

HyNet North West Hydrogen Pipeline

Delivering clean growth



Chapter 8:

Landscape and Visual

October 2024

Revision 1

Volume 0001

Document ref. 852552-WSPE-IA-ES-RP-LV-4142

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8. Landscape and Visual

8.1 Introduction

- 8.1.1 The Draft ES has been produced to fulfil the Applicant's (Cadent Gas Ltd (Cadent)) consultation duties and enable consultees to develop an informed view of the likely significant effects of the Project.
- 8.1.2 This chapter presents the assessment of the likely significant effects of the Project with respect to landscape and visual, including landscape character, landscape designations and visual receptors, based on the information obtained to date. Following consultation, the assessment will be updated for the final ES that will accompany the DCO application for the Project.
- 8.1.3 This chapter should be read in conjunction with the Project description provided in **Chapter 2: The Project** and with respect to relevant parts of the following chapters:
- **Chapter 5: Biodiversity** with respect to the biodiversity value and effects on landscape elements such as hedgerows, grassland and trees;
 - **Chapter 6: Historic Environment** with respect to the effects on Registered Parks and Gardens as well as Listed Buildings, Conservation Areas and historic landscape character; and
 - **Chapter 11: Traffic and Transport** including **Appendix 11C: Draft Outline Public Rights of Way Management Plan (PRoWMP)** with respect to Public Right of Way (PRoW) diversions and traffic volumes during the construction phase.
- 8.1.4 This chapter describes:
- the legislation, policy and technical guidance that has informed the assessment (**Section 8.2**);
 - consultation and engagement that has been undertaken and how comments from consultees relating to landscape and visual have been addressed (**Section 8.3**);
 - the methods used for baseline data gathering (**Section 8.4**);
 - overall baseline, including existing and future baseline (**Section 8.5**);
 - embedded environmental measures relevant to landscape and visual (**Section 8.6**);
 - the scope of the assessment for landscape and visual (**Section 8.7**);
 - the methodology applied for the assessment (**Section 8.8**);
 - the assessment of landscape effects (**Section 8.9**);
 - the assessment of visual effects from settlements within the LVIA Study Area (**Section 8.10**);

- the assessment of visual effects from recreational walking and cycling routes within the LVIA Study Area (**Section 8.11**);
- the assessment of visual effects for recreational canal and river users within the LVIA Study Area (**Section 8.12**);
- the assessment of cumulative (inter-project) effects (**Section 8.13**); and
- a summary of the significance conclusions (**Section 8.14**).

8.1.5 This chapter is supported by the following appendices:

- **Appendix 8A:** Landscape and Visual Impact Assessment Methodology;
- **Appendix 8B:** National Character Area Descriptions;
- **Appendix 8C:** Arboricultural Impact Assessment (AIA);
- **Appendix 8D:** Landscape Receptor Assessment;
- **Appendix 8E:** Viewpoint Assessment (to be completed as part of the Final ES); and
- **Appendix 8F:** Visual Receptor Assessment.

8.1.6 These appendices contain the extensive volume of baseline information and detailed assessments with summaries included in **Sections 8.9 to 8.12** in order to present a clear and succinct Draft ES chapter.

8.1.7 The following figures also accompany the LVIA:

- **Figure 8.1** National Character Areas and Local Landscape Designations;
- **Figures 8.2 - 8.14** Landscape Receptors (comprises 13 plans);
- **Figures 8.15 - 8.27** Visual Receptors (comprises 13 plans);
- **Figure 8.28** Zone of Theoretical Visibility: HPP HAGI;
- **Figure 8.29** Zone of Theoretical Visibility: Rocksavage HAGI;
- **Figure 8.30** Zone of Theoretical Visibility: Runcorn HAGI;
- **Figure 8.31** Zone of Theoretical Visibility: Central Hub HAGI;
- **Figure 8.32** Zone of Theoretical Visibility: Higher Walton HAGI (HWH2);
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- **Figure 8.34** Zone of Theoretical Visibility: Clock Face HAGI;
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- **Figure 8.36** Zone of Theoretical Visibility: Partington HAGI (PH1);

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- **Figure 8.63** Viewpoint Partlington HAGI (Option PH2) 3 (P6): Annotated Photoview from a local PRoW (Carrington 9);
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- **Figure 8.67** Viewpoint Higher Walton HAGI (HWH8) 4 (Option HW4): Annotated Photoview from the A56;
- **Figure 8.68** Viewpoint Higher Walton HAGI (HWH8) 3 (Option HW5): Annotated Photoview from a local PRoW (00304/2/1) south-east of Grange Green Manor;
- **Figure 8.69** Viewpoint Clock Face HAGI 1 (CF1): Annotated Photoview from Jubits Lane (B5419);
- **Figure 8.70** Viewpoint Clock Face HAGI 2 (CF2): Annotated Photoview from Jubits Lane (B5419), M62 overpass;
- **Figure 8.71** Viewpoint Clock Face HAGI 3 (CF3): Annotated Photoview and photomontage (Year 1 and Year 15) from Warrington Road (A57) adjacent Sandhill Farm;
- **Figure 8.72** Viewpoint Clock Face HAGI 4 (CF4): Annotated Photoview from PRoW FP301 to the north of the M62;
- **Figure 8.73** Viewpoint Clock Face HAGI 5 (CF5): Annotated Photoview from Bell Lane, southern edge of Sutton Manor;
- **Figure 8.74** Viewpoint Sworton Heath BVI 1 (SH1): Annotated Photoview from the A50 Warrington Road to the east of Sworton Heath;

- **Figure 8.75** Viewpoint Sworton Heath BVI 2 (SH2): Annotated Photoview from Crabtree Lane, north of Sworton Heath; and
- **Figure 8.76** Viewpoint Sworton Heath BVI 3 (SH3): Annotated Photoview from West Lane, High Legh.

Project overview

- 8.1.8 The Project includes the construction, operation and eventual decommissioning of approximately 100km of new pipeline to distribute hydrogen to industry in the North West. A number of Hydrogen Above Ground Installations (HAGIs), including Block Valve Installations (BVIs) are required to control the flow and pressure of hydrogen at key points along the proposed pipeline.
- 8.1.9 The Project connects the Hydrogen Production Plant (HPP) at the Stanlow site, as the source of hydrogen, for onward distribution to the network. The pipeline transports hydrogen to the Central Hub at the centre of the network, which then serves as the connection and onward distribution point to the North, East and South corridors, which would extend to St. Helens, Partington and Northwich respectively. Branching off from each main corridor would be pipeline spurs connecting hydrogen customers to the main pipeline. Infrastructure has also been included which supports the potential blending of hydrogen with methane in the existing gas network. The Project would also link to underground hydrogen storage facilities in Cheshire used to balance supply and demand through the network.
- 8.1.10 The presently anticipated maximum extent of land in which the Project may take place, which is assessed in this Draft ES, is defined by the 'Draft Order Limits', land within which is hereafter referred to as 'land within the Draft Order Limits'.
- 8.1.11 A proportionate degree of flexibility has been incorporated into the Project design so that unforeseen issues that may be encountered following consent can be sufficiently mitigated. For example, previously unidentified poor ground conditions may require a pipeline section to be re-routed slightly for geotechnical reasons. Therefore, to allow for this, new infrastructure would be constructed within specified Limits of Deviation (LoD) which identify a maximum distance or measurement of variation within which the works must be constructed; further detail is provided on LoD in **Chapter 2: The Project**.

Limitations and assumptions

- 8.1.12 There are no limitations relating to landscape and visual that affect the robustness of the assessment of the likely significant effects of the Project.

8.2 Relevant Legislation, Planning Policy and Technical Guidance

- 8.2.1 This section identifies the legislation, planning policy and technical guidance that has informed the assessment of effects with respect to landscape and visual.

Further information on policies relevant to the Project is provided in **Chapter 4: Legislation and policy overview**.

Legislation

8.2.2 A summary of the relevant legislation is given in **Table 8.1**.

Table 8.1 Legislation relevant to the landscape and visual assessment

Legislation	Legislative context
The European Landscape Convention (2000)¹	A Council of Europe initiative that provides a broad framework for landscape planning and management across all member states including the UK, which ratified the European Landscape Convention (ELC) in 2007. The status of this convention is not affected by Brexit. These commitments are implemented by existing domestic policy and legislation rather than through any ELC-specific framework. The ELC defines landscape as, “<i>an area, as perceived by people, whose character is the result of the action and interaction of natural. and/or human factors</i>”¹ and is committed to several core principles and actions.
Hedgerow Regulations (1997)²	Hedgerows are protected under these Regulations that may be relevant to the LVIA, specifically the assessment of impacts upon landscape elements, and the development of mitigation.

Planning policy

8.2.3 The primary national planning policy documents relevant to the consideration of the Project are the Overarching National Policy Statement for Energy (EN-1) and the National Policy Statement for Natural Gas Supply Infrastructure and Gas and Oil pipelines (EN-4). Other national and local policies may also provide additional guidance on this environmental topic and could be considered material to the

¹ The Council of Europe (2000). The European Landscape Convention. (online) Available at:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/236096/8413.pdf (Accessed 03 June 2024).

² UK Government (1997). The Hedgerow Regulations 1997 (Online). Available at:

<https://www.legislation.gov.uk/ukxi/1997/1160/contents/made> (Accessed 03 June 2024).

consideration of this Project. Policy potentially relevant to the Project and to this environmental topic is summarised within **Table 8.2**.

Table 8.2 Planning policy relevant to the landscape and visual assessment

Policy	Policy context
National planning policy	
National Planning Policy Framework (NPPF)³ Paragraph 135	Planning policies and decisions should ensure that development (amongst other criteria): <i>“(b) are visually attractive as a result of good architecture, layout and appropriate and effective landscaping;</i> <i>(c) are sympathetic to local character and history, including the surrounding built environment and landscape setting”.</i> The Project will therefore need to be accompanied by an appropriate landscape scheme.
National Planning Policy Framework (NPPF)³ Paragraph 180	It is stated that “<i>planning policies and decisions should contribute to and enhance the natural and local environment by [amongst other criteria] protecting and enhancing valued landscapes... (in a manner commensurate with their statutory status or identified quality in the development plan) [and] ‘recognising the intrinsic character and beauty of the countryside.’</i>” Whilst there are no national landscape designations within the LVIA Study Area, the LVIA assesses the effects of the development on local landscape designations and landscape character as summarised in Section 8.9 and in detail in Appendix 8D.
Overarching National Policy Statement for Energy (EN-1)⁴ Paragraph 5.10.1	It is stated that the landscape and visual effects of energy projects will vary on a case-by-case basis according to the type of development, its location, and the landscape setting of the Project.
Overarching National Policy Statement for Energy (EN-1)	Paragraph 5.10.5 recognises that virtually all nationally significant energy infrastructure projects will have adverse effects on the landscape, but that beneficial effects may also arise from mitigation. Paragraph 5.10.6 continues the

³ Department for Levelling Up, Housing & Communities (2023). National Planning Policy Framework [online]. Available at: <https://www.gov.uk/government/publications/national-planning-policy-framework--2> (Accessed 03 June 2024)

⁴ Department for Energy Security & Net Zero (2023). Overarching National Policy Statement for Energy (EN-1). (online) Available at: <https://assets.publishing.service.gov.uk/media/65bbfbd709fe1000f637052/overarching-nps-for-energy-en1.pdf> (Accessed 03 June 2024).

Policy	Policy context
Paragraphs 5.10.5 and 5.10.6	discussion on mitigation and states that projects need to be carefully designed, with regard to siting, operational and other relevant constraints with the aim to minimise harm to the landscape. Reasonable mitigation should be provided where possible and appropriate. Landscape and visual mitigation measures for the Project are set out in Section 8.6.
Overarching National Policy Statement for Energy (EN-1) Paragraph 5.10.12	It is stated that outside nationally designated areas, there are local landscapes that may be highly valued locally. However, locally valued landscapes should not be used in themselves to refuse consent, as this may unduly restrict acceptable development. The LVIA assesses the effects of the development on local landscape designations as summarised in Section 8.9 and in detail in Appendix 8D.
Overarching National Policy Statement for Energy (EN-1) Paragraphs 5.10.13 and 5.10.14	Paragraph 5.10.13 recognises that all proposed energy infrastructure is likely to have visual effects for many receptors around proposed sites. Paragraph 5.10.14 continues by stating that the Secretary of State will have to judge whether the visual effects on sensitive receptors (such as local residents and visitors to the local area), outweigh the benefits of the Project. The visual assessment, which concentrates on sensitive visual receptors, is summarised in Sections 8.10 – 8.14 and assessed in detail in Appendix 8F.
Overarching National Policy Statement for Energy (EN-1) Paragraphs 5.10.16 and 5.10.17	It is stated that the applicant should carry out a landscape and visual impact assessment and report it in the Environmental Statement, including cumulative effects. The assessment should include reference to any landscape character assessment and associated studies as a means of assessing landscape impact relevant to a proposed project.
Overarching National Policy Statement for Energy (EN-1) Paragraphs 5.10.20 and 5.10.21	The overarching issues that should be included within the landscape and visual impact assessment are described as follows: • The effects during construction and operation of the project on landscape components and landscape character; and • The visibility and conspicuousness of the project during construction and the presence and operation of the

Policy	Policy context
	project and potential impacts on views and visual amenity, including light pollution effects.
Overarching National Policy Statement for Energy (EN-1) Paragraph 5.10.22	It is stated that the assessment should also address the landscape and visual effects of noise and light pollution, and other emissions, from construction and operational activities on residential amenity and on sensitive locations, receptors and views.
Overarching National Policy Statement for Energy (EN-1) Paragraphs 5.10.27 and 5.10.28	With regard to mitigation, paragraph 5.10.27 states that adverse landscape and visual effects may be minimised through appropriate siting of infrastructure, the careful consideration of colours and materials, and sympathetic landscaping. The potential role of off-site landscape mitigation is discussed in paragraph 5.10.28. Landscape and visual mitigation measures which are specific to the Project are set out in Section 8.6 .
Overarching National Policy Statement for Energy (EN-1) Paragraphs 5.10.29 and 5.10.30	It is stated that the Secretary of State should take into consideration the level of detailed design which the applicant has provided and is secured in the Development Consent Order, and the extent to which design details are subject to future approvals. With regard to the latter, the Secretary of State “ <i>should be satisfied that local authorities will have sufficient design content secured to ensure that future consenting will meet landscape, visual and good design objectives</i> ”.
Overarching National Policy Statement for Energy (EN-1) Paragraph 5.10.36	In reaching a judgement, the Secretary of State should consider whether any adverse impact is temporary, such as during construction, and/or whether any adverse impact on the landscape will be capable of being reversed in a timescale that the Secretary of State considers reasonable.
Overarching National Policy Statement for Energy (EN-1) Paragraph 5.12.15	It is recognised that there is a requirement for balancing the need for good design to select the quietest or most acceptable cost-effective plant available and noise containment measures (such as the use of landscaping, bunds and noise barriers to reduce noise transmission) against potential adverse impacts that such containment might cause upon landscape and visual receptors.
National Policy Statement for Natural Gas Supply Infrastructure and Gas	Additional considerations during the construction phase include effects upon specific landscape elements within and adjacent to the pipeline route, such as grasslands, field boundaries (hedgerows, hedgebanks, drystone walls, fences), trees, woodlands, and watercourses. There will also

Policy	Policy context
and Oil Pipelines (EN-4)⁵ Paragraphs 2.21.24, 2.21.25, 2.21.26 and 2.21.28	be temporary visual impacts caused by the need to access the corridor and to remove flora and soil. Temporary impacts could include large excavations where deep pits are needed for boring beneath rivers, roads, and sensitive features.
National Policy Statement for Natural Gas Supply Infrastructure and Gas and Oil Pipelines (EN-4) Paragraph 2.21.29	It is stated that long term impacts upon the landscape for pipelines are likely to be limited, given the main infrastructure is usually buried. These limited impacts are likely to include limitations on the ability to replant landscape features such as hedgerows or deep-rooted trees over or adjacent to the pipeline; the route of the pipeline clearly discernible in the landscape as a result of soil disturbance and altered drainage patterns producing changes to vegetation cover and structures and indication points necessary to identify the pipeline route and provide it with service access.
National Policy Statement for Natural Gas Supply Infrastructure and Gas and Oil Pipelines (EN-4) Paragraphs 2.21.30, 2.21.31 and 2.21.32	It is stated that the ES must include an assessment of the landscape and visual effects of the proposed route and main alternatives. The application should also include proposals for reinstatement of the pipeline route as close to its original state as possible, accounting for landowner agreements to access areas for aftercare. Where it is not possible to restore landscape to its original state, measures to avoid, mitigate, or compensate for any adverse effect on the landscape should be included.
Local planning policy	
Cheshire West and Chester Local Plan (Part One) Strategic Policies, 2015⁶	
SO12: Strategic objective Environmental	New development should be of sustainable and high-quality design that respects local distinctiveness and the character and appearance of the landscape and townscape.
STRAT 9: Green Belt and countryside	The intrinsic character and beauty of the countryside will be protected by restricting development to that which requires a countryside location and cannot be accommodated within identified settlements. Development must be of an

⁵ Department of Energy Security & Net Zero (2023). National Policy Statement for Natural Gas Supply Infrastructure and Gas and Oil Pipelines (EN-4). (online) Available at: <https://assets.publishing.service.gov.uk/media/65a789a8867cd8000d5ae9be/nps-natural-gas-supply-infrastructure-pipelines-en4.pdf> (Accessed 03 June 2024).

⁶ Cheshire and Chester West Council (2015). Local Plan (Part One) Strategic Policies. (online) Available at <https://consult.cheshirewestandchester.gov.uk/kse/event/24907/section/3252243> (Accessed 03 June 2024)

Policy	Policy context
	appropriate scale and design to not harm the character of the countryside.
ENV 2: Landscape	The Local Plan will protect and, wherever possible, enhance landscape character and local distinctiveness. The development should take account of the characteristics of the development site and surroundings and where appropriate views into, over and out of the site. Features of landscape quality should be retained and incorporated into the design.
ENV 3 : Green Infrastructure	The Local Plan will support the creation, enhancement, protection and management of a network of high quality multi-functional Green Infrastructure.
ENV 6: High quality design and sustainable construction	Development should, where appropriate, respect local character and be sympathetic to landscape assets. Development should meet applicable nationally described standards for design and construction.
ENV 7: Alternative energy supplies	Low carbon energy proposals will be supported where there are no unacceptable impacts on landscape, visual or residential amenity considerations. Proposals should be accompanied by appropriate arrangements for decommissioning.
Cheshire West and Chester Local Plan (Part Two) Land Allocations and Detailed Policies, 2019⁷	
GBC 2: Protection of landscape	Where development requires a countryside location, it must, be sympathetic to the character, protect and, wherever possible, enhance landscape character and distinctiveness, and preserve special landscape character and scenic value.
DM 3: Design, character and visual amenity	Development will be expected to respect, contribute positively to the character, and protect the visual amenity of the local area. Development should contribute positively to the character of the area, respect and where appropriate enhance the landscape, and be sympathetic to the characteristics of the development site.
DM 44: Protecting and enhancing the natural environment	Development will be supported where there is no net loss of natural assets and, wherever possible, it delivers net gains within the borough. Developments will be supported that;

⁷ Cheshire and Chester West Council (2019), Local Plan (Part Two) Land Allocations and Detailed Policies. (online) Available at <https://consult.cheshirewestandchester.gov.uk/kse/event/34617/section/5428432> (Accessed 03 June 2024)

Policy	Policy context
	utilise native species in landscaping schemes, where appropriate.
DM 45: Trees, woodland, and hedgerows	Development will be supported where it conserves, manages and, wherever possible, enhances existing trees, woodlands, traditional orchards, and hedgerows. Where it is demonstrated to the satisfaction of the Council that integration is not possible and the assets would be lost, development proposals must: <i>“1. include replacement trees, woodlands and hedgerows within the site, or where this can be demonstrated to not be practical, contribute to off-site provision, prioritised within the locality of the development; 2. include replacement planting at a ratio of at least two new trees for each tree lost. Replacement trees should be of heavy or extra heavy standard, and where prominent trees are to be removed, large specimen trees may be required; and 3. use locally native species, where appropriate.”</i>
DM 49: Registered Parks and Gardens and Battlefields	Development proposals affecting landscapes identified on the Register of Historic Parks and Gardens of special historic interest in England (Registered Parks and Gardens) will only be supported where it has been demonstrated that great weight is given to the asset's conservation and significance, taking into consideration the integrity of the landscape, setting and key views, the prevention of sub-division of the landscape. Potential effects on Registered Parks and Gardens are considered in Chapter 6: Historic environment.
Cheshire East Local Plan Strategy, 2017⁸	
Strategic Priority 3: Protecting and enhancing environmental quality	Protecting and enhancing environmental quality This will be delivered by respecting the character and distinctiveness of places, buildings and landscapes through the careful design and siting of development.
Policy SD 2: Sustainable Development Principles	Respect and, where possible, enhance the landscape character of the area, particular attention will be paid toward significant landmarks and landscape features. Creating or reinforcing local distinctiveness.
Policy SE 2: Efficient Use of Land	Cheshire East Council will manage development to protect previously developed land where it can be clearly

⁸ Cheshire East Council (2017). Local Plan Strategy 2010 - 2030 (online). Available at: <https://www.cheshireeast.gov.uk/planning/spatial-planning/cheshire-east-local-plan/local-plan-strategy/local-plan-strategy.aspx> (Accessed 03 June 2024)

Policy	Policy context
	demonstrated that either the landscape amenity or biodiversity value of the site has become of a high value and as such would be compromised through redevelopment of the site.
Policy SE 4: The Landscape	All development should conserve the landscape character and quality and should where possible, enhance and effectively manage the historic, natural, and man-made landscape features that contribute to local distinctiveness of both rural and urban landscapes. In Local Landscape Designation Areas, the policy seeks to conserve and enhance the quality of the landscape and to protect it from development which is likely to have an adverse effect on its character and appearance and setting. <i>“Where development is considered to be acceptable in principle; measures will be sought to integrate it into the landscape character of the area by:</i> <i>i. Protecting, restoring and enhancing the character and appearance of the local area through suitable planting, landscape and / or woodland;</i> <i>ii. Making suitable provision for better public access to, and enjoyment of, the Local Landscape Designation Areas.”</i>
Policy SE 5: Trees, Hedgerows and Woodland	Trees, hedgerows, and woodland will be protected and development proposals which will result in the loss of, or threat to, trees, hedgerows or woodlands that provide a significant contribution to the amenity and landscape character will not normally be permitted. Exceptions may occur where there are clear overriding reasons for allowing the development.
Policy SE 6: Green Infrastructure	Cheshire East Council aims to deliver a good quality, green infrastructure. This will be done by linking the various assets of Cheshire East’s unique landscape and enhancing and protecting the green infrastructure. Any development should contribute to the creation of a good quality network of green spaces.
Cheshire East Local Plan Site Allocations and Development Policies Document, 2022⁹	

⁹ Cheshire East Council (2022). Local Plan Site Allocations and Development Policies Document. (online). Available at: https://www.cheshireeast.gov.uk/planning/spatial-planning/cheshire_east_local_plan/site-allocations-and-policies/site_allocations_and_policies.aspx (Accessed September 2024)

Policy	Policy context
GEN 1: Design principles	Development proposals should, amongst other criteria, contribute positively to the borough's quality of place and local identity through appropriate character, appearance and form in terms of scale, height, density, layout, grouping, urban form, siting, good architecture, massing and materials as well as incorporate measures that can adapt to and/or show resilience to climate change and its impacts within the development layout,
ENV 3: Landscape character	Development proposals should respect the qualities, features and characteristics that contribute to the distinctiveness of the local area, as described in the Cheshire East Landscape Character Assessment (2018) or subsequent update, taking into account any cumulative effects alongside any existing, planned or committed development. Local landscape designations are defined on the adopted policies map and development that is likely to have an adverse effect on their special qualities as described in the Cheshire East Local Landscape Designation Review (2018) should be avoided.
ENV 4: River corridors	Development proposals must make sure that river corridors are protected, and opportunities should be taken to enhance them as important natural landscape features and usable areas of open land including, where appropriate, by: <i>"1. conserving and enhancing existing areas of value; 2. restoring and enhancing the natural elements of the river environment; and 3. promoting public access."</i>
ENV 5: Landscaping	Where appropriate, development proposals must include and implement a landscape scheme that responds sympathetically to topography, landscape features and existing green and blue infrastructure networks to help integrate the new development into the existing landscape. The landscape scheme should also provide effective screening to neighbouring uses where appropriate; utilise plant species that are in sympathy with the character of the area and, in line with Policy ENV 7 'Climate change', takes account of the need for climate change mitigation and adaptation; and make satisfactory provision for the maintenance and aftercare of the scheme to make sure it reaches maturity and thereafter.
ENV 6: Trees, hedgerows and woodland implementation	Development proposals should seek to retain and protect trees, woodlands and hedgerows and the layout of development proposals must be informed and supported by an Arboricultural Impact Assessment and/or hedgerow survey.

Policy	Policy context
	Where the loss of significant trees is unavoidable it must be compensated for on the basis of at least three replacement trees for every tree removed. Replacement trees, woodlands and/or hedgerows must be integrated in development schemes as part of a comprehensive landscape scheme. Hedgerows deemed to be important under the Hedgerow Regulations 1997 must be retained and their loss, by exception, would require a particularly compelling justification.
St Helens Borough Local Plan up to 2037, 2022¹⁰	
Policy LPA02: Development Principles	New development will be required to support a number of development principles including contributing to a high quality built and natural environment by securing high quality design; taking account of the Borough's landscape character and townscape in the location and design of new development and protecting, conserving, and / or enhancing the Borough's natural, built and historic environments.
Policy LPC09: Landscape Protection and Enhancement	<i>"Proposals for new development must, as appropriate having regard to their scale and nature:</i> <i>a) seek to conserve, maintain, enhance and / or restore any landscape features that are important to the character of the local area;</i> <i>b) demonstrably form the best option for meeting the aims of the development whilst minimising impacts on the landscape and appearance of the area and respecting local distinctiveness;</i> <i>c) be informed by relevant guidance including the St Helens Landscape Character Assessment and the Merseyside Historic Character Study; and</i> <i>d) include assessments of the impact of the proposal on the landscape and appearance of the area, carried out in accordance with any relevant best practice guidelines."</i> The policy continues by stating that <i>"Where a development would lead to harm to the landscape or visual character of the area, mitigation measures will be sought to reduce the scale of such harm."</i>
Policy LPC10: Trees and Woodland	This policy seeks to protect and enhance the multi-purpose value of trees, woodlands, and hedgerows. The policy states that <i>'New development, as appropriate having regard to its</i>

¹⁰ St Helens Borough Council (2022) *St Helens Borough Local Plan up to 2037*. (online). Available at: <https://www.sthelens.gov.uk/article/3775/Adopted-plans-and-policies> (Accessed 02 August 2024).

Policy	Policy context
	<i>scale and nature, will be required to include the planting of new trees, woodlands, hedgerows and / or financial contributions towards off-site provision' and that 'proposals for new development will only be permitted if they would conserve, enhance and / or manage existing trees, woodlands, and hedgerows as appropriate'. Any development proposal that would affect a site containing tree(s) or woodland must be accompanied by a tree survey and an arboricultural constraints/implications report and appropriate tree protection measures to be identified. Any approved tree protection measures must be maintained throughout the period of any demolition and / or construction works.</i>
Policy LPD01: Ensuring Quality Development	All proposals for development will be expected, as appropriate having regard to their scale, location, and nature, to meet or exceed a number of requirements including: • maintaining or enhancing the character and appearance of the local environment; • avoid causing unacceptable harm to the amenities of the local area; • respecting any existing natural features of the site by conserving, restoring or enhancing biodiversity and minimising any adverse impact on important natural features; and • providing landscaping as an integral part of the development.
Bold Forest Park Area Action Plan, 2017¹¹	
BFP1: A Sustainable Forest Park	In developing the Forest Park infrastructure and attractions, St Helens Council will work with its partners to seek an economic focus, balanced with environmental sustainability, by (amongst other criteria) enhancing the landscape character, primarily by increasing tree cover up to 30% of the Forest Park area.
BFP ENV1: Enhancing Landscape Character	Ensure a high-quality landscape within Bold Forest Park. taking in a range of issues including, landscape amenity; wildlife, habitat, land use, background noise amelioration, and; heritage.

¹¹ St Helens Council (2017) Bold Forest Park Area Action Plan. (online). Available at: <https://www.omegawestdocuments.com/media/documents/43/43.1%20bold-forest-park-area-action-plan-adopted-2017-web.pdf> (Accessed 02 August 2024)

Policy	Policy context
Trafford Local Plan: Core Strategy, 2012¹²	
R2: Natural Environment	To ensure the protection and enhancement of the natural environment of the Borough, developers will be required to demonstrate through a supporting statement how their proposal will protect and enhance the landscape character, biodiversity, geodiversity and conservation value of its natural urban and countryside assets having regard not only to its immediate location but its surroundings; and protect the natural environment throughout the construction process.
Halton Delivery and Allocations Local Plan, 2022¹³	
Policy CS(R)18: High Quality Design	Development proposals, where applicable, will be expected to incorporate appropriate landscape schemes into development designs, integrating local habitats and biodiversity. Development proposals will be expected to enhance and reinforce positive elements of an area's character contributing to a 'sense of place' and respect and respond positively to their setting, including important views and vistas, landmark buildings, features and focal points that have been identified in a proper context appraisal.
CS(R)20: Natural And Historic Environment	The landscape character and condition as informed through the Halton Landscape Character Assessment will be promoted and sustained, and where applicable, development proposals will be expected to enhance the value of Halton's natural assets.
CS(R)21: Green Infrastructure	Halton's green infrastructure network will be protected, enhanced and expanded, where appropriate.
HE1: Natural Environment and Nature Conservation	Of relevance to the LVIA, this policy states that to ensure the protection, conservation and enhancement of Halton's natural environment in accordance with Core Strategy policy CS(R)20, development will be permitted provided that it does not (amongst other criteria) result in the loss of important features such as trees, woodlands, walls, hedgerows, ponds or watercourses.

¹² Trafford Council (2012) Trafford Local Plan: Core Strategy. (online) Available at: <https://www.trafford.gov.uk/planning/strategic-planning/docs/core-strategy-adopted-final.pdf> (Accessed 02 August 2024).

¹³ Halton Borough Council (2022), Halton Delivery and allocations Local Plan. (online) Available at: <https://www3.halton.gov.uk/Documents/planning/planning%20policy/newdalp/DALP%20Adopted.pdf> (Accessed 02 August 2024).

Policy	Policy context
HE4: Greenspace and Green Infrastructure	All development where appropriate will be expected to incorporate high quality green infrastructure.
HE5: Trees and Landscaping	Tree Survey information must be submitted with all planning applications where trees are present on site and in some cases where trees are present on adjacent sites. The Survey should include information in relation to protection, mitigation and management measures. All development will be required to conserve and where appropriate enhance the character and quality of the local landscape.
Warrington Local Plan 2021/22 – 2038/39, 2023¹⁴	
DC3: Green Infrastructure	The Council will work with partners to protect, enhance, increase functionality, improve the quality, and increase green infrastructure.
DC6: Quality of Place	Good design should be at the core of all development proposals having regard to a number of principles including respecting, sustaining and making a positive contribution to local character and distinctiveness within the surrounding area, and where appropriate the landscape setting and using a palette of high quality materials which are appropriate to the local context in all respects.

Technical guidance

8.2.4 A summary of the technical guidance for landscape and visual is given in **Table 8.3**.

Table 8.3 Technical guidance relevant to the landscape and visual assessment

Technical guidance document	Context
Guidelines for Landscape and Visual Impact Assessment Third Edition (2013)¹⁵	The third edition of this guidance (known as 'GLVIA3') is regarded as the 'industry standard' document guiding LVIA. GLVIA3 provides the framework within which the remaining sections of this chapter have been undertaken and informs

¹⁴ Warrington Borough Council (2023) Warrington Local Plan. (online) Available at: <https://www.warrington.gov.uk/sites/default/files/2023-12/Warrington%20local%20plan%20-%202021-22%20-%202038-39%20-%20Adopted%20December%202023.pdf> (Accessed 03 June 2024)

¹⁵ Landscape Institute and Institute of Environmental Management & Assessment (2013). Guidelines for Landscape and Visual Impact Assessment Third Edition. Routledge, Oxfordshire, UK.

Technical guidance document	Context
	the methodology, as set out in Appendix 8A: Landscape and Visual Impact Assessment Methodology
Technical Guidance Note 06/19: Visual Representation of Development Proposals ¹⁶	Provides supplementary guidance to GLVIA3 as to appropriate techniques to capture site photography and the selection, production, and presentation of types of visualisations, appropriate to the circumstances in which they will be used.
Technical Guidance Note 02/21: Assessing landscape value outside national designations ¹⁷	This technical note provides a framework, checklist, and background to the concept of landscape value and expands upon the summary of relevant factors set out in Appendix 5.1 in GLVIA3. It incorporates subsequent methodological developments and clarifications provided in subsequent studies and Planning Inspectors' reports.
Technical Information Note 01/17: Tranquillity – An overview ¹⁸	Provides an overview of what is understood by the term 'tranquillity' within the landscape profession.
Infrastructure: Technical Guidance Note 04/20 ¹⁹	This Technical Guidance Note provides information to developers, decision makers and stakeholders on the planning, design and management of infrastructure. Part 1 of the note explains what infrastructure is, the role of the Landscape Professional and the planning and design process in a major infrastructure project. Part 2 provides technical guidance and resources, introducing documents of relevance to different infrastructure types.

¹⁶ Landscape Institute (2019), Technical Guidance Note 06/19: Visual Representation of Development Proposals. (Online). Available at: https://landscapewpstorage01.blob.core.windows.net/www-landscapeinstitute-org/2019/09/LI_TGN-06-19_Visual_Representation.pdf (Accessed 02 August 2024).

¹⁷ Landscape Institute (2021). Technical Guidance Note 02/21 Assessing landscape value outside national designations. (Online). Available at: <https://www.landscapeinstitute.org/publication/tgn-02-21-assessing-landscape-value-outside-national-designations/> (Accessed 02 August 2024)

¹⁸ Landscape Institute (2017), Technical Information Note 01/2017 Tranquillity – An overview. (Online). Available at: <https://landscapewpstorage01.blob.core.windows.net/www-landscapeinstitute-org/2017/02/Tranquillity-An-Overview-1-DH.pdf> (Accessed 02 August 2024).

¹⁹ Landscape Institute (2020), Infrastructure: Technical Guidance Note 04/20. (Online). Available at: <https://landscapewpstorage01.blob.core.windows.net/www-landscapeinstitute-org/2018/01/LI-Infrastructure-TGN-FINAL-200924.pdf> (Accessed 02 August 2024).

8.3 Consultation And Engagement

Overview

- 8.3.1 The assessment has been informed by consultation responses and statutory and technical engagement. An overview of the approach to consultation is provided in **Chapter 3: Approach to preparing the Draft ES**.

Scoping Opinion

- 8.3.2 A Scoping Opinion was adopted by the Secretary of State, administered by the Planning Inspectorate, on 08 March 2022. A summary of the relevant responses received in the Scoping Opinion in relation to landscape and visual and confirmation of how these have been addressed within the assessment is presented in **Table 8.4**.

Table 8.4 Summary of EIA Scoping Opinion responses for landscape and visual

Consultee	Consideration	How addressed in this Draft ES
Planning Inspectorate: PINS ID 3.30 Ref 3.4.1	At paragraph 8.6.2 of the scoping report the Applicant proposes to scope out landscape and visual effects resulting from the operational period of the Project (with the exception of the HAGIs) from the ES assessment, on the basis that the pipeline will be buried along the entire route and will consequently not be visible. The Inspectorate is content that significant effects on landscape and visual receptors are not likely to arise from the operational buried pipeline itself and agrees this matter can be scoped out of the assessment. However, the Inspectorate advises that consideration should be given to the potential for operational phase effects on landscape and visual receptors as a result of any planting restrictions imposed by the easements. The ES should assess any likely significant effects. Landscape and visual impacts resulting from other relevant forms of surface development (in addition to the HAGIs), such as the proposed	On the basis of the embedded mitigation measures set out in Section 8.6, which allow for the planting of hedgerow across the route of the pipeline, with any tree removal being reinstated as close to the original location as reasonably practicable, the operational landscape and visual effects from the pipeline have been scoped out of the LVIA. The exception relates to any locations where there is a more substantial loss of trees and woodland and the inclusion of an operational phase assessment at these locations is based on professional judgement on a case-by-case basis and reported where required. The effects on landscape and visual receptors within 1km of the proposed HAGI and BVI locations, and which coincide with the Zones of Theoretical Visibility (ZTVs) in Figures 8.28 to 8.40 have been assessed at Operation Year 1 and Operation Year 15.

Consultee	Consideration	How addressed in this Draft ES
	block valve compounds, should be assessed in the ES where significant effects are likely.	
Planning Inspectorate: PINS ID 3.31 Ref 3.4.2	Paragraphs 8.6.3 and 8.6.9 Effects arising from: • Pipeline construction; • Site clearance; and • Construction activity along pipeline route (traffic, plant and cranes) The Applicant proposes to scope out landscape and visual effects resulting from pipeline construction from the ES assessment, on the basis that construction activities are subject to very short timescales (i.e., several days), and therefore there is a short window for any discernible adverse effect upon high sensitivity landscape and visual receptors. Effects from site clearance are described as localised. The Inspectorate considers that in the absence of certainty regarding the locations of construction activities and facilities (e.g., construction compounds), the potential for significant effects resulting from the presence and movement of construction plant and associated temporary construction infrastructure, as well as vegetation clearance and other material removal, cannot be excluded. The ES should provide an assessment of impacts from construction of the Project where significant effects are likely.	The LVIA in the PEIR and in this Draft ES provides an assessment of impacts from construction of the Project, where significant effects are likely.
Planning Inspectorate: PINS ID 3.32 Ref 3.4.3	Paragraph 8.6.9 Operational phase – maintenance activity The Applicant proposes to scope out landscape and visual impacts arising from the movement of vehicles and activity associated with maintenance visits to the	Agreement that this can be excluded from the Draft ES is noted.

