior to transmission to consumers via distribution networks. Service Reservoirs (SR) are either located on high ground or, in flatter areas, elevated structures on legs; this is to allow transmission by gravity. They are typically located close to point of demand. The two SRs proposed include a central SR, located in the Lodgewood area (exact location yet to be confirmed) and a western SR, located near Eye (location TBC). Dimensions of the proposed SRs are not yet confirmed.
Temporary construction compounds	-	Temporary site compounds would be located at suitable intervals along the proposed pipeline route. The site compounds will comprise office buildings, welfare facilities, parking and storage areas. Where required and depending on the pipeline construction methodology being used, the site compounds may also house any launch or reception shafts required for tunnelling or trenchless construction activities.
Treated wastewater	-	Wastewater that has been treated to strict regulatory standards making it safe to release to the natural environment and is typically released to rivers or the sea.
Wastewater	-	A combination of water from kitchens, bathrooms, sinks and taps (in domestic and non-domestic properties) and rainwater from roads and

Term	Abbreviation	Description of Use
		roofs, that is transported to, and cleaned at, a wastewater treatment works. Also known as sewage.
Water Resource Zone	WRZ	A Water Resource Zone is a defined area within the water network where the water resources (such as rivers, reservoirs, groundwater, or imported water) and the distribution infrastructure are managed collectively to meet customer demand. Suffolk is split into three separate Water Resource Zones (WRZ): Northern Central Blyth Hartismere

Engineering, Environmental, Land and Planning Terminology

Term	Abbreviation	Description of use
Aggressive ground Conditions	-	natural soils and bedrock, and artificial material which contain minerals or chemicals which react with concrete or steel causing a reduction in strength
Air Quality Management Area	AQMA	An area, declared by the local authority, where air pollution levels have exceeded the national air quality objectives
Conservation Area	CA	An area which is to be managed to protect its special architectural and historic interest.
Collapsible Deposits	-	Soils unconfined and susceptible to collapse e.g. sand dunes, made ground.
Compressible Deposits	-	Soils which are susceptible to change in volume e.g. Alluvium, or Peat
County Wildlife Site	CWS	Areas identified and selected for their local nature conservation value. They have a non-statutory designation but are recognised as having a high wildlife value, being of county and often regional or national importance.
Crown Land	-	Land owned by the government or the monarchy, subject to specific consent requirements in the DCO process.
Geographic Information System	GIS	A digital mapping tool used for spatial analysis and planning, often applied in infrastructure projects for route selection and impact assessments.
Geo-environmental constraints	-	Environmental risks like contamination and pollution in the ground and groundwater that can affect a Projects design.
Geotechnical constraints	-	Physical and mechanical properties/constraints of soil and rock that can affect a Projects design.
Groundwater levels	-	The depth at which water is found underground in soil or rock formations.
Habitat Regulations Assessment	HRA	An evaluation to ensure a project does not negatively impact protected ecological sites.

Term	Abbreviation	Description of use
Listed Building	-	A building or structure designated under Section 69 of the Planning (Listed Building and Conservation Areas) Act 1990 as being of “special architectural or historic interest”.
Local Nature Reserve	LNR	Nature reserves designated under section 21 of the National Parks and Countryside Act 1949 for locally important wildlife or geological features.
Local Wildlife Site	LWS	Non-statutory designated sites, protected through the planning system. They are designated for their local nature conservation significance, differing in shape and size and often containing unique, endangered habitats and species.
Mitigation	-	Means to reduce a potential impact. The Project will follow IEMA Guidance: Implementing the Mitigation Hierarchy from Concept to Construction; Avoid, prevent, reduce and offset.
National Landscape	NL	A protected area designated for its outstanding natural beauty, formerly referred to as an Area of Outstanding Natural Beauty (AONB).
National Nature Reserve	NNR	Areas established to protect important habitats, species and geology, and to provide ‘outdoor laboratories’ for research.
National Planning Policy Framework	NPPF	The UK government policy document that sets out planning principles and guidelines for sustainable development.
Peat	-	Peat is an accumulative of partially decayed vegetation or organic matter.
Potential sources of contamination	-	Refer to an activities, materials, or conditions that could introduce pollutants into the environment—especially soil, water, or air—during a project’s construction, operation, or decommissioning phases.
Public Rights of Way	PRoW	Legally protected paths, including footpaths, bridleways, and byways, that must be maintained and considered in development planning.
Ramsar	-	Wetlands of International Importance under the Ramsar Convention or Convention on Wetlands, 1971. (note: do not use capital letters, only the first letter to be a capital in ‘Ramsar’)
Running sands	-	Saturated (below water table) loose sands which can become fluidised where moderate to high flows or mechanically disturbance occurs
Scheduled Monument	-	An archaeological site or historic structure legally protected due to its national importance.
Section 35	S35	A provision within the Planning Act 2008 that allows the Secretary of State to direct a project to be treated as an NSIP if it is of national significance.
Sensitive Locations	-	Areas such as schools, hospitals, residential zones, and protected sites where construction or infrastructure may have a heightened environmental or social impact.
Site of Special Scientific Interest	SSSI	Legally protected sites under the Wildlife and Countryside Act 1981, as amended by the Countryside and Rights of Way Act 2000 and the Natural Environment and Rural Communities Act 2006.