Consultee	Consideration	How addressed in this Draft ES
	HAGIs during the operational phase, given the infrequent nature of maintenance requirements. The Inspectorate is content that this matter can be scoped out of further assessment.	
Planning Inspectorate: PINS ID 3.33 Ref 3.4.4	Paragraph 8.6.9 Scope of assessment – National Landscape Character Areas (LCA) The Applicant proposes to scope out the impact of the Project upon National LCAs on the basis that the scale of change from the Project is unlikely to result in significant effects during either the construction or operational phases, together with the expansive geographical extent of the National LCAs and the transitory nature of landscape impacts associated with the construction phase of the Project and the localised effects that would occur during the operational phase. Further, the Applicant proposes that such an assessment would also duplicate the detailed assessment based on local LCAs/types that will be scoped in. The Inspectorate agrees that the impact of the Project upon National LCAs can be scoped out, on the basis of the evidence presented.	The LVIA focusses the landscape assessment on the local landscape character areas, with a description of the National Character Areas provided for background context in Appendix 8B: National Character Area Descriptions as agreed by the Planning Inspectorate.
Planning Inspectorate: PINS ID 3.34 Ref 3.4.5	Paragraph 8.6.9 Methodology – views from Registered Parks and Gardens and Country Parks to edge of study area but outside Zone of Theoretical Visibility (ZTV). The Applicant proposes that views experienced by visitors to Registered Parks and Gardens and Country Parks that lie just within or close to the edge of the study area but outside the ZTV of the Project should be scoped out,	Registered Park and Gardens and Country Parks outside the ZTV of the operational elements of the Project have been excluded as receptors from the scope of the assessment as agreed by the Planning Inspectorate.

Consultee	Consideration	How addressed in this Draft ES
	as no operational elements would be visible. The Inspectorate is content that this matter can be scoped out of further assessment.	
Planning Inspectorate: PINS ID 3.35 Ref 3.4.6	Paragraph 8.6.9 Methodology – visual receptors of medium and low sensitivity where focus is not on the landscape. The Applicant proposes to scope out visual receptors that are likely to fall into the medium and low sensitivity categories (including road users, railway passengers, retail and industrial estates, schools, people at their place of work, and people engaging in active sports, where the focus is not on the landscape). This is on the basis that, given the reduced sensitivity of the receptors, the magnitude of change resulting from the Project would need to be greater than Low to result in potentially significant visual effects and this scenario is not predicted to occur based on the receptor locations and the draft ZTV of the HAGI search areas. The Inspectorate agrees that this matter can be scoped out on the basis of the evidence presented.	Visual receptors of a medium and low sensitivity, where focus is not on the landscape, have been scoped out of the assessment as agreed by the Planning Inspectorate.
Planning Inspectorate: PINS ID 3.36 Ref 3.4.7	Paragraph 8.4.3 Landscape designations The Inspectorate notes that the Cheshire Sandstone Ridge is being considered for status as an Area of Outstanding Natural Beauty (AONB) by Natural England. The ES should consider the implications of a future designation as part of the assessment of landscape and	Natural England has confirmed that <i>'there is no boundary for the proposed Cheshire Sandstone Ridge AONB as this would be determined through the future landscape assessment process that would underpin any future designation'</i> ²⁰ . The potential component landscape character areas within the Sandstone Ridge Landscape Character Type, as set out in the Cheshire West and

²⁰ Natural England (Cheshire, Greater Manchester, Merseyside and Lancashire Area Team) email correspondence 16/05/22.

Consultee	Consideration	How addressed in this Draft ES
	visual impacts and the assignment of significance.	Chester Landscape Strategy (2016), and that coincide with the LVIA Study Area, are assessed in the PEIR and the Draft ES.
Planning Inspectorate: PINS ID 3.37 Ref 3.4.8	Paragraphs 8.3.3 and 8.4.14 Methodology – viewpoints The Applicant should make effort to agree the number and location of viewpoints with relevant consultation bodies.	The original viewpoint locations were set out in the PEIR. No comments were received requesting additional or alternative viewpoint locations. The draft schedule of viewpoints is set out in Table 8.8 , and consultees will be consulted on the appropriateness of the viewpoint selection in response to the Stage 3 statutory consultation exercise. The final schedule of viewpoints will be reported in the Final ES.
Planning Inspectorate: PINS ID 3.38 Ref 3.4.9	Scope of assessment – lighting The Scoping Report refers to the need for temporary lighting. The ES should contain an assessment of lighting effects on visual amenity and landscape character during construction and operation or a justification as to why significant effects would not arise. The Applicant's attention is drawn to the consultation response from the Canal and River Trust in this regard (see Appendix 2 of this Opinion).	A justification as to why significant effects from temporary lighting would not arise and can be scoped out of detailed assessment has been provided in Table 8.13 of Section 8.7 of the Draft ES, with reference to the measures contained within the Outline CEMP.
Planning Inspectorate: PINS ID 3.39 Ref 3.4.10	Scope of assessment – cumulative effects The cumulative impact of any tree removal to facilitate the development should be assessed within the LVIA and conclusions drawn with regards to the potential for significant effects. The Applicant's attention is drawn to consultation responses from the Canal and River Trust in this regard (see Appendix 2 of this Opinion).	The impact of cumulative tree removal upon landscape character has been assessed with reference to the Arboricultural Impact Assessment (which is appended to the LVIA in Appendix 8C: Arboricultural Impact Assessment).

Consultee	Consideration	How addressed in this Draft ES
Planning Inspectorate: PINS ID 3.40 Ref 3.4.11	Scope of assessment – Green Belt Construction and operational landscape and visual impacts on the Green Belt should be assessed as part of the ES. The Applicant’s attention is drawn to the consultation responses from Cheshire West and Chester Council and Action Bridge Parish Council in this regard (see Appendix 2 of this Opinion).	Green Belt is a planning, not a landscape designation as confirmed in the Landscape Institute’s Technical Guidance Note LITGN-2024-01 ²¹ . This states that “ <i>Green Belt is a planning policy designation and compliance with policy should be addressed separately to the LVIA.</i> ” A Green Belt Assessment is included in Appendix A of the Design Evolution Report 2024 .

Statutory Consultation

- 8.3.3 Stage 2 Statutory Consultation took place between 12 September and 10 November 2022 in accordance with the Planning Act 2008. Prescribed and non-prescribed consultees and members of the public were consulted. Various methods of consultation and engagement were used in accordance with the Statement of Community Consultation (SoCC) including letters, website, public exhibitions, publicity and advertising in newspapers and webinar briefings.
- 8.3.4 The Applicant prepared a Preliminary Environmental Information Report (PEIR) which was publicised at this consultation stage. The Applicant sought feedback on the environmental information presented in that report. Feedback received during statutory consultation was considered by the Applicant and incorporated, where relevant into the design of the Project and its assessment and is presented in this Draft ES.
- 8.3.5 A summary of the relevant responses received in response to statutory consultation, together with any subsequent discussions held in relation to landscape and visual and confirmation of how these have been considered within the assessment to date is presented in **Table 8.5**.
- 8.3.6 Technical engagement with consultees in relation to landscape and visual is ongoing.

²¹ Landscape Institute (2024), Technical Guidance Note LITGN-2024-01. Notes and Clarifications on aspects of the 3rd Edition Guidelines on Landscape and Visual Impact Assessment (GLVIA3). (Online). Available at: https://www.landscapeinstitute.org/wp-content/uploads/2024/08/LITGN-2024-01-GLVIA3-NC_Aug-2024.pdf (Accessed 06 September 2024).

Table 8.5 Summary of Section 42 Consultation responses for landscape and visual

Consultee	Consideration	How addressed in this Draft ES
Cheshire West and Chester Council (CWACC)	Acknowledges that visually, the main impacts will result from the installation of the HAGIs and BVIs. The proposed layout offers some alternative positions for HAGIs at Rocksavage and the Central Hub. It is asked that these options be explored in consultation with the councils Landscape Officer, along with other relevant stakeholders.	Decisions on the siting of the HAGIs have been informed by a range of environmental considerations (including landscape and visual) and engineering constraints. Further detail of the options and routes considered, including figures, is presented in Appendix 2A: Design Evolution and in the Design Evolution Report 2024 . <u>This information</u> will be used within the Stage 3 statutory consultation exercise and the representations received from consultees will be reviewed alongside ongoing engineering and environmental work to make <u>further</u> refinements to the <u>project</u> design.
CWACC	Recommends that the information presented within the LVIA is structured in a more user-friendly format and should include a summary overview and a supporting landscape strategy including a design rationale for mitigation.	A number of navigational aids have been added to the appendices including creating individual tables for each receptor. A list of receptors and corresponding table numbers is provided within each appendix introduction for ease of navigation. The outline landscape planting proposals for the HAGIs and BVIs are shown in Figures 1 to 13 which accompany the Outline Landscape and Ecology Management Plan (LEMP). Mitigation measures relating to the pipeline corridor and temporary construction compounds are summarised in Section 8.6 and described in detail in the Outline LEMP.
CWACC	Confirmation of final positions and detailing of all HAGIs and BVs including proposed landscape mitigation should include detail of landscape topography, built structures, protective fencing, and associated landscaping.	Figure 2.2 (sheets 1 to 38) illustrates the final LoD locations of the HAGI and BVIs with the exception of Higher Walton and Partington, where two options are currently presented for each HAGI. The outline landscape planting proposals for the HAGIs and BVIs are shown in Figures 1 to 13 which accompany the Outline LEMP .

Consultee	Consideration	How addressed in this Draft ES
CWACC	Detail of a pipeline construction management plan, for both the pipe working corridor and compound areas. This should include detail on how impacts on the existing landscape and soil structure can be minimised / mitigated as well as detail of the existing land drains and above ground features as well as losses to existing trees and hedges.	A Draft Outline Construction Environmental Management Plan (CEMP) is included in Appendix 3B . An AIA which details the potential tree and hedgerow removal is contained in Appendix 8C: Arboricultural Impact Assessment (AIA) .
Cheshire East Council (CEC)	Confirms that there are no national or local landscape designations within the CEC Study Area. There are many places within the Study Area where the Project would be visible including settlements, national and regional cycle routes, footpaths, canals and rivers.	The assessment of visual effects from settlements, recreational routes/destinations and waterways within CEC's administrative boundary is provided in Appendix 8F: Visual Receptor Assessment .
CEC	It is stated that the Code of Construction Practice will include measures to help protect existing vegetation and to minimise effects on the landscape and views. These measures may include visual screening such as tree planting and measures to minimise light disturbance. Outline Landscape Mitigation Plans will also be prepared and embedded into the design of the Project.	A Draft Outline CEMP is included in Appendix 3B . A Draft Outline Lighting Strategy has also been prepared and forms as stand-alone document. The Outline Landscape Planting Proposals for the HAGIs and BVIs are shown in Figures 1 to 13 which accompany the Outline LEMP .
CEC	It is considered appropriate to scope out national landscape character areas and focus on local landscape character areas.	The assessment of effects on local landscape character areas is provided in Appendix 8D: Landscape Receptor Assessment .

Consultee	Consideration	How addressed in this Draft ES
CEC	The construction phasing plans use existing planting to screen views and use solid fencing with temporary bunds. Opportunities for advance planting to be left to benefit landscape pattern thereafter and seeding of bunds should be also considered.	A Draft Outline CEMP is included in Appendix 3B . The Outline Landscape Planting Proposals for the HAGIs and BVIs are shown in Figures 1 to 13 which accompany the Outline LEMP .
CEC	There is consideration of permanent bunds and planting at block valve locations, which is welcome. The Council would suggest appropriate landscape details to be agreed that are sensitive to the location and existing species.	The Outline Landscape Planting Proposals for the HAGIs and BVIs are shown in Figures 1 to 13 which accompany the Outline LEMP .
CEC	The methodology sets out that landscape and visual effects evaluated as moderate may or may not be judged as significant depending upon professional judgement. Where they are judged not to be significant, a clear rationale should be set out within the ES.	This is included within this Draft ES where Moderate effects are judged to be Not Significant, in accordance with Appendix 8A: Landscape and Visual Impact Assessment Methodology .
CEC	In relation to the pipeline corridor, it is noted that there is no assessment of Year 15, assumed because this stage has been scoped out.	Section 8.7 confirms the temporal scope of the assessment. A Year 15 assessment is included for the above ground infrastructure only (HAGIs and BVIs), as agreed with the Planning Inspectorate in the Scoping Opinion (PINS ID 3.30, Ref 3.4.1).
CEC	There are no visual receptors identified within Cheshire East. Two settlements, Broomedge and High Legh, are not assessed as it is stated that there would be zero magnitude of change in views from these. Therefore,	The PEIR provided assessments for Arley (pages 75-76), High Legh (pages 77-79) and Broomedge (pages 80-81) in Appendix 8E of the PEIR. The PEIR assessment also considered the views from promoted recreational routes which pass through Cheshire East. These assessments have been updated as part

Consultee	Consideration	How addressed in this Draft ES
	visual impact is not considered within the entire stretch of pipeline and associated works within Cheshire East and the Council consider that this should be addressed.	of this Draft ES and are presented in Appendix 8F: Visual Receptor Assessment. Table 8.22 and Table 8.23 also now record the relevant Local Planning Authority (LPA) against each receptor and Appendix 8F includes a contents list of assessment tables at the start of the appendix, with each table provided its own reference, to aid navigation.
CEC	The Council would welcome the opportunity to discuss viewpoint locations further	The draft schedule of viewpoints is set out in Table 8.8 , and consultees will be consulted on the appropriateness of the viewpoint selection in response to the Stage 3 statutory consultation exercise. The final schedule of viewpoints will be reported in the Final ES.
CEC	Visual receptors whose focus is not on the landscape, and with a medium sensitivity, have been scoped out in agreement with PINS. However, the methodology for identifying sensitivity already considers whether or not the viewer's attention is focussed on the landscape, so we would question whether this further sifting using the same criteria is appropriate.	Visual receptors of a medium and low sensitivity, where focus is not on the landscape, have been scoped out of the assessment as agreed by the Planning Inspectorate in the Scoping Opinion (PINS ID 3.35, Ref 3.4.6).
CEC	All individual private dwellings are scoped out due to 'proportionality' and the impracticality of visiting all locations. The Council consider that there should be a professional opinion as to whether any particular properties are likely to be very significantly affected. Furthermore, the potential for impact on so many individual properties may be significant in itself and should be considered within the	Residents at individual private properties or groups of properties which coincide with the ZTVs for the HAGI and BVIs will be included in the LVIA in the Final ES.

Consultee	Consideration	How addressed in this Draft ES
	assessment, perhaps by sifting those deemed most likely to be significantly impacted or grouping some receptors appropriately.	
Warrington Borough Council (WBC)	Concerns regarding impacts to the loss of rural hedgerows, mature hedgerow trees and the loss of historic boundaries of potential 'important' hedgerows under the hedgerow regulations. The loss of prominent trees and impacts to mature woodlands would also bring concern	An AIA which details the potential tree and hedgerow removal is contained in Appendix 8C: Arboricultural Impact Assessment (AIA) .
WBC	Where trees are to be retained which can be impacted upon by the proposal, protective measures must be provided. Where trees are to be removed, in the first instance replacements should be within the preliminary order limits boundary, however given the final solution is likely to require only a narrow corridor there may not be sufficient scope to accommodate replacement planting, therefore off site locations should be marked to accommodate any mitigation plantings required, or contributions discussed to enhance local public open space	An AIA which details the potential tree and hedgerow removal is contained in Appendix 8C: Arboricultural Impact Assessment (AIA). Trees to be retained will be protected in accordance with BS 5837 (2012) – Trees in Relation to Design, Demolition and Construction. The outline landscape planting proposals for the HAGIs and BVIs are shown in Figures 1 to 13 which accompany the Outline LEMP. Section 8.6 and Appendix 8C: Arboricultural Impact Assessment (AIA) also set out the proposed environmental measures.
WBC	It is likely within the routes that trees subject to TPOs will be encountered. Should this occur each protected tree would have to be individually considered and preferably retained within the development.	There are no trees subject to a TPO that are proposed for removal as part of the Project as confirmed in Appendix 8C: Arboricultural Impact Assessment (AIA) .

Consultee	Consideration	How addressed in this Draft ES
WBC	If there are any future restrictions on planting, within proximity of the apparatus both above and underground and limits on planting distances from the pipelines, then this needs to be included within the ES and future applications.	The landscape planting proposals for the HAGIs and BVIs are shown in Figures 1 to 13 which accompany the Outline LEMP. Section 8.6 and Appendix 8C: Arboricultural Impact Assessment (AIA) also set out the proposed environmental measures.
WBC	The ES and subsequent application needs to include the following details: • Tree Survey; • Tree retention and removal plan; • Retained trees and the root protection areas shown on proposed layout plans; and • Landscape design including species and location of new tree planting. We would request that for every tree lost at least 2 are planted, that they are native species, that the replacements are an appropriate size and that any failures within the first 10 years of planting they are replaced.	An AIA which details the potential tree and hedgerow removal is contained in Appendix 8C: Arboricultural Impact Assessment (AIA). Trees to be retained will be protected in accordance with BS 5837 (2012) – Trees in Relation to Design, Demolition and Construction. The landscape planting proposals for the HAGIs and BVIs are shown in the figures which accompany the Outline LEMP. Section 8.6 and Appendix 8C: Arboricultural Impact Assessment (AIA) also set out the proposed environmental measures.
WBC	Require that any on site lighting, but especially for 24hr workings, be carefully positioned and aimed/controlled so as to ensure that minimisation of adverse impacts on residential amenity is 'by design'.	A Draft Outline CEMP is included in Appendix 3B . A Draft Outline Lighting Strategy has also been prepared and forms as stand-alone document.
National Grid	Request that only slow or low growing species of trees and shrubs are planted beneath and adjacent to the existing	This has been considered in the outline landscape planting proposals shown in Figures 1 to 13 of the Outline LEMP .

Consultee	Consideration	How addressed in this Draft ES
	overhead line to reduce the risk of growth to a height which compromises statutory safety clearances.	
Warburton Parish Council	Concerns in terms of the effect from the development on the physical landscape, the disruption and potential damage caused during the lengthy planned period of construction	A revised assessment of the direct (physical) effects on the landscape within Warburton Parish, is reported in Appendix 8D: Landscape Receptor Assessment .
Dunham Massey Parish Council	Concerns that the Warburton HAGI would have a negative visual impact both to the Trans Pennine Trail and to the adjoining area and would contradict the proposals set out in Places for Everyone by Greater Manchester Combined Authority and the proposed Trafford Local Plan which emphasise the importance of maintaining the character of rural areas and their importance in terms of leisure and tourism.	An assessment of effects on the views from the Trans Pennine Trail is reported in Appendix 8F: Visual Receptor Assessment whilst effects on landscape character are included in Appendix 8D: Landscape Receptor Assessment .
Dunham Massey Parish Council	Concerns that the construction of the pipeline, as well as having a negative visual impact would render paths across fields which are used by walkers unusable.	Appendix 11C: Draft Outline Public Rights of Way Management Plan (PRoWMP) provides details of the environmental measures which would be implemented in relation to PRoW, permissive paths, Other Routes with Public Access (ORPA) and Open Access Land (OAL) which are affected by the construction phase of the Project.
Canal & River Trust	The Runcorn HAGI is close to the Weaver Navigation and is likely be visible from the waterway, thus requiring users of the Weaver Navigation to be considered in the LVIA. Mitigation planting with native species to limit any identified visual impact would	Through design evolution, Runcorn HAGI is now proposed to be sited adjacent to the Rocksavage Power Station, which is at an increased separation distance from the Weaver Navigation. An updated assessment of the visual effects from the waterway corridors is included in Appendix 8F: Visual Receptor Assessment whilst the mitigation

Consultee	Consideration	How addressed in this Draft ES
	be welcomed. The stated benefit of this HAGI would be a reduction in the number of pipelines crossing the Weaver Navigation, although the west corridor route to the HAGI would however still require crossing the River Weaver and the Weaver Navigation. This crossing is not included in the PEIR Fig 2.18 Schedule.	measures are set out in Section 8.6 and are illustrated for the HAGIs in the figures which accompany the Outline LEMP. The updated Crossing Schedule is included in Appendix 2B with crossing points illustrated on Figure 2.3.
Canal & River Trust	Notwithstanding that most of the disturbance/visual impact would be during the construction phase, along the route several HAGI would be sited above ground. including several sites where the HAGI might be visible from the waterway corridors.	An assessment of the visual effects from the waterway corridors is included in Appendix 8F: Visual Receptor Assessment .
Canal & River Trust	We note that in terms of the Runcorn HAGI and as indicated by the ZTV here there would be intermittent views of the Runcorn HAGI located adjacent to the canal north of Frodsham Substation. The magnitude of change would be medium. This would reduce overtime as mitigation planting establishes."	Through design evolution, Runcorn HAGI is now proposed to be sited adjacent to the Rocksavage Power Station, which is at an increased separation distance from the Weaver Navigation. Further information can be found in Appendix 2A: Design evolution and the Design Evolution Report 2024. The revised ZTV for the Runcorn HAGI is presented in Figure 8.30 and changes to the views of users of the Weaver Navigation have been reassessed in Appendix 8F: Visual Receptor Assessment.
Canal & River Trust	In terms of the Rocksavage HAGI Options: The ZTVs indicates that views towards the Rocksavage HAGI options (RSH1, RSH2 and RSH3) available to recreational receptors navigating the River Weaver would be limited from the majority of the waterway a	Through design evolution, only one proposed option remains and is assessed as part of this Draft ES, (RSH3). Further information can be found in Appendix 2A: Design evolution and the Design Evolution Report 2024. The assessment of the visual effects from the waterway corridors is included in

Consultee	Consideration	How addressed in this Draft ES
	combination of separation distance, built form, embankments and woodland/vegetation cover. Effects would be Minor and Not Significant. The exception relates to a short section of the River Weaver to the south of Frodsham Substation from where effects would be Moderate and Not Significant.	Appendix 8F: Visual Receptor Assessment.
Canal & River Trust	Consider that the Runcorn HAGI and Rocksavage HAGI should include viewpoints from the respective waterway corridors and that it might also be useful to include typical viewpoints from along the route where it crosses the canal to demonstrate that there would not be any longer-term visual harm from the underground pipe.	Viewpoints have been included from the banks of the waterways where they coincide with the updated ZTVs for the Runcorn and Rocksavage HAGIs presented in Figures 8.29 and 8.30 . Viewpoint locations have been concentrated within a 1km study area around each of the above ground infrastructure sites (HAGIs and BVIs) as opposed to along the pipeline corridor where effects would be temporary/short-term.
National Trust	Concerns about the landscape and visual impacts associated with the introduction of any above ground structures and infrastructure in this area. We consider they have the potential to be major and dominating features with direct impacts upon occupiers of both existing and proposed dwellings within this area, along with other recreational users.	The National Trusts' Dunham Massey lies beyond the LVIA Study Area and therefore landscape and visual effects within Dunham Massey have not been considered in the LVIA. The effects of the Project on the landscape character areas to the west of the Dunham Massey is set out in Appendix 8D: Landscape Receptor Assessment where the higher perceptions of remoteness and tranquillity of this landscape are noted. The visual assessment in Appendix 8F: Visual Receptor Assessment assesses changes to the view of receptors using the Trans Pennine Trail and Cheshire Canal Ring Walk, both of which are referenced within the National Trust response.

8.4 Data Gathering Methodology

Study area

- 8.4.1 The LVIA Study Area is defined by a 1km offset from the Draft Order Limits, that incorporates the full extent of the pipeline corridors, including all temporary construction compounds and material storage areas. The LVIA Study Area also incorporates all operational above ground elements i.e., the HAGIs and BVIs.
- 8.4.2 The definition of the spatial scope of the LVIA Study Area has been assisted by a visual angle calculation of a HAGI at 5m high above ground²² over a range of distances in **Table 8.6**. Professional experience of assessing development projects in accordance with GLVIA3 indicates that when the vertical angle subtended is less than 0.3 degrees, the new structures would be barely discernible and/or would occupy a very small part of the view. Consequently, a magnitude greater than Very Low is highly unlikely. The Study Area, which typically comprises relatively flat topography, can therefore be conservatively defined at a distance of 1km from the HAGIs, with a high level of confidence that no potentially significant effects would be experienced by high sensitivity receptors beyond this distance, in accordance with **Appendix 8A: Landscape and Visual Impact Assessment Methodology**. Isolated locations where elevated views would be available include the Cheshire Sandstone Ridge, close to Frodsham and Helsby, that lie close to the edge of the LVIA Study Area.

Table 8.6 Visual angle calculation in relation to distance from a HAGI

Distance from viewer of a 5m high object	Vertical angle subtended ²³
0.1km	2.86°
0.2km	1.43°
0.5km	0.57°
1.0km	0.29°
1.5km	0.19°
2.0km	0.14°

Desk study

- 8.4.3 A summary of the organisations that have supplied data, together with the nature of that data is outlined in **Table 8.7**.

²² Based on the maximum height of the proposed lighting columns at 5m.

²³ Elvers (2022). Visual Angle calculator. (online) Available at: <https://elvers.us/perception/visualAngle/> (Accessed 18 July 2024).

Table 8.7 Data sources used to inform the landscape and visual assessment

Source	Date	Summary
Ordnance Survey (OS)	June 2022	Digital 1:25,000 scale ‘Explorer’ mapping covering the Study Area. Terrain data at 5m resolution. Vectormap District boundary data. Baseline information on landscape context including topography, drainage, settlement pattern, land-use, woodland, promoted recreational routes, transport network and infrastructure. Terrain data to generate ZTV plans with Vectormap District boundary data to generate exclusion zones for woodland and buildings.
Google Earth Pro.	Various dates	Baseline information in plan and Street View covering landscape context including topography, drainage, settlement pattern, land use, landcover, transport network and infrastructure.
Natural England	June 2024	National Character Area profiles²⁴. The Shropshire, Cheshire and Staffordshire Plain (NCA 61); The Cheshire Sandstone Ridge (NCA 62); The Mersey Valley (NCA 60); and The Lancashire Coal Measures (NCA 56). Baseline information on a national level and sets the landscape context for regional and local level landscape character assessments.
MAGIC interactive map²⁵	June 2024	Baseline information to inform landscape sensitivity assessment, including details of environmental designations for example, heritage and ecology that may influence landscape value.
Sustrans	June 2024	National Cycle Network. GIS dataset covering promoted cycle routes.

²⁴ Natural England (2024). National Character Area profiles (online). Available at: <https://naturalengland-defra.opendata.arcgis.com/datasets/Defra::national-character-areas-england/about> (Accessed 24 June 2024).

²⁵ Defra (2022). Multi-Agency Geographic Information for the Countryside (MAGIC) website. (online) Available at <https://magic.defra.gov.uk/magicmap.aspx> (Accessed 24 June 2024)

Source	Date	Summary
Cheshire East Council, Cheshire East Landscape Character Assessment²⁶	2018	Baseline information on landscape character at a local/district level.
Cheshire West and Chester Council, A Landscape Strategy for Cheshire West and Chester Borough²⁷	2016	Baseline information on landscape character at a local/district level.
Halton Borough Council, Halton Landscape Character Assessment²⁸	2009	Baseline information on landscape character at a local/district level.
Knowsley Metropolitan Borough Council, Landscape Character Assessment of Knowsley Metropolitan Borough²⁹	2007	Baseline information on landscape character at a local/district level.
St Helens Borough Council, Landscape	2006	Baseline information on landscape character at a local/district level.

²⁶ Cheshire East Council (2018). Cheshire East Landscape Character Assessment. (online) Available at: https://www.cheshireeast.gov.uk/planning/spatial-planning/cheshire_east_local_plan/site-allocations-and-policies/sadpd-examination/documents/examination-library/ed10-cheshire-east-lca.pdf (Accessed 24 June 2024)

²⁷ Cheshire West and Chester Council (2016). A Landscape Strategy for Cheshire West and Chester Borough. (online) Available at: <https://www.cheshirewestandchester.gov.uk/residents/planning-and-building-control/total-environment/local-landscape-character-assessment-landscape-strategy-2016> (Accessed 24 June 2024)

²⁸ Halton Borough Council (2009). Halton Landscape Character Assessment <https://www3.halton.gov.uk/Pages/planning/policyguidance/PolicyBackgroundDocuments.aspx> (Accessed 24 June 2024)

²⁹ Knowsley Council (2007). Landscape Character Assessment of Knowsley Metropolitan Borough (online). Available at: http://www.knowsley.gov.uk/pdf/eb20_landscapecharacterassessment.pdf (Accessed 24 June 2024)

Source	Date	Summary
Character Assessment for St Helens³⁰		
Trafford Metropolitan Borough Council, Supplementary Planning Guidance Landscape Strategy³¹	2004	Baseline information on landscape character at a local/district level.
Warrington Borough Council, Warrington A Landscape Character Assessment³²	2007	Baseline information on landscape character at a local/district level.
Cheshire West and Chester Council, Local Landscape Designations: Areas of Special County Value in Cheshire West and Chester³³	2017	Baseline information on the special qualities of landscape designations at a local/district level.
Cheshire East Council, Cheshire East Local Landscape Designation	2018	Baseline information on the special qualities of landscape designations at a local/district level.

³⁰ St Helens Council (2006). Landscape Character Assessment for St Helens (online). Available at: https://www.sthelens.gov.uk/media/2065/NAT001-St-Helens-Landscape-Character-Assessment-2006/pdf/NAT001_St_Helens_Landscape_Character_Assessment_2006.pdf?m=637794869203630000 (Accessed 24 June 2024)

³¹ Trafford Metropolitan Borough (2004). Supplementary Planning Guidance Landscape Strategy 2004 SPG 2004 - Landscape Strategy (online). Available at: <https://www.trafford.gov.uk/planning/strategic-planning/docs/spg-2004-landscape-strategy.pdf> (Accessed 24 June 2024)

³² Warrington Borough Council (2007). Warrington A Landscape Character Assessment (online). Available at: https://www.warrington.gov.uk/sites/default/files/2019-08/landscape_character_assessment_2007.pdf (Accessed 24 June 2024)

³³ Anthony Brown of Bayou Bluenvironment and Graham Bradford of The Planning & Environment Studio (2017). Local Landscape Designations: Areas of Special County Value in Cheshire West And Chester. (online). Available at: <https://www.cheshirewestandchester.gov.uk/asset-library/local-landscape-designations-areas-of-special-county-value-june-2017.pdf> (Accessed 24 June 2024)

Source	Date	Summary
Review ³⁴		

Zones of Theoretical Visibility (ZTVs)

- 8.4.4 A Zone of Theoretical Visibility (ZTV) has been generated for each above ground operational component (e.g. HAGIs and BVIs) to inform the LVIA. ZTV is defined in GLVIA3¹⁵ as “a map, usually digitally produced, showing areas of land within which a development is theoretically visible” and represents the desk top component of the visibility analysis.
- 8.4.5 The methodology and parameters used for the production of ZTVs is set out in **Appendix 8A: Landscape and Visual Impact Assessment Methodology**.

Survey work

- 8.4.6 A site survey was undertaken in early-March 2022 following submission of the Scoping Report in January 2022, and a photographic record obtained from 29 locations which were presented as annotated baseline photography in the PEIR. The timing of the site survey was designed to ensure photography reflected the maximum visibility scenario prior to deciduous trees and shrubs coming into leaf. The methodology for baseline photography and its presentation is set out in **Appendix 8A: Landscape and Visual Impact Assessment Methodology**.
- 8.4.7 The preliminary viewpoint locations were identified by desktop review of the OS mapping and Google Earth Pro. Review in the field required some viewpoint locations to be adjusted, for example, to obtain less restricted views towards the Project or to avoid foreground clutter.
- 8.4.8 The preliminary viewpoint locations have subsequently been reviewed following the production of the updated ZTVs which are illustrated in **Figures 8.28 to 8.40**. This identified a small number of locations that were sited outwith the ZTV and have therefore been discarded, and a small number of additional and replacement viewpoints. Further site surveys were therefore conducted in March 2023 and July 2024 to obtain viewpoint photography from the additional/replacement viewpoints and for new HAGI options identified at Partington and Higher Walton.
- 8.4.9 The publicly accessible viewpoint locations and justification rationale is set out in **Table 8.8**. In accordance with paragraph 6.21 of GLVIA3¹⁵, the selection has

³⁴ Land Use Consultants (2018). Cheshire East Local Landscape Designation Review. (online). Available at: <https://www.cheshireeast.gov.uk/planning/spatial-planning/cheshire-east-local-plan/site-allocations-and-policies/sadpd-examination/documents/examination-library/ed11-cheshire-east-lld-review.pdf> (Accessed 24 June 2024)

covered “*as wide a range of situations as is possible, reasonable and necessary to cover the likely significant effects*”.

- 8.4.10 Consultees are requested to comment on the appropriateness of the viewpoint selection as part of their response to this Draft ES. A final schedule of viewpoints and accompanying photography will be included within the Final ES.

Table 8.8 Draft viewpoint schedule

Viewpoint Reference	Location	Selection Justification	HAGI/BVI	Local Authority
HPP1	A5117, south of Stanlow Refinery	Representative Viewpoint. Views experienced by road users, users of adjacent footway and National Cycle Route 5.	HPP HAGI	CWACC
RS1	NCR 5 on The Quay, Frodsham	Representative Viewpoint. Views experienced by users of National Cycle Route 5 and similar to residential dwellings on The Quay, Frodsham.	Rocksavage HAGI	CWACC
RS2	PRoW S9	Representative Viewpoint. Views experienced by users of a local footpath on the northern bank of the Weaver Navigation.	Rocksavage HAGI	CWACC
RS3	PRoW 284/FP9/1	Representative Viewpoint. Views experienced by users of a local footpath close to the Weaver Sailing and Ski Club (northern bank of the River Weaver)	Rocksavage HAGI	Halton Borough Council
RC1	Frodsham Substation Access Road	Representative Viewpoint. Views experienced by road users.	Runcorn HAGI	CWACC
RC2	PRoW 127/FP93/1, south of River Weaver	Representative Viewpoint. Views experienced by users of a local footpath.	Runcorn HAGI	CWACC
CH1	Marsh Lane, north-east of Central Hub HAGI	Representative Viewpoint. Views experienced by road users.	Central Hub HAGI	CWACC

Viewpoint Reference	Location	Selection Justification	HAGI/BVI	Local Authority
CH2	Marsh Lane, adjacent Newholme Farm	Representative Viewpoint. Views experienced by road users and similar to nearby Farmstead (Newholme Farm).	Central Hub HAGI	CWACC
CH3	Northwich Road (A553), adjacent Dane Farm	Representative Viewpoint. Views experienced by road users and similar to residential dwellings south of the A553 (Dane Farm and Dane Barns).	Central Hub HAGI	CWACC
HSF1	A530 layby	Representative Viewpoint. Views experienced by northbound road users.	HSF HAGI	CWACC
HSF2	Restricted Byway (RB7) north-west of Drakelow Hall Farm	Representative Viewpoint. Filtered views experienced by north-west bound users of Restricted Byway (RB7), similar to views orientated west from Drakelow Hall Farm.	HSF HAGI	CWACC
W1	Carrgreen Lane	Representative Viewpoint. Views experienced by south-west bound road users.	Warburton HAGI	Trafford Metropolitan Borough Council (TMBC)
W2	Dunham Road, adjacent Boxedge Farm	Representative Viewpoint. Filtered views experienced by eastbound road users, similar to dwellings adjacent to Dunham Road (including Boxedge Farm).	Warburton HAGI	TMBC
W3	Dunham Road, north-east of Warburton HAGI	Representative Viewpoint. Intermittent filtered views experienced by road users, similar to dwellings adjacent to Dunham Road.	Warburton HAGI	TMBC

Viewpoint Reference	Location	Selection Justification	HAGI/BVI	Local Authority
W4	Trans Pennine Trail and National Cycle Route 62	Illustrative Viewpoint. Demonstrating the restricted visibility experienced by walkers and cyclists on Trans Pennine Trail and National Cycle Route 62.	Warburton HAGI	TMBC
W5	Bollin Valley Way/Barns Lane	Representative Viewpoint. Views experienced by northbound walkers travelling along the Bollin Valley Way and road users on Barns Lane.	Warburton HAGI	TMBC
W6	Station Road, Dunham Woodhouses	Representative Viewpoint. Views experienced by residents in dwellings on Station Road (and Dunham Woodhouses Conservation Area).	Warburton HAGI	TMBC
P1	Restricted byway (Tra-26) north-west of Partington HAGI (PH1)	Representative Viewpoint. Views experienced by eastbound users of Restricted byway (Tra-26).	Partington HAGI (Option PH1)	TMBC
P2	Eastern end of Restricted byway (Tra-26)	Representative Viewpoint. Views experienced by westbound users of Restricted byway (Tra-26).	Partington HAGI (Option PH1)	TMBC
P3	Manchester Road (A6144)	Representative Viewpoint. Views experienced by road users and users of adjacent footway	Partington HAGI (Option PH1)	TMBC
P4	Transport for Greater Manchester (TfGM) Cycle route	Representative Viewpoint. Views experienced by users of a section of traffic-free cycle network.	Partington HAGI (Option PH2)	TMBC

Viewpoint Reference	Location	Selection Justification	HAGI/BVI	Local Authority
P5	Transport for Greater Manchester (TfGM) Cycle route	Representative Viewpoint. Views experienced by users of a section of traffic-free cycle network.	Partington HAGI (Option PH2)	TMBC
P6	Local PRow (Carrington 9)	Illustrative Viewpoint. Demonstrating the restricted visibility experienced by walkers using the local PRow network.	Partington HAGI (Option PH2)	TMBC
HW1	PRow south of Moor Nature Reserve (north-east of Higher Walton HAGI)	Representative Viewpoint. Views experienced by westbound users of the PRow south of Moor Nature Reserve.	Higher Walton HAGI (Option HWH2)	WBC
HW2	PRow south of Moor Nature Reserve (north-west of Higher Walton HAGI)	Representative Viewpoint. Views experienced by eastbound users of the PRow south of Moor Nature Reserve.	Higher Walton HAGI (Option HWH2)	WBC
HW3	Mill Lane	Representative Viewpoint. Views experienced by users of the local road network and residents at nearby dwellings along Mill Lane.	Higher Walton HAGI (Option HWH8)	WBC
HW4	A56	Representative Viewpoint. Views experienced by road users and users of adjacent footway.	Higher Walton HAGI (Option HWH8)	WBC
HW5	Local PRow (00304/2/1) south-east of Grange Green Manor	Illustrative Viewpoint. Demonstrating the restricted visibility experienced by walkers using the local PRow network.	Higher Walton HAGI (Option HWH8)	WBC
CF1	Jubits Lane (B5419)	Representative Viewpoint. Views experienced by road users and users of adjacent footway.	Clock Face HAGI	St Helens Borough

Viewpoint Reference	Location	Selection Justification	HAGI/BVI	Local Authority
				Council (SHBC)
CF2	Jubits Lane (B5419), M62 overpass	Representative Viewpoint. Views experienced by road users and users of adjacent footway.	Clock Face HAGI	SHBC
CF3	Warrington Road (A57), adjacent Sandhill Farm	Representative Viewpoint. Views experienced by road users and similar to residential dwellings south of the A57 (including Sandhill Farm).	Clock Face HAGI	SHBC
CF4	PRoW FP301 to the north of the M62	Representative Viewpoint. Views experienced by users of a local footpath.	Clock Face HAGI	SHBC
CF5	Bell Lane, southern edge of Sutton Manor	Representative Viewpoint. Views experienced by residents in dwellings on the southern edge of Sutton Manor.	Clock Face HAGI	SHBC
SH1	A50 Warrington Road to the east of Sworton Heath	Representative Viewpoint. Views experienced by eastbound road users and users of adjacent footway.	Sworton Heath BVI	CEC
SH2	Crabtree Lane, north of Sworton Heath	Representative Viewpoint. Views experienced by southbound road users and similar to residential dwellings on Crabtree Lane.	Sworton Heath BVI	CEC
SH3	West Lane, High Legh	Representative Viewpoint. Views experienced by users of Regional Cycle Route 70 and residents accessing community facilities on the south-western edge of High Legh.	Sworton Heath BVI	CEC

Data limitations

8.4.11 There are no known limitations with regard to the desk or field survey data.

8.5 Overall Baseline

Current baseline

Landscape Designations

- 8.5.1 There are no national landscape designations (i.e., National Parks, Areas of Outstanding Natural Beauty, or Heritage Coasts) in the LVIA Study Area. The closest national designation is the Peak District National Park, which is located ~20km to the south-east of the LVIA Study Area.
- 8.5.2 In the Scoping Opinion (PINS ID 3.36 Ref 3.4.7), the Inspectorate notes the Cheshire Sandstone Ridge is being considered for status as an Area of Outstanding Natural Beauty (AONB) by Natural England. In a subsequent consultation Natural England stated that *‘there is no boundary for the proposed Cheshire Sandstone Ridge AONB as this would be determined through the future landscape assessment process that would underpin any future designation’*³⁵. The potential component landscape character areas within the Sandstone Ridge Landscape Character Type, set out in the Cheshire West and Chester Landscape Strategy (2016) that fall within the LVIA Study Area, are assessed in this Draft ES.
- 8.5.3 Local landscape designations within the LVIA Study Area are illustrated in **Figure 8.1** and comprise the Weaver Valley Area of Special County Value (ASCV) (which features three separate areas, two of which coincide with the LVIA Study Area) and the Helsby and Frodsham ASCV, both within the Cheshire West and Chester Council administrative area and protected by Policy GBC 2 ‘Protection of Landscape’⁷. In addition, the Bollin Valley Local Landscape Designation (LLD) area (as defined in the Cheshire East Local Plan Strategy 2010-2030 adopted Proposals Map³⁶) lies within the area administered by Cheshire East Council and is protected under Policy SE 4 The Landscape⁸.
- 8.5.4 The Special Qualities of the Weaver Valley ASCV are as follows:
- Weaver Valley ASCV - Lower Weaver:
- *‘Distinct valley with a flat open floodplain and steep, wooded, valley sides.*
 - *Contains the course of the River Weaver and the engineered Weaver Navigation with many artificial channels (‘cuts’), remnant meanders, major locks, sluices and weirs such as at Dutton and Saltersford.*

³⁵ Natural England (Cheshire, Greater Manchester, Merseyside and Lancashire Area Team) email correspondence 16 May 2022.

³⁶ Cheshire East Council (2017). Cheshire East Local Plan Strategy 2010-2030 Interactive Adopted Proposals Map. (online). Available at: <https://maps.cheshireeast.gov.uk/ce/localplan/2010-2030>

- *The steep valley sides and series of steep sided tributary valleys support distinctive clough woodland, much of which is ancient - some have notable bluebell swathes.*
- *The ASCV includes Beechmill Wood and Pasture, Warburton's Wood and Well Wood SSSIs and Hunter's Wood nature reserve. Dutton Park is a large mixedhabitat Woodland Trust estate.*
- *Valley sides also support small/medium scale arable and pastoral fields, bounded by low gappy hedgerows.*
- *Alluvium on the valley floor gives rise to waterlogged soils which generally support permanent pasture including seasonally wet species rich grassland.*
- *Recreational opportunities are provided by public footpaths alongside the river/navigation, including Delamere Way and the Cheshire Ring Canal Walk long distance recreational footpaths.*
- *The locks and 'boat graveyard' at Dutton are distinctive sites and popular visitor attractions.*
- *Views are typically restricted to within the valley, for example there are views across the valley from either side, and from floodplains to the valley sides. The top of the valley sides form a skyline.*
- *Generally, a quiet, tranquil landscape with significant opportunity for quiet recreation.*
- *The Trent and Mersey Canal Walk (designated as a linear Conservation Area) follows the northern flank of the valley – contributing associated structures and artefacts of industrial archaeology, many of which are listed.*
- *Marker stones at the meadows at Frodsham are listed as are buildings to the northern valley side at Aston.*
- *Scheduled Monuments are found at Bradley Promontory Fort and Middleton moated monastic grange.*
- *Designed parkland surrounding the former Aston Hall (now demolished) contributes to the wooded character of the ridge and is a locally important historic site.*
- *The Acton Swing Bridge (A49) and huge sandstone arched Dutton railway viaduct contribute to the industrial influence of the valley and importance as a navigable waterway.*
- *Settlement is generally absent from floodplain, except at locks and small areas of ribbon development alongside the A49. Scattered farms are typical of the less steep valley sides, such as Weaverham Wood Farm and Bartington Hall Farm.*
- *There is a minimal road network beyond the A49 crossing.*³³

Weaver Valley ASCV – Mid Weaver:

- *‘Pronounced river valley topography with a relatively narrow, flat floodplain and steep, wooded valley sides containing the course of the River Weaver (partly engineered to become the Valeroyal Cut) with many artificial channels, locks and bridges, including Valeroyal Locks.*
- *The steep valley sides and series of steep sided tributary valleys support distinctive clough woodland, much of which is ancient.*
- *Alluvium on the valley floor gives rise to waterlogged soils which generally support seasonally wet species rich grassland.*
- *This ecological value is recognised by local wildlife site designation over much of the ASCV.*
- *Recreational opportunities are provided by multi-user paths alongside the river / navigation, and on the river itself which supports both commercial and recreational waterborne traffic.*
- *Views are typically restricted to within the valley, for example there are views across the valley from either side, and from riverside/navigation path to the valley sides. The tops of the valley sides generally form a skyline.*
- *A quiet, tranquil and distinctly enclosed landscape with an absence of settlement despite proximity to larger towns.*
- *Industrial and heritage landmarks have a visual influence on parts of the valley – particularly close to Winsford.*
- *The prominent Hartford Bridge, and sandstone arched railway viaduct contribute to the industrial heritage and character of the valley, reminding of the proximity to major transport routes and settlement.’³³*

8.5.5 The Special Landscape Qualities of the Helsby and Frodsham Hills ASCV consist of:

- *‘Outcrops of Triassic sandstone form a prominent ridge reaching over 150m with summit features at Beacon Hill, Harrol Edge and Birch Hill.*
- *Helsby Hill at 141m elevation stands as a prominent free-standing outcrop with distinctive, steep sided profile, including the ‘Old Man of Helsby’.*
- *Pronounced sandstone scarps to the north and west of the ASCV support dense woodland, including ancient oak woodland, for example at Alvanley Cliff Wood.*
- *Dry gorges, created by glacial meltwater, are features of the northern and western edges of the ridge.*
- *A strong mosaic land cover of grassland, arable farmland and woodland.*
- *Groups of Scots pines form distinctive skyline elements.*
- *Regular geometric fields, resulting from late eighteenth and early nineteenth century enclosure by private agreement and Parliamentary Act, characterise the ridge.*

- *17th century deer park to the south of the ASCV at New Pale with distinctive circular boundary is a feature in the landscape.*
- *Low density of dispersed farms and hamlets – many farm buildings are constructed from sandstone (quarried from the ridge) with welsh slate roofs.*
- *Sunken lanes network provides access over the ridge, responding to landform whilst there is an absence of main roads.*
- *The promontory forts at Helsby Hill and Woodhouses Hill (Scheduled Monuments) occupy prominent positions along the ridge. Other archaeological sites include the remains of the possible motte and bailey castle at Castle Cobb and the remains of the Maidens Cross wayside cross (Scheduled Monuments).*
- *Historic buildings range from seventeenth century manor houses and farmsteads, nineteenth century follies and the buildings of Crossley East Sanatorium (Listed Buildings).*
- *The War Memorial on Frodsham Hill is a landmark feature, from where there are panoramic views over the Mersey Estuary.*
- *Long distance footpaths run along the length of the ridge from where there are some spectacular panoramic views from the ridge as far as Wales to the west and the Peak District to the east.*³³

8.5.6 The Bollin Valley LLD area lies to the south of the Warburton HAGI and its Special Qualities are described as follows:

- *'The distinct pastoral and wooded character of the valley, with small, intimate scale owing to its steep, incised landform.*
- *Rich textures and mosaic of the natural and human environment associated with the river and its tributary streams.*
- *Strong semi-natural character with meadows, mature trees and bands of woodland (including ancient sites) – a number designated as Local Wildlife Sites including the 45 hectare Styal Woods.*
- *The historic and architectural interest of Styal Conservation Area and the landmark Grade II* Quarry Bank Mill. Further mill buildings from the textile industry, the Bridgewater Canal and listed farmsteads create a sense of time depth.*
- *Important amenity and open space value; destinations including Quarry Bank Mill, the Styal Estate, The Carrs (Wilmslow) and Macclesfield Riverside Park. The Cheshire Ring Canal Walk provides access to nearby Dunham Massey; the Bollin forming a valued part of the estate's wider setting.*
- *Intact rural landscape with strong sense of place. A rich variety of woodland cover and sparse settlement enhances feelings of tranquillity despite the proximity of development and infrastructure.*³⁴

National Character Areas

8.5.7 Natural England has divided the country into 159 National Character Areas (NCAs). With reference to **Figure 8.1**, the NCA's within the LVIA Study Area are:

- the Shropshire, Cheshire and Staffordshire Plain (NCA 61);
- the Cheshire Sandstone Ridge (NCA 62);
- the Mersey Valley (NCA 60); and
- the Lancashire Coal Measures (NCA 56).

8.5.8 The descriptions of the National Character Areas are contained in **Appendix 8B**.

Regional Landscape Character Areas

8.5.9 The Greater Manchester Landscape Character and Sensitivity Assessment³⁷ provides up-to-date landscape evidence for Trafford and the other eight Greater Manchester local authorities to support preparation of the Greater Manchester Spatial Framework. However, the planning policy for Trafford, as set out under Policy R2: Natural Environment of the Trafford Local Plan: Core Strategy¹² and the emerging Policy NE1 – The Natural environment in Trafford Local Plan Regulation 18 Consultation Draft³⁸ references the Landscape Character Types as defined in the Supplementary Planning Guidance Landscape Strategy³¹. Accordingly, the LVIA has used these defined LCTs as the landscape receptor units within Trafford.

Local Landscape Character Areas

8.5.10 The local Landscape Character Areas (LCA) and/or Landscape Character Types (LCT) that fall within the LVIA Study Area are described within the following published landscape character assessments:

- Cheshire East Landscape Character Assessment, 2018²⁶;
- A Landscape Strategy for Cheshire West and Chester Borough, 2016²⁷;
- Halton Landscape Character Assessment, 2009²⁸;
- Landscape Character Assessment of Knowsley Metropolitan Borough, 2007²⁹;
- Landscape Character Assessment for St Helens, 2006³⁰;
- Trafford Landscape Strategy 2004³¹. and
- Warrington: A Landscape Character Assessment, 2007³²;

8.5.11 The local Landscape Character Areas (LCA) and/or Landscape Character Types (LCT) that fall within the LVIA Study Area are illustrated on **Figures 8.2 to 8.14**

³⁷ LUC (2018). Greater Manchester Landscape Character and Sensitivity Assessment. (Online). Available at: <https://www.greatermanchester-ca.gov.uk/media/1727/greater-manchester-landscape-character-and-sensitivity-report.pdf> (Accessed 24 June 2024).

³⁸ Trafford Council (2021). Trafford Local Plan Regulation 18 Consultation Draft. (Online). Available at: <https://www.trafford.gov.uk/planning/strategic-planning/local-plan/Trafford-Local-Plan-Consultations.aspx> (Accessed 24 June 2024).

and the key characteristics of each LCA and LCT scoped into the assessment are included in **Appendix 8D: Landscape Receptor Assessment**.

Landscape Elements

8.5.12 Where there is the potential for tree and hedgerow losses to be significant, the impacts will be reported in this Draft ES which is accompanied by an AIA to BS 5837:2012 Trees in relation to design, demolition and construction - Recommendations³⁹ in **Appendix 8C**. This document, together with the **Chapter 5: Biodiversity** surveys cover the trees and hedgerows that have the potential to be significantly affected as a result of the Project.

Visual Receptors

8.5.13 Visual receptors within the Study Area may have the potential to experience significant visual effects with reference to the visual receptor plans at **Figures 8.15 to 8.27** and the ZTVs of the operational HAGI and Block Valves at **Figures 8.28 to 8.40**.

- Settlements:
 - ▶ consisting of residents in the towns of St. Helen's, Widnes, Warrington, Partington, Runcorn and Frodsham;
 - ▶ 41 villages and hamlets as set out in **Table 8.12**.
- National and regional cycle routes (NCRs and RCRs):
 - ▶ parts of routes NCR 5, 62, 562, 573, RCR 70 and RCR 71;
- Long distance footpaths and other promoted recreational walking routes:
 - ▶ parts of the Weaver Way, Trent and Mersey Canal Walk, E8, North Cheshire Way 3, Delamere Way, Dane Valley Way, Bollin Valley Way, Timberland Trail, Mersey Way, Trans Pennine Trail, Bridgewater Way, Cheshire Ring Canal walk, Palatine Plod, Longster Trail, Sandstone Trail, Eddisbury Way and Salford Trail.
- Canals and rivers:
 - ▶ consisting of parts of the Manchester Ship Canal, Weaver Navigation, River Weaver, River Mersey and River Bollin.

Future baseline

8.5.14 Landscape change is an ongoing and inevitable process, which will continue across the LVIA Study Area irrespective of whether the Project goes ahead. Change can arise through natural processes (e.g., the maturity of woodlands) and natural systems (e.g., river erosion) or, as is often the case, occurs due to human activity, land use, management, or neglect.

³⁹ The British Standards Institution (2012). BS 5837:2012 Trees in relation to design, demolition and construction – Recommendations

- 8.5.15 Climate change is increasingly acknowledged as a key driver of future landscape change. The National Character Assessment profiles identify that increased rainfall, periods of drought and more frequent storm events, are likely to result in changes to the character of the landscape within the LVIA Study Area. Periods of drought may change the suitability of current agricultural crops and will make veteran trees in exposed locations more susceptible to loss by wind throw. The changes in weather will encourage the spread of non-native insect pests and pathogens with oak and ash, particularly at threat of being significantly impacted.
- 8.5.16 Other key drivers identified across the NCAs within the LVIA Study Area include increased demand for land for housing, road improvements, industry, renewable energy installations and telecommunications infrastructure. Agricultural changes leading to larger land holdings with larger more centralised buildings are likely in many places. Increased recreational and tourism may threaten sensitive habitats and tranquillity in places.

8.6 Embedded Environmental Measures

- 8.6.1 As part of the project design process, a number of embedded environmental measures are proposed to reduce the potential for impacts on landscape and visual receptors. These are broken down into measures that are incorporated into the overall design of the Project, and those that are to be implemented during its construction and operational phases. No measures have been specifically identified for the decommissioning phase of the Project. However, it is anticipated that measures equivalent to those implemented during construction would also be effective in mitigating effects on landscape and visual receptors during decommissioning. **Table 8.9** outlines how these embedded measures will influence the LVIA.

Table 8.9 Summary of embedded environmental measures

Embedded measures	Compliance mechanism
Construction phase	
Minimising the visibility of activity within construction compounds and material storage areas Achieved by utilising existing vegetation as screening where possible and the adoption of solid fencing on sensitive boundaries. In some locations temporary earthwork bunds may be an appropriate measure and are subject to iterative design evolution.	Construction Environmental Management Plan (CEMP) and Works Plans
Minimisation of impact of construction traffic upon high sensitivity visual receptors, including settlements The Project layout and construction route strategy has sought to avoid routing HGV construction traffic through settlements, where possible and considering safety issues. This will look to minimise the visual impact of HGV traffic	CEMP and Works Plans

Embedded measures	Compliance mechanism
on local communities as a secondary benefit, in addition to addressing the primary environmental sensitivities of construction related traffic including traffic management, noise and air quality.	
Minimisation of hedgerow and tree loss. Achieved through the following: - Where lengths of the pipeline that are to be constructed via open-cut trench method cross hedgerows, the extent of hedgerow to be removed would be as small as possible. This includes both hedgerows and the trees that sit within the hedgerows. - Where the permanent removal of a section of hedgerow is not required, consideration would be given to the temporary translocation⁴⁰ of hedge plants. This method results in a faster reestablishment of the hedgerow post-construction than by planting of transplants and whips. - Where trees (trunks) abut the pipeline corridor, trenchless crossing compounds or other contractor's compounds, the Root Protection Areas (RPAs) of these trees would be protected with protective measures detailed within a site-specific Tree and Hedgerow Protection Strategy (THPS). Where required, working methods would be supervised by an Arboricultural Clerk of Works (ACoW) in line with BS5837:2012. - The Project layout has sought to avoid all areas of Ancient Woodland and trees protected under a Tree Preservation Order (TPO).	CEMP AMS and TPPs
Minimisation of night-time visual impact of construction Adoption of measures that minimise light spill by restricting periods when lighting will be operating and the adoption of LED luminaires, cowlings and columns at a restricted height above ground level, where possible.	CEMP and Outline Lighting Strategy

⁴⁰ This would involve coppicing the hedge (i.e. cutting the plants to ground level), lifting the plants and their root systems, planting in a location where they won't be disturbed by construction activities, maintaining the plants (watering through summer) and replanting in the original location once works are complete.

Embedded measures	Compliance mechanism
Operation phase	
Minimisation of the landscape and visual role of above ground infrastructure This would be achieved by the following: • Introduction of native planting around the HAGIs and Block Value Installations to screen views of ground and low-level infrastructure. This would include species that are beneficial to biodiversity and accord with species/habitat mitigation requirements. • Kiosks and lighting columns within the HAGIs and BVIs would be painted to a colour that fits the context in which they are located. The standard colour for the kiosks is BS 4800 green 14-C-39. The external finish paint colour would be subject to approval at Detailed Design stage with the precise shade specified at that time. • Fencing and access gates around the HAGIs and BVIs would be painted green or PVC coated green to ensure the colour that fits the context in which they are located. The exception would be at the Hydrogen Power Plant HAGI within Stanlow which may be a standard galvanised finish or coated grey. The external finish would be subject to approval at Detailed Design stage with the precise shade specified at that time. These considerations would help screen and/or integrate the above ground development (HAGI and BVI) into the wider landscape or townscape and green infrastructure.	Outline Landscape and Ecological Management Plan (LEMP) which includes outline landscape planting proposals in Figures 1 to 13
Minimisation of night-time visual impact during the Operational Phase HAGIs and BVIs would generally be unlit except during maintenance, security reviews or potential breakdown/emergency requirements when permanent task lighting columns (3-5m in height) would only be in use.	Outline Lighting Strategy
Replacement planting to minimise long-term hedgerow and tree loss Where loss of hedgerow, tree or woodland is unavoidable during the construction phase to accommodate access or the pipeline corridor, the loss would be replaced as close to the original location as reasonably practicable, unless	Outline LEMP

Embedded measures	Compliance mechanism
otherwise prohibited by other requirements or offset requirements from services. This would be in accordance with Cadent's Tree planting restrictions near gas pipes⁴¹ and permits the planting of hardwood hedge plants directly over the pipeline where a hedge is necessary either for screening purposes or to indicate a field boundary. Species mixes/planting schemes would include species that are beneficial to biodiversity and accord with species/habitat mitigation requirements.	
Enhancement of existing hedgerows Where the temporary loss of hedgerow occurs within existing hedgerows that are already fragmented, gapping-up would take place (where appropriate to do so) to create continuous lengths of hedgerow, utilising a species mix containing at least five woody plant species.	Outline LEMP
Reinstatement of land All land disturbed as part of the construction phase and thereafter not required as part of the DCO Project during operation, would be reinstated and returned to its existing land use where appropriate post construction.	Outline LEMP
Long term management of mitigation planting During the operational phase, management and monitoring would take place to ensure all mitigation planting survives and thrives to fulfil its landscape, visual and biodiversity role. Further detail is provided in the LEMP.	Outline LEMP

8.6.2 The Outline LEMP is accompanied by a number of outline landscape planting proposal plans associated with the HAGIs and BVIs as follows:

- **Figure 1** HPP HAGI Outline Landscape Planting Proposals;
- **Figure 2** Rocksavage HAGI Outline Landscape Planting Proposals;
- **Figure 3** Runcorn HAGI Outline Landscape Planting Proposals;
- **Figure 4** Central Hub HAGI Outline Landscape Planting Proposals;
- **Figure 5** Higher Walton (HWH2) HAGI Outline Landscape Planting Proposals;

⁴¹ Cadent Gas (undated), Tree planting restrictions near gas pipes - Guidance notes. (Online). Available at: <https://cadentgas.com/getmedia/25062e2f-7a72-4990-a818-0d6762af9d59/Tree-planting-guidance-Cadent-for-web.pdf> (Accessed 24 June 2024).

- **Figure 6** Higher Walton (HWH8) HAGI Outline Landscape Planting Proposals;
- **Figure 7** Clock Face HAGI Outline Landscape Planting Proposals;
- **Figure 8** Warburton HAGI Outline Landscape Planting Proposals;
- **Figure 9** Partington (P1) HAGI Outline Landscape Planting Proposals;
- **Figure 10** Partington (P2) HAGI Outline Landscape Planting Proposals;
- **Figure 11** Hydrogen Storage Facility HAGI Outline Landscape Planting Proposals;
- **Figure 12** Hartford BVI Outline Landscape Planting Proposals; and
- **Figure 13** Sworton Heath BVI Outline Landscape Planting Proposals.

8.6.3 These figures present the broad principles of the HAGI and BVI planting proposals but may be subject to changes in response to consultee comments and further minor changes at detailed design stage, depending on the final footprint of the above ground infrastructure and pipeline alignment within the LoD.

8.7 Scope Of The Assessment

8.7.1 The scope of the assessment has been refined as the Project design has evolved and responds to feedback received to date as set out in **Section 8.3**.

Spatial scope

8.7.2 The spatial scope of the assessment of landscape and visual effects associated with the pipeline covers the Draft Order Limits and a 1km offset either side of the Draft Order Limits.

8.7.3 With regard to the above ground infrastructure (the HAGIs and the BVIs), this LVIA Study Area is further refined through the ZTVs shown in **Figures 8.28 to 8.40** which extend to encompass a 1km buffer from the boundary of the HAGI or BVI.

Temporal scope

8.7.4 The temporal scope of the assessment of landscape and visual effects is consistent with the period over which the Project would be carried out and therefore covers the following periods:

- the construction period, commencing in Q1 2027 ready for commissioning in Q1 2030, as described in **Chapter 2: The Project**;
- the operational period for the above ground infrastructure (HAGIs and BVIs), for the LVIA, is:
 - ▶ a winter scenario at Year 1 following construction (post reinstatement of land (where applicable) and implementation of any landscape mitigation planting); and

- ▶ a winter scenario at Year 15 following construction to assess the growth of any mitigation planting as detailed in the Outline Landscape Planting Proposals (**Figures 1 to 13 of the Outline LEMP**).
- the decommissioning phase.

- 8.7.5 At PEIR Stage, insufficient information was available with regard to replacement planting within the pipeline corridor and due to the uncertainty, the LVIA presented in the PEIR included an assessment of effects associated with the pipeline corridors at Operation Year 1. No significant landscape or visual effects associated with the pipeline corridors were reported in the PEIR at Operation Year 1.
- 8.7.6 Further design development of the embedded environmental measures (set out in **Section 8.6**) has allowed greater certainty to be had with regard to the planting of hedgerow across the pipeline, with any tree removal being reinstated as close to the original location as reasonably practicable and in line with the measures set out in **Appendix 8C: Arboricultural Impact Assessment (AIA)** with regard to tree replacement ratios. On this basis, the operational landscape and visual effects from the pipeline have been scoped out of the LVIA. The exception relates to any locations where there is a more substantial loss of trees and woodland and the inclusion of an operational phase assessment at these locations is judged on a case-by-case basis and reported where required in accordance with the Planning Inspectorate response (PINS ID 3.30, Ref 3.4) set out in **Table 8.4**.

Potential receptors

- 8.7.7 The principal landscape and visual receptors that have been identified as being potentially subject to effects are summarised in **Table 8.10**.

Table 8.10 Landscape and visual receptors subject to potential effects

Receptor	Reason for consideration
Landscape character within the Draft Order Limits and associated LVIA Study Area	Landscape character may be subject to direct or indirect effects. Its sensitivity to the type of change proposed has been assessed in accordance with the methodology outlined in Section 8.8 and Appendix 8A: Landscape and Visual Impact Assessment Methodology . The landscape character sensitivity assessments are included as part of the assessment tables contained in Appendix 8D: Landscape Receptor Assessment .
Landscape designations within the LVIA Study Area	High value landscape receptors whose Special Landscape Qualities may be directly or indirectly affected as a consequence of the construction activities and operational HAGIs and BVIs.
Residential and recreational visual receptors within the LVIA Study Area	High sensitivity receptors, whose views and visual amenity may be altered as a consequence of the

Receptor	Reason for consideration
	construction activities and operational HAGIs and BVIs.

Likely significant effects

8.7.8 The effects on landscape receptors which have the potential to be significant and have been taken forward for detailed assessment are summarised in **Table 8.11**.

Table 8.11 Landscape receptors scoped in for further assessment

Receptor	Principal Corridor or Spur ⁴² (Construction phase only)	Construction, Operation and Decommissioning Phases (within 1km of HAGI and/or BVI)
Landscape receptors: LCTs and LCAs Potentially Significant construction effects: Direct and/or indirect changes to the baseline landscape character from the pipeline corridor, temporary access, temporary construction compounds, HAGI and BVI construction. Potentially Significant operational effects: Direct and/or indirect changes to the baseline landscape character from the presence of the operational HAGIs and BVIs and associated accesses. Potentially Significant decommissioning effects: Direct and/or indirect changes to the baseline landscape character from the decommissioning and removal of the HAGIs and BVIs.		
Cheshire West & Chester		
9a Dunham to Tarvin Plain	West Corridor	HPP HAGI
4a Frodsham, Helsby & Lordship Marshes	West Corridor	Rocksavage and Runcorn HAGIs
2b Helsby Hill	West Corridor	N/A
5f Helsby to Frodsham	West Corridor	N/A

⁴² The Principal Corridor or Spur is the element of the Project that the identified receptor either predominantly lies within (direct effects) or is the predominant Corridor or Spur Project element located within the LVIA Study Area (indirect effects). Some receptors accommodate more than a single Pipeline Corridor and/or Spurs as set out in the assessment text in **Section 8.9**.

Receptor	Principal Corridor or Spur ⁴² (Construction phase only)	Construction, Operation and Decommissioning Phases (within 1km of HAGI and/or BVI)
2a Frodsham Sandstone Ridge	West Corridor	N/A
15c Lower Weaver Valley	West Corridor and South Corridor (including options SP5 and SP6)	Rocksavage and Runcorn HAGIs
8a Aston	West Corridor	Rocksavage HAGI
5d Whitley and Comberbach	East Corridor, South Corridor (including options SP5 and SP6), West Corridor and North Corridor	Central Hub HAGI
5b Frodsham to Northwich	South Corridor	Rocksavage HAGI Hartford Block Valve Installation
5a Norley	South Corridor	N/A
1a Delamere	South Corridor	Hartford Block Valve Installation
15b Mid Weaver Valley	South Corridor	N/A
5e East Winsford	South Corridor	N/A
15e Dane Valley	South Corridor	N/A
10b Stublach Plain	South Corridor	Hydrogen Storage Facility (HSF) HAGI
5c Eaton, Marton & Over	South Corridor	N/A
13b Arley West	East Corridor	N/A
Halton		
Runcorn Hill and Heath Parkland	Runcorn/Rocksavage Spur	Runcorn and Rocksavage HAGIs
North Widnes Farmland	North Corridor	Clock Face HAGI
Norton Wooded Parkland	West Corridor	N/A
Daresbury Sandstone Escarpment	North Corridor	N/A

Receptor	Principal Corridor or Spur ⁴² (Construction phase only)	Construction, Operation and Decommissioning Phases (within 1km of HAGI and/or BVI)
Moore Village and Keckwick Brook Valley	North Corridor	Higher Walton HAGI (HWH2)
Preston on the Hill Undulating Enclosed Farmland	North Corridor	N/A
Knowsley		
Cronton and Pex Hill	North Corridor	Clock Face HAGI
St Helens		
BRS5 Rainhill Slopes	North Corridor and St Helens Spurs	Clock Face HAGI
FF2 Sutton Manor Fringe	North Corridor, St Helens Spurs and Clock Face Spur	Clock Face HAGI
FF4 Bold Heath	North Corridor	Clock Face HAGI
EF1 Elton Head Hall Farm	St Helens Spur	N/A
IF1 Link Road	St Helens Spur and Clock Face Spur	N/A
RFS1 Grange Park	St Helens Spur	N/A
RFS4 Sutton	North Corridor, St Helens Spurs and Clock Face Spur	Clock Face HAGI
RSH1 Sutton Manor	North Corridor, St Helens Spurs and Clock Face Spur	Clock Face HAGI
RSH4 Lea Green	St Helens Spurs and Clock Face Spur	N/A
RVI1 Thatto Heath	St Helens Spurs	N/A
SLV1 St Helens Historic Core	St Helens Spurs	N/A
SLV2 St Helens Retail Ring	St Helens Spurs	N/A
SLV3 St Helens Terraces	St Helens Spurs	N/A
SS6 Rainhill	St Helens Spurs	Clock Face HAGI

Receptor	Principal Corridor or Spur ⁴² (Construction phase only)	Construction, Operation and Decommissioning Phases (within 1km of HAGI and/or BVI)
UG2 Sherdley Park	St Helens Spurs	N/A
UG3 Rainhill Golf Course	St Helens Spurs	N/A
UIV2 Sutton Brook	St Helens Spurs	N/A
UIV3 Ravenhead	St Helens Spurs	N/A
WFE4 Bold Hall	North Corridor	N/A
Trafford		
Mossland	East Corridor	Partington HAGIs (PH1 and PH2)
Settled Sandlands	East Corridor	Warburton HAGI Partington HAGIs (PH1 and PH2)
Urban River Valley	East Corridor	Partington HAGIs (PH1 and PH2)
River Meadowlands	East Corridor	Warburton HAGI
Wooded Estatelands	East Corridor	N/A
Warrington		
3c Lymm	East Corridor	N/A
5a River Mersey/Bollin (West)	North Corridor and Warrington Spur	Higher Walton HAGIs (HWH2 and HWH8)
5a River Mersey/Bollin (East)	East Corridor	Warburton HAGI
1f Penketh & Cuerdley	North Corridor (including options NP6 and NP7)	N/A
1a Stretton & Hatton	North Corridor	N/A
3a Appleton Park & Grappenhall	North Corridor	Higher Walton HAGIs (HWH2 and HWH8)
6a Victoria Park to Fiddlers Ferry	North Corridor and Warrington Spur	Higher Walton HAGIs (HWH2 and HWH8)
Cheshire East		

Receptor	Principal Corridor or Spur ⁴² (Construction phase only)	Construction, Operation and Decommissioning Phases (within 1km of HAGI and/or BVI)
7a Arley	East Corridor	Sworton Heath BVI
10a Lower Bollin	East Corridor	Warburton HAGI
Landscape receptors: Designations • Potentially Significant construction effects: Direct and/or indirect changes to the baseline special landscape qualities from the pipeline corridor, temporary access, temporary construction compounds, HAGI and BVI construction. • Potentially Significant operational effects: Direct and/or indirect changes to the baseline landscape character from the presence of the operational HAGIs and BVIs and associated accesses.		
Cheshire West and Chester		
Helsby and Frodsham ASCV	West Corridor	N/A
Weaver Valley ASCV – Lower Weaver	West Corridor and South Corridor	Rocksavage HAGI
Weaver Valley ASCV – Mid Weaver	South Corridor	N/A
Cheshire East		
Bollin Valley LLD	East Corridor	Warburton HAGI

8.7.9 The visual receptors which have the potential to be significant and have been taken forward for detailed assessment are summarised in **Table 8.12**.

Table 8.12 Visual Receptors scoped in for further assessment

Visual receptors	Principal Corridor or Spur ⁴³ (Construction phase only)	Construction, Operation and Decommissioning Phases (within 1km of HAGI and/or BVI)
Potentially Significant construction effects: Changes to baseline views as a consequence of construction activity along the pipeline corridor, temporary access routes, temporary construction compounds, material storage areas and construction of HAGIs and BVIs Potentially Significant operational effects: Changes to baseline views as a consequence of the completed HAGIs and BVIs and associated accesses. Potentially Significant decommissioning effects: Changes to baseline views as a consequence of the decommissioning and removal of the HAGIs and BVIs.		
Settlements		
Thornton-le-Moors	West Corridor	HPP HAGI
Elton	West Corridor	HPP HAGI
Hapsford	West Corridor	N/A
Helsby	West Corridor	N/A
Frodsham	West Corridor	Rocksavage HAGI
Runcorn	West Corridor and Runcorn/ Rocksavage Spur	Rocksavage HAGI Runcorn HAGI
Clifton	Runcorn/ Rocksavage Spur	Rocksavage HAGI Runcorn HAGI
Sutton Weaver	West Corridor	N/A
Aston	West Corridor	N/A
Aston Heath	West Corridor	N/A
Dones Green	South Corridor	Central Hub HAGI
Bartington	South Corridor (including options SP5 and SP6)	N/A
Acton Bridge	South Corridor	N/A

⁴³ The Principal Corridor or Spur is the predominant element of the Project located within the LVIA Study Area that the identified receptor would experience. Some receptors would experience effects from more than a single Pipeline Corridor and/or Spurs as set out in the assessment text in **Sections 8.9 to Section 8.12**.

Visual receptors	Principal Corridor or Spur ⁴³ (Construction phase only)	Construction, Operation and Decommissioning Phases (within 1km of HAGI and/or BVI)
Weaverham	South Corridor	N/A
Gorstage	South Corridor	N/A
Bryn	South Corridor	N/A
Cuddington	South Corridor	N/A
Sandiway	South Corridor	Hartford BVI
Hartford	South Corridor	Hartford BVI
Whitegate	South Corridor	N/A
Davenham	South Corridor	N/A
Moulton	South Corridor	N/A
Winsford (Wharton)	South Corridor	N/A
Bostock Green	South Corridor	N/A
Whatcroft	South Corridor	N/A
Lower Whitley	East Corridor	N/A
Higher Whitley	East Corridor	N/A
Antrobus	East Corridor	N/A
Arley	East Corridor	N/A
Frandlely	East Corridor	N/A
High Legh	East Corridor	Sworton Heath BVI
Broomedge	East Corridor	N/A
Dunham Woodhouses	East Corridor	Warburton HAGI
Sinderland Green	East Corridor	N/A
Partington	East Corridor	Partington HAGIs (Options PH1 and PH2)
Carrington	East Corridor	N/A
Hatton	North Corridor	N/A

Visual receptors	Principal Corridor or Spur ⁴³ (Construction phase only)	Construction, Operation and Decommissioning Phases (within 1km of HAGI and/or BVI)
Moore	North Corridor	N/A
Higher Walton	North Corridor	Higher Walton HAGIs (Options HWH2 and HWH8)
Lower Walton	North Corridor and Warrington Spur	Higher Walton HAGI (Option HWH8)
Warrington	North Corridor (Options NP6 and NP7) and Warrington Spur	N/A
Widnes	North Corridor (Options NP6 and NP7)	N/A
Cuerdley Cross	North Corridor (Options NP6 and NP7)	N/A
Bold Heath	North Corridor	N/A
Sutton Manor	St. Helens Spur	Clock Face HAGI
Rainhill	North Corridor and St. Helens Spur	Clock Face HAGI
St. Helens	St. Helens Spur	N/A
National and Regional cycle routes (NCRs and RCRs)		
NCR 5	West Corridor and South Corridor	HPP HAGI, Rocksavage HAGI
NCR 562	West Corridor	Runcorn HAGI
RCR 70	East and South Corridor	Sworton Heath BVI
NCR 573	South Corridor	N/A
RCR 71	South Corridor	N/A
NCR 62	North Corridor and Warrington Spur	Warburton HAGI Higher Walton HAGI (Option HWH8)
Long distance footpaths		

Visual receptors	Principal Corridor or Spur ⁴³ (Construction phase only)	Construction, Operation and Decommissioning Phases (within 1km of HAGI and/or BVI)
Weaver Way	West Corridor and South Corridor	Rocksavage HAGI
Trent and Mersey Canal Walk	West Corridor and South Corridor (Options SP5 and SP6)	N/A
E8	North Corridor, East Corridor and Warrington Spur	Warburton HAGI
North Cheshire Way 3	West Corridor and East Corridor	N/A
Delamere Way	North Corridor, West Corridor, South Corridor and East Corridor	N/A
Dane Valley Way	East Corridor	N/A
Bollin Valley Way	East Corridor	Warburton HAGI
Timberland Trail	North Corridor	N/A
Mersey Way	North Corridor and Warrington Spur	N/A
Trans Pennine Trail	North Corridor and Warrington Spur	Warburton HAGI
Bridgwater Way	North Corridor and Warrington Spur	Higher Walton HAGIs (Options HWH2 and HWH8)
Cheshire Ring Canal Walk	West Corridor, East Corridor, South Corridor, Warrington Spur	Higher Walton HAGIs (Options HWH2 and HWH8)
Palatine Plod	North Corridor and Warrington Spur	N/A
Longster Trail	West Corridor	N/A
Sandstone Trail	West Corridor	N/A
Eddisbury Way	West Corridor	N/A

Visual receptors	Principal Corridor or Spur ⁴³ (Construction phase only)	Construction, Operation and Decommissioning Phases (within 1km of HAGI and/or BVI)
Salford Trail	Partington Spur	N/A
Canals and Rivers		
Manchester Ship Canal	West Corridor and North Corridor	Higher Walton HAGI (Options HWH2 and HWH8)
Weaver Navigation	West Corridor	Runcorn HAGI and Rocksavage HAGI
River Weaver	West Corridor and South Corridor	Runcorn HAGI and Rocksavage HAGI
River Mersey	North Corridor	Higher Walton HAGI (Options HWH2 and HWH8)
River Bollin	East Corridor	Warburton HAGI
Trent and Mersey Canal	West Corridor and South Corridor (Options SP5 and SP6)	N/A

Elements scoped out of further assessment

8.7.10 The receptors/effects detailed in **Table 8.13** have been scoped out from the assessment because the potential effects are not considered likely to be significant.