Term	Abbreviation	Description of use
Slope Instability	-	Soils formed by the relatively rapid movement of material, e.g. landslides.
Special Area of Conservation	SAC	A protected site designated under the EU Habitats Directive for its ecological value, requiring specific conservation measures.
Special Category Land	SCL	Certain special categories of land are subject to additional provisions in the PA 2008 where it is proposed that they should be compulsorily acquired. For example: common land, open space and field allotment.
Special Protection Area	SPA	SPAs are selected to protect rare, threatened, or vulnerable bird species listed in Annex I of the Birds Directive, or certain migratory species.
Special Protection Zones	SPZ	SPZs are designed to control activities close to water supplies intended for human consumption. These water sources include wells, boreholes and springs, all of which are used for public drinking.
Unexploded Ordnance	UXO	Explosive ordnance that has been primed, fused, armed or otherwise prepared for use and used in an armed conflict. It may have been fired, dropped, launched or projected and should have exploded but failed to do so. It also refers to explosive ordnance that has not been used during an armed conflict, that has been left behind or dumped by a party to an armed conflict, and that is no longer under the control of the party which left it behind or dumped it.
Zone of Influence	ZOI	The area(s) around a project site that may be affected by changes caused by the proposed project and associated activities.
Trenchless construction	-	A construction technical to install a pipeline which avoid open dig/cut of the ground.

Scheme Development Terminology

Term	Description of use
Assessment Framework	The Engineering, Environmental, Planning and Land criteria for which the scheme is assessed.
Best performing pipeline corridor	The best performing pipeline corridor(s) is a wider area of land in which a pipeline could be sited. Utilising pipeline corridors allows for micro-siting of the pipeline route at future stages.
Commissioning phase	A phase of start up of assets post construction, testing, training for operatives, snagging of outlying issues, and general trialling of the operation of the assets.
Concept Design	The early stages of a project (this is the stage SSN and Lowestoft Reuse are currently in. SSN and Lowestoft Reuse together make SWRTS) where ideas/solutions/designs are undergoing continual refinement, optioneering of pipeline route and SR site selection is underway.
Construction phase	The project construction phase of the physical assets.
Decommissioning Phase	Once the life cycle of the asset base has expired, the decommissioning phase oversees the shutdown, physical removal of the asset and remediation of the site to another intended use.