Table 8.13 Summary of effects scoped out of the landscape and visual assessment

Receptors/potential effects	Justification
NCAs	An assessment of the effects of the Project upon NCAs has been scoped out of the LVIA. Whilst NCAs provide landscape context, they are too extensive and generalised to potentially experience significant landscape effects, particularly given the transitory nature of landscape effects associated with the construction phase of the Project and the localised effects that would occur during the operational phase. This approach is advocated by paragraph 5.14 of GLVIA3 ¹⁵ and the smaller local authority level

Receptors/potential effects	Justification
	LCTs/LCAs have been taken forward as receptors in the LVIA as set out in Table 8.10 .
Visual receptors that are likely to fall into the medium and low sensitivity categories (including road users, railway passengers, retail and industrial estates, schools, people at their place of work, and people engaging in active sports), where the focus is not on the landscape.	Given the reduced sensitivity of the receptors, the magnitude of change resulting from the Project would need to be greater than Low to result in potentially significant visual effects. This scenario is not predicted to occur based on the receptor locations and the ZTVs for the HAGI and BVIs presented in Figures 8.28 to 8.40 .
Visual receptors visiting Registered Parks and Gardens and Country Parks that lie just within or close to the edge of the LVIA Study Area but outside the ZTVs.	Visual effects cannot be experienced by visual receptors with no potential views of the operational elements of the Project.
Movement of vehicles and activity associated with maintenance visits to the HAGIs in the operational phase.	This has been scoped out given the infrequent maintenance requirements set out in Chapter 2: The Project .
Landscape and visual effects resulting from the operational period of the Project with the exception of above ground infrastructure (HAGIs and BVIs).	Apart from the above ground infrastructure (HAGIs and BVIs), the pipeline would be buried along the entire route and agricultural land, grassland and vegetation within the pipeline corridor would be reinstated. Consequently, there would be no landscape or visual effects associated with the pipeline with the exception of any planting restrictions imposed by the pipeline which are included in the assessment where it is considered that significant effects may occur.
Effects of lighting on visual amenity and landscape character	As set out in Table 8.9, HAGIs would generally be unlit except during maintenance or potential breakdown/emergency requirements when permanent task lighting columns would only be in use. BVIs would also be unlit except for unplanned visits to the facilities. Construction phase lighting within construction compounds would be minimised by measures outlined in the Outline CEMP and Outline Lighting

Receptors/potential effects	Justification
	Strategy. Lighting would be designed in accordance with the Institution of Lighting Professionals Guidance Note 01/21 for the Reduction of Obtrusive Light ⁴⁴ in so far as it is reasonably practicable and applicable to construction works. The measures would also reduce light spill such that in combination with the temporal reduction, the resulting effects upon landscape character and nuisance to visual receptors including residents and users of PRow and transport routes would be minimised to a level that is Not Significant.

8.8 Assessment Methodology

Introduction

- 8.8.1 The generic project-wide approach to the assessment methodology is set out in **Chapter 3: Approach to preparing the Draft ES**, and specifically in **Section 3.10**. However, whilst this has informed the approach that has been used in this landscape and visual assessment, it is necessary to set out how this methodology has been applied, and adapted as appropriate, to address the specific needs of this landscape and visual assessment.

Assessment criteria

- 8.8.2 The full methodology is contained in **Appendix 8A: Landscape and Visual Impact Methodology**. The key stages of the methodology that is outlined in this section are based best practice guidance contained in GLVIA3¹⁵.
- 8.8.3 GLVIA3 states that the assessment of significance of landscape and visual effects is '*an evidence-based process combined with professional judgement. All assessments and judgements must be transparent and capable of being understood by others.*'¹⁵

Landscape Assessment

- 8.8.4 The sensitivity of a landscape receptor for example, a landscape character area, to a project is determined by the susceptibility of that landscape receptor to the changes identified as a result of the construction and/or operation of the project and the landscape receptor's value. The methodology describes landscape sensitivity as high, medium, or low.
- 8.8.5 Landscape value is determined by taking into consideration a range of attributes including: the presence or absence of landscape designations; landscape and scenic qualities; rarity and representativeness; conservation interests; recreational

⁴⁴ Institution of Lighting Professionals (2021). Guidance Note 01/21 Reduction of Obtrusive Light. (online) Available at: <https://theilp.org.uk/publication/guidance-note-1-for-the-reduction-of-obtrusive-light-2021/> (Accessed 02 August 2024)

value; perceptual qualities; and historic and cultural value. It is also concerned with landscape quality and the physical state of a landscape receptor. This could include consideration of the landscape receptor's intactness and the condition of individual landscape elements. The absence of landscape planning designations does not automatically mean that an area or landscape receptor is of low landscape value. These attributes are determined by review of extant landscape character assessments, management guidelines and other similar documentation supplemented by observations made during site visits.

- 8.8.6 Landscape susceptibility concerns the ability of a landscape receptor to accommodate the Project without undue consequences for the maintenance of the baseline situation.
- 8.8.7 The detailed landscape assessment tables set out in **Appendix 8D: Landscape Receptor Assessment** include analysis for each landscape receptor of its landscape value and the assessment of its susceptibility to the Project. These tables also demonstrate how the assessment of the landscape value and landscape susceptibility have been combined to determine that landscape receptor's sensitivity as set out in **Table 8.14**.

Table 8.14 Evaluation of landscape sensitivity

Value	Susceptibility		
	High	Medium	Low
High	High	High or Medium	Medium
Medium	High or Medium	Medium	Medium or Low
Low	Medium	Medium or Low	Low

- 8.8.8 The magnitude of landscape change resulting from the construction and operation of the Project is assessed as high, medium, low, or very low. In accordance with GLVIA3¹⁵ the magnitude of landscape change considers:
- The size and/or scale of the change that would result from each identified landscape effect acting upon a landscape receptor;
 - The geographical extent over which each identified landscape effect would be experienced; and
 - The duration and reversibility of each identified landscape effect.
- 8.8.9 **Table 8.15** details the basis for assessing magnitude of landscape change.

Table 8.15 Establishing the magnitude of landscape change

Magnitude	Criteria
High	A large-scale change that may include the loss of key landscape elements/characteristics or the addition of uncharacteristic new features or elements that would alter the perceptual characteristics of the landscape. The size or scale of landscape change could create new landscape characteristics and may change the overall distinctive landscape quality and character, typically, but not always affecting a larger geographical extent.
Medium	A medium-scale change that may include the loss of some key landscape characteristics or elements, or the addition of some uncharacteristic new features or elements that could alter the perceptual characteristics of the landscape. The size or scale of landscape change could create new landscape characteristics and may lead to a partial change in landscape character, typically, but not always affecting a more localised geographical extent.
Low	A small-scale change that may include the loss of some landscape characteristics or elements of limited characterising influence, or the addition of some new features or elements of limited characterising influence. There may be a small partial change in landscape character, typically, but not always affecting a localised geographical extent.
Very Low	A very small-scale change that may include the loss or addition of some landscape elements of limited characterising influence. The landscape characteristics and character would be unaffected
Zero	No landscape change is predicted, and the resulting level of effect is identified as No Effect. This commonly occurs where no intervisibility (presence of a line of sight between two locations) or other perceptual pathway for example, noise and/or light impacts, exists between the landscape receptor and the proposed development.

Visual Assessment

8.8.10 The sensitivity of visual receptors considers the susceptibility of the visual receptor to the visual change identified and the value that is likely to be attributed by the visual receptor to their baseline view. These are described as high, medium, or low. The main influencing factors are:

- The occupation or activity of the visual receptor at each location;
- The extent to which the visual receptors' attention or interest is focused upon the available views;
- The importance and/or popularity of the view;
- The typical numbers of visual receptors to whom that view is available;
- In a link with landscape considerations, the context of a viewpoint in terms of landscape value and quality within a view; and
- Any indication of a view being valued such as the presence of interpretation boards, parking, and seating facilities, it being referenced in a guidebook or marked on a published map.

8.8.11 **Table 8.16** details the basis for assessing visual receptor sensitivity.

Table 8.16 Evaluation of Visual Sensitivity

Sensitivity	Criteria
High	<u>Susceptibility:</u> Visual receptors in this category would generally include residents, tourists/visitors, walkers, cyclists, users of waterways and horse riders, either stationary or travelling through the landscape, and/or undertaking outdoor recreational activities where the focus of the activity involves an appreciation of the landscape as follows: • Residential properties or settlements and related community outdoor spaces; • Outdoor tourist and visitor attractions; • Recreational routes (national trails, long distance footpaths and PRoWs; Sustrans national and regional cycle routes; open access land/beaches and recognised scenic driving routes); and • People generally, undertaking recreational activity where the focus of the activity involves an appreciation of the landscape (especially within internationally or nationally designated landscapes). <u>Value:</u> Notable specific value attached for example in relation to heritage assets, references in literature/art and or promoted by planning designation. Likely inclusion of facilities at or near viewpoint e.g., parking places, sign boards and interpretative material. Likely to be of high scenic quality and located within or overlooking a designated landscape.
Medium	<u>Susceptibility:</u> Visual receptors in this category would generally include people travelling through the landscape on road, rail or other transport routes as rail passengers and road users and people undertaking recreational and sporting activities where it is likely that their surroundings have some influence upon their enjoyment (e.g., angling and golfing).

Sensitivity	Criteria
	<u>Value:</u> Some indicators of value are present e.g., views well known at a local level and/or may be part of wider visual amenity experienced along a locally promoted footpath route. Likely to be of moderate scenic quality.
Low	<u>Susceptibility:</u> Visual receptors in this category would generally include people for whom their surroundings are unlikely to be a primary concern or affect how they undertake their current activity. Receptors are likely to include people at their place of work, people travelling on main roads through built up areas, dual-carriageways or motorways or taking part in activities not involving an appreciation of the landscape (e.g., playing team sports). <u>Value:</u> No indication of any value attached to view/s or visual amenity. Likely to be of low scenic quality.

8.8.12 The nature of visual effects or their magnitude of change resulting from the construction and operation of the Project is assessed as high, medium, low, or very low, in accordance with GLVIA3¹⁵. The magnitude of visual change is described by reference to the scale of visual change; the contrast with the baseline view; separation distance; the duration over which a view is available; the angle of view; levels of screening; and whether new visual elements are seen on a skyline or against a background.

8.8.13 **Table 8.17** details the basis for assessing magnitude of visual change.

Table 8.17 Establishing the magnitude of visual change

Magnitude	Criteria
High	A large and prominent change to the view, appearing in the fore to middle ground and involving the loss/addition of several features, which is likely to have a strong degree of contrast and benefits from little or no screening. The view is likely to be experienced at static or low speed and is more likely to be continuously/sequentially visible from a route.
Medium	A moderate and prominent/noticeable change to the view, appearing in the middle ground and involving the loss/addition of features and a degree of contrast with the existing view. There may be some partial screening. The view is likely to be experienced at static or low to medium speed and is more likely to be intermittently or partially visible from a route.
Low	A noticeable or small change, affecting a limited part of the view that may be obliquely viewed or partly screened and/or appearing in the

Magnitude	Criteria
	background of the view. This category may include rapidly changing views experienced from fast-moving road vehicles or trains.
Very Low	A small or negligible change to the view that may be obliquely viewed and mostly screened and/or appearing in the distant background or viewed at high speed over short periods and capable of being missed by the casual observer.
Zero	Instances where the Project would not be visible, due to screening, and the resulting level of visual effect identified as 'No Effect'.

Significance evaluation methodology

- 8.8.14 The level of landscape and visual effects is determined with reference to landscape or visual sensitivity and the magnitude of landscape or visual change likely to be experienced in accordance with GLVIA3¹⁵. Likely significant landscape and visual effects arising from the construction and operation of the Project would be effects that are assessed as being likely to result in effects that would be greater than a 'moderate' level. In addition, effects assessed at a 'moderate' level may be classified as significant, based on professional judgement. Effects assessed as being less than 'moderate' would be evaluated as not significant.
- 8.8.15 In line with the emphasis placed in GLVIA3¹⁵ upon application of professional judgement, the adoption of an overly mechanistic approach will be avoided. This will be achieved by the provision of clear and accessible narrative explanations of the rationale underlying the assessment made for each landscape and visual receptor over and above the outline assessment provided by use of a matrix in **Table 8.18**. Wherever possible cross references will be made to a visual assessment at the proposed viewpoints and figures to support and explain the rationale.

Table 8.18 Evaluation of Landscape and Visual Effects

Sensitivity	Magnitude			
	High	Medium	Low	Very Low
High	Major (Significant)	Major/Moderate (Significant)	Moderate* (potentially Significant)	Minor (Not Significant)
Medium	Major/Moderate (Significant)	Moderate* (potentially Significant)	Minor (Not Significant)	Minor/Negligible (Not Significant)
Low	Moderate* (potentially Significant)	Minor (Not Significant)	Minor/Negligible (Not Significant)	Negligible (Not Significant)

*Note: Moderate levels of effect may or may not be significant subject to the assessor's opinion which shall be clearly explained.

8.9 Assessment Of Landscape Effects

Introduction

- 8.9.1 The assessment of the effects of the Project upon the 56 LCAs or LCTs and four local landscape designations that fall within the LVIA Study Area, is set out in the detailed assessment in **Appendix 8D: Landscape Receptor Assessment**. A summary of the assessment is set out below arranged under the four main route corridors and relevant pipeline spurs, noting those LCAs/LCTs that cross more than one corridor or spur are covered under the corridor that the majority of the route lies within, and any differences in the level of effect upon the LCA/LCT between corridor sections are reported.
- 8.9.2 Construction effects have been assessed within the full LVIA Study Area comprising a 1km offset from the Draft Order Limits as illustrated in **Figures 8.2 to 8.14**. Operational and decommissioning effects have been assessed within a 1km radius from the HAGIs and BVIs, which covers fewer LCAs/LCTs, with reference to the ZTVs at **Figures 8.28 to 8.40**.
- 8.9.3 Details of the reinstatement works within the route corridors is summarised in **Table 8.9** in **Section 8.6** and detailed further in the **Outline LEMP**. The outline landscape planting proposals for each HAGI and BVI is illustrated in **Figures 1 to 13** which accompany the **Outline LEMP**.

Construction phase

West Corridor

- 8.9.4 The Project passes through the northern part of the 9a Dunham to Tarvin Plain LCA (**Table 8D.1** in **Appendix 8D**) that is assessed as having a medium sensitivity. Collectively, the construction works within or close to this LCA involve the laying of approximately 2.2km of the underground pipeline, the HPP HAGI (located outside but adjacent to the LCA), four temporary trenchless crossing compounds, a materials storage area and construction access routes and designated access points. The magnitude of change locally from direct impacts and indirect effects close to the construction activity would be high, resulting in localised and short-term **Major/Moderate** and **Significant** effects close to the pipeline corridor and associated compounds. Overall, the magnitude of change on the wider LCA would be low to zero with a **Minor** effect that would be **Not Significant** to No Effect.
- 8.9.5 The 4a Frodsham, Helsby & Lordship Marshes LCA (**Table 8D.2** in **Appendix 8D**) is assessed as having a low sensitivity due to the extensive industrial, energy and transport infrastructure present under baseline conditions. The south-eastern edge of the LCA on the edge of Frodsham is elevated to medium landscape sensitivity on account of the higher recreational value of this area. As a host LCA, it would also experience direct impacts as a result of the laying of approximately 7.5km of

pipeline through the centre of the LCA and the presence of three temporary trenchless crossing compounds at the western and eastern ends of the LCA associated with a railway crossing and the River Weaver crossing. The LCA also coincide with the LVIA Study Areas for the Rocksavage and Runcorn HAGIs construction, sited beyond the boundaries of the LCA. The magnitude of change would be high along the pipeline corridor and within the construction compounds with a resulting **Moderate** and **Significant** effect and whilst magnitudes of change elsewhere within the LCA would be low to zero resulting in **Minor** effects that would be **Not Significant** to No Effect.

- 8.9.6 The 2a Frodsham Sandstone Ridge and 2b Helsby Hill LCAs (**Tables 8D.3 and 8D.5 in Appendix 8D**) are part of the Sandstone Ridge character type lie within the Helsby and Frodsham Hills ASCV local landscape designation with a high-medium overall sensitivity. Only the far northern fringes of the LCAs lie within the LVIA Study Area and indirect effects would arise from elevated views of the pipeline corridor and the temporary construction compounds close to the M56 motorway. The construction activity would be perceived in the context of heavy industry, major transport corridors and the Frodsham Wind Farm. The indirect effects from the isolated summits of the Sandstone Ridge that are popular with recreational users would comprise a very low magnitude of change and a **Minor to Minor/Negligible** effect that is **Not Significant**. Elsewhere within the LCAs, the magnitude of change would typically be zero with No Effect.
- 8.9.7 The northern fringes of the 5f Helsby to Fordsham LCA, located between LCAs 2a and 2b, coincides with the LVIA Study Area. Whilst the West Corridor passes to the north and outside of the LCA's boundary, a number of construction access routes pass through the LCA. An increase in light vehicles travelling along the A56 are likely to be subsumed within existing traffic movements thereby not diluting baseline levels of tranquillity. This is evidenced in the traffic generation quantities prepared as part of **Chapter 11: Traffic and transport** which predict a 1.3% (peak) increase in traffic and a 0% increase in HGVs along the A56 between Proffitt's Lane and Woodhouses Lane. Matty's Lane/Hatley Lane would similarly be used for light vehicles only, where the magnitude of change would potentially and occasionally be up to a low magnitude of change giving rise to a **Moderate to Minor** and **Not Significant** effect within a very small geographical area in the local vicinity of these routes. The indirect effects as a consequence of the pipeline would be **Minor to Minor/Negligible** and **Not Significant** to No Effect.
- 8.9.8 The 15c Lower Weaver Valley LCA (**Table 8D.6 in Appendix 8D**) and 8a Aston LCA (**Table 8D.7 in Appendix 8D**) lie to the south-west of Runcorn and adjoin each other with parts of each LCA located within the Weaver Valley ASCV – Lower Weaver. Both LCAs are assessed as having a high-medium sensitivity and would experience a high magnitude of change as a result of the open cut of the pipeline corridor and temporary trenchless crossing compounds associated with the crossings of the River Weaver, Weaver Navigation and A56 in the west of LCAs and also the railway crossing and crossing of the Trent and Mersey Canal. LCA 15a would also experience high magnitudes of change within and adjacent to the construction compounds and footprint of the Rocksavage HAGI, where direct effects would occur, and areas of Category B woodland would be removed. The extent of this tree removal is shown in **Figure 8C.102 of Appendix 8C: Arboricultural Impact Assessment**. The overall effect in both LCAs would be

Major to Major/Moderate and **Significant** where direct impacts within the pipeline corridor and construction compounds would occur and a **Major/Moderate to Moderate** and locally **Significant** effect along Aston Lane (within both LCAs), where a temporary increase in traffic movements and localised removal of hedgerow to create access points would potentially be up to a medium magnitude of change. Elsewhere within the wider LCAs, landscape effects would reduce to a **Minor** and **Not Significant** level or No Effect, where the indirect impact of construction activity would be reduced and a low to zero magnitude of change is recorded.

- 8.9.9 The LVIA Study Area for the West Corridor of the pipeline also coincides with the southern tip of the Norton Wooded Parkland LCA (**Table 8D.20** in **Appendix 8D**), which is assessed as being of low sensitivity. Effects within this LCA would be indirect, giving rise to a very low to zero magnitude of change and a corresponding **Negligible** and **Not Significant** to No Effect. This is a consequence of the high incidence of woodland within this part of the LCA which would restrict intervisibility, whilst the visual and audible influence of construction vehicles on the adjacent highways (A533 and A56) would be incremental to the baseline and unlikely to be readily distinguishable.
- 8.9.10 With regard to local landscape designations, the Project passes to the north of the Helsby and Frodsham Hills ASCV (**Table 8D.57** of **Appendix 8D**) which is assessed as having a high-medium sensitivity. The construction works involving the West Corridor of the underground pipeline to the north of the ASCV's boundary would give rise to indirect effects, where the construction activity would be perceived in the context of heavy industry, major transport corridors and the Frodsham Windfarm. The A56 which follows a route along the northern boundary of the ASCV would be used as construction access for light vehicles. The magnitude of change on the Special Qualities and integrity of the ASCV resulting from the increased traffic movements and laying of the pipeline would be very low to zero with **Minor to Minor/Negligible** and **Not Significant** effects within small, localised areas to No Effect for the majority of the ASCV.
- 8.9.11 The Weaver Valley ASCV – Lower Weaver also coincides with the West Corridor (and South Corridor at Bartington) (**Table 8D.58** of **Appendix 8D**) and is assessed as having a high-medium sensitivity. Collectively, the construction works involving the underground pipelines, seven separate temporary trenchless crossing compounds, a materials storage area and the temporary construction routes and access points within the ASCV would give rise to localised areas of landscape experiencing up to a high magnitude of change within and in close proximity to the construction compounds and pipeline corridor and **Major to Major/Moderate** and **Significant** effects. Elsewhere within the ASCV, the magnitude of change which would be low with **Moderate to Minor** and **Not Significant** effects to No Effect. The Special Qualities most likely to be temporarily affected are those which relate to *“Valley sides also support small/medium scale arable and pastoral fields, bounded by low gappy hedgerows”*³³ and *“Generally, a quiet, tranquil landscape with significant opportunity for quiet recreation.”*³³

Runcorn/Rocksavage Spur

- 8.9.12 The Runcorn Hill and Heath Parkland LCA (**Table 8D.18** in **Appendix 8D**) has a medium overall sensitivity. The magnitude of change would range from high (in respect of landscape elements and LCA within and adjacent to the pipeline corridor and Runcorn HAGI footprint) to low/zero elsewhere within the LCA. All tree removals within this LCA associated with the Runcorn/Rocksavage Spur and Runcorn HAGI are shown in **Figures 8C.102** and **8C.103** of **Appendix 8C: Arboricultural Impact Assessment**. The effect would range from **Major/Moderate** and locally **Significant** in close proximity to the construction works associated with the pipeline corridor and at the Runcorn HAGI site. Elsewhere within the wider LCA the effects would be **Minor** and **Not Significant** to No Effect.

North Corridor

- 8.9.13 Heading north from the Central Hub HAGI and the 5d Whitley and Comberbach LCA, the North Corridor would enter the Preston on the Hill Undulating Enclosed Farmland LCA (**Table 8D.23** in **Appendix 8D**), which is assessed as having an overall medium sensitivity. The Project passes through the centre of the LCA and the magnitude of change locally would be high as a result of the laying of approximately 1.5km of underground pipeline and the presence of a material storage area. These changes would result in localised **Major/Moderate** and **Significant** effect on landscape character, noting that elsewhere within the LCA, the magnitude of change would be typically low to zero with a **Minor** effect that is **Not Significant** to No Effect. The use of temporary construction access routes through the LCA and creation and use of designated access points would potentially be up to a medium magnitude of change and a locally **Moderate** effect. This is judged to be **Not Significant** given the proximity to the M56 motorway, where audible and visual disturbance is already present under baseline conditions.
- 8.9.14 As the pipeline continues north, it passes to the east of the Daresbury Sandstone Escarpment LCA (**Table 8D.21** in **Appendix 8D**) that is assessed to have a medium sensitivity. The LCA also coincides with the LVIA Study Area for the Higher Walton HAGI Option HWH2. Whilst effects would be indirect, the North Corridor would pass adjacent to the LCA's eastern boundary and construction activity would give rise to visual and audible disturbance within this landscape with a "*rural character*"²⁸. The magnitude of change would be medium when experienced locally to the construction works (within the adjoining field at the far eastern tip of the LCA) with a corresponding **Moderate** and **Significant** effect, reducing to low to zero with a **Minor** effect that would be **Not Significant** or No Effect from the within the wider LCA. Construction activities associated with Option HWH2 for the Higher Walton HAGI would have no characterising influence on the Daresbury Sandstone Escarpment LCA.
- 8.9.15 The Project passes through the western edge of LCA 1a Stretton & Hatton that has a medium sensitivity (**Table 8D.52** in **Appendix 8D**). Approximately 1.4km of the pipeline and temporary trenchless crossing compounds would be sited in agricultural fields either side of the M56 motorway. The construction activity would result in up to a locally high magnitude of change and a **Major/Moderate** and **Significant** effect encompassing the pipeline corridor, construction compounds

and adjacent landscape. Elsewhere within the LCA, due to intervening field boundary vegetation, woodland and the M56 corridor, the extent of visible and audible influence of the construction works on landscape character, would diminish and the magnitude of change would be low to zero resulting in a **Minor** and **Not Significant** effect to No Effect.

- 8.9.16 The Project passes through the centre of LCA 3a Appleton Park & Grappenhall (**Table 8D.53 in Appendix 8D**), which is assessed as having a medium sensitivity. The Higher Walton HAGI (Option HWH2) is sited on the northern banks of the Manchester Ship Canal, outside of the LCA but within the LVIA Study Area whilst Option HWH8 is sited within an agricultural field on the southern bank of the Manchester Ship Canal and within this LCA. The construction activity would result in up to a locally high magnitude of change and a **Major/Moderate** and **Significant** effect as a consequence of the laying of approximately 3.7km of underground pipeline, presence of five temporary trenchless crossing compounds and construction activities associated with Option HWH8 of this Higher Walton HAGI, occurring within and adjacent to the LoD associated with these components of the Project. Elsewhere within the LCA, the extent of visible and audible influence of the construction works on landscape character would diminish and the magnitude of change would be low to zero resulting in a **Minor** and **Not Significant Effect** to No Effect.
- 8.9.17 The Project (construction access routes only) passes through the northern part of LCA Moore Village and Keckwick Brook Valley (**Table 8D.22 in Appendix 8D**) that is assessed to have a medium sensitivity. Collectively the works involving the underground pipeline, a temporary trenchless crossing compound and Higher Walton HAGI (HWH2) to the east and north-east, beyond the LCA's boundary would result in a low to very low or zero magnitude of change with a **Minor to Minor/Negligible** and **Not Significant** effect to No Effect. A localised medium magnitude of change and a **Moderate** effect that is judged to be **Not Significant** is concluded in relation to construction access routes and increased traffic movements along Moore Lane.
- 8.9.18 The River Mersey/Bollin (West) to the north of the Manchester Ship Canal (**Table 8D.50 in Appendix 8D**) is assessed as having a medium sensitivity. The construction works would include the open cut installation of approximately 2.7km of pipeline and the Higher Walton (HWH2) HAGI sited on the northern banks of the Manchester Ship Canal and associated construction compounds. In addition, there would be a temporary trenchless crossing compound on the southern bank of the River Mersey. Sections of North Corridor would necessitate the removal of sections of Category B and C woodland and groups of trees as well as a single Category A tree and sections of Category A woodland and group of trees within the Moore Nature Reserve (although the working corridor width would be reduced as far as possible to avoid impacts on Category A trees), with the likely extent of tree removal shown in **Figures 8C.128, 8C.129 and 8C.130 of Appendix 8C: Arboricultural Impact Assessment**. The high magnitude of change, whilst localised, would result in **Major/Moderate** and **Significant** effects. Elsewhere within the LCA, the magnitude of change would be reduced to low to zero due to intervening distance and intermittent screening from vegetation, resulting in a **Minor** effect that would be **Not Significant** to No Effect. The LCA also coincides with the LVIA Study Areas for the Higher Walton (HWH8) HAGI and Warburton

HAGI although magnitudes of change associated with the construction of these Project components would be very low to zero with a **Minor/Negligible** and **Not Significant** effect to No Effect.

- 8.9.19 There would be no physical changes to LCA 6a Victoria Park to Fiddlers Ferry (**Table 8D.54** in **Appendix 8D**) that has been assessed to have a medium sensitivity, with temporary trenchless crossing compounds sited within fields beyond the boundary of this LCA ensuring that the course and banks of the River Mersey would remain intact. The presence of the temporary trenchless crossing compound on the southern bank of the River Mersey, just beyond the boundary of the LCA (and remote from the built development of Warrington), and the associated levels of noise and movement may dilute the “*Wild, almost remote*”³² perception of the landscape from with a short section of this narrow LCA. Overall, the magnitude of change upon the majority of the LCA would be very low to zero with a **Minor/Negligible** effect that is **Not Significant** to No Effect. Localised areas experiencing up to a medium magnitude of change in close proximity to the temporary trenchless crossing compound would result in a short-term **Moderate** effect that it judged to be **Significant**.
- 8.9.20 Continuing north of the River Mersey, the North Corridor (including Options NP6 and NP7) would cross LCA 1f Penketh & Cuerdley (**Table 8D.51** in **Appendix 8D**) which has been assessed as having a low overall sensitivity. Collectively the construction works involving the underground pipeline, and the presence of construction access routes, up to seven temporary trenchless crossing compounds (Option NP7) and three large material storage areas within the LCA would give rise to locally high magnitudes of change and a **Moderate** effect that is **Significant** along the pipeline corridor and within temporary trenchless crossing compounds, reducing to a low to zero magnitude of change that is **Minor/Negligible** and **Not Significant** to No Effect elsewhere within the wider LCA.
- 8.9.21 The Project passes through the western half of the FF4 Bold Heath LCA (**Table 8D.27** in **Appendix 8D**) that has an overall medium to low sensitivity. The construction works would involve approximately 2.4km of underground pipeline, four temporary trenchless crossing compounds, a material storage area, the Clock Face HAGI and construction access routes and designated access points. The magnitude of change would be low with localised areas within and close to the pipeline corridor and construction compounds experiencing up to a high magnitude of change. The resulting direct effects would range from **Major/Moderate** to **Moderate** and **Significant** effects closely associated with pipeline corridor and aforementioned infrastructure to **Moderate to Minor** and **Not Significant** effects to No Effect upon the wider LCA.
- 8.9.22 The North Widnes Farmland LCA (**Table 8D.19** in **Appendix 8D**) is assessed to have a medium sensitivity. Approximately 0.8km of pipeline corridor passes through the north-eastern corner of the LCA and collectively the construction works involving the underground pipeline, temporary trenchless crossing compound and construction access routes and access points would represent a low to zero magnitude of change with localised areas experiencing up to a high magnitude of change close to the pipeline corridor and construction compounds.

The overall effect would be **Minor** and **Not Significant** to No Effect with localised **Major/Moderate** and **Significant** effects.

- 8.9.23 The Project passes to the south and west of the WFE4 Bold Hall LCA (**Table 8D.43** in **Appendix 8D**) that has been assessed as having an overall medium sensitivity. There would be very limited indirect effects from the proposed pipeline due to distance and intervening vegetation and a baseline context in which existing traffic movements on the A57 are likely to visually and audibly disrupt local levels of tranquillity. The magnitude of change would be low to very low or zero with a **Minor to Minor/Negligible** effect that is **Not Significant** to No Effect.
- 8.9.24 The Project passes to the east of the Cronton and Pex Hill LCA, within Knowsley (an adjacent local authority area) (**Table 8D.24** in **Appendix 8D**) that has an overall low sensitivity. Collectively, the construction works involving the underground pipeline, Clock Face HAGI, temporary construction compounds and construction access routes would have a very low to zero magnitude of change with a **Negligible** effect that would be **Not Significant** to No Effect.

St. Helens Spurs and Clock Face Spur

- 8.9.25 The FF2 Sutton Manor Fringe LCA (**Table 8D.26** in **Appendix 8D**) is assessed to have a medium to low sensitivity and would accommodate part of the St Helens Spur and Clock Face Spur and two temporary trenchless crossing compounds, material storage area and construction access routes and designated access points. The open nature of the field boundaries on either side of the M62 provides a degree of intervisibility with the landscape to the south of the LCA and consequently with the Clock Face HAGI under construction – albeit tempered by the busy M62 motorway traffic and roadside fencing. The magnitude of change on the LCA would be low with localised areas experiencing up to a high magnitude of change in close proximity to the pipeline corridor and construction compounds. The effects would range from localised **Major/Moderate** to **Moderate** and **Significant** effects to **Minor to Minor/Negligible** and **Not Significant** effects to **No Effect** within the wider LCA.
- 8.9.26 The Project passes to the west of RFS4 Sutton LCA (**Table 8D.31** in **Appendix 8D**) and RSH1 Sutton Manor LCA (**Table 8D.32** in **Appendix 8D**), both of which have an overall medium sensitivity. There would be very limited indirect effects from the proposed pipeline (North Corridor and St Helens Spur), associated construction compounds, access routes and the Clock Face HAGI under construction, due to distance, high levels of internal woodland (RSH1) and built form (RFS4) which would limit intervisibility with the Project. The magnitude of change would be locally low to very low or more commonly zero, with a **Minor or Minor/Negligible** effect that is **Not Significant** to No Effect.
- 8.9.27 The Project passes to the east of BRS5 Rainhill Slopes LCA (**Table 8D.25** in **Appendix 8D**), the eastern tip of which lies within the LVIA Study Area and has an overall medium sensitivity. There would be very limited indirect effects from the proposed North Corridor, St Helens Spur and associated construction compounds and the Clock Face HAGI under construction due to distance and intervening woodland, tree belts and transport corridors. The magnitude of change would be very low to zero with a **Minor/Negligible** effect that is **Not Significant** to No Effect.

- 8.9.28 The Project passes through the centre of the EF1 Elton Head Hall Farm LCA (**Table 8D.28 in Appendix 8D**) which has been assessed as having an overall medium-low sensitivity. Within the LCA, the construction works involving the laying of approximately 2km of underground pipeline, three temporary trenchless crossing compounds, and access routes would result in a high to medium magnitude of change and a **Major/Moderate to Moderate** and **Significant** effect in close proximity to the pipeline corridor and compounds. Elsewhere within the wider LCA, the magnitude of change would be low to zero with a **Minor** and **Not Significant** effect to No Effect.
- 8.9.29 The St Helens Spurs pass to the east of the SS6 Rainhill LCA (**Table 8D.38 in Appendix 8D**) that has an overall medium sensitivity and is predominantly urban development. There would be limited indirect effects from the proposed pipeline under construction, within the eastern edge of the LCA where construction activity would be visible in views affecting the adjoining character area and would comprise a low magnitude of change. Elsewhere the effects on the character of the Rainhill LCA would be very low to zero due to distance and intervening built form and vegetation. These effects would be **Minor** and **Not Significant** to No Effect.
- 8.9.30 The IF1 Link Road LCA (**Table 8D.29 in Appendix 8D**) is assessed to have a low sensitivity and would accommodate part of the St Helens Spur and Clock Face Spur. Collectively the construction works involving the pipelines, small temporary storage areas and temporary construction access routes would appear similar to utilities roadworks in an urban area, and would therefore not an unfamiliar temporary feature of the streetscape. Overall, the magnitude of change on the LCA would be Very Low to Zero (**Negligible** and **Not Significant** effects to No Effect) with localised areas experiencing up to a Medium magnitude of change in close proximity to the pipeline corridor and **Minor** and **Not Significant** effects.
- 8.9.31 The Project would pass to the west and south of LCA RSH4 Lea Green which is assessed as being of low sensitivity (**Table 8D.33 in Appendix 8D**). Collectively, the construction works involving the underground pipeline (St Helens Spur and Clock Face Spur) and construction access routes, all of which are located beyond the boundary of this LCA, would lead to a zero magnitude of change as high levels of intervening built form restrict intervisibility with a corresponding No Effect.
- 8.9.32 The UG3 Rainhill Golf Course LCA (**Table 8D.40 in Appendix 8D**) is assessed to have a medium sensitivity and the Project passes to the east of the LCA. There would be very limited indirect effects from the proposed pipeline (St Helens Spur) due to intervening woodland and built form. The magnitude of change would be very low and commonly zero with a **Minor/Negligible** effect that is **Not Significant** to No Effect.
- 8.9.33 The RFS1 Grange Park LCA (**Table 8D.30 in Appendix 8D**) is assessed to have a medium sensitivity and the Project passes along the south-eastern fringes of the LCA. Overall, the magnitude of change on the LCA would be very low to zero with a **Minor/Negligible** and **Not Significant** effect to No Effect. However, there would be localised areas along the southern boundary of the LCA in close proximity to the pipeline corridor that would experience up to a medium magnitude of change and where there would be a **Moderate** effect that would be **Not Significant**, and

where construction activities are perceived, they would appear similar to utilities roadworks which periodically occur within an urban environment.

- 8.9.34 The Project passes through the southern and eastern edges of LCA RVI1 Thatto Heath (**Table 8D.34 in Appendix 8D**) which is assessed as having an overall medium-low sensitivity. Within the LCA, the construction works involving the laying of approximately 1.7km of underground pipeline, small temporary materials storage areas, and construction access routes would result in a medium magnitude of change and **Moderate to Minor** and **Not Significant** effect in close proximity to the pipeline corridor, which would appear similar to utilities works in an urban environment. High levels of surrounding built form would limit the extent of visible influence of the construction works on the landscape character and key characteristics and within the LCA overall, the magnitude of change would be very low to zero with a **Minor/Negligible to Negligible** and **Not Significant** effect to No Effect.
- 8.9.35 The Project passes to the west and north of the UG2 Sherdley Park LCA (**Table 8D.39 in Appendix 8D**) that is assessed to have a medium sensitivity. There would be very limited indirect effects from the proposed pipeline and the construction access routes which pass close to the western edge of the LCA, due to dense perimeter and internal vegetation. The magnitude of change would be very low and commonly zero with a **Minor/Negligible** effect that is **Not Significant** to No Effect.
- 8.9.36 The UIV3 Ravenhead LCA (**Table 8D.42 in Appendix 8D**) is assessed to have a medium to low sensitivity and the Project passes through the LCA. Collectively, the construction works involving the laying of approximately 1.9km of underground pipelines, the presence of a material storage area on brownfield land and construction access routes would result in very low to zero magnitudes of change and a **Minor/Negligible to Negligible** and **Not Significant to No Effect**, as the surrounding built form would substantially limit the extent of visible influence. However, localised areas would experience up to a high magnitude of change and a **Major/Moderate to Moderate** and **Significant** effect, where Category B and C trees on the north-western fringes of the Ravenhead Nature Park are removed to accommodate the pipeline corridor (under a worst-case scenario and the Applicant will seek to retain as many trees as possible). The likely extent of this removal is indicated in **Figures 8C.111 and 8C.112 of Appendix 8C: Arboricultural Impact Assessment**. Other sections of pipeline laying within road corridors, and which don't involve the loss of trees would give rise to a medium magnitude of change and **Moderate to Minor** and **Not Significant** effect.
- 8.9.37 The Project comprising the end of St. Helens Spur passes through the western fringes of UIV2 Sutton Brook LCA (**Table 8D.41 in Appendix 8D**) that is assessed to have a medium to low sensitivity. The open cut sections comprising the majority of the pipeline corridor are likely to require the removal of occasional street trees and vegetation within the Draft Order Limits along St Helens Linkway, as indicated in **Figure 8C.112 of Appendix 8C: Arboricultural Impact Assessment**. Localised areas would experience up to a High magnitude of change and a **Major/Moderate to Moderate** and **Significant** effect in close proximity to the pipeline corridor and where street trees or vegetation is removed and a **Moderate to Minor** and **Not Significant** effect within road corridors where trees are not

removed. Elsewhere within the wider LCA, built form would limit the extent of visible influence of the construction works and magnitudes of change would be very low, typically zero with a **Minor/Negligible** to **Negligible** and **Not Significant** effect to No Effect.

- 8.9.38 Three urban landscape character areas within St. Helens comprising SLV1 St Helens Historic Core, SLV2 St Helens Retail Ring and SLV3 St Helens Terraces are located to the north of the Project and partly fall within the LVIA Study Area (**Appendix 8D: Tables 8D.35, 8D.36 and 8D.37**). LCAs SLV1 St Helens Historic Core and SLV3 St Helens Terraces have been assessed as having a medium sensitivity whilst SLV2 St Helens Retail Ring has a low overall sensitivity. The magnitude of change would vary from zero within SLV1 St Helens Historic Core LCA and SLV3 St Helens Terraces LCA where there would be No Effect, to a very low to zero magnitude of change in SLV2 St Helens Retail Ring as a result of the limited visibility of construction works associated the St. Helens Spur that may be perceptible along the A570 St Helens Linkway from the southern edge of the LCA. The resulting effect would be locally **Negligible** and **Not Significant** with the majority of the LCA experiencing a zero magnitude of change and No Effect.

Warrington Spur

- 8.9.39 A section of the Warrington Spur of the Project passes through LCA 5a River Mersey/Bollin (West) (**Table 8D.50 in Appendix 8D**) which assessed as having a medium sensitivity. Under a worst-case scenario, direct effects would be associated with the laying of approximately 1.1km of pipeline which would require the removal of Category B linear groups of trees as shown in **Figures 8C.125, 8C.129 and 8C.130 of Appendix 8C: Arboricultural Impact Assessment**. Localised areas would therefore experience up to a High magnitude of change and a **Major/Moderate** and **Significant** effect in close proximity to the pipeline corridor. Elsewhere within the LCA, the magnitude of change would be reduced to low to zero due to intervening distance and intermittent screening from vegetation, resulting in a **Minor** effect that would be **Not Significant** to No Effect.

East Corridor, Warburton Spur and Partington Spur

- 8.9.40 The pipeline corridor of the Project passes through the 5d Whitley and Comberbach LCA in four places as parts of the East, West, North and South (including Options SP5 and SP6) Corridors and would also accommodate the Central Hub HAGI. The LCA has been assessed to have a medium sensitivity (**Table 8D.8 in Appendix 8D**). Collectively, the construction works involving the underground pipeline, 11 temporary trenchless crossing compounds, Central Hub HAGI construction and associated construction compound, two material storage areas and construction access routes and designated access points would result in localised areas close to this construction activity experiencing up to a high magnitude of change and a **Major/Moderate** and **Significant** effect. However, the magnitude of change upon the wider LCA closer to the edge of the LVIA Study Area, would be low to zero due to intervening hedgerow and tree screening. This reduction in magnitude of change would result in a **Minor** effect that is **Not Significant** to No Effect.

- 8.9.41 Moving in an easterly direction from LCA 5d, the Project would enter LCA 13b Arley West, which is assessed as having a medium sensitivity (**Table 8D.17 in Appendix 8D**). The magnitude of change would range from High (in respect of landscape elements and LCA within and adjacent to approximately 2.3km of pipeline corridor and construction access widening of local roads) to low /zero elsewhere within the LCA. The effect would range from **Major/Moderate** and locally **Significant** in close proximity to the construction works associated with the pipeline corridor and parts of the construction access. Elsewhere within the wider LCA the effects would be **Minor** and **Not Significant** to No Effect.
- 8.9.42 The 7a Arley LCA (**Table 8D.55 in Appendix 8D**) is assessed as having a medium sensitivity. The Project passes through the centre of the LCA and collectively the construction works involving the laying of approximately 7.7km of underground pipeline, the construction access routes and designated access points, nine temporary trenchless crossing compounds, three material storage areas and the construction of the Sworton Heath BVI would represent a localised but high or medium magnitude of change in the vicinity of the pipeline corridor and access routes, resulting in **Major/Moderate** or **Moderate** and **Significant** effects. However, the overall effect from the majority of this extensive LCA would be a low to zero magnitude of change resulting in a **Minor** effect that would be **Not Significant** to No Effect.
- 8.9.43 The East Corridor of the Project including the temporary trenchless crossing compounds to the west of the A56/south of the Bridgewater Canal and construction access directly impacts the eastern fringes of LCA 3c Lymm. The LCA has been assessed to have a medium sensitivity (**Table 8D.49 in Appendix 8D**). The construction works would result in localised areas experiencing up to a high magnitude of change and a **Major/Moderate** and **Significant** effect, noting the magnitude of indirect change upon the wider LCA would be low to zero, due to intervening vegetation screening and built form within and around Broomedge, resulting in a **Minor** effect that is **Not Significant** to No Effect.
- 8.9.44 Continuing eastwards, the East Corridor would cross into LCA 5a River Mersey/Bollin (East) (**Table 8D.50 in Appendix 8D**), which is assessed as having a medium sensitivity. The Project passes through the eastern fringes of the LCA where the magnitude of change would be locally high as a result of construction works involving approximately 1km of East Corridor by open cut. The River Bollin and Agden Brook close to the boundary of the LCA would be crossed via a temporary trenchless crossing technique with a compound sited on the southern bank of the watercourses (within the LCA), thereby ensuring that their channels and banks remain intact. The high magnitude of change would be localised, affecting the LCA directly impacted by the Project and in close vicinity, resulting in **Major/Moderate** and **Significant** effects. The magnitude of change upon the LCA as a consequence of the construction of the Warburton HAGI as well as on areas of LCA further to the west, would reduce to very low or zero due to increasing separation distances resulting in a **Minor/Negligible** effect would be **Not Significant** to No Effect.
- 8.9.45 Adjoining LCA 5a River Mersey/Bollin (East) and within a separate administrative area, LCA 10a Lower Bollin (**Table 8D.56 in Appendix 8D**), is assessed as being of high-medium sensitivity. With the exception of construction traffic using the

M56, A56 and A556 which pass through this receptor unit, there would be no direct effects on this LCA. However, collectively, the construction works involving the underground pipeline, and the presence of the temporary trenchless crossing compounds, construction access routes, Warburton HAGI construction compound and material storage areas to the north, which are all sited beyond but often close to the LCA's boundary, would give rise to a medium magnitude of change and a short-term **Major/Moderate** to **Moderate** and **Significant** effect within a small, localised area at the western tip of the LCA and in the vicinity of the A56 Lymm Road. Elsewhere within the wider LCA, the magnitude of change would very low to zero and effects **Minor** to **Minor/Negligible** and **Not Significant**.

- 8.9.46 The River Meadowlands LCT (**Table 8D.47** in **Appendix 8D**) is assessed as having a medium sensitivity. The construction works would involve the underground pipeline and a temporary trenchless crossing compound on the northern bank of the River Bollin within the LCT, thereby ensuring that the banks and course of the river remain undisturbed. A locally high magnitude of change affecting the LCA where directly impacted by the Project and in close vicinity would give rise to **Major/Moderate** and **Significant** effects. The overall effect from the majority of the LCA and in relation to the construction of the Warburton HAGI beyond the boundary of the LCT, would be a low to zero magnitude of change resulting in a **Minor** effect that would be **Not Significant** to No Effect.
- 8.9.47 The Settled Sandlands LCT (**Table 8D.45** in **Appendix 8D**) is assessed as having a medium sensitivity. The Project passes through the centre of the LCA and the magnitude of change would be high as a result of construction works involving the laying of approximately 3.5km of underground pipeline within the East Corridor and Warburton Spur, crossing of the Sinderland Brook by open cut installation and the construction of Warburton HAGI and temporary material storage areas to the north and west of the HAGI. The high magnitude of change would be localised, affecting the LCA where directly impacted by the Project and in close vicinity, resulting in **Major/Moderate** and **Significant** effects. The overall effect from the majority of the LCA would be a low to zero magnitude of change resulting in a **Minor** effect that would be **Not Significant** to No Effect.
- 8.9.48 The Wooded Estatelands LCT (**Table 8D.48** in **Appendix 8D**) is assessed as having a medium sensitivity. The LVIA Study Area for the East Corridor of the pipeline coincides with a small proportion of the LCT, on its western fringes. Indirect effects from limited visibility of the pipeline corridor construction would represent a very low to zero magnitude of change resulting in **Minor** to **Minor/Negligible** and **Not Significant** Effects to No Effect upon the Wooded Estatelands LCT. Any increase in traffic along the A56 and B5160, which are identified as light vehicle access routes to the Warburton HAGI, may give rise to a low magnitude of change from localised areas of LCT adjacent to the construction access routes, with a corresponding **Minor** and **Not Significant** effect.
- 8.9.49 The East Corridor of the Project passes through the western part of the Mossland LCT (**Table 8D.44** in **Appendix 8D**) which has been assessed to have a medium sensitivity. The construction works involving the open cut installation of the underground pipeline across open agricultural land and along the edge of an existing track or 'Ride' where some localised loss of Category B trees may occur (as indicated in **Figure 8C.141** of **Appendix 8C: Arboricultural Impact**

Assessment) and the construction of the Partington(PH2) HAGI would result in localised areas close to this construction activity experiencing up to a high magnitude of change and a **Major/Moderate** and **Significant** effect. It should be noted that construction effects related to the Partington (PH1) HAGI, given its brownfield location and siting beyond the boundary of the LCT, would not represent a significant effect. The magnitude of indirect change upon the wider LCT closer to the edge of the LVIA Study Area, including would be low to zero, due to intervening vegetation screening. This reduction in the magnitude of change would result in a **Minor** effect that is **Not Significant** to No Effect.

- 8.9.50 The Urban River Valleys LCT (**Table 8D.46** in **Appendix 8D**) is assessed as having a low sensitivity. Collectively, the construction works would involve the presence of construction access routes, Partington HAGI construction compound (for Options PH1 and PH2) and pipeline corridors beyond the LCT's boundary. Overall, the magnitude of change on the LCT would be very low with localised areas of a low magnitude of change and commonly zero, giving rise to **Minor/Negligible** or **Negligible** and **Not Significant** effects to No Effect.
- 8.9.51 With regard to local landscape designations, the East Corridor of the Project crosses the River Bollin at the western tip of the Bollin Valley LDD (**Table 8D.60** in **Appendix 8D**) which is assessed as being of high-medium sensitivity. There would be no direct effects on this LLD. However, collectively, the construction works involving the underground pipeline and the presence of temporary trenchless crossing compounds sited on the northern and southern banks of the River Bollin (beyond but close to the boundary of the LLD and thereby ensuring that the banks and course of the river, which lie within the LLD, remain undisturbed), would result in a medium magnitude of change and a **Major/Moderate** to **Moderate** and **Significant** effect within a small, localised area at the western tip of the LLD. The audible and visual disturbance of construction activity along the route and within the temporary trenchless crossing compounds may locally and temporarily dilute "*feelings of tranquillity*" and of an "*intact rural landscape*" which is a Special Quality of the LLD. No other Special Qualities would be altered as a consequence of the East Corridor. Overall, the magnitude of change within the LLD would be very low to zero with effects that are **Minor** and **Not Significant** to No Effect.

South Corridor

- 8.9.52 Moving south from LCAs 5d Whitley and Comberbach and 15c Lower Weaver Valley, summarised under the East Corridor and West Corridor headings respectively, the South Corridor of the Project would enter LCA 5b Frodsham to Northwich (**Table 8D.9** in **Appendix 8D**). This LCA is assessed as being of medium sensitivity. The magnitude of change would be high as a result of construction works involving the laying of approximately 5.4km of underground pipeline, Hartford BVI, eight temporary trenchless crossing compounds and two material storage compounds. This high magnitude of change would be localised, affecting the LCA where directly impacted by the Project and in close vicinity, resulting in **Major/Moderate** and **Significant** effects. The overall effect for the majority of the LCA would be a low to zero magnitude of change, resulting in a **Minor** effect that would be **Not Significant** to No Effect.

- 8.9.53 The 1a Delamere LCA (**Table 8D.11 in Appendix 8D**) has a medium sensitivity and the Project passes along the eastern boundary of the LCA. Collectively the construction works involving the laying of approximately 1.6km of underground pipeline, two temporary trenchless crossing compounds and material storage areas would result in localised areas close to this activity experiencing up to a high magnitude of change and a **Major/Moderate** and **Significant** effect. However, the magnitude of change on the wider LCA would be low to zero, resulting in a **Minor** effect that is **Not Significant** to No Effect.
- 8.9.54 The Project passes through the centre of the 15b Mid Weaver Valley LCA (**Table 8D.12 in Appendix 8D**) that has a high to medium sensitivity. Temporary trenchless crossing compounds would be sited in large-scale agricultural fields on the eastern and western banks of the River Weaver (largely beyond the LCA's boundary but with the western compound partially overlapping with the LCA) thereby ensuring that the clough woodland, valley landform, views and course of the river with its associated recreational routes, all of which are key characteristics of the LCA, remain undisturbed. Whilst there may be some audible disturbance from the construction activities, the visual disturbance of construction activity would be reduced as a consequence of the heavily wooded and steeply sided valley landform. Overall, the magnitude of change on the LCA would be very low to zero, with localised areas experiencing up to a low magnitude of change in close proximity to the construction works, and effects would be **Moderate to Minor** and **Not Significant** to No Effect.
- 8.9.55 The 5c Eaton, Marton & Over LCA (**Table 8D.16 in Appendix 8D**) has a medium sensitivity and the Project passes to the north and east beyond the LCA's boundary. As a consequence, there would be no direct effects from the construction activities associated with the South Corridor of the pipeline and its construction compounds. Indirect effects would also be limited due to separation distance and intervening woodland and tree belts, leading to a very low to zero magnitude of change and a **Minor/Negligible** and **Not Significant** effect to No Effect.
- 8.9.56 Continuing eastwards from the 15b Mid Weaver Valley LCA, the Project would cross LCA 5e East Winsford (**Table 8D.13 in Appendix 8D**), which is assessed as being of high to medium sensitivity. Collectively the construction works involving the laying of approximately 4.5km of underground pipeline, presence of five temporary trenchless crossing compounds and a materials storage area would lead to a high magnitude of change which would be localised, affecting the LCA where directly impacted by the Project and in close vicinity and resulting in **Major/Moderate** and **Significant** effects. However, the magnitude of change on the LCA overall would be low to zero with **Minor** and **Not Significant** effects to No Effect.
- 8.9.57 Approximately 0.6km of the Project passes through the centre of LCA 15e Dane Valley (**Table 8D.14 in Appendix 8D**) that has an overall medium sensitivity. The magnitude of change from laying the underground pipelines and two temporary trenchless crossing compounds ranges from high (in respect of landscape elements and LCA within and adjacent to the pipeline corridor and temporary trenchless crossing construction compounds) to low or zero elsewhere within the LCA. These changes would result in **Minor** and **Not Significant** to b for the

majority of the LCA, with localised areas of **Major/Moderate** and **Significant** effects close to the pipeline corridor and construction compounds.

- 8.9.58 The final section of the South Corridor would pass through the centre of the 10b Stublach Plain LCA (**Table 8D.15** in **Appendix 8D**) which is assessed as being of medium sensitivity. Collectively the construction works involving the laying of approximately 1.9km of underground pipeline, five temporary trenchless crossing compounds, a large material storage area and HSF HAGI, would result in localised areas close to this construction activity experiencing up to a high magnitude of change and a **Major/Moderate** and **Significant** effect. However, the magnitude of change on the wider LCA, due to intervening hedgerow and tree screening would be low to zero, resulting in a **Minor** effect that is **Not Significant** to No Effect.
- 8.9.59 With regard to local landscape designations, the South Corridor of the Project would pass through the Weaver Valley ASCV - Mid Weaver ASCV (**Table 8D.59** in **Appendix 8D**) which is assessed as being of high-medium sensitivity. There would be no direct effects on this ASCV, and indirect effects would be associated with the audible disturbance from construction activities along the South Corridor and within temporary trenchless crossing compounds, which are sited beyond but often close to the ASCV's boundary. The visual influence of construction activities would be reduced by the presence of the valley landform and clough woodland. The magnitude of change likely to affect the Special Qualities would range from low (in respect of the ASCV adjacent to the temporary trenchless crossing compounds and within the southern part of the ASCV) to very low with increasing separation distance from the South Corridor to zero. Effects would therefore be **Moderate** to **Minor** and **Not Significant** within localised areas to **Minor** and **Not Significant** or No Effect for the majority of the ASCV, with limited influence on the Special Quality which relates to "*A quiet, tranquil*" landscape. No other Special Qualities would be altered as a consequence of the Project.

Operational phase

- 8.9.60 The assessment of operational effects set out below relates to the impact of the HAGIs and BVIs at both Operation Year 1 and Operation Year 15.

West Corridor: HPP HAGI

- 8.9.61 The ZTV for the HPP HAGI is illustrated in **Figure 8.28** and the host LCA is LCA 9a Dunham to Tarvin Plain, which is assessed as being of medium sensitivity. Whilst the ZTV in **Figure 8.28** shows intervisibility from within this LCA, in reality, the existing (retained) roadside vegetation which lines both side of the A5117 would heavily filter views from within the surrounding landscape. Within highly localised areas from where the HPP HAGI would be perceived, it would appear to be part of the surrounding petrochemicals works and the low-level infrastructure, lighting columns and perimeter fencing would not be incongruent. As a consequence of its siting within an existing industrial complex, no planting is proposed in the vicinity of the HAGI, as confirmed in **Figure 1** of the **Outline LEMP**. The magnitude of change at both Years 1 and 15 would be very low and more commonly zero and effects would be **Minor/Negligible** and **Not Significant** to No Effect.

West Corridor: Rocksavage HAGI

- 8.9.62 The host LCA for the Rocksavage HAGI is LCA 15c Lower Weaver Valley, assessed as being of high-medium sensitivity (**Table 8D.6 in Appendix 8D**). The permanent loss of Category B woodland from within the footprint of the Rocksavage HAGI and a 50m offset from the above ground equipment (as shown in **Figure 2** of the **Outline LEMP**) would result in a localised medium magnitude of landscape change and a **Major/Moderate to Moderate** and **Significant** effect at both Years 1 and 15. Elsewhere within the wider LCA, the magnitude of change would be low to zero and effects **Minor** and **Not Significant** to No Effect due to increasing separation distances, the screening effects from retained woodland and extensive groups of trees and the existing influence of the Frodsham Substation.
- 8.9.63 The LVIA Study Area for the Rocksavage HAGI also coincides with parts of LCAs 4a Frodsham, Helsby & Lordship Marshes (low sensitivity), 8a Aston (high to medium sensitivity) and 5b Frodsham to Northwich as well as the Runcorn Hill and Heath Parkland LCA, with the latter two LCAs assessed as being of medium sensitivity. The ZTV for the Rocksavage HAGI is illustrated in **Figure 8.29** and indicates fragmented theoretical visibility from within all four LCAs. The assessment in **Tables 8D.2, 8D.7, 8D.9 and 8D.18 of Appendix 8D**, concludes a zero magnitude of change and No Effect on the character and key characteristics of LCAs 5b, 8a and the Runcorn Hill and Heath Parkland LCA at both Years 1 and 15 due to the separation distance and screening provided by a combination of intervening built form, tree cover and the M56 viaduct. A localised very low magnitude and **Negligible** and **Not Significant** effect to No Effect is assessed for LCA 4a Frodsham, Helsby & Lordship Marshes at Years 1 and 15, with the Rocksavage HAGI having a very limited characterising influence on this LCA, perceived in context with the Frodsham Substation and with the River Weaver, M56 motorway and retained woodland providing physical and visual separation.

Runcorn/Rocksavage Spur: Runcorn HAGI

- 8.9.64 The host LCA for the Runcorn HAGI is LCA Runcorn Hill and Parkland, which is assessed as being of medium sensitivity (**Table 8D.18 in Appendix 8D**). The permanent loss of tree cover from within and around the HAGI footprint would represent a localised high magnitude of change in respect of landscape elements and local landscape character and a **Major/Moderate to Moderate** and **Significant** effect. Elsewhere within the LCA, the magnitude would be very low and localised, as illustrated in the ZTV in **Figure 8.30**, with retained vegetation limiting its characterising role within a landscape where there are similar types of fenced compounds. Overall, the effects on the LCA would be **Minor/Negligible** and **Not Significant** to No Effect. The limited opportunities for planting, as shown in **Figure 3** of the **Outline LEMP**, mean that these levels of effect would occur at both Year 1 and Year 15.
- 8.9.65 The LVIA Study Area for the Runcorn HAGI also coincides with part of LCA 4a Frodsham, Helsby & Lordship Marshes (low sensitivity) and the western tip of LCA 15c Lower Weaver Valley, which is of lower sensitivity (medium-low) than parts of the LCA to the east, due to the presence of the Frodsham Substation. The ZTV for the Runcorn HAGI (**Figure 8.30**) indicates fragmented theoretical visibility from within both LCAs. The magnitude of change would be very low to zero from across

both LCAs and effects would be **Negligible** or **Minor/Negligible** and **Not Significant** to No Effect at Years 1 and 15.

North, South, East and West Corridors: Central Hub HAGI

- 8.9.66 The Central Hub HAGI lies within LCA 5d Whitley and Comberbach, which extends across the entire LVIA Study Area for the HAGI and as assessed as being of medium sensitivity (**Table 8D.18** in **Appendix 8D**). The ZTV for the Central Hub HAGI is illustrated in **Figure 8.31** and illustrates a moderate extent of theoretical visibility from across the LCA.
- 8.9.67 The magnitude of change at Year 1 would be medium in the vicinity of the Central Hub HAGI where the perimeter fencing, typically 2.4 to 3.6m in height would appear incongruous in a largely rural setting and the proposed planting (**Figure 4** of the **Outline LEMP**) would play a very minor role at Year 1. The effect on the landscape would be **Moderate** and locally **Significant**. Elsewhere within the LCA, the magnitude would be low to zero and effects **Minor** and **Not Significant** to No Effect from within the majority of the LCA.
- 8.9.68 The gradually maturing woodland proposed to the north and west of the Central Hub HAGI and hedgerow proposed to the south would screen or partially screen the above ground infrastructure and perimeter fence of the HAGI at Year 15 and reduce its characterising role. The proposed woodland would reinforce the key characteristic of the LCA relating to “*Small farm woodlands, coverts and designed copses/clumps in parkland are important features of a landscape with generally relatively low woodland cover*”²⁷ and contribute to the Built Development Guideline to “*Soften built edges and views of infrastructure by introducing small scale planting schemes using native broadleaved species*”²⁷. The magnitude of change within the vicinity of the HAGI would be low with a **Minor** and **Not Significant** effect. Elsewhere, the magnitude of change on the LCA overall would be very low to zero with **Minor/Negligible** and **Not Significant** effects to No Effect.

North Corridor: Higher Walton (HWH2) HAGI

- 8.9.69 The host LCA for the Higher Walton (HWH2) HAGI is LCA 5a River Mersey/Bollin (West), which is assessed as being of medium sensitivity (**Table 8D.50** in **Appendix 8D**). The magnitude of change at Year 1 would be low, given its brownfield siting and immediate context to the east of existing warehousing, affecting a small geographical area in the local vicinity of the HAGI where effects would be **Minor** and **Not Significant**. The high proportion of woodland and tree cover to the north of the HAGI means that intervisibility would be restricted, as evidenced in the ZTV in **Figure 8.32**, leading to a very low or zero magnitude of change across the remainder of the LCA, with effects that would be **Minor/Negligible** and **Not Significant** to No Effect at Year 1.
- 8.9.70 The gradual maturation of woodland and scrub planting proposed to the east and west of the HAGI, as shown in **Figure 5** of the **Outline LEMP**, would reinforce the role of the woodland within with Moore Nature Reserve to the north and would reduce the characterising role of the operational Higher Walton (HWH2) HAGI from within the already small area of LCA where effects would be concentrated. The extension of the wooded character to the north, across the Site towards the

Manchester Ship Canal would be beneficial. The magnitude of change would be very low within the vicinity of the HAGI and commonly zero across the remainder of the LCA with **Minor/Negligible** and **Not Significant** effects to No Effect.

- 8.9.71 The LVIA Study Area for the Higher Walton (HWH2) HAGI also coincides with parts of LCA 6a Victoria Park to Fiddlers Ferry, LCA Moore Village and Keckwick Brook Valley and LCA 3a Appleton Park & Grappenhall, all of which have separately been assessed as being of medium sensitivity. The magnitude of change would be very low to zero from across LCAs Moore Village and Keckwick Brook Valley and 3a Appleton Park & Grappenhall to the south of the Manchester Ship Canal, and effects would be **Minor/Negligible** and **Not Significant** to No Effect at Year 1, reducing to No Effect at Year 15. There would be No Effect on LCA 6a Victoria Park to Fiddlers Ferry at either Years 1 or 15.

North Corridor: Higher Walton (HWH8) HAGI

- 8.9.72 The Higher Walton (HWH8) HAGI is located within LCA 3a Appleton Park & Grappenhall (**Table 8D.53** in **Appendix 8D**), assessed as having medium sensitivity. The magnitude of change at Year 1 would be medium in the vicinity of the Higher Walton (HWH8) HAGI where the perimeter fencing would appear incongruous in a largely rural setting on the southern bank of the Manchester Ship Canal, and the proposed planting (**Figure 6** of the **Outline LEMP**) would play a very minor role at Year 1. The effect on the landscape would be **Moderate** and locally **Significant**. Elsewhere within the LCA, the magnitude of change would be low to zero and effects **Minor** and **Not Significant** to No Effect from within the majority of the LCA.
- 8.9.73 The gradual maturation of woodland, woodland scrub and hedgerow planting proposed to the north, east and south of the HAGI, as shown in **Figure 6** of the **Outline LEMP**, would limit the characterising role of the HAGI and would reinforce the key characteristic of the host LCA relating to “*Linear woodlands, coverts and tree clumps*”. The magnitude of change would reduce to low in the vicinity of the Higher Walton (HWH8) HAGI, to very low or zero elsewhere within the LCA at Year 15 and effects would be **Minor** and **Not Significant** to No Effect.
- 8.9.74 The LVIA Study Area for the Higher Walton (HWH8) HAGI also coincides with LCAs 6a Victoria Park to Fiddlers Ferry and LCA 5a River Mersey/Bollin (West). The ZTV for the Higher Walton (HWH8) HAGI is illustrated in **Figure 8.33** and confirms that there would be no intervisibility from within either of the LCAs to the north of the Manchester Ship Canal. The magnitude of change would therefore be zero with a corresponding No Effect at both Years 1 and 15.

North Corridor: Clock Face HAGI

- 8.9.75 The host LCA for the Clock Face HAGI is FF4 Bold Heath (**Table 8D.27** in **Appendix 8D**), which is assessed as being of medium to low sensitivity. The ZTV in **Figure 8.34** indicates intervisibility from within a large proportion of the LCA which coincides with the LVIA Study Area and within an area influenced by a large transport corridor and engineered embankment. The magnitude of change at Year 1 would be Medium and localised, affecting a small geographical area in the local vicinity of the Clock Face HAGI. Elsewhere within the LCA, the increasing

separation distance and screening provided by field boundary hedgerows means that the magnitude of change would be low or less and zero within areas which fall outside of the ZTV. Year 1 effects would therefore range from **Moderate** to **Minor** and **Not Significant** to No Effect.

- 8.9.76 At Year 15, the gradual maturation of the woodland and woodland edge planting proposed around the HAGI (**Figure 7** of the **Outline LEMP**) would screen the infrastructure and perimeter fence in views from the surrounding landscape. The woodland would also contribute to the “*small pockets of mature woodland associated with hedgerows and field ponds*”³⁰ which forms part of the LCA’s description. The magnitude of change would reduce to low in the vicinity of the Clock Face HAGI, to very low or zero elsewhere within the LCA and effects would be **Minor** to **Minor/Negligible** and **Not Significant** to No Effect at Year 15.
- 8.9.77 The LVIA Study Area for the Clock Face HAGI also coincides with LCAs FF2 Sutton Manor Fringe (medium-low sensitivity), RFS4 Sutton and RSH1 Sutton Manor (both medium sensitivity), to the north of the M62 motorway. The magnitude of change would be low to zero for LCAs FF2 Sutton Manor Fringe and RSH1 Sutton Manor at Year 1, with effects that are **Minor** to **Minor/Negligible** and **Not Significant** to No Effect. The magnitude of change for RFS4 Sutton would be locally very low across the south-eastern fringes and commonly zero, with Year 1 effects which would be **Minor/Negligible** and **Not Significant** to No Effect. At Year 15, the gradual maturation of woodland and woodland edge planting around the Clock Face HAGI (**Figure 7** of the **Outline LEMP**), would screen the infrastructure and the magnitude of change would be zero within all three LCAs with a corresponding No Effect.
- 8.9.78 For the remaining LCAs within the LVIA Study Area, the ZTV in **Figure 8.34** indicates no intervisibility from within these LCAs and consequently, the magnitude of change would be zero with No Effect at Years 1 and 15. These LCAs are:
- LCA Cronton and Pex Hill;
 - LCA BRS5 Rainhill Slopes; and
 - LCA SS6 Rainhill;

East Corridor: Warburton HAGI

- 8.9.79 The Warburton HAGI is located within the Settled Sandlands LCT (**Table 8D.45** in **Appendix 8D**), which is assessed as being of medium sensitivity. The open roadside boundary with the B5160 and partially open boundary with Carrgreen Lane, means that intervisibility with the HAGI would be experienced from within the vicinity of the HAGI to the north and west, where it would contrast with the rural landscape. The magnitude of change at Year 1, when the proposed planting (**Figure 8** of the **Outline LEMP**) would play a very minor landscape role, would be medium and localised, affecting a small geographical area in the local vicinity of the HAGI. Elsewhere within the LCT the magnitude of change would be low to very low as increasing separation distance and vegetative screening reduce any characterising influence of the operational Warburton HAGI. Year 1 effects would therefore range from **Moderate** and **Significant** within the local vicinity of the HAGI to **Minor** and **Not Significant** to No Effect elsewhere within the wider LCT.

- 8.9.80 At Year 15, the gradual maturation of the proposed roadside hedges along the B5160 and Carrgreen Lane and the pockets of woodland and scrub planting, would provide screening of lower infrastructure and reinforce the screening role of the Category B tree groups, where retained to the south and east. The magnitude of change locally would be low, reducing to very low or zero elsewhere within the LCT. The Year 15 effects would therefore be locally **Minor** and **Not Significant** to **Minor/Negligible** and **Not Significant** or No Effect elsewhere within the wider LCT.
- 8.9.81 The LVIA Study Area for the Warburton HAGI also coincides with the River Meadows LCT and LCA 5a River Mersey/Bollin (East) (both of which are assessed as being of medium sensitivity), as well as LCA 10a Lower Bollin (high-medium sensitivity). The ZTV illustrated in **Figure 8.35** shows theoretical intervisibility from within all three receptors. The magnitude of change would be very low to zero at Year 1 and effects would be **Minor/Negligible** and **Not Significant** to No Effect for the River Meadows LCT and LCA 5a River Mersey/Bollin (East) and No Effect for LCA 10a Lower Bollin. At Year 15, the gradual maturation of the woodland and woodland edge planting proposed along the southern edge of the HAGI (**Figure 8** of the **Outline LEMP**) would reinforce the screening provided by the linear group of trees along the former railway corridor, with a magnitude of change which would be zero and corresponding No Effect at Year 15.

East Corridor: Partington (PH1) HAGI

- 8.9.82 The Partington (PH1) HAGI is located on a brownfield site and outside of any defined landscape character type. The LCTs within the LVIA Study Area are the Mossland LCT and Settled Sandlands LCT, both of which are assessed as being of medium sensitivity and the Urban River Valley LCT, which is of low sensitivity. From the closest LCT Mossland, the magnitude of change at Year 1 would be low in the vicinity of the HAGI and very low to zero elsewhere within the remainder of the LCT and effects would be **Minor** to **Minor/Negligible** and **Not Significant** or No Effect. There would be **No Effect** on the Settled Sandlands and Urban River Valley LCTs at Year 1, with the ZTV for the Partington (PH1) HAGI in **Figure 8.36** indicating no or highly limited potential intervisibility from within these LCTs.
- 8.9.83 The limited planting opportunities for the Partington (PH1) HAGI, as indicated in **Figure 9** of the **Outline LEMP**, means that the effects at Year 15 remain that same as those concluded for Year 1.

East Corridor: Partington (PH2) HAGI

- 8.9.84 The host LCT for the Partington (PH2) HAGI is the Mossland LCT (**Table 8D.44** in **Appendix 8D**), which is assessed as being of medium sensitivity. At Year 1, the magnitude of change would be medium and localised, affecting a small geographical area in the local vicinity (the host field only) of the HAGI. Elsewhere within the wider LCT, the magnitude of change would be very low and more commonly zero as the 'Ride' vegetation and tree belts limit intervisibility. Effects would therefore range from **Moderate** and **Significant** to **Minor/Negligible** and **Not Significant** to No Effect.

- 8.9.85 The gradual maturation of hedgerow and tree planting proposed around the HAGI (**Figure 10** of the **Outline LEMP**) would reinforce the screening provided by existing vegetation and reflect the rectilinear patterns of the landscape. The landscape effects would be locally **Minor** and **Not Significant** to No Effect across the majority of the LCT.
- 8.9.86 The LVIA Study Area for the Partington (PH2) HAGI also coincides with the Settled Sandlands LCT. The ZTV in **Figure 8.37** shows no areas of potential intervisibility between the operational the Partington (PH2) HAGI and this LCT. As a consequence, the magnitude of landscape change would be zero with No Effect at Years 1 and 15.

South Corridor: HSF HAGI

- 8.9.87 The HSF HAGI lies within LCA 10b Stublach Plain, which extends across the entire LVIA Study Area for the HAGI and as assessed as being of medium sensitivity (**Table 8D.15** in **Appendix 8D**). The ZTV for the HSF HAGI is illustrated in **Figure 8.38** and illustrates a moderate extent of theoretical visibility from across the LCA.
- 8.9.88 The magnitude of change at Year 1 would be medium in the vicinity of the HSF HAGI reducing to low to very low elsewhere and zero within areas of LCA which fall outside of the ZTV. The proposed planting (**Figure 11** of the **Outline LEMP**) would play a very minor role at Year 1. Effects would be **Moderate** and **Not Significant** within the vicinity of the HAGI and **Minor to Minor/Negligible** or No Effect and **Not Significant** elsewhere within the wider LCA. The Moderate level of effect is judged to be **Not Significant** as a consequence of HAGI being similar in scale and nature to the numerous compounds within the Storengy Stublach Natural Gas Storage site which extend across this LCA to the north and east of the HAGI with “*gas storage industries with well-heads, fenced compounds and tracks visible*”²⁷ recognised as a key characteristic of this landscape.
- 8.9.89 The gradually maturing woodland proposed to the north and west of the HSF HAGI and hedgerow proposed to the south would screen or partially screen the above ground infrastructure and perimeter fence of the HAGI at Year 15 and reduce its characterising role. The proposed woodland planting would reinforce the key characteristic of the LCA relating to “*Small farm woodlands, coverts and designed copses/clumps in parkland are important features of a landscape with generally relatively low woodland cover*”²⁷ and contribute to the Built Development Guideline to “*Soften built edges and views of infrastructure by introducing small scale planting schemes using native broadleaved species*”²⁷. The magnitude of change within the vicinity of the HAGI would be low with a **Minor** and **Not Significant** effect. Elsewhere, the magnitude of change on the LCA overall would be very low to zero with **Minor/Negligible** and **Not Significant** effects to No Effect.