Term	Description of use
Definition Design	The stage of refinement of designs from Concept Design that go on for final detailed design. Surveys will be undertaken to inform the in-depth design of the solution.
Detailed Design	Detailed design will commence at a later stage.
Feasibility	A comparison phase that outlines options towards the solution.
Operation and Maintenance Phase	The move from construction and commissioning through handover to the operations teams who will own and operate and maintain the assets over the lifespan of the asset base to meet the need of the project.
Pipeline Corridor Segments	The pipeline corridor was divided to allow for a more detailed analysis of specific segments and the comparison between alternate pipeline corridor routes.
Preferred Corridor	Single corridor for the pipeline route. Determined following Stage 3
Stage 1, 2, 3, 4	These stages are the different stages of the scheme development.
Major Constraint	These are constraints, that represent significant statutory, environmental, or technical barriers or limitations to deliverability or legal compliance (are noted below) and should be avoided unless overriding justification can be demonstrated. Existing major infrastructure including railway lines, major roads and residential property and industrial/commercial buildings, including other urban areas and existing development and its curtilage and within/ on radioactive impacted ground. Statutory designated sites including SSSI (biological & geological), European Designated Sites (SAC, SPA, Ramsar), National Nature Reserves and Local Nature Reserves. Irreplaceable Priority Habitats, including Ancient Woodland, veteran trees. Landscape designations including National Parks and National Landscapes. Heritage designations, including World Heritage Sites, Scheduled Monuments, Conservation Areas, Registered Parks and Gardens, Registered Battle Fields, Listed Buildings (Grade I; II*; II). Areas within Flood Zone 3, or an area of High Risk of Surface Water Flood or blockage/damage to main river.

Appendix B Major Constraints

Major Constraints are statutory, planning, environmental, or engineering factors that would present significant challenges to obtaining consent or delivering the Proposed Development. These are features or designations that, if present within a potential land parcel or route, would likely prevent development or render it unviable.

AWRP / SR Engineering Constraints (red text with * is specific to AWRP)	AWRP / SR Environmental Constraints	Pipeline Engineering	Pipeline Environment
- Railway lines - Existing major roads (motor ways, A roads and B roads or sole access to properties) - Areas affected by coastal erosion* - Areas that may be affected by sea level rise* - Main River, Navigable Canals & Large Drainage Channels - Urban areas and Industrial areas. Any active and functional buildings, excluding abandoned or derelict structures - National Grid Sub Stations - National Gas Transmission AGIs	- Ramsar Sites or proposed Ramsar Sites - Special Area of Conservation (SAC) or candidate/proposed/possible SAC- - Special Protection Area (SPA) or potential SPA - Site of Special Scientific Interest (SSSI) - National Nature Reserves (NNR) - Local Nature Reserve - Marine Conservation Zone - None within search area). - Ancient Woodland – 25m buffer. - Ancient and Veteran Trees – 25m buffer. - Blanket Bog Priority Habitat - Limestone Pavements Priority Habitat - Coastal Sand Dunes Priority Habitat - Spartina Saltmarsh Swards Priority Habitat - Mediterranean Saltmarsh Scrub Priority Habitat - Lowland Fen Priority Habitat - National Landscape (Area of Outstanding Natural Beauty) - National Park	'Impossible to undertake constructions safely - Infrastructure development is located within/ on radioactive impacted ground. 'Active and functional buildings, excluding abandoned or derelict structures need to be demolished.	- Ramsar Sites or proposed Ramsar Sites - Special Area of Conservation (SAC) or candidate/proposed/possible SAC - Special Protection Area (SPA) or potential SPA - Site of Special Scientific Interest (SSSI) - National Nature Reserves (NNR) - Local Nature Reserve - Marine Conservation Zone - Ancient Woodland – 25m buffer. - Ancient and Veteran Trees – 25m buffer. - Blanket Bog Priority Habitat - Limestone Pavements Priority Habitat - Coastal Sand Dunes Priority Habitat - Spartina Saltmarsh Swards Priority Habitat - Mediterranean Saltmarsh Scrub Priority Habitat - Lowland Fen Priority Habitat - National Landscape (Area of Outstanding Natural Beauty) - National Park - World Heritage Site

AWRP / SR Engineering Constraints (red text with * is specific to AWRP)	AWRP / SR Environmental Constraints	Pipeline Engineering	Pipeline Environment
	• World Heritage Site • Scheduled Monument • Registered Battlefield • Grade I or Grade II* Listed Building and Grade I or II* Registered Park and Garden (RPG) • Historic Battlefields. • Conservation Areas • Flood Zone 3 and Area at high risk of surface water flooding.		• Scheduled Monument • Registered Battlefield • Grade I or Grade II* Listed Building and Grade I or II* Registered Park and Garden (RPG) • Historic Battlefields. •