South Corridor: Hartford BVI

- 8.9.90 The host LCA for the Hartford BVI is LCA 5b Frodsham to Northwich with the boundary of LCA 1a Delamere extending close to the BVI. Both LCAs are assessed as being of medium sensitivity (**Tables 8D.9** and **8D.11** in **Appendix**

8D) and the ZTV for the Hartford BVI is illustrated in **Figure 8.39**. The Years 1 and 15 magnitude of change for both LCAs would be low and effects **Minor** and **Not Significant** in the vicinity of the BVI, between the A556 and tree belt to the south, tree belt to the east and Forest Hill Quarry access road to the west. Elsewhere within the LCAs the magnitude of change would be very low to zero and effects would be **Minor/Negligible** and **Not Significant** to No Effect.

8.9.91 No other LCAs are present within the LVIA Study Area for the Hartford BVI.

East Corridor: Sworton Heath BVI

8.9.92 The Sworton Heath BVI lies within LCA 7a Arley, which extends across the entire LVIA Study Area for the BVI and as assessed as being of medium sensitivity (**Table 8D.55** in **Appendix 8D**). The ZTV for the Sworton Heath BVI is illustrated in **Figure 8.40** and illustrates a moderate extent of theoretical visibility from across the LCA.

8.9.93 The magnitude of change at Year 1 would be medium in the vicinity of the Sworton Heath BVI where the perimeter fencing, typically 2.4m in height would appear incongruous in a largely rural landscape and the proposed planting (**Figure 13** of the **Outline LEMP**) would play a very minor role at Year 1. The effect on the landscape would be **Moderate** and locally **Significant**. Elsewhere within the LCA, the magnitude would be low to zero and effects **Minor** and **Not Significant** to No Effect from within the majority of the LCA.

8.9.94 The gradually maturing woodland and scrub planting within the eastern and western sides of the field within which the BVI is sited (outside of the restricted planting zone as illustrated in **Figure 13** of the **Outline LEMP**) would partially screen the presence of the BVI in views from within this LCA in conjunction with the retained field boundary hedgerows to the north and south. The woodland would contribute to the key characteristic relating to “*localised concentration of woodland, broad-leaved and mixed*”. The magnitude of change within the vicinity of the BVI would be low with a **Minor** and **Not Significant** effect. Elsewhere, the magnitude of change on the LCA overall would be very low to zero with **Minor/Negligible** and **Not Significant** effects to No Effect

Decommissioning phase

8.9.95 Decommissioning of the Project would likely involve removing the hydrogen and leaving the pipeline in situ thus avoiding removal and the associated potential effects on landscape elements and landscape character along the pipeline corridor.

8.9.96 It is envisaged that HAGIs and BVIs would be removed by reversing the methods used for installation, with similar levels and types of equipment involved over an anticipated 6-to-12-month period. Temporary decommissioning accesses may be required alongside compounds for the storage of equipment. Pipework would be removed to surface where it would be backfilled and capped and site buildings and mechanical equipment would be dismantled, disconnected and removed from the HAGI and BVI sites.

- 8.9.97 The landscape effects associated with the decommissioning phase are therefore likely to be comparable to those recorded for the construction phase for each host landscape receptor for the HAGIs and BVIs which are identified in **Table 8.11** and assessed in **Appendix 8D: Landscape Receptor Assessment**. Reinstatement of temporary accesses, compounds and landscaping would be undertaken in accordance with a landscape scheme, which would be defined in a decommissioning plan.
- 8.9.98 The LCAs likely to be affected during the decommissioning phase and an assessment of the landscape effects are as follows:
- LCA 9a Dunham to Tarvin Plain (HPP HAGI): the magnitude of change would be low affecting a small geographical area of landscape character (of medium sensitivity) in the local vicinity of the HPP HAGI. Short-term effects would therefore be **Minor** and **Not Significant** from localised areas close to the A5117 and Pool Lane and **Minor/Negligible** and **Not Significant** to No Effect elsewhere within the wider LCA.
 - LCA 15c Lower Weaver Valley (Rocksavage HAGI): the magnitude of change would be up to high locally, affecting a landscape which is assessed as being of a high to medium sensitivity. Short-term effects would therefore be **Major to Major/Moderate** and **Significant** from a highly localised area close to the Rocksavage HAGI (and affecting a much smaller geographical extent than during the construction phase as a consequence of the maturation of post construction planting) and **Minor** and **Not Significant** to No Effect elsewhere within the majority of the LCA.
 - LCA Runcorn Hill and Heath Parkland (Runcorn HAGI): the magnitude of change would be up to high locally, affecting a landscape which is assessed as being of a medium sensitivity. Short-term effects would therefore be **Major/Moderate** and locally **Significant** within areas close to the Runcorn HAGI and **Minor** and **Not Significant** to No Effect elsewhere within the majority of the LCA.
 - LCA 5d Whitley and Comberbach (Central Hub HAGI): the magnitude of change would be high affecting a small geographical area of landscape character (of medium sensitivity) in the local vicinity of any temporary construction compound and Central Hub HAGI being decommissioned. Short-term effects would therefore be locally **Major/Moderate** and **Significant** and **Minor** and **Not Significant** to No Effect elsewhere within the majority of the LCA.
 - LCA 5a River Mersey/Bollin (West) (Higher Walton (HWH2) HAGI): the magnitude of change would be medium to high affecting a very small geographical area of landscape character (of medium sensitivity) in the local vicinity of any temporary construction compound and HAGI being decommissioned, reducing to Low to Very Low or Zero across the majority of the LCA. Short-term effects would therefore be locally **Major/Moderate** and **Significant** and **Minor** and **Not Significant** to No Effect elsewhere within the LCA.
 - LCA 3a Appleton Park & Grappenhall (Higher Walton (HWH8) HAGI): using the construction phase assessment in **Table 8D.53** of **Appendix 8D** as a proxy,

the magnitude of change would be up to high affecting a small area of landscape in the vicinity of the HAGI being decommissioned and which is assessed as being of medium sensitivity. Short-term effects would therefore be locally **Major/Moderate** and **Significant**, whilst elsewhere within the majority of the LCA, the magnitude would be low to zero and effects **Minor** and **Not Significant** to No Effect.

- LCA FF4 Bold Heath (Clock Face HAGI): this LCA is assessed as being of medium to low sensitivity (**Table 8D.27** of **Appendix 8D**) and the magnitude of change associated with the decommissioning of the Clock Face HAGI is likely to be high but affecting a much smaller geographical extent than during the construction phase as a consequence of the woodland proposed around the HAGI post construction (**Figure 7** of the **Outline LEMP**). **Major/Moderate** to **Moderate** and **Significant** effects would therefore be highly localised whilst elsewhere within the LCA, the magnitude would be very low to zero with effects that are **Minor/Negligible** to **Negligible** and **Not Significant** to No Effect.
- Settled Sandlands LCT (Warburton HAGI): the magnitude of change would be medium to high affecting a very small geographical area of landscape character (of medium sensitivity) in the local vicinity of any temporary construction compound and the Warburton HAGI being decommissioned, reducing to Low to Very Low or Zero across the majority of the LCT. Short-term effects would therefore be locally **Major/Moderate** and **Significant** and **Minor** and **Not Significant** to No Effect elsewhere within the LCT.
- Mossland LCT (Partington HAGI (PH1)): indirect effects as a consequence of the decommissioning of the Partington HAGI (PH1) could give rise to a medium magnitude of change within an area of landscape (of medium sensitivity) in vicinity of the any construction compound and HAGI being decommissioned. Short term effects would there be locally Moderate and Not Significant and **Minor/Negligible** and **Not Significant** to No Effect within the majority of the LCT.
- Mossland LCT (Partington HAGI (PH2)): using the construction phase assessment in **Table 8D.44** of **Appendix 8D** as a proxy, the magnitude of change would be up to high, affecting a small area of landscape in the vicinity of the HAGI being decommissioned (the host field only) and which is assessed as being of medium sensitivity. Short-term effects would therefore be locally **Major/Moderate** and **Significant**, whilst elsewhere within the majority of the LCA, the magnitude would be very low to zero and effects **Minor/Negligible** and **Not Significant** to No Effect.
- LCA 10b Stublach Plain (HSF HAGI): this LCA is assessed as being of medium sensitivity (**Table 8D.15** of **Appendix 8D**) and the magnitude of change associated with the decommissioning of the HSF HAGI is likely to be high but affecting a much smaller geographical extent than during the construction phase as a consequence of the woodland proposed to the west of the HAGI post construction (**Figure 11** of the **Outline LEMP**). **Major/Moderate** to **Moderate** and **Significant** effects would therefore be highly localised whilst elsewhere within the LCA, the magnitude would be very low to zero with effects that are **Minor** and **Not Significant** to No Effect.

- LCAs 5b Frodsham to Northwich and 1a Delamere (Hartford BVI): the sensitivity of these LCAs is separately assessed as being medium (**Tables 8D.9 and 8D.11 of Appendix 8D**). The magnitude of change as a consequence of decommissioning activities would be medium across localised areas of both LCAs in the vicinity of the BVI, and short-term effects would be **Moderate** and **Not Significant**. Elsewhere within the LCAs, effects would be **Minor/Negligible** and **Not Significant** to No Effect.
- LCA 7a Arley (Sworton Heath BVI): this LCA is assessed as being of medium sensitivity (**Table 8D.55 of Appendix 8D**) and the magnitude of change associated with the decommissioning of the BVI is likely to be medium but affecting a much smaller geographical extent than during the construction phase as a consequence of the woodland proposed to the east and west of the BVI post construction (**Figure 13 of the Outline LEMP**). **Moderate** and **Significant** effects would therefore be highly localised whilst elsewhere within the LCA, the magnitude would be low to zero with effects that are **Minor** and **Not Significant** to No Effect.

8.10 Assessment Of Visual Effects: Settlements

- 8.10.1 All settlement receptors have been assessed as being of high sensitivity as set out in **Appendix 8F**. The susceptibility of residents to change in their views has been assessed as high and the value of view ranges between medium and high to result in an overall high sensitivity.

Construction phase

West Corridor

- 8.10.2 Dwellings on the northern and north-western edge of Hapsford with potential views towards the Project are either surrounded by mature tree cover and/or views would be restricted by barns and other non-residential buildings. A zero magnitude of change arising from the Project construction is predicted that would have No Effect upon existing views experienced by residents of this settlement.
- 8.10.3 Views of construction activity within the West Corridor from the south-eastern edge of Elton would be available from upper floor windows of dwellings fronting onto Parkland Drive and Mulberry Close north of the junction with Ince Lane and in upper floor views from the rear of dwellings on Parkland Drive, south of the junction with Ince Lane. Views would include temporary trenchless crossing compounds north and south of the A5117, and to the west and east of Ince Lane (to the south of Ash Road). Views of the temporary trenchless crossing compound to the west of Ince Lane would be from upper stories of dwellings to the south of Parkland Drive at a distance of ~20m and would include the partial removal of a group of Category C trees between the A5117 and Ince Lane (as shown in **Figure 8C.92 of Appendix 8C: Arboricultural Impact Assessment**) should this trenchless crossing option be taken forward. The magnitude of change would range from Medium, at the south-eastern edge of the settlement), to Zero for the remainder of the settlement with No Effect.

- 8.10.4 Limited views of construction activity along the West Corridor of the pipeline are predicted from localised parts of Thornton-le-Moors, Frodsham and Helsby (and of the Rocksavage HAGI under construction from properties on The Quay, Frodsham), where views would be heavily restricted by a combination of built development, trees and hedges, restricting views of construction activity. There would be a very low magnitude of change from localised parts of the settlements only resulting in a **Minor** and **Not Significant** effect, with the majority of residents within the settlements experiencing a zero magnitude of change and No Effect.
- 8.10.5 A medium magnitude of change is assessed from the southern edge of Sutton Weaver where unrestricted south facing views from ground and upper floor windows would be available, comprising construction activity along the West Corridor of the pipeline and a material storage area. The highest magnitude of change from Sutton Weaver would result in a **Major/Moderate** effect that would be **Significant**, however residents within the majority of the settlement would experience zero magnitude and No Effect.
- 8.10.6 A low magnitude of change is predicted from localised parts of Aston and Aston Heath that would result from partially restricted views of construction activity along the West Corridor. The highest magnitude of change would be a low magnitude resulting in a **Moderate** effect from localised parts of these settlements that would be **Significant** for Aston and **Not Significant** for Aston Heath (given the predominantly oblique nature of views), however the majority of residents within the settlements would experience zero magnitude of change and No Effect.

Runcorn/Rocksavage Spur

- 8.10.7 There would be a zero magnitude of change and No Effect as a consequence of construction activity along the Runcorn/Rocksavage Spur and at the Runcorn HAGI site from within Runcorn, as transport corridors and associated embankments and woodland combine to limited views.
- 8.10.8 There would also be limited views of construction activity along the pipeline route and of the Runcorn HAGI under construction from Clifton where views would be heavily restricted by a combination of property orientation (most windows face east or west) and screening from mature tree planting and dense understorey shrubs north of Weaver View. There would be a very low magnitude of change from localised parts of the settlements only resulting in a **Minor** and **Not Significant** effect, with the majority of the settlement experiencing zero magnitude and No Effect.

North Corridor

- 8.10.9 From the majority of the settlements along the North Corridor, a combination of landform, built-form, hedges and tree cover between the settlements and the Draft Order Limits, would fully restrict or heavily filter any views of construction activities. The settlements where some restricted visibility would be available comprise:
- Hatton
 - Widnes;
 - Cuerdley Cross;

- Bold Heath;
- Sutton Manor; and
- Rainhill.

- 8.10.10 The magnitude of change from these settlements would be typically zero resulting in No Effect, however, from localised parts of each settlement, a very low magnitude of change and a **Minor** effect that is **Not Significant** is assessed.
- 8.10.11 At Moore, partially filtered views of construction activity along the North Corridor, including temporary trenchless crossing compounds, are predicted from dwellings on the eastern edge of the village at Cockfight Cottages. The magnitude of change would commonly be low to zero with **Moderate** and **Not Significant** effects to No Effect, increasing to medium locally with a corresponding **Major/Moderate** and **Significant** effect.
- 8.10.12 At Higher Walton, the magnitude of change from the majority of the settlement, including the core of the village centred along the Old Chester Road, would be zero with No Effect. At the southern-eastern edge of the settlement, including from dwellings on Thomason's Bridge Lane, there would be views of the North Corridor including the temporary trenchless crossing compound, resulting in a localised **Major/Moderate** effect that is **Significant**. More typically the magnitude of change from Higher Walton, including views of the Higher Walton (HWH2) HAGI under construction would be zero resulting in No Effect. There would be filtered views of the Higher Walton (HWH8) HAGI under construction from properties on Mill Lane to the north of Higher Walton and here, the magnitude of change would locally be low with **Moderate** and **Significant** effects. Elsewhere within Higher Walton, there would be no views of the Higher Walton (HWH8) HAGI under construction.
- 8.10.13 At Lower Walton, the magnitude from the majority of the settlement would be zero with No Effect, however at the north-western edge of the settlement, there would be filtered views of the Higher Walton (HWH8) HAGI under construction from Walnut Tree Farm and the rear of properties on Springbrook. The magnitude of change would be low (during the winter months), with a Moderate and Not Significant effect.
- 8.10.14 Typically from within Warrington, the magnitude of change associated with the North Corridor would be zero resulting in No Effect. However, a greater magnitude of change would be associated with Option NP6 of the North Corridor, which would be visible to the south of Tannery Lane with the removal of trees as the route reaches the temporary trenchless crossing compound as illustrated in **Figure 8C.122 of Appendix 8C: Arboricultural Impact Assessment**. The magnitude of visual change here would be High-Medium with **Major to Major/Moderate** and **Significant** effects.

St Helens Spurs and Clock Face Spur

- 8.10.15 At Rainhill, potential views from the eastern settlement edge of the St Helens Spur to the east of the A570 would be screened by planting along both sides of the highway whilst construction activities to the west of the A570 would be frequently heavily filtered by tree cover close to the settlement including on the edge of Albert Fellows Park. Less restricted views would occasionally be available where

intervening vegetation is more limited in extent and includes rear elevation views from dwellings on Bishopdale Drive and further north from dwellings at the end of Elderswood Road, Gardeners Way and Field Way where the St Helens Spur is ~0.5km distant. The magnitude of change would be up to low, more often very low from a number of dwellings at the edge of the settlement with **Moderate to Minor** and **Not Significant** effects. Elsewhere within the wider settlement, the magnitude of change would typically be zero where views towards the Project would be fully restricted by intervening buildings and planting with No Effect.

8.10.16 Views of the St Helens Spur and Clock Face Spur would be screened from the majority of Sutton Manor by surrounding buildings and extensive tree belts, hedgerows and woodland to the south-west of the settlement. There would be upper storey views of the St Helens Spur trenchless compound to the north of the M62 from dwellings at the southern edge of the main settlement at Bell Lane, and filtered views of the Clock Face Spur from the west of the settlement at Walkers Lane and Forest Green Way. Potential views of the St Helens Spur from dispersed residential properties along Bell Lane and School Lane would be heavily screened by extensive garden planting and tall roadside hedgerows with the exception of three residential dwellings to the south of School Lane (No.153, 155 and 180) where there would be open views of the pipeline from upper floors. There would be a low magnitude of change from residential receptors at Bell Lane and School Lane with a **Moderate** and **Significant** effect. More frequently there would be no views of construction activity from the main settlement area, with a Zero magnitude of change and No Effect.

8.10.17 At St Helens, views of construction activities associated with the St Helens Spur would be restricted to those residents at properties on Elton Head Road, Sherdley Road and Sutton Heath Road, where construction works would take place in the adjoining highway and where the visual contrast would be reduced due to existing high levels of built elements and movement. Here, the magnitude of change would be low with **Moderate** and **Not Significant** effects. From the majority of the settlement, the magnitude of change would be zero due to the high levels of screening provided by high levels of intervening built form or tree cover with No Effect.

Warrington Spur

8.10.18 At Warrington the magnitude of change from most of the settlement as a result of the Warrington Spur would be zero with No Effect to very low with a **Minor** effect that is **Not Significant**.

East Corridor, Warburton Spur and Partington Spur

8.10.19 Residents in the settlements of Frandley and Antrobus would typically have no views of construction activity due to intervening buildings and hedgerows and trees close to the settlement and consequently there would be zero magnitude and No Effect for most residents. On the western and north-western edge of both settlements, there would be the potential for limited views of construction activity along the pipeline corridor, including temporary trenchless crossing compounds and a materials storage area although at more than 0.5km distant, the construction activity would form a very minor elements in the wider views and frequently

restricted by garden planting and intervening hedgerows. The maximum magnitude of change would be very low and the overall effect **Minor** and **Not Significant**.

8.10.20 Residents at the western edge of Arley and at Carrington fall within the LVIA study Area, although any with potential views towards construction activity within the pipeline corridor fully screened by multiple layers of hedgerows with hedgerow trees for residents at Arley or be intervening built form for those at Carrington. A zero magnitude is predicted, that would have No Effect.

8.10.21 Residents living in Higher Whitley, Lower Whitley, High Legh, Broomedge, Sinderland Green and Partington would typically experience a zero magnitude of change, and No Effect from the Project construction works. Some residents in localised parts of all these settlements do however have the potential to experience a low or medium magnitude of change and a **Moderate** or **Major/Moderate** effect that is **Significant**, as a result of views of construction activity as follows:

- Lower Whitley: Views from the rear of properties on the eastern edge of the settlement would be available of construction activity within the pipeline corridor, typically more restricted at ground floor level where garden planting often partially restricts views towards the Project. The magnitude of change likely to affect settlement would be low to zero with a localised **Moderate** and **Significant** effect to No Effect.
- Higher Whitley: Residents in scattered dwellings at the eastern end of the village off Norma's Lane and Old Mill Lane have potential views of construction activity within the pipeline corridor and of the temporary material storage areas. Views are often heavily filtered by mature garden planting and hedgerows along road corridors, although construction activity across the open arable fields will be visible where occasional, less restricted views are available. The magnitude of change likely to affect settlement would be low to zero with a localised **Moderate** and **Significant** effect to No Effect.
- Broomedge: Restricted views towards the pipeline corridor from localised parts of the settlement are predicted to include east facing views from dwellings on Agden Park Lane and more restricted east facing views from the rear of dwellings on West Lane with a corresponding very low magnitude and a **Minor** and **Not Significant** effect. Views from scattered dwellings along Agden Lane at the north-eastern end of the settlement and from Hollybank House to the south of the A56 would include relatively unrestricted views of adjacent materials storage areas and more restricted and distant views of the trenchless construction compounds resulting in a Medium magnitude of change and a **Major/Moderate** and **Significant** effect. Elsewhere within the settlement there would be No Effect.
- Sinderland Green: Views from scattered dwellings along Red House Lane, Sinderland Lane and Henshall Lane are often restricted by tall garden hedgerows, however some dwellings are predicted to have west facing views towards the pipeline corridor that are only partially restricted by garden planting, roadside hedgerows and/or additional intervening field boundary. The

magnitude of change would range from low to zero with effects that are **Moderate** and **Significant** to No Effect.

- Partington: Views from the eastern most part of the settlement that comprises the housing estate under construction off Heath Farm Lane. Future residents have the potential for restricted views of the pipeline corridor along Sinderland Road with the removal of mature tree cover to the west of the road as illustrated in **Figure 8C.141** of **Appendix 8C: Arboricultural Impact Assessment**. A low magnitude of change is predicted from a localised part of the Moss View Road and Heath Farm Lane housing estate with effects that are **Moderate** and **Significant**. From the majority of Partington, the magnitude of change would be zero with No Effect and the Partington HAGI (Options PH1 and PH2) under construction would be fully screened.

8.10.22 At High Legh, there would be partially restricted views from dwellings along the western edge of settlement to the pipeline corridor, temporary trenchless crossing compounds and the Sworton Heath BVI under construction, which would be heavily filtered by garden hedgerows and mature hedgerows with trees alongside West Lane, giving rise to a very low magnitude of change and a **Minor** and **Not Significant** effect. Elsewhere within the settlement, including the northern edge of the village where woodland cover restricts views to the wider landscape, the magnitude of change would be zero with No Effect.

8.10.23 Residents in Dunham Woodhouses along Dunham Road and Carrgreen Lane and Barns Lane would experience views of the Warburton HAGI under construction and/or construction compound, as well as a materials storage area, restricted in places by dwelling orientation and intervening planting. There would also be relatively open views of the pipeline corridor construction from dwellings on Barn Lane. The magnitude of change would be up to medium with a **Major/Moderate** effect that is **Significant** to No Effect.

South Corridor

8.10.24 Residents in the hamlet of Dones Green would experience views of the South Corridor of the pipeline including temporary trenchless crossing compounds, a large materials storage area and the Central Hub HAGI under construction with associated construction compound. View from ground floor would be restricted by boundary hedgerows, walls and other planting to the front gardens with less restricted upper floor views available. The magnitude of change likely to affect the settlement would be medium to zero with effects that are **Major/Moderate** and **Significant** to No Effect.

8.10.25 Residents in Weaverham, Whitegate and Winsford fall within the LVIA Study Area although views towards construction activity within the pipeline corridor would be fully screened by multiple layers of tree belts, woodland, and hedgerows with hedgerow trees. A zero magnitude is predicted that would have No Effect.

8.10.26 Views from Sandiway within the LVIA study area towards the South Corridor and Hartford BVI under construction are predominantly prevented by intervening dwellings and mature tree cover along the settlement edge. Views of HGV construction traffic on the A556 south of Sandiway and A49 to west of Sandiway,

would give rise to a very low magnitude of change with a **Minor** effect that is **Not Significant**.

8.10.27 Residents living in Hartford, Bartington, Gorstage, Bryn, Cuddington and Bostock Green would typically experience a zero magnitude of change and No Effect from the Project construction works. Some residents in localised parts of all these settlements do however have the potential to experience a low magnitude of change and a **Moderate** effect that is **Significant** as a result of views of construction activity as follows:

- Views from the southern edge of Hartford towards the Project would be heavily filtered by tree belts along the A556. The greatest potential for heavily restricted views of the South Corridor and Hartford BVI under construction is predicted from Speedwell Bungalow located adjacent to the temporary trenchless crossing compound, although views here are predicted to be largely restricted by intervening tree cover along the curtilage of the dwelling.
- At Bartington, views towards Option NP5 of the North Corridor to the west would typically be restricted by mature tree cover, with less restricted views predicted from The Old Granary and The Malthouse at Bartington Hall. The temporary trenchless crossing compounds would be largely screened by mature tree cover outside the site boundary with potential restricted views of a small part of the compound available from properties at the southern end of Martinsfield and The Weaver Houses overlooking the Weaver Navigation. Views towards Option NP6 of the Pipeline Corridor to the west would be typically restricted by mature tree cover from the main settlement, although it is noted that there may be more open views from Herons Court from west facing windows. The temporary trenchless crossing compounds would be largely screened by mature tree cover outside the site boundary from the main settlement although it is noted that there may be open views from Herons Court from west facing windows.
- Views from Gorstage include the rear of properties on Hall View Close and Hefferston Rise partially filtered and restricted in horizontal extent by occasional mature trees and in places garden shrub cover. The temporary trenchless crossing compounds and material storage area theoretically visible from the northern edge of the Village would be predominantly screened by intervening hedgerows and mature tree cover with potential restricted views of a small part of the compound available from converted barns north of Hefferston Hall.
- Views from the northern edge of Cuddington including Cuddington Lane would incorporate potential visibility of construction activity along the Pipeline Corridor, temporary trenchless crossing compounds and material storage area. Views would be heavily restricted by intervening farm buildings and multiple layers of mature tree cover close to dwellings and along the intervening field boundaries between the dwellings and the site boundary. There is the potential for limited first floor views of the compounds from north and north-east facing windows and also activity along the Pipeline Corridor. HGV movements associated with the construction phase along the busy A49 Warrington Road that passes through the Village would be visible to many dwellings that face onto this route; and

- At Bostock Green, there would be oblique and partially restricted views towards the South Corridor and multiple temporary trenchless crossing compounds from dwellings within the settlement, largely screened by intervening planting, landform and/or farm buildings.

8.10.28 Residents living in Acton Bridge, Davenham, and Moulton would typically experience a zero magnitude of change and No Effect from the Project construction works. However, some residents in localised parts of all three settlements do have the potential to experience a medium magnitude of change and a **Major/Moderate** effect that is **Significant** because of views of construction activity as follows:

- From Acton Bridge, narrow and partial views of the South Corridor of the pipeline are predicted from the rear of dwellings facing north and north-east on Strawberry Lane, Cliff Road, Wall Hill Way. Nos. 1-19 Warrington Road would have views from the front of the dwellings across the A49 to a proposed material storage areas compound on rising ground set above a clipped boundary hedgerow;
- Residents of Davenham would experience views of construction traffic along Hartford Road and Eaton Lane resulting in the potential for **Significant** effects; and
- Residents at the western, northern and southern edges of Moulton would frequently have unrestricted views across open arable farmland to the South Corridor of the pipeline whilst temporary trenchless crossing compounds located to the north and south of the village would have limited visibility from the settlement due to separation distance or intervening tree cover.

Operational phase

West Corridor: HPP HAGI

8.10.29 The ZTV for the HPP HAGI is illustrated in **Figure 8.28** and indicates that there would be no views of the HAGI from within Elton at Years 1 and 15 with No Effect.

8.10.30 Whilst the eastern edge of Thornton is shown as coinciding with the ZTV in **Figure 8.28**, the HPP HAGI would be fully screened by linear groups of trees along the northern and southern edge of the A5117 with a zero magnitude of change and No Effect at Years 1 and 15.

West Corridor: Rocksavage HAGI

8.10.31 The settlements of Clifton and parts of Runcorn lie within the LVIA Study Area for the Rocksavage HAGI and high levels of built form within Runcorn and intervening layers of hedgerows and tree cover around Clifton would screen views with a zero magnitude of change assessed with No Effect.

8.10.32 The ZTV in **Figure 8.29** indicates that residents in localised areas on the northern fringes of Frodsham may experience views of the Rocksavage HAGI. The magnitude of change here would be very low from approximately four properties on The Quay at Year 1 with a **Minor** and **Not Significant** effect and No Effect

from elsewhere within the settlement. It is anticipated that woodland and tree groups removed during the construction phase to accommodate the temporary construction compound would be replanted and would combine with existing tree groups to screen the Rocksavage HAGI at Year 15 with a corresponding zero magnitude of change and No Effect.

Runcorn/Rocksavage Spur: Runcorn HAGI

8.10.33 There would be a zero magnitude of change and No Effects for residents in areas of Runcorn which coincide with the LVIA Study Area for the Runcorn HAGI, with high levels of intervening tree cover and built form providing screening at Years 1 and 15.

8.10.34 From the closer settlement of Clifton, the magnitude of change is assessed as being very low with **Minor** and **Not Significant** effects at Year 1 from part of the gardens and windows with a south-west view at Clifton Hall and from the associated livery, reducing to No Effect at Year 15 due to the gradual maturation of hedgerow to the north of the Runcorn HAGI. From elsewhere within Clifton, there would be No Effect at Year 1 and 15.

North, South, East and West Corridors: Central Hub HAGI

8.10.35 Dones Green is the only settlement within the LVIA Study Area for the Central Hub HAGI, with the ZTV in **Figure 8.31** indicating potential views of the HAGI from Nook Farm on the northern edge of the settlement. The magnitude of change is assessed as being low at Years 1 and 15 with effects that are **Moderate** and **Not Significant**. From elsewhere within Dones Green, the magnitude of change would be zero with No Effect at Year 1 and 15.

North Corridor: Higher Walton (HWH2) HAGI

8.10.36 Higher Walton is the only settlement within the Higher Walton (HWH2) HAGI LVIA Study Area. The ZTV in **Figure 8.32** and the assessment in **Table 8F.39** of **Appendix 8F** confirms that the magnitude of change would be zero from within the settlement, with No Effect as a consequence of successive layers of intervening vegetation including along the banks of the Manchester Ship Canal and railway corridor.

North Corridor: Higher Walton (HWH8) HAGI

8.10.37 The magnitude of change from the majority of Higher Walton would be zero with No Effect as a consequence of the Higher Walton (HWH8) HAGI and as evidenced in the ZTV in **Figure 8.33**. However, there would be potential for views from properties at Mill Lane to the north of Higher Walton, likely restricted to filtered upper floor views and narrow views from driveway entrances or between trees. The magnitude of change here would be very low and effects would be **Minor** and **Not Significant** at Year 1.

8.10.38 The settlement of Lower Walton also coincides with the LVIA Study Area for the Higher Walton (HWH8) HAGI. The top of the perimeter fence around the HAGI would be visible from Walnut Tree Farm and the rear of properties on Springbrook, both located on the western edge of the settlement, above intervening hedgerows

and through tree cover in close proximity to the properties. The magnitude of change would be Very Low (during the winter months) with a **Minor** and **Not Significant** effect at Year 1. From elsewhere within the settlement, there would be a Zero magnitude of change and No Effect as indicated in the ZTV (**Figure 8.33**). The gradual maturation of woodland planting proposed to the east of the HAGI (**Figure 6** of the **Outline LEMP**) would screen views of the perimeter fence at Year 15 with No Effect for residents at properties on the western edge of the settlement.

North Corridor: Clock Face HAGI

- 8.10.39 Sutton Manor lies within the LVIA Study Area for the Clock Face HAGI with the ZTV in **Figure 8.34** indicating areas of theoretical visibility along the southern edge of the settlement. There would be a very low magnitude of change for residents on this edge of Sutton Manor at Year 1, with **Minor** and **Not Significant** effects, and a zero magnitude of change from the remainder of the settlement with No Effect.
- 8.10.40 At Year 15, the gradual maturation of the woodland proposed to the north of the HAGI (**Figure 7** of the **Outline LEMP**) would screen views of the above ground equipment and perimeter fencing associated with the Clock Face HAGI. The magnitude of change would reduce to zero from the southern edge of Sutton Manor with No Effect.

East Corridor: Warburton HAGI

- 8.10.41 Theoretical visibility of the Warburton HAGI is illustrated in the ZTV in **Figure 8.35**. The magnitude of change would be low where restricted views of the HAGI would be available from the closest dwellings on the edge of the Dunham Woodhouses at Barnslane Farm and Gate House Farm, with a localised **Moderate** and **Significant** effect at Year 1. Elsewhere within Dunham Woodhouses, the magnitude of change would typically be zero with No Effect, as a consequence of increasing separation distance and layers of intervening vegetation including hedgerows and tree cover.
- 8.10.42 The gradual maturation of a roadside hedgerow planted along Dunham Road and Cargreen Lane post construction (**Figure 8** of the **Outline LEMP**), would partially screen views from dwellings at Barnslane Farm and Gate House Farm at Year 15, noting that there may still be heavily filtered winter views. The magnitude of change would reduce to very low with locally Minor and Not Significant effects. Elsewhere within the settlement, residents would continue to experience No Effect.

East Corridor: Partington (PH1) HAGI

- 8.10.43 Partington is the only settlement within the LVIA Study Area for the Partington (PH1) HAGI. As confirmed in the ZTV in **Figure 8.36**, there would be no views of the HAGI at Years 1 and 15 with intervening woodland along the dismantled railway line restricting views.

East Corridor: Partington (PH2) HAGI

- 8.10.44 The ZTV in **Figure 8.37** indicates that there would be a zero magnitude of change from the Partington (PH2) HAGI at Years 1 and 15, with No Effect for residents

within Partington as a consequence of the screening provided by intervening woodland along the dismantled railway line.

South Corridor: Hartford BVI

8.10.45 There would be no views of the Hartford BVI in views from Sandiway to the west of the BVI with the theoretical views of the BVI from properties with east facing views on Norley Road and Weaverham Road (**Figure 8.39**) fully restricted by garden planting and/or intervening tree belts, typically present as multiple layers in the landscape surrounding the Forest Hill Quarry, along the A556 corridor and within the Sandiway Golf Club. As a consequence, there would be No Effects at Years 1 and 15.

8.10.46 For residents in Hartford, a very low magnitude of change and a **Minor** and **Not Significant** effect is assessed at Years 1 and 15 from the south-western edge of the settlement which coincides with the ZTV in **Figure 8.39**. There would be a zero magnitude of change from the remainder of the settlement with No Effect.

East Corridor: Sworton Heath BVI

8.10.47 The ZTV in **Figure 8.40** indicates some theoretical intervisibility of the Sworton Heath BVI from the eastern edge of High Legh. Views from dwellings fronting onto West Lane would typically be restricted by intervening planting including hedgerow and hedgerow trees along the western edge of West Lane, with upper floor views more likely. The magnitude of change at Year 1 would be very low with **Minor** and **Not Significant** effects.

8.10.48 At Year 15, the screening provided by the intervening roadside hedgerow and hedgerow trees would be augmented by the gradual maturation of the vegetation proposed close to the BVI (**Figure 13** of the **Outline LEMP**). The magnitude of change would reduce to zero with No Effect.

Decommissioning phase

8.10.49 The visual effects associated with the decommissioning phase are likely to be comparable to those recorded for the construction phase for each visual receptor within the LVIA Study Areas for the HAGIs and BVIs, which are identified in

8.10.50 **Table 8.12** and assessed in **Appendix 8F: Visual Receptor Assessment**.

8.10.51 The residential receptors within settlements whose views and visual amenity are therefore likely to be affected during the decommissioning phase, and an assessment of the visual effects are as follows:

- Dones Green (Central Hub HAGI): The magnitude of change could be up to a medium magnitude from Nook Farm during decommissioning work with a potential **Major/Moderate** and **Significant** short-term effect. More commonly, there would be No Effect for other visual receptors at Dones Green.
- Hartford (Hartford BVI): The magnitude of change likely to affect the south-western edge of the settlement would be low during the decommissioning phase with a **Moderate** and **Significant** short-term effect. Elsewhere, there would be a zero magnitude of change from the remainder of the settlement with No Effect.
- Dunham Woodhouses (Warburton HAGI): The now mature roadside hedgerow along Dunham Road and Cargreen Lane (**Figure 8** of the **Outline LEMP**) would have matured and would mostly screen views of decommissioning activities from dwellings at Barnslane Farm and Gate House Farm, with the exception of heavily filtered winter views. The magnitude of change would be very low and effects **Minor** and **Not Significant** to No Effect from the remainder of the settlement.
- Higher Walton (Higher Walton (HWH8) HAGI): From the majority of the settlement, there would be No Effect during the decommissioning phase. The exception relates to residents at Mill Lane, where up to a low magnitude of change may occur, with **Moderate** and **Significant** short-term effects as a consequence of decommissioning activities.

8.10.52 With reference to the ZTVs and through the gradual maturation of planting around the HAGIs and BVIs post construction, there would be no views of decommissioning activities for:

- Thornton-le-Moors (HPP HAGI);
- Elton (HPP HAGI);
- Frodsham (Rocksavage HAGI);
- Runcorn (Runcorn HAGI);
- Clifton (Runcorn HAGI);
- Higher Walton (Higher Walton (HWH2) HAGI);
- Lower Walton (Higher Walton (HWH8) HAGI);
- High Legh (Sworton Heath BVI);
- Partington (Partington PH1 and PH2) HAGIs);
- Sutton Manor (Clock Face HAGI);
- Rainhill (Clock Face HAGI); and

- Sandiway (Hartford BVI).

8.11 Assessment Of Visual Effects: Recreational Receptors Using (Promoted) Walking And Cycling Routes

- 8.11.1 All recreational and walking routes have been assessed as being of high sensitivity as set out **Appendix 8F**. The susceptibility of walkers and cyclists to changes in their views has been assessed as high in accordance with the methodology set out in **Appendix 8A**, and the value of view ranges between medium and high to result in an overall high sensitivity.
- 8.11.2 Many of these long-distance promoted routes pass within multiple pipeline corridors within the LVIA Study Area. For ease of reference, the report order of West, North, East, and South Corridor has been maintained.

Local PRow network

- 8.11.3 Beyond the national and regional cycle routes and long-distance footpaths, there is a wider PRow network that in places coincides with these promoted routes but also includes routes that are not specifically promoted and form part of the local PRow network including footpaths, bridleways, and byways. Those routes which are crossed by the pipeline corridors, coincide with temporary access routes or lie within the Draft Order Limits are set out in **Appendix 11C: Draft Outline PRowMP**. Users of these routes (which are assessed as being of high visual sensitivity) could experience up to a high magnitude of change which would be temporary and transient during the construction phase, resulting in a localised **Major** and **Significant** effect from short sections of the local PRow network. With increasing separation distance, presence of intervening vegetation (including hedgerows which are often aligned alongside the PRowS) and topography, views of ground level activities would become restricted. Where this occurs and where the top of construction machinery, stockpiles or welfare facilities are potentially visible above or through intervening hedgerows and tree cover, the magnitude of change would reduce, and temporary and transient effects would be **Moderate to Minor** and **Not Significant**. Elsewhere within the LVIA Study Area, the topography, vegetation and built form would fully screen views of construction activities for users of some section of the local PRow network with No Effect.

Construction phase

West Corridor

- 8.11.4 The Eddisbury Way long distance footpath falls within the LVIA Study Area on the eastern edge of Frodsham, south of the junction with the A56. Views towards construction activity as part of the Project would be fully screened by intervening vegetation and built development. A zero magnitude of change is predicted that would have No Effect.
- 8.11.5 Walkers on the Sandstone Trail long distance footpath enter the LVIA Study Area within the built-up area of Frodsham and would have potential glimpses of the construction activity beyond the M56 from the route elevated parts of the

settlement, largely screened by intervening built development and vegetation cover. The magnitude of change would be very low to zero with a **Minor** effect that is **Not Significant** to No Effect.

8.11.6 Views of the Project from the Longster Trail would be available from ~0.1 to 0.2km section of the route around Helsby Hill, including the summit where there would be elevated, open views of the construction works associated with the West Corridor of the pipeline. These would be seen in panoramic views beyond the settlement of Helsby and the M56. The magnitude of change would be very low to zero with a **Minor** effect that is **Not Significant** to No Effect.

8.11.7 Views of the Project would be available to cyclists from NCR 5, NCR 562 and walkers of several long-distance footpaths comprising the North Cheshire Way 3, Trent and Mersey Canal Walk, the Weaver Way and the Cheshire Ring Canal Walk. For localised sections along each of these routes, a high to medium magnitude of change would be experienced resulting in a **Major** to **Major/Moderate** effect that is **Significant**. However, from the majority of the routes within the LVIA Study Area, the magnitude would be zero due to screening by intervening landform, vegetation and built form with No Effect. The location and visibility of Project elements resulting in **Significant** effects from each of these routes is summarised as follows:

- Cyclists along NCR 5 have the potential to experience **Significant** views of construction activity along the West Corridor from:
 - ▶ an ~4km on-road section along Lordship Lane, Hare's Lane and Moorditch Lane. The separation between the route and the West Corridor varies from a ~0.5km separation near the junction with Rake Lane to open cut crossings of the pipeline on Hare's Lane and Moorditch Lane;
 - ▶ an ~1.5km section on-road route along the A56 between Frodsham and the junction with Halton Station Road where views of trenchless compounds would be available in the context of existing built development;
 - ▶ an ~4km section on road route along between the junction with Halton Station Road on the A56, along Aston Lane for most of the route before linking to a farm track that crosses the railway south of Dutton with open cut crossings at two locations (east of Sutton Weaver and east of Aston);
 - ▶ an ~0.4km section located within the Weaver Valley ASCV to the east of Dutton Park Farm and south of Dutton Lodge Farm where there would be relatively open views of the construction works associated with the West Corridor pipeline (including a crossing point), a temporary trenchless crossing compound, fencing, the trench cutting, construction machinery and equipment and construction traffic. The Delamere Way also overlaps with NCR 5 along this section; and
 - ▶ an ~0.5km section located within the Weaver Valley ASCV between the bridge east of Dutton Locks along the River Weaver until vegetation and local landform restricts views. From this ~0.5km of the route there would be relatively open views of the construction works associated with the West Corridor pipeline to the north across including a temporary trenchless

crossing compound, fencing, the trench cutting, construction machinery and equipment and construction traffic.

Fleeting (Minor and Not Significant) views would also be available of the Rocksavage HAGI and the HPP HAGI under construction, but cyclists would more commonly experience No Effect.

- Cyclists along the NCR 562 have the potential for **Significant** views of construction activity from a ~0.5 to 0.6km section along Aston Lane south of the railway line between Aston and Aston Heath where there would be open views of the construction works associated with the pipeline corridor crossing agricultural fields. Temporary construction routes along Aston Lane would also give rise to a **Significant** effect from along ~0.15km of route, associated with the movement of construction vehicles and equipment.
- Walkers using the Weaver Way and North Cheshire Way 3 would have **Significant** views of construction activity from a ~0.5km section of route from the bridge east of Dutton Locks, along the River Weaver where there would be relatively open views of the construction works associated with the West Corridor pipeline to the north including a temporary trenchless crossing compound.
- People using the Trent and Mersey Canal Walk and Cheshire Ring Canal Walk would experience **Significant** effects from ~0.8km of route south of Dutton Hall as a result of the construction of the West Corridor of the pipeline to the north and south of the Canal including temporary trenchless crossing compounds.

Runcorn/Rocksavage Spur

8.11.8 NCR 5 and NCR 562 coincide with the LVIA Study Area for the Runcorn/Rocksavage Spur. Views towards construction activity as part of the Project would be fully screened by intervening built form and a zero magnitude of visual change is predicted that would have No Effect.

North Corridor

8.11.9 Views of the Project would be available to cyclists using the NCR 62, and the walkers of several long-distance footpaths comprising the E8, Delamere Way, Timberland Trail, Mersey Way, Trans Pennine Trail, Bridgwater Way and Palantine Plod. For localised sections along each of these routes, a high to medium magnitude of change would be experienced resulting in a **Major to Major/Moderate** effect that is **Significant**. However, from the majority of the routes within the LVIA Study Area, the magnitude would be zero due to screening by intervening landform, vegetation and built form with No Effect. The location and visibility of Project elements resulting in **Significant** effects from each of these routes is summarised as follows:

- Cyclists using NCR 62 together with walkers using the Mersey Way, E8 and the Palantine Plod and users of the Trans Pennine Trail, all of which overlap with NCR 62, would have **Significant** views of construction activity for ~0.3-0.4km of route east of Fiddler's Ferry as a result of the construction of the North Corridor including temporary trenchless crossing compounds.

- Walkers on the Delamere Way and E8 would have **Significant** views of construction activity for ~0.8-0.9km section east of Lightwood Farm and Marsh Lane as a result of North Corridor pipeline. There would also be **Significant** visual effects on Marsh Lane due to the temporary construction access.
- Walkers on the Timberland Trail would have **Significant** views of construction activity for ~0.9-1km along Warrington Road and further east along the off-road route as a result of north corridor pipeline. There would also be **Significant** visual effects on Daresbury Lane due to the temporary construction access.
- People using the Bridgewater Way would experience views of construction activity that would be **Significant** (particularly in the winter) for ~0.4km of route west of Higher Walton and north of Hollyhedge Farm.

St Helens Spurs and Clock Face Spur

8.11.10 No promoted recreational routes coincide with the LVIA Study Areas for the St Helens and Clock Face Spurs as indicated in **Figure 8.21**.

Warrington Spur

8.11.11 NCR 62, E8 and the Trans Pennine Trail overlap within the LVIA Study Area for the Warrington Spur, with the Mersey Way also coinciding with these routes along the sections where **Significant** visual effects are predicted. From the majority of the routes within the LVIA Study Area, the magnitude would be zero, primarily due to screening by intervening built form with No Effect. The location and visibility of Project elements resulting in **Significant** effects from each of these routes is summarised as follows:

- An ~0.5km section along this route near the junction of River Mersey and the disused Runcorn and Latchford Canal where there would be open views of the construction works associated with the Warrington Spur;
- An ~0.4km section under the railway line and north of Morley Common where would be open views of the construction works associated with the Warrington Spur running parallel to the route and a temporary trenchless crossing compound;
- An ~0.3km section east of Chester Road where would be open views of the construction works associated with the Warrington Spur running parallel to the route and a temporary trenchless crossing compound;
- A very short section of Knutsford Road north of Latchford Swing Bridge as the pipeline crosses the road. Construction works including fencing, trench cutting, machinery and equipment would be visible in the context of road traffic and in an urban setting; and
- An ~0.8km section along the Manchester Ship Canal between Knutsford Road and Latchford Locks where there would be open views of the construction works of the pipeline including fencing, trench cutting, machinery, equipment and construction traffic as the route runs parallel and adjacent to the works.

8.11.12 The Palatine Plod, Cheshire Ring Canal Walk and Bridgewater Way long distance footpaths also fall within the LVIA Study Area of the Warrington Spur. Views

towards construction activity as part of the Project would be fully screened by intervening built development within Warrington and Lower Walton. A zero magnitude of change is predicted that would have No Effect.

East Corridor, Warburton Spur and Partington Spur

8.11.13 The Salford Trail long distance footpath falls within the LVIA Study Area. Views towards construction activity as part of the Project would be fully screened by intervening vegetation and built development. A zero magnitude is predicted that would have No Effect.

8.11.14 Cyclists using RCR 70 to the west and north of High Legh would experience views of the construction works including temporary trenchless crossing compounds and the Sworton Heath BVI from ~1.5km section of route, although these would be intermittent and filtered due to mature trees and hedgerows. Effects would be **Minor** and **Not Significant** to No Effect.

8.11.15 Views of the Project would be available to walkers along the Cheshire Ring Canal Walk/Bridgewater Way, cyclists using NCR 62 and walkers along the E8 and Trans Pennine Way (which overlap as they pass through the LVIA Study Area), and the Bollin Valley Way long distance footpath. For localised sections along each of these routes, a high to medium magnitude of change would be experienced resulting in a **Major** to **Major/Moderate** effect that is **Significant**. However, from the majority of the routes within the LVIA Study Area, the magnitude would be zero due to screening by intervening landform, vegetation and built form with No Effect. The location and visibility of Project elements resulting in **Significant** effects from each of these routes is summarised as follows:

- People using the Cheshire Ring Canal Walk/Bridgewater Way would experience views of construction activity that would be **Significant** (particularly in the winter) for ~0.4km at Agden Bridge in relation to the East Corridor pipeline including a temporary trenchless crossing compound.
- Cyclists using NCR 62 and walkers along the E8 and Trans Pennine Way would experience views of the construction works including material storage area and the crossing point of the East Corridor and Warburton HAGI (including the removal of trees as shown in **Figure 8C.143** of **Appendix 8C: Arboricultural Impact Assessment**) from ~0.5km of the route north of Dunham Woodhouses.
- Walkers using the Bollin Valley Way would experience **Significant** visual effects for ~0.6-0.7km section on this route along and off Carrgreen and Barns Lanes as a consequence of the construction of the East Corridor of the pipeline including a material storage area.

South Corridor

8.11.16 The Delemere Way, North Cheshire Way, NCR 573 and RCR 71 fall within the LVIA Study Area for the South Corridor. Views towards construction activity as part of the Project, including the construction of the HSF HAGI would be fully

screened by intervening vegetation and built development. A zero magnitude is predicted that would have No Effect.

8.11.17 Views of construction activity and compounds along the South Corridor would also be available to users of NCR 5. Section of the route from which cyclists would experience **Significant** visual effects are as follows:

- ▶ a ~2.9km section within or close to the route corridor between Niddries Lane and the southern end of Eaton Lane at Moulton, with unrestricted views across the open arable farmland to the South Corridor with the route passing adjacent to the trenchless compound north of Eaton Lane. The pipeline corridor would also cross Niddries Lane and Eaton Lane on open cut with some loss of hedgerow at Eaton Lane.
- ▶ a ~0.7km section comprising a shared footway/cycleway alongside the A49 where views would be partially restricted by a hedgerow alongside the route but would include construction activity associated with the South Corridor pipeline and a materials storage area adjacent to the route near Acton Bridge.
- ▶ a ~0.5km section of route along the River Weaver to the south of Bartington where there would be intermittent views of the construction works associated with the South Corridor pipeline including temporary trenchless crossing compounds on both sides of the river. The Weaver Way overlaps with this section of NCR 5 and walkers would experience similar changes to their views.

8.11.18 The views of users of RCR 70 would be primarily filtered by trees and hedges adjacent to the route (Not Significant visual effects) with the exception of ~0.3km section along Acton Lane between the A49 and north of Acton Bridge, where there would be open views of the construction works associated with the South Corridor of the pipeline across agricultural fields with **Significant** visual effects.

8.11.19 The Trent and Mersey Canal Walk coincides with the Cheshire Ring Canal Walk at Bartington. Walkers would experience a **Significant** effect from an ~0.8km section of route to the north of Bartington, where there would be relatively open views of the construction works including temporary trenchless crossing compounds. Users of the Trent and Mersey Canal Walk would also experience intermittent views of construction works including two temporary trenchless crossing compounds from an ~0.2-0.4km section of route south of Whatcroft, where it overlaps with the Dane Valley Way.

Operational phase

West Corridor: HPP HAGI

8.11.20 The ZTV in **Figure 8.28** indicates theoretical visibility from NCR 5 close to the HPP HAGI. The magnitude of change associated with the HPP HAGI would be very low from a localised section of NCR 5 along the A5117 to the south of the HAGI at Years 1 and 15 to zero elsewhere along the route. The visual effects for high sensitivity recreational receptors using this route would therefore be **Minor** and **Not Significant** to No Effect.

West Corridor: Rocksavage HAGI

- 8.11.21 The ZTV in **Figure 8.29** indicates no intervisibility between high sensitivity recreational receptors using the Weaver Way and the Rocksavage HAGI. The magnitude of visual change would be zero with No Effect at both Year 1 and Year 15.
- 8.11.22 NCR 5 also passes through the LVIA Study Area for the Rocksavage HAGI, with the ZTV (**Figure 8.29**) indicating theoretical localised and fragmented intervisibility. The assessment assumes that woodland and tree groups removed from within the footprints of temporary trenchless crossing compounds close to the HAGI during the construction phase would be replanted and, together with retained existing vegetation, would screen views of the Rocksavage HAGI, with a corresponding very low magnitude of change and Not Significant to No Effect at Year 1 and a zero magnitude of change and No Effect at Year 15.

Runcorn/Rocksavage Spur: Runcorn HAGI

- 8.11.23 The ZTV in **Figure 8.30** indicates no intervisibility between the Runcorn HAGI and high sensitivity users of the short section of NCR 562 which passes through the LVIA Study Area. The magnitude of visual change would be zero with No Effect at Years 1 and 15.

North Corridor: Higher Walton (HWH2) HAGI

- 8.11.24 The promoted recreational routes of the Bridgwater Way and Cheshire Ring Canal Walk coincide as they pass through the Higher Walton (HWH2) HAGI LVIA Study Area. There would be no areas of intervisibility between these routes and the HAGI, as indicated in the ZTV in **Figure 8.32**. The magnitude of visual change at Years 1 and 15 would therefore be zero with No Effect.

North Corridor: Higher Walton (HWH8) HAGI

- 8.11.25 The Mersey Way, Trans Pennine Trail, E8 and NCR 62 broadly coincide as they pass through the LVIA Study Area. The ZTV in **Figure 8.33** indicates no intervisibility between high sensitivity walkers and cyclists using these routes and the Higher Walton (HWH8) HAGI. The magnitude of visual change at Years 1 and 15 would therefore be zero with No Effect.
- 8.11.26 The Bridgwater Way and Cheshire Ring Canal Walk coincide as they pass through the LVIA Study Areas for the Higher Walton (HWH8) HAGI. The ZTV in **Figure 8.33** confirm no areas of intervisibility between these routes and the HAGI and the magnitude of visual change would also be zero with No Effect at Years 1 and 15.

East Corridor: Warburton HAGI

- 8.11.27 NCR 62, E8 and the Trans Pennine Trail coincide as they pass through the LVIA Study Area for the Warburton HAGI. The ZTV in **Figure 8.35** shows intervisibility from a section of these routes to the west and south of the Warburton HAGI. The magnitude of visual change would be low at both Years 1 and 15 from a very short section of route to the south of the HAGI, where trees are removed during the construction phase to facilitate the open cut laying of the pipeline, and where tree

planting is restricted above the pipeline depending on species type⁴⁵. From elsewhere along NCR 62, E8 and the Trans Pennine Trail, the gradual maturation of planting proposed to the south of the HAGI (**Figure 8** of the **Outline LEMP**) would combine with existing tree cover to screen views of the perimeter fence and above ground equipment. Effects at Years 1 and 15 would therefore range from **Moderate** and **Not Significant** to No Effect.

8.11.28 The magnitude of visual change for the high sensitivity walkers using the Bollin Valley Way, which also passes through the LVIA Study Area for the Warburton HAGI would be locally very low from the section of route directly south of the HAGI and west of Barns Lane, with perimeter fence potentially visible through the narrow gap where trees are removed during the construction phase and where tree planting is restricted above the pipeline depending on species type⁴⁵. From elsewhere along the route, the gradual maturation of planting proposed to the south of the HAGI (**Figure 8** of the **Outline LEMP**) would combine with existing tree cover to screen views (zero magnitude). Effects at Years 1 and 15 would therefore range from **Minor** and **Not Significant** to No Effect.

East Corridor: Sworton Heath BVI

8.11.29 The ZTV in **Figure 8.40** indicates potential visibility of the Sworton Heath BVI from a short section of RCR 70 as it passes to the west of High Legh. The intervening roadside hedgerow and hedgerow trees, together with intervening field boundary hedgerows and trees, would give rise to a magnitude of visual change which is very low with **Minor** and **Not Significant** effects on the views of these high sensitivity recreational receptors at Year 1.

8.11.30 At Year 15, the screening provided by the intervening roadside hedgerow and hedgerow trees would be augmented by the gradual maturation of the vegetation proposed close to the BVI (**Figure 13** of the **Outline LEMP**). The magnitude of change would reduce to zero with No Effect.

Decommissioning phase

8.11.31 The visual effects associated with the decommissioning phase are likely to be comparable to those recorded for the construction phase for each visual receptor within the LVIA Study Areas for the HAGIs and BVIs, which are identified in

⁴⁵ Tree planting restrictions would occur within an approximately 12m wide corridor (6m either side of the pipeline) as set out in **Appendix 1** of the **Outline LEMP**. Other shallow routed shrub species can be planted beyond 3m either side of the pipeline and hedgerow planting is permitted over the pipeline where screening or a field boundary is required.

8.11.32 **Table 8.12** and assessed in **Appendix 8F: Visual Receptor Assessment**.

8.11.33 The recreational receptors using promoted walking and cycling routes whose views and visual amenity are therefore likely to be affected during the decommissioning phase, and an assessment of the visual effects, are as follows:

- NCR 5 (HPP HAGI and Rocksavage HAGI): The magnitude of change associated with the decommissioning of the HPP HAGI would be very low from a localised section of NCR 5 along the A5117 to the south of the HAGI to zero. Short-term visual effects for high sensitivity recreational receptors using this route would therefore be **Minor** and **Not Significant**.

NCR 5 also passes through the LVIA Study Area for the Rocksavage HAGI, with the ZTV (**Figure 8.29**) indicating theoretical localised and fragmented intervisibility. The replanted and retained existing vegetation, would screen views of decommissioning activities at the Rocksavage HAGI, with a corresponding very low to zero magnitude of change and a **Minor** and **Not Significant** to No Effect.

- NCR 62, E8 and Trans Pennine Trail (Warburton HAGI): The magnitude of visual change would be low from a very short section of route to the south of the HAGI, which coincides with the permanent gap where tree planting is restricted above the pipeline depending on species type (within an approximately 12m section although other shallow rooted shrub species can be planted beyond 2m either side of the pipeline and a hedgerow can be planted over the pipeline). Elsewhere from along NCR 62, the planting proposed to the south of the HAGI (**Figure 8** of the **Outline LEMP**) would combine with existing tree cover to screen views of decommissioning activities. Short-term effects would therefore range from **Moderate** and **Not Significant** to No Effect.
- Bollin Valley Way (Warburton HAGI): The magnitude of visual change for the high sensitivity walkers using the Bollin Valley Way would be locally very low (from the section of route directly south of the HAGI and west of Barns Lane) with decommissioning activities potentially visible through the permanent narrow gap in vegetation (where trees are removed during the construction phase to facilitate the open cut of the pipeline and where subsequent tree planting is restricted above the pipeline depending on species type (within an approximately 12m section although other shallow rooted shrub species can be planted beyond 2m either side of the pipeline and a hedgerow can be planted over the pipeline)). From elsewhere along the route, the gradual maturation of planting proposed to the south of the HAGI would combine with existing tree cover to screen views of decommissioning activities (zero magnitude). Short-term effects would therefore range from **Minor** and **Not Significant** to No Effect.

8.11.34 With reference to the ZTVs and through the gradual maturation of planting around the HAGIs and BVIs post construction, there would be no views of decommissioning activities for:

- Users of RCR 70 (Sworton Heath BVI);
- Users of NCR 62 (Higher Walton (HWH8) HAGI);

- Weaver Way (Rocksavage HAGI);
- Trans Pennine Trail/E8 (Higher Walton (HWH8) HAGI);
- Bridgwater Way and Cheshire Ring Canal Walk (Higher Walton (HWH2 and HWH8) HAGIs); and
- Mersey Way (Higher Walton (HWH8) HAGI).

8.12 Assessment Of Visual Effects: Recreational Canal And River Users

Construction phase

West Corridor including the Runcorn/Rocksavage Spur

- 8.12.1 The Manchester Ship Canal coincides with the LVIA Study Area for the West Corridor of the pipeline to the east of Stanlow. Embankments along the southern bank of the Canal and intervening vegetation and buildings beyond the Canal screen and filter views. As a consequence, there would be no visibility of the West Corridor from vessels using this section of the Canal resulting in a Zero Magnitude and No Effect.
- 8.12.2 Recreational receptors navigating the Weaver Navigation Canal are of High sensitivity to visual change as assessed in **Table 8F.72 of Appendix 8F**. Trees and hedges together with built-form and industrial estates adjacent to the Canal filter the majority of views towards the construction corridor along the Canal with a corresponding **Minor** and **Not Significant** to No Effect. The following section of Canal is the exception to this conclusion:
- A ~0.8km section from the M56 overbridge and the A56 overbridge where there would be generally open views of the construction works associated with the West Corridor pipeline and Rocksavage HAGI including four temporary trenchless crossing compounds on either side of the Canal. Some vegetation along the Canal would be lost during the construction works as illustrated in **Figure 8C.102 of Appendix 8C: Arboricultural Impact Assessment** which would result in more open views. Effects would be transient, **Major** to **Major/Moderate** and **Significant**.
- 8.12.3 The River Weaver also coincides with the LVIA Study Area for the West Corridor and recreational receptors navigating this waterway are assessed as being of high sensitivity in **Table 8F.75 of Appendix 8F**. Views towards construction activities from along the majority of the river would be limited as a consequence of trees, hedges and built-form adjacent to the river corridor with No Effect. The only exception relates to a ~0.3km section of river either side of the M56 where the removal of trees (as shown in **Figure 8C.102 of Appendix 8C: Arboricultural Impact Assessment**) may open up views towards temporary trenchless crossing compounds and construction activities associated with a short section of the West Corridor. Effects here would be **Major/Moderate** and **Significant**.

8.12.4 Recreational receptors navigating the Trent and Mersey Canal are of high sensitivity to change. Trees and hedges adjacent to and beyond the canal filter the majority of views towards the West Corridor of the pipeline with the following exception:

- A ~0.8km section south of Dutton Hall where there would be relatively open views of the construction works associated with the West Corridor pipeline to the north and south of the canal, including temporary trenchless crossing compounds on both banks of the canal. Effects would vary along this section of route ranging from **Major** and **Significant** for ~0.4km of the waterway in close proximity to the temporary trenchless crossing compounds, reducing to **Major/Moderate** and **Significant** for the remainder ~0.4km of the route where there would be views of the works associated with the laying of the pipeline.

North Corridor including Warrington Spur

8.12.5 Recreational receptors using the 58 km long Manchester Ship Canal are of High sensitivity to visual change as assessed in **Table 8F.71** of **Appendix 8F**. A combination of trees, hedgerows and built-form adjacent to the canal filter the majority of views from boats and vessels using the canal, with a corresponding Zero magnitude of change and No Effect with the exception of the following sections:

- A ~0.3km section to the west of Acton Grange Viaduct where there would be intermittent and filtered views of the construction works associated with the North Corridor pipeline including one temporary trenchless crossing compound and the High Walton (HWH2) HAGI and potential temporary vegetation loss. Effects would range from **Major** and **Significant** to **Moderate** and **Not Significant**.
- A ~0.6km section to the east of Acton Grange Viaduct where there would be intermittent and filtered views of the construction works associated with the North Corridor pipeline including one temporary trenchless crossing compound and the Higher Walton (HWH8) HAGI. Some vegetation may be lost from behind the canalside trees during the construction works which would reduce their screening role. Effects would range from **Major** and **Significant** to **Moderate** and **Not Significant**.
- A ~1km section of canal between Latchford Swing Bridge and Latchford Locks where there would be filtered views of the Warrington Spur construction works beyond vegetation along the Canal, mainly in the winter. Effects would be **Moderate** and **Not Significant**.

8.12.6 Recreational receptors in boats using the River Mersey are of High sensitivity to visual change as assessed in **Table 8F.75** of **Appendix 8F**. From the majority of the River, where it coincides with the LVIA Study Area for the Project, a combination of riverside embankments, trees, hedges and built-form adjacent to the river would limit views of construction activities, including the construction of the Higher Walton HAGI HWH2 and HWH8 options (as shown in the ZTVs in **Figures 8.32** and **8.33**), with a corresponding Zero magnitude of change and No Effect. The exceptions to this conclusion are as follows:

- A ~0.3-0.4km section east of Fiddler's Ferry woodland / golf course where there would be relatively open views of the construction works associated with the North Corridor pipeline across fields to the south of the River, including a temporary trenchless crossing compound. Effects here would be **Major** and **Significant**.
- A ~0.5km section near the junction of River Mersey and the disused Runcorn and Latchford Canal where there would be open views of the construction works associated with the North Corridor/Warrington Spur pipeline including a large materials storage area. Effects would be **Major/Moderate** and **Significant**.
- A ~0.4km section under the railway line and north of Morley Common where there would be open views of the construction works associated with the Warrington Spur pipeline running parallel to the river and a temporary trenchless crossing compound and materials storage areas on Morley Common. Effects here would be **Major** and **Significant**.
- A ~0.3km section west of Chester Road where there would be partial views of the construction works associated with a temporary trenchless crossing compound (Warrington Spur Wsp1) with the associated loss of trees, the extent of which is shown in **Figure 8C.125** of **Appendix 8C**. The magnitude of change would be low and effects would be **Moderate** and **Significant**.

East Corridor

- 8.12.7 The Manchester Ship Canal coincides with the LVIA Study Area for the East Corridor of the pipeline close to Partington. Trees, hedgerows and built-form within the settlement of Partington adjacent to and beyond the canal screen and filter views. As a consequence, there would be no visibility of the East Corridor from vessels using this section of the canal resulting in a zero magnitude of change and No Effect.
- 8.12.8 Recreational receptors navigating the River Bollin are of High sensitivity to visual change as assessed in **Table 8F.75** of **Appendix 8F**. Trees and hedges adjacent to and beyond the river corridor filter the majority of views towards construction activities within the East Corridor and Warburton HAGI from along the river giving rise to **Moderate** and **Not Significant** effect to No Effect. The exception relates that a ~0.4 to 0.5km section along the river from north-east of Heatley Farm and west of Dunham Woodhouses, where there would be open and close distance views of temporary trenchless crossing compounds on the banks of the river and where effects would be **Major** and **Significant**.

South Corridor

- 8.12.9 Recreational receptors navigating the River Weaver are of high sensitivity to visual change. Intervening vegetation and built form filter the majority of views towards construction activities from the river with a corresponding **Moderate** and **Not Significant** to No Effect. The exception to this conclusion is as follows:
- A ~0.3km section of the River Weaver to the south of Bartington where there would be intermittent views of the construction works associated with the South

Corridor pipeline including temporary trenchless crossing compounds on either side of the river. Where visible, effects would be transient, **Major** and **Significant**.

8.12.10 Recreational receptors navigating the Trent and Mersey Canal are of high sensitivity to change. Trees and hedges adjacent to and beyond the canal filter the majority of views towards the South Corridor of the pipeline with the following exceptions:

- A ~0.8km section on this route to the north of Bartington where there would be relatively open views of the construction works associated with the south corridor pipeline including temporary trenchless crossing compounds in close proximity on either side of the canal (option SP5), or at ~0.1km in filtered views to the south of the canal (option SP6). Effects would vary along this section of route ranging from **Major** and **Significant** for ~0.25km of the route in close proximity to the temporary trenchless crossing compound (SP5) reducing to **Major/Moderate** and **Significant** for SP6 and for the remainder ~0.65km of the route where there would be views of the works associated with the pipeline.
- A ~0.25km section on the edge of Rudheath where there would be limited views of the material storage area through and above intervening vegetation and beyond traffic moving along the A530. Where visible, effects would be **Moderate** to **Minor** and **Not Significant**.
- A ~0.2-0.4km section south of Whatcroft where there would be intermittent views of the construction works associated with the South corridor of the pipeline including two temporary trenchless crossing compounds. Where visible, effects would be **Major** and **Significant** reducing to **Moderate** and **Not Significant** with increasing separation distance.

Operational phase

West Corridor: Rocksavage HAGI

8.12.11 The LVIA Study Area for the Rocksavage HAGI coincides with the River Weaver and recreational receptors navigating the river are of high sensitivity. With reference to the ZTV in **Figure 8.29**, the Rocksavage HAGI would not be visible from the majority of the waterway due to screening from the riverbanks, built-form and / or vegetation. The exception relates to localised and fragmented theoretical intervisibility from either side of Frodsham Bridge, although in reality, the screening provided by retained woodland and groups of trees between the HAGI and the river would limit views at a minimum separation distance of 0.5km. Effects would be **Minor** and **Not Significant** to No Effect at Years 1 and 15.

8.12.12 The LVIA Study Area also coincides with the Weaver Navigation, with the ZTV (**Figure 8.29**) indicating that views towards the Rocksavage HAGI would be available to recreational receptors using the waterway between the M56 and Frodsham Substation where the canal would pass within ~50m of the HAGI. The loss of woodland and groups of trees to the north-east of the HAGI during the construction phase would facilitate views towards the HAGI from the canal in this area. Localised and transient effects would be **Major** to **Major/Moderate** and **Significant** to No Effect at Year 1. The assessment assumes that trees removed

within the temporary compounds to the north-east of the HAGI would be replanted (outside of the 50m restricted planting zone) and their gradual maturation would combine with existing groups of trees to result in heavily filtered views of the HAGI compound and above ground components at Year 15, when effects would reduce to **Minor** and **Not Significant** to No Effect.

Runcorn/Rocksavage Spur: Runcorn HAGI

8.12.13 The Weaver Navigation passes through the LVIA Study Area for the Runcorn HAGI. As indicated by the ZTV in **Figure 8.30**, there would be no views of the HAGI from the waterway and No Effect at Years 1 and 15.

8.12.14 The ZTV for the Runcorn HAGI shows very small and highly localised areas of theoretical intervisibility for users navigating the River Weaver, which also coincides with the LVIA Study Area for the Runcorn HAGI. In reality, the screening from intervening vegetation and groups of trees, not included in the ZTV calculation, would limit views with a zero magnitude of change and No Effect at both Year 1 and Year 15.

North Corridor: Higher Walton (HWH2) HAGI

8.12.15 The Higher Walton (HWH2) HAGI would be sited close to the northern bank of the Manchester Ship Canal and there would be intermittent and filtered views of the HAGI from sections of the waterway to the west of Acton Grange Viaduct as illustrated in the ZTV in **Figure 8.32**. Effects at Year 1 would be **Major** to **Major/Moderate** and **Significant**. The gradual maturation of scrub and woodland planting to the east and west of the HAGI (**Figure 5** of the **Outline LEMP**) would result in heavily filtered views of the HAGI for users of the canal at Year 15. The magnitude of change would reduce to Low to Very Low and effects would be **Moderate** to **Minor** and Not Significant west of Acton Grange Viaduct to No Effect elsewhere along the Manchester Ship Canal.

8.12.16 A short length of the River Mersey coincides with the LVIA Study Area for the Higher Walton (HWH2) HAGI with the ZTV in **Figure 8.32** indicating no areas of intervisibility from within this waterway. As a consequence, there would be No Effect at Years 1 and 15.

North Corridor: Higher Walton (HWH8) HAGI

8.12.17 The Manchester Ship Canal would pass to the north of the Higher Walton (HWH8) HAGI. Reference to the ZTV in **Figure 8.33** indicates no areas of intervisibility from within this waterway and the magnitude of change would be zero with No Effect at Years 1 and 15.

8.12.18 A short section of the River Mersey also coincides with the LVIA Study Area for the Higher Walton (HWH8) HAGI. The ZTV in **Figure 8.33** again indicates no areas of intervisibility from within this waterway, with No Effect at Years 1 and 15.

East Corridor: Warburton HAGI

8.12.19 The LVIA Study Area for the Warburton HAGI coincides with a section of the River Bollin. Recreation receptors navigating the River Bollin and which are of high

sensitivity (**Table 8F.75 of Appendix 8F**) would experience a localised **Minor** and **Not Significant** effect as a result of the Warburton HAGI that would potentially be visible in heavily filtered northerly views at Years 1 and 15.

Decommissioning phase

8.12.20 The visual effects associated with the decommissioning phase are likely to be comparable to those recorded for the construction phase for each visual receptor within the LVIA Study Areas for the HAGIs and BVIs, which are identified in **Table 8.12** and assessed in **Appendix 8F: Visual Receptor Assessment**.

8.12.21 The recreational canal and river users whose views and visual amenity are therefore likely to be affected during the decommissioning phase, and an assessment of the visual effects, are as follows:

- Weaver Navigation Canal (Rocksavage HAGI and Runcorn HAGI): it is assumed that woodland planting removed within the temporary trenchless crossing compounds close to the Rocksavage HAGI during the construction phase would be replanted post construction and would screen views of the Rocksavage HAGI from the section of waterway to the north-east of the HAGI. Retained groups of trees to the west of the HAGI (not accounted for the ZTV), would screen views from the Weaver Navigation to the north-west, which the ZTV in **Figure 8.29** shows as having localised intervisibility. The magnitude of change for high sensitivity recreational receptors using the waterway would be very low and effects **Minor** and **Not Significant**.

The magnitude of change associated with the decommissioning of the Runcorn HAGI would be zero, with the ZTV in **Figure 8.30** indicating no sections of the waterway from where the Runcorn HAGI would be visible. The decommissioning activities would therefore give rise to No Effect.

- River Weaver (Rocksavage HAGI and Runcorn HAGI): the ZTV for the Rocksavage HAGI (**Figure 8.29**) indicates theoretical localised and fragmented intervisibility from within the River Weaver. The assessment assumes that woodland and tree groups removed from within the footprints of temporary trenchless crossing compounds close to the HAGI during the construction phase would be replanted and, together with retained existing vegetation, would screen views of decommissioning activities at the Rocksavage HAGI, with a corresponding very low to zero magnitude of change and a **Minor** and **Not Significant** to No Effect for high sensitivity recreational receptors using the waterway.

The ZTV for the Runcorn HAGI in **Figure 8.30**, shows very small and highly localised areas of intervisibility from within the River Weaver. In reality, the screening from intervening vegetation and groups of trees, not included in the ZTV calculation, would limit views with a zero magnitude of change and No Effect.

- Manchester Ship Canal (Higher Walton (HWH2 and HWH8) HAGIs): The ZTV in **Figure 8.32** shows localised visibility of the Higher Walton (HWH2) HAGI from along the Manchester Ship Canal with decommissioning activities giving

rise to a low to very low or zero magnitude of change and a **Moderate to Minor** and **Not Significant** effect (west of Acton Grange Viaduct) to No Effect.

The ZTV for the Higher Walton (HWH8) HAGI in **Figure 8.33**, indicates no intervisibility from within Manchester Ship Canal and the magnitude of visual change would be zero with No Effect.

- River Mersey (Higher Walton (HWH2 and HWH8) HAGIs): the magnitude of change would be zero within the short lengths of the River Mersey which coincide with the LVIA Study Areas for the Higher Walton (HWH2 and HWH8) HAGIs, as indicated in the ZTVs in **Figures 8.32** and **8.33**, with a corresponding No Effect.
- River Bollin (Warburton HAGI): the magnitude of change would be very low from within a short section of the River Bollin which coincides with the ZTV in **Figure 8.35** to zero, as a consequence of separation distance and intervening vegetative screening, augmented by the now mature planting proposed around the Warburton HAGI (**Figure 8** of the **Outline LEMP**). Recreational receptors are assessed as being of a high sensitivity (**Table 8F.75** in **Appendix 8F**) and short-term visual effects would therefore be **Minor** and **Not Significant** to No Effect.

8.13 Assessment Of Cumulative (Inter-Project) Effects

Approach

- 8.13.1 A cumulative effects assessment (CEA) has been undertaken for the Project which considers the combined impacts with other developments on the same single receptor or resource (inter-project effects). The detailed method followed in identifying and assessing potential cumulative effects is set out in **Chapter 3: Approach to preparing the Draft ES**.

Cumulative effects assessment

- 8.13.2 For the cumulative landscape and visual impact assessment, a Zone of Influence (Zoi) has been applied for the CEA to ensure that the additional cumulative effects as well as the combined cumulative effects of the Project can be appropriately identified and assessed. The CEA also takes account of sequential cumulative effects resulting from a route through the landscape where the receptor may pass other development as well as the Project. The landscape and visual impact Zoi is the same as the LVIA Study Area as illustrated in **Figure 8.1**.
- 8.13.3 A short list of 'other developments' that may interact with the Project Zols during their construction, operation or decommissioning so as to lead to a cumulative landscape or visual effect is presented in **Appendix 3A: Cumulative effects assessment: long list and short list** and on **Figure 3A.1**. This list has been generated applying criteria set out in **Chapter 3: Approach to Preparing the Draft ES** and will be reviewed and updated (if required) as part of the Final ES.
- 8.13.4 Only those 'other developments' in the short list that fall within the landscape and visual impact Zoi have the potential to result in cumulative effects with the Project

on landscape and visual impact. All ‘other developments’ falling outside the landscape and visual impact ZOI are excluded from this assessment. In addition, the following other developments have been scoped out:

- development contained within or beyond existing built-up areas such that it would be screened and/or would not substantially alter landscape character or visual amenity:
 - ▶ Application 100109/FUL/20 (Land Off Hall Lane Partington); and
 - ▶ Application P/2022/0212/HYBR (St Helens Town Centre Development).

8.13.5 A tiered approach to the CEA has been set out in **Table 3.8** in **Chapter 3: Approach to preparing the Draft ES** and can be summarised as follows:

- Tier 1: Developments under construction, permitted and submitted applications where the project is classified as ‘major development’;
- Tier 2: Other developments on the Planning Inspectorate’s Programme of Projects, and/or the relevant LPAs planning portal where the project is classified as ‘major’ development’ and a scoping report has been submitted.
- Tier 3: Other developments on the Planning Inspectorate’s Programme of Projects, and/or the subject of pre-application discussion with a relevant LPA, where a scoping report has not been submitted. Tier 3 also includes other developments registered on the LPAs portal classed as major development but do not require EIA or identified in the relevant Development Plan recognising that much information on any relevant proposals will be limited.

8.13.6 On the basis of the above, the following specific other developments contained within the short list in **Appendix 3A: Cumulative effects assessment: long list and short list** are considered in this CEA, as discussed **Table 8.19**.

Table 8.19 Developments considered as part of the landscape and visual impact CEA

Development type	Development name	Application reference	Status	Confidence in assessment	Tier	Distance to the Project (m)
Highways New link road.	Proposed Warrington Western Link	2019/36100	Pre-application: Scoping Opinion issued.	Medium	2	Within Draft Order Limits
Minerals Extension to quarry	Northern extension to the quarry Forest Hill Quarry	19/02452/MIN	Approved	High	1	Within Draft Order Limits
Residential 294 dwellings and associated infrastructure	Linkway Distribution Park, Sherdley Road	P/2018/0060/FUL P/2021/0405/RES	Approved. Construction commenced.	High	1	Adjacent to Draft Order Limits
Utilities infrastructure New build carbon dioxide (CO2) pipeline	Hynet CO2 Pipeline DCO	PINS Reference: EN070007	Approved.	High	1	Within Draft Order Limits
Energy generation (solar) Solar photovoltaic array	Frodsham Solar Project	PINS Reference: EN010153	Pre-application: Scoping Opinion issued.	Medium	2	Within Draft Order Limits

Development type	Development name	Application reference	Status	Confidence in assessment	Tier	Distance to the Project (m)
Mixed-use Up to 320 dwellings; employment (Use Classes B1/B2/B8 including open storage); and retail/health (Use Classes A1/D1.	Carrington Village	113942/EIASCO/24	Pre-application: Scoping Report submitted.	Medium	2	Approximately 430m
Employment Employment units within Class B8, with ancillary offices.	Voltage Park, Carrington	112794/FUL/24	Awaiting decision.	High	1	Within Draft Order Limits
Highways New link road.	Carrington Relief Road	113549/EIASCO/24	Pre-application: Scoping Report submitted.	Medium	2	Within Draft Order Limits
Mixed-use Up to 545 dwellings, E use classes, F2 use classes and a hotel and associated infrastructure.	The Heath Business and Technical Park	22/00569/OUT	Awaiting decision.	High	1	Approximately 800m

Development type	Development name	Application reference	Status	Confidence in assessment	Tier	Distance to the Project (m)
Utilities infrastructure Natural gas pipeline with ancillary above-ground infrastructure.	Land to the South East of Stanlow Manufacturing Complex	23/03369/FUL	Awaiting decision.	High	1	Within Draft Order Limits
Infrastructure Carbon Dioxide (CO2) Capture Facility.	Land At Protos (Ince Resource Recovery Park)	24/00261/FUL	Awaiting decision.	High	1	Within Draft Order Limits
Waste management Materials Recycling Facility (MRF), two Plastics Recycling Facilities (PRFs), a Polymer Laminate Recycling Facility (PLRF) and a Hydrogen Refuelling Station	Plots 9b, 10a, 11 and 12 Protos	21/04076/FUL	Approved.	High	1	Within Draft Order Limits
Employment Units for general industrial (Use Class B2) and/or storage or distribution (Use	Fiddlers Ferry Employment Land Phase 1	2023/00392/EA	Awaiting decision.	High	1	Approximately 160m

Development type	Development name	Application reference	Status	Confidence in assessment	Tier	Distance to the Project (m)
Class B8), together with ancillary offices.						
Residential 514 dwellings with associated access and infrastructure works	Land At Gartons Lane, St Helens	P/2023/0075/FUL	Awaiting decision.	High	1	Approximately 500m

8.13.7 The cumulative type of effect and scope of the cumulative LVIA is described in **Table 8.20**.

Table 8.20 Cumulative Project Design Envelope for landscape and visual impact

Project phase and activity/impact	Scenario	Justification
Combined cumulative landscape or visual effect occurring during construction or operation.	All Tier 1 and 2 projects identified in Table 8.19 .	The Project extends, intensifies or fills an area in combination with other development to substantially alter landscape character or visual amenity. The combined effects are greater than each development individually or incrementally.
	All Tier 1 and 2 projects identified in Table 8.19 .	Temporal effects where cumulative development or phases of development may occur simultaneously or successively.
	All Tier 1 and 2 projects identified in Table 8.19 .	Cumulative effects that result from the removal of vegetation to reveal views of other development, altering the landscape character and visual amenity.
Additional cumulative landscape or visual effect occurring during construction or operation.	All Tier 1 and 2 projects identified in Table 8.19 .	The additional effect of the Project, in addition to other development substantially alter landscape character or visual amenity.
Sequential cumulative landscape or visual effect occurring during construction or operation.	All Tier 1 and 2 projects identified in Table 8.19 .	Development is experienced sequentially from a route in combination with other development to substantially alter landscape character or visual amenity.

8.13.8 The CEA for landscape and visual impact is set out in **Table 8.21**.

Table 8.21 Cumulative effects assessment for landscape and visual

Development Name	Project Corridor	Application Reference	Assessment discussion
HyNet CO2 Pipeline DCO	West Corridor	PINS Reference: EN070007	During construction: The construction of the HyNet CO2 pipeline and the Project would extend and intensify effects on landscape character in part of LCA 9a Dunham to Tarvin Plain to the south of the HPP HAGI, on a small part of LCA 4a Frodsham, Helsby & Lordship Marshes within its western fringes and on the views and visual amenity of residents on the southern edge of Elton and eastern edge of Thornton-le-Moors. Subject to phasing, the Project could lead to simultaneous or successive cumulative development that sees the short-term loss of vegetation and the visual and audible disturbance from construction activities and presence of construction compounds, limited to the construction phase. Cumulative effects (additional and combined) resulting from the Project would range from localised Major/Moderate or Moderate effects and would result in a significant cumulative effect for the two LCA receptors and residents on the southern edge of Elton. During operation: Cumulative effects resulting from the Project during its operation would be Minor/Negligible or Negligible to No Effect, with the HPP HAGI having minimal characterising influence on LCA 9a, and therefore would not result in a significant cumulative effect.
Land to the South East of Stanlow Manufacturing Complex	West Corridor	23/03369/FUL	During construction: The construction of a natural gas pipeline and the Project would extend and intensify effects on part of LCA 9a Dunham to Tarvin Plain to the south of the HPP HAGI, and on the views and visual amenity of residents on the eastern edge of Thornton-le-Moors. Subject to phasing, the Project could

Development Name	Project Corridor	Application Reference	Assessment discussion
			lead to simultaneous or successive cumulative development that sees the short-term loss of vegetation and the visual and audible disturbance from construction activities and presence of construction compounds, limited to the construction phase. Cumulative effects (additional and combined) resulting from the Project would range from Major/Moderate to Minor effects and would result in a significant cumulative effect for LCA 9a Dunham to Tarvin Plain. During operation: Cumulative effects resulting from the Project (HPP HAGI) during its operation would be Negligible to No Effect and therefore would not result in a significant cumulative effect.
Frodsham Solar Project	West Corridor	PINS Reference: EN010153	During construction: The construction of the Frodsham Solar Project and the Project would extend and intensify effects on landscape character in LCA 4a Frodsham, Helsby & Lordship Marshes and may be experienced simultaneously in the views from Frodsham or Helsby Hill (Longster Trail). Cyclists would experience sequential cumulative effects of development from NCR 5. Subject to phasing, the Project could lead to simultaneous or successive cumulative development that sees the short-term loss of vegetation and the visual and audible disturbance from construction activities and presence of construction compounds, limited to the construction phase. Cumulative effects (additional and combined) resulting from the Project would range from Major to Moderate to Minor effects and would result in a significant cumulative effect for LCA 4a Frodsham, Helsby & Lordship Marshes and users of NCR 5

Development Name	Project Corridor	Application Reference	Assessment discussion
			During operation: Cumulative effects resulting from the Project (Rocksavage and Runcorn HAGIs) during its operation would be Minor or Negligible to No Effect and therefore would not result in a significant cumulative effect.
Land At Protos (Ince Resource Recovery Park)	West Corridor	24/00261/FUL	During construction: The construction of the Carbon Dioxide (CO₂) Capture Facility, Materials Recycling Facility (MRF), two Plastics Recycling Facilities (PRFs), a Polymer Laminate Recycling Facility (PLRF) and a Hydrogen Refuelling Station and the Project would extend and intensify effects on landscape character in part of the LCA 4a Frodsham, Helsby & Lordship Marshes which is already influenced by large-scale development. The developments would be experienced simultaneously in the views from Helsby Hill (Longster Trail) and cyclists would experience sequential cumulative effects of development from NCR 5. Subject to phasing, the Project could lead to simultaneous or successive cumulative development that sees the short-term loss of vegetation and the visual and audible disturbance from construction activities and presence of construction compounds, limited to the construction phase. Cumulative effects (additional and combined) resulting from the Project would range from Major to Moderate to Minor effects and would result in a significant cumulative effect for LCA 4a Frodsham, Helsby & Lordship Marshes and users of NCR 5.
Plots 9b, 10a, 11 and 12 Protos	West Corridor	21/04076/FUL	During operation: Cumulative effects resulting from the Project (Rocksavage and Runcorn HAGIs) during its operation would be Minor or Negligible to No Effect and therefore would not result in a significant cumulative effect.

Development Name	Project Corridor	Application Reference	Assessment discussion
The Heath Business and Technical Park	Runcorn/Rocksavage Spur	22/00569/OUT	During construction: The construction of the mixed-use development and the Project would extend and intensify effects on landscape character in the Runcorn Hill and Heath Parkland LCA. Subject to phasing, the Project could lead to simultaneous or successive cumulative development that sees the loss of vegetation and the visual and audible disturbance from construction activities and presence of construction compounds. Cumulative effects (additional and combined) resulting from the Project would range from Major/Moderate close to the Project to No Effect and would result in a significant cumulative effect for the Runcorn Hill and Heath Parkland LCA. During operation: Cumulative effects (additional and combined) resulting from the Project (Rocksavage and Runcorn HAGIs) during its operation would range from Major/Moderate close to the Project (Runcorn HAGI) to No Effect and would result in a significant cumulative effect for the Runcorn Hill and Heath Parkland LCA.
Proposed Warrington Western Link	North Corridor and Warrington Spur	2019/36100	During construction: The construction of the Warrington Western Link Road and the Project would extend and intensify effects on landscape character in LCAs 3a Appleton Park & Grappenhall and 5a River Mersey/Bollin (West). Recreational receptors using the Trans Pennine Trail, Mersey Way and NCR 62 would experience sequential cumulative effects of development as they travel along these routes. Subject to phasing, the Project could lead to simultaneous or successive cumulative development. Cumulative effects (additional and combined) resulting from the Project would range from Major or Major/Moderate to No Effect and would result in

Development Name	Project Corridor	Application Reference	Assessment discussion
			significant cumulative effects for LCAs 3a Appleton Park & Grappenhall and 5a River Mersey/Bollin (West) as well as users of the Trans Pennine Trail, Mersey Way and NCR 62. During operation: Cumulative effects (additional and combined) resulting from the Project (Higher Walton (HWH2 and HWH8) HAGIs) during operation would range from a Moderate (Higher Walton (HWH8) HAGI) to Minor (Higher Walton (HWH2) HAGI) to No Effect and would result in a significant cumulative effect for LCA 3a Appleton Park & Grappenhall. Cumulative effects on LCA 5a River Mersey/Bollin (West) and recreational receptors using the Trans Pennine Trail, Mersey Way and NCR 62 would be Not Significant.
Fiddlers Ferry Employment Land Phase 1	North Corridor	2023/00392/EA	During construction: The construction of employment land uses and the Project would extend and intensify effects on landscape character in LCA 1f Penketh & Cuerdley and on the views and visual amenity of residents in Cuerdley Cross and Widnes. Recreational receptors using the Trans Pennine Trail, Mersey Way and NCR 62 would experience sequential cumulative effects of development as they travel along these routes. Subject to phasing, the Project could lead to simultaneous or successive cumulative development that sees the short-term loss of vegetation and the visual and audible disturbance from construction activities and presence of construction compounds, limited to the construction phase. Cumulative effects (additional and combined) resulting from the Project would range from Major or Moderate to No Effect and would result in significant cumulative effects for LCA 1f Penketh & Cuerdley as well as users of the Trans Pennine Trail, Mersey Way and NCR 62. Cumulative

Development Name	Project Corridor	Application Reference	Assessment discussion
			effects resulting from the Project on residents in Cuerdley Cross and Widnes would be Minor and Not Significant. During operation: There would be No Effect on landscape character in LCA 1f Penketh & Cuerdley or on the views and visual amenity of residents in Cuerdley Cross and Widnes and receptors using the Trans Pennine Trail, Mersey Way and NCR 62 from the Project during its operation and therefore cumulative effects would be Not Significant.
Linkway Distribution Park, Sherdley Road	St Helens Spurs	P/2018/0060/FUL P/2021/0405/RES	During construction: Residential development and the Project would extend and intensify effects on landscape character in LCA IF1 Link Road and on the views and visual amenity of residents in St Helens (along Sherdley Road and Sutton Heath Road). Subject to phasing, the Project could lead to simultaneous or successive cumulative development with the visual and audible disturbance from construction activities and presence of construction compounds, limited to the construction phase. Cumulative effects (additional and combined) resulting from the Project would range from Moderate or Minor to No Effect and cumulative effects resulting from the Project would be Not Significant. During operation: There would be No Effect on landscape character in LCA IF1 Link Road and on the views and visual amenity of residents in St Helens (along Sherdley Road and Sutton Heath Road) from the Project during its operation and therefore cumulative effects would be Not Significant.

Development Name	Project Corridor	Application Reference	Assessment discussion
Land At Gartons Lane, St Helens	St Helens Spurs	P/2023/0075/FUL	During construction: Residential development and the Project would extend and intensify effects on landscape character in LCA RFS4 Sutton. Subject to phasing, the Project could lead to simultaneous or successive cumulative development with the visual and audible disturbance from construction activities and presence of construction compounds, limited to the construction phase. Cumulative effects (additional and combined) resulting from the Project would range from Minor/Negligible to No Effect and cumulative effects resulting from the Project would be Not Significant. During operation: Check Clock Face HAGI Cumulative effects (additional and combined) resulting from the Project (Clock Face HAGI) during operation would range from Minor/Negligible to No Effect and cumulative effects resulting from the Project would be Not Significant.
Carrington Village	East Corridor	113942/EIASCO/24	During construction: Mixed use development and the Project could extend and intensify effects on the views and visual amenity of residents in Carrington. Subject to phasing, the Project could lead to simultaneous or successive cumulative development with the visual and audible disturbance from construction activities and presence of construction compounds, limited to the construction phase. Cumulative effects (additional and combined) resulting from the Project would be No Effect and cumulative effects resulting from the Project would be Not Significant. During operation:

Development Name	Project Corridor	Application Reference	Assessment discussion
			There would be No Effect on the views and visual amenity of residents in Carrington from the Project during its operation and therefore cumulative effects would be Not Significant.
Voltage Park, Carrington	East Corridor	112794/FUL/24	During construction: Employment development and the Project could extend and intensify effects on landscape character in the Mossland LCT. Subject to phasing, the Project could lead to simultaneous or successive cumulative development with the visual and audible disturbance from construction activities and presence of construction compounds. Cumulative effects (additional and combined) resulting from the Project would be Major/Moderate to No Effect and cumulative effects resulting from the Project would be Significant. During operation: Cumulative effects (additional and combined) resulting from the Project (Partington (PH2) HAGI) during operation (Year 1) would range from Moderate to No Effect and cumulative effects resulting from the Project would be Significant for the Mossland LCT.
Carrington Relief Road	East Corridor	113549/EIASCO/24	During construction: Highway development and the Project would extend and intensify effects on landscape character in the Mossland and Settled Sandlands LCTs and on the views and visual amenity of residents in Partington and Carrington. Subject to phasing, the Project could lead to simultaneous or successive cumulative development that sees the short-term loss of vegetation and the visual and audible disturbance from construction activities and presence of construction compounds. Cumulative effects (additional and combined) resulting from the Project would range from Major/Moderate to No Effect and would result in a significant cumulative effect for the Mossland and Settled Sandlands LCTs.

Development Name	Project Corridor	Application Reference	Assessment discussion
			During operation: Cumulative effects (additional and combined) resulting from the Project (Partington (PH2) and Warburton HAGIs) during operation (Year 1) would range from Moderate to No Effect and cumulative effects resulting from the Project would be Significant for the Mossland and Settled Sandlands LCTs. Cumulative effects on residents in Partington and Carrington would be Not Significant.
Northern extension to the quarry Forest Hill Quarry	South Corridor	19/02452/MIN	During construction: Highway development and the Project would extend and intensify effects on landscape character in LCAs 5b Frodsham to Northwich and 1a Delamere. Subject to phasing, the Project would lead to simultaneous or successive cumulative development that sees the short-term loss of vegetation and the visual and audible disturbance from construction activities and presence of construction compounds. Cumulative effects (additional and combined) resulting from the Project would range from Major/Moderate to No Effect and would result in a significant cumulative effect. During operation: Cumulative effects resulting from the Project (Hartford BVI) during its operation would be Minor to No Effect and therefore would not result in a significant cumulative effect.

8.14 Significance Conclusions

- 8.14.1 A summary of the results of the landscape assessment is provided in **Table 8.22** which reflects the detailed assessments at **Appendix 8D: Landscape Receptor Assessment**. **Table 8.23** provides a summary of the results of the visual assessment which reflects the detailed assessments in **Appendix 8F: Visual Receptor Assessment**. Where effects are concluded as being Significant, this is highlighted in **bold** text in **Table 8.22** and **Table 8.23**.
- 8.14.2 Where a range of effects for an individual receptor have been recorded, this relates to a range of magnitude of change concluded as a result of the Project. For example, there may be a localised significant short term adverse effect during the construction phase upon a landscape character area where the construction of the pipeline corridor has a direct but temporary impact on localised part of that character area. However, further from the pipeline corridor and within the same landscape character area, no change as a result of the Project may be perceptible i.e. No Effect. Similarly, along a route receptor such as a long-distance footpath there may be a variety of views of the Project ranging from close range views from a section of the route close to the Project that could result in a high magnitude of change and significant effect to other views from the route where the Project would not be visible.

Table 8.22 Summary of significance of landscape effects

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
Landscape Character Receptors					
LCA 9a Dunham to Tarvin Plain Construction	Medium	High to Zero	Major/Moderate and Significant to No Effect	Collectively, the construction works involving the open cut underground pipeline, four temporary trenchless crossing compounds and one materials storage area would give rise to locally significant effects within and in close proximity to the construction compounds and pipeline corridor.	CWACC Appendix 8D Section 8.9
LCA 9a Dunham to Tarvin Plain Operation Years 1 & 15	Medium	Very Low to Zero	Minor/Negligible and Not Significant to No Effect	The existing roadside vegetation along both sides of the A5117 would heavily filter views. Within highly localised areas from where the HPP HAGI would be perceived, it would appear to be part of the surrounding petrochemicals works and would not be incongruent at both Years 1 and 15.	CWACC Appendix 8D Section 8.9
LCA 9a Dunham to Tarvin Plain Decommissioning	Medium	Low to Zero	Minor and Not Significant to No Effect	Decommissioning activities associated with the HPP HAGI would be screened by existing roadside vegetation along both sides of the A5117 giving rise to localised low magnitudes of change.	CWACC Section 8.9

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
LCA 4a Frodsham, Helsby & Lordship Marshes Construction	Medium to Low	High to Zero	Moderate and Significant to No Effect	The construction works involving approximately 7.5km of open cut underground pipeline and four temporary trenchless crossing compounds would give rise to locally high magnitudes of change within and in close proximity to the construction compounds and pipeline corridor and within a landscape of low sensitivity.	CWACC Appendix 8D Section 8.9
LCA 4a Frodsham, Helsby & Lordship Marshes Operation Years 1 & 15	Medium to Low	Very Low to Zero	Negligible and Not Significant	The LCA coincides with the LVIA Study Area for both the Rocksavage and Runcorn HAGIs. Both HAGIs would have a very limited characterising influence at Years 1 and 15 due to separation distance (with the River Weaver, Weaver Navigation, M56 motorway or tree cover providing physical and visual separation) and a baseline context alongside the Frodsham Substation and Rocksavage Power Station.	CWACC Appendix 8D Section 8.9
LCA 2b Helsby Hill Construction	High-Medium	Very Low to Zero	Minor to Minor/Negligible and Not Significant	Indirect effects from elevated views of the Project crossing the landscape to the north of the railway, close to the M56 motorway. The construction activity would be perceived in the context of heavy industry, major transport corridors and the Frodsham Wind Farm.	CWACC Appendix 8D Section 8.9

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
LCA 5f Helsby to Frodsham <i>Construction</i>	High-Medium	Low to Zero	Moderate to Minor and Not Significant	The magnitude of change resulting from increased traffic movements on Matty's Lane/Hatley Lane would potentially and occasionally be up to a Low magnitude affecting a very small geographical area of landscape character in the local vicinity of the temporary construction access routes.	CWACC Appendix 8D Section 8.9
LCA 2a Frodsham Sandstone Ridge <i>Construction</i>	High-Medium	Very Low to Zero	Minor to Minor/Negligible and Not Significant	Indirect effects from elevated views of the Project crossing the landscape to the north of the railway. The construction activity would be perceived in the context of heavy industry, major transport corridors and the Frodsham Wind Farm.	CWACC Appendix 8D Section 8.9
LCA 15c Lower Weaver Valley <i>Construction</i>	High-Medium	High to Zero	Major to Major/Moderate and Significant to No Effect	Collectively, the construction works involving the Rocksavage HAGI (and associated removal of Category B trees), approximately 4.7km of open cut underground pipelines (West and South Corridors) and 11 separate temporary construction, trenchless crossing and material storage compounds would give rise to locally high magnitudes of change within and close to the pipeline corridors and construction compounds.	CWACC Appendix 8D Section 8.9

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
LCA 15c Lower Weaver Valley Operation Years 1 & 15	High-Medium	Medium to Zero	Major/Moderate to Moderate and Significant to No Effect	Whilst it is anticipated that woodland would be reintroduced across the construction compound for the Rocksavage HAGI (with the exception of where tree planting is restricted above the pipeline depending on species type⁴⁵), a restricted planting zone around the HAGI means that tree planting is restricted within 50m of the above ground equipment. As a consequence, there would be a continued net loss of woodland within this area of LCA 15c at both Years 1 and 15 leading to a localised Medium magnitude within the vicinity of the Rocksavage HAGI. The Runcorn HAGI would have limited indirect effects at Operation Year 1 and 15 given the separation distance, low height of the above ground infrastructure (up to 5m in height) and its location within an area which is already dominated by large-scale infrastructure.	CWACC Appendix 8D Section 8.9
LCA 15c Lower Weaver Valley Decommissioning	High-Medium	High to Zero	Major to Major/Moderate and Significant to No Effect	The magnitude of change associated with decommissioning activities would be up to high locally, from localised areas close to the Rocksavage HAGI. Elsewhere within the majority of the LCA, effects would be Minor and Not Significant to No Effect.	CWACC Section 8.9

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
LCA 8a Aston Construction	High-Medium	High to Zero	Major to Major/Moderate and Significant to No Effect	The construction works involving approximately 5.5km of open cut underground pipeline, six separate temporary trenchless crossing and storage compounds and the temporary construction accesses routed through the LCA would lead to locally high magnitudes of change within and close to the pipeline corridors and construction compounds	CWACC Appendix 8D Section 8.9
LCA 8a Aston Operation Years 1 & 15	High-Medium	Zero	No Effect	The Rocksavage HAGI, whose LVIA Study Area coincides with LCA 8a Aston, would have no characterising influence on the landscape due to separation distance and the intervening transport corridors and other built development including light industrial development.	CWACC Appendix 8D Section 8.9
LCA 5d Whitley and Comberbach Construction	Medium	High to Zero	Major/Moderate and Significant to No Effect	Collectively, the construction works involving approximately 12.8km of open cut underground pipelines (West, North, South and East Corridors), Central Hub HAGI, 13 temporary construction and storage compounds and construction accesses would lead to locally high magnitudes of change within and close to the pipeline corridors and construction compounds.	CWACC Appendix 8D Section 8.9

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
LCA 5d Whitley and Comberbach <i>Operation Years 1 & 15</i>	Medium	Medium to Zero (Year 1)	Moderate and Significant to No Effect (Year 1)	Whilst the above ground infrastructure of the Central Hub HAGI would be low level, the security fencing (typically 2.4 to 3.6m high) would appear incongruous in a largely rural setting. The proposed woodland planting would play a very minor role at Year 1 leading to a locally Medium magnitude in the vicinity of the HAGI.	CWACC Appendix 8D Section 8.9
		Low to Zero (Year 15)	Minor and Not Significant to No Effect (Year 15)	The gradually maturing woodland and hedgerow around the Central Hub HAGI would reduce its characterising role at Year 15. The proposed woodland would reinforce the key characteristic relating to “ <i>Small farm woodlands, coverts and designed copses/clumps in parkland are important features of a landscape with generally relatively low woodland cover</i> ” ²⁷ and contribute to the Built Development Guideline to “ <i>Soften built edges and views of infrastructure by introducing small scale planting schemes using native broadleaved species</i> ”. ²⁷	
LCA 5d Whitley and Comberbach	Medium	High to Zero	Major/Moderate and Significant to No Effect	The magnitude of change would be up to high affecting a small geographical area of landscape character in the local vicinity of any	CWACC Section 8.9

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
Decommissioning				temporary construction compound and Central Hub HAGI being decommissioned. Elsewhere within the majority of the LCA, effects would be Minor and Not Significant to No Effect.	
LCA 5b Frodsham to Northwich Construction	Medium	High to Zero	Major/Moderate and Significant to No Effect	The construction works involving approximately 5.4km of open cut underground pipeline (South Corridor), and eight temporary construction and storage compounds would give rise to locally High magnitudes of change within and close to the pipeline corridors and construction compounds.	CWACC Appendix 8D Section 8.9
LCA 5b Frodsham to Northwich Operation Years 1 & 15	Medium	Low to Zero (Years 1 and 15)	Minor and Not Significant to No Effect (Years 1 and 15)	The Hartford BVI would have a limited characterising role at Years 1 and 15, affecting a small geographical area in the local vicinity of the BVI, between the A556 and tree belt to the south, tree belt to the east, and Forest Hill Quarry to the west. There would be No Effect as a consequence of the operational Rocksavage HAGI at Years 1 and 15.	CWACC Appendix 8D Section 8.9
LCA 5b Frodsham to Northwich	Medium	Medium to Zero	Moderate and Not Significant to No Effect	The magnitude of change as a consequence of decommissioning activities would be medium across localised areas in the vicinity	CWACC Section 8.9

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
Decommissioning				of the Hartford BVI, and short-term effects would be Moderate and Not Significant. Elsewhere within the LCA, effects would be Minor/Negligible and Not Significant to No Effect.	
LCA 5a Norley Construction	Medium	Very Low to Zero	Minor/Negligible and Not Significant	There would be no direct or indirect effects as a consequence of the construction of the South Corridor, due to distance and intervening, settlement, woodland and tree belts. A temporary increase in construction traffic on the A49 as it passes through the LCA would lead to a Very Low magnitude of change.	CWACC Appendix 8D Section 8.9
LCA 1a Delamere Construction	Medium	High to Zero	Major/Moderate and Significant to No Effect	Collectively, the construction works involving approximately 1.6km of open cut underground pipeline (South Corridor), Hartford BVI (outside but close to the boundary of the LCA), two temporary trenchless crossing and a material storage compound and temporary construction access points would give rise to locally High or Medium magnitudes of change within and close to the pipeline corridors and construction compounds.	CWACC Appendix 8D Section 8.9

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
LCA 1a Delamere <i>Operation Years 1 & 15</i>	Medium	Low to Zero (Years 1 and 15)	Minor and Not Significant to No Effect (Years 1 and 15)	The Hartford BVI (outside but close to the boundary of the LCA) would have a limited characterising role at Years 1 and 15, affecting a small geographical area in the local vicinity of the BVI, between the A556 and tree belt to the south, tree belt to the east, Forest Hill Quarry to the west and woodland to the north.	CWACC Appendix 8D Section 8.9
LCA 1a Delamere <i>Decommissioning</i>	Medium	Medium to Zero	Moderate and Not Significant to No Effect	The magnitude of change as a consequence of decommissioning activities would be medium across localised areas in the vicinity of the Hartford BVI, and short-term effects would be Moderate and Not Significant. Elsewhere within the LCA, effects would be Minor/Negligible and Not Significant to No Effect.	CWACC Section 8.9
LCA 15b Mid Weaver Valley <i>Construction</i>	High-Medium	Low to Zero	Moderate and Not Significant	The South Corridor would cross this LCA in trenchless crossing thereby ensuring that the clough woodland, valley landform and course of the river with its associated recreational routes, remain undisturbed. Whilst there may be some the audible disturbance from the construction activities, the visual disturbance of construction activity would be reduced by	CWACC Appendix 8D Section 8.9

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
				the heavily wooded and steeply sided valley landform.	
LCA 5e East Winsford Construction	High-Medium	High to Zero	Major to Major/Moderate and Significant to No Effect	The construction works involving approximately 4.5km of open cut underground pipeline and five temporary trenchless crossing compounds and a materials storage area would give rise to locally High magnitudes of change within and close to the pipeline corridors and construction compounds and up to Medium magnitude close to construction routes and access points.	CWACC Appendix 8D Section 8.9
LCA 15e Dane Valley Construction	Medium	High to Zero	Major/Moderate and Significant to No Effect	Collectively, the construction works involving approximately 0.6km of open cut underground pipeline (South Corridor) and two temporary trenchless crossing compounds would lead to a locally High magnitude of change in close proximity to the pipeline corridor and temporary trenchless crossing compounds.	CWACC Appendix 8D Section 8.9
LCA 10b Stublach Plain Construction	Medium	High to Zero	Major/Moderate and Significant to No Effect	The construction works involving approximately 1.9km of open cut underground pipeline, HSF HAGI, six temporary trenchless crossing and material storage compounds and temporary construction accesses would give	CWACC Appendix 8D Section 8.9

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
				rise to locally High magnitudes of change within and close to the pipeline corridor and construction compounds and up to Medium magnitude close to construction routes and access points.	
LCA 10b Stublach Plain Operation Years 1 & 15	Medium	Medium to Zero (Year 1) Low to Zero (Year 15)	Moderate and Not Significant to No Effect (Year 1) Minor and Not Significant (Year 15)	The HSF HAGI would be similar in scale and nature to the numerous compounds within the Storengy Stublach Natural Gas Storage site which extend across the LCA to the north and east with “<i>gas storage industries with well-heads, fenced compounds and tracks visible</i>”²⁷ recognised as a key characteristic of this landscape. The small area of gradually maturing woodland proposed to the west of the HAGI, would give rise to beneficial landscape effects at Year 15, contributing to the key characterises relating to “<i>the occasional covert or copse punctuates the landscape</i>”²⁷ and Built Development Guideline to “<i>Ensure any structures associated with..... gas storage.....are well integrated into the landscape using native planting, and proposals are accompanied by enhancement of existing hedgerows and hedgerow trees in</i>	CWACC Appendix 8D Section 8.9

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
				<i>the vicinity of the site to ensure the landscape structure around any new facility is maintained/improved".²⁷</i>	
LCA 10b Stublach Plain <i>Decommissioning</i>	Medium	High to Zero	Major/Moderate to Moderate and Significant to No Effect	The magnitude of change associated with the decommissioning of the HSF HAGI is likely to be high but affecting a much smaller geographical extent than during the construction phase as a consequence of the woodland proposed to the west of the HAGI post construction (Figure 11 of the Outline LEMP). Elsewhere within the majority of the LCA, effects would be Not Significant.	CWACC Section 8.9
LCA 5c Eaton, Marton & Over <i>Construction</i>	Medium	Very Low to Zero	Minor/Negligible and Not Significant to No Effect	There would be no direct effects as a consequence of construction works relating to the South Corridor. Indirect effects would be limited due to distance and intervening woodland and tree belts.	CWACC Appendix 8D Section 8.9
LCA 13b Arley West <i>Construction</i>	Medium	High to Zero	Major/Moderate and Significant to No Effect	Collectively the construction works involving approximately 2.3km of open cut underground pipeline would give rise to locally High magnitudes of change within and close to the pipeline corridor and up to Medium magnitude close to construction routes and access points.	CWACC Appendix 8D Section 8.9

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
Runcorn Hill and Heath Parkland LCA <i>Construction</i>	Medium	High to Zero	Major/Moderate and Significant to No Effect	The construction works involving the Runcorn/Rocksavage Spur and Runcorn HAGI would give rise to locally High magnitudes of change within and close to the pipeline corridor and HAGI footprint due to the loss of tree cover.	HBC Appendix 8D Section 8.9
Runcorn Hill and Heath Parkland LCA <i>Operation Years 1 & 15</i>	Medium	High to Zero (Years 1 and 15)	Major/Moderate and Significant to No Effect (Years 1 and 15)	The permanent loss of trees from within the Runcorn HAGI footprint and immaturity of replacement planting within the pipeline corridor would give rise to a localised High magnitude at Year 1 whilst the Runcorn HAGI itself would have limited characterising role close to the Rocksavage Power Station and in a landscape where there are similar types of fenced compounds. The gradual maturation of replacement tree planting within the pipeline corridor (except for where tree planting is restricted above the pipeline depending on species type⁴⁵) at Year 15 would partially compensate for that lost during the construction phase.	HBC Appendix 8D Section 8.9
Runcorn Hill and Heath Parkland LCA	Medium	High to Zero	Major/Moderate and Significant to No Effect	The magnitude of change would be up to high locally. Short-term effects would therefore be locally Significant within areas close to the	HBC Section 8.9

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
Decommissioning				decommissioning activities at the Runcorn HAGI and Not Significant elsewhere within the majority of the LCA.	
North Widnes Farmland LCA Construction	Medium-Low	High to Zero	Major/Moderate and Significant to No Effect	Collectively the construction works involving approximately 0.8km of open cut underground pipeline (North Corridor) and temporary trenchless crossing compound would give rise to locally High magnitudes of change within and close to the pipeline corridor and construction compound, and up to Medium magnitude of change close to construction routes and access points and Clock Face HAGI construction compounds (indirect effect).	HBC Appendix 8D Section 8.9
North Widnes Farmland LCA Operation Years 1 & 15	Medium-Low	Low to Zero (Year 1) Very Low to Zero (Year 15)	Minor and Not Significant to No Effect (Year 1) Minor/Negligible and Not Significant to No Effect (Year 15)	There would be generally limited intervisibility between this LCA and the Clock Face HAGI in the adjoining LCA leading to Low magnitudes of change at Year 1. The gradually maturing woodland and woodland edge planting around the HAGI would screen any views of the above ground infrastructure and perimeter fence at Year 15.	HBC Appendix 8D Section 8.9

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
Norton Wooded Parkland LCA <i>Construction</i>	Low	Very Low to Zero	Negligible and Not Significant to No Effect	The high incidence of woodland would restrict intervisibility with the West Corridor whilst the visual and audible influence of construction vehicles on the adjacent highways would be incremental to the baseline and unlikely to be readily distinguishable.	HBC Appendix 8D Section 8.9
Daresbury Sandstone Escarpment LCA <i>Construction</i>	Medium	Medium to Zero	Moderate and Significant to No Effect	The North Corridor would pass adjacent to the LCA's eastern boundary and construction activity would give rise to visual and audible disturbance within a localised area where the LCA lies adjacent to the pipeline corridor. The construction of the Higher Walton HAGI (Option HWH2) would have no characterising influence.	HBC Appendix 8D Section 8.9
Daresbury Sandstone Escarpment LCA <i>Operation Years 1 & 15</i>	Medium	Zero (Years 1 and 15)	No Effect (Years 1 and 15)	The Higher Walton HAGI (Option HWH2) would have no characterising influence on the character and key characteristics of this LCA at Years 1 and 15, due to a separation distance of 0.9km and layers of intervening tree cover.	HBC Appendix 8D Section 8.9
Moore Village and Keckwick Brook Valley LCA	Medium	Medium to Zero	Moderate and Not Significant to No Effect	The presence of construction works associated with the North Corridor and HAGI Option HWH2, beyond the LCA's boundary, would give rise to a magnitude of change on	HBC Appendix 8D Section 8.9

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
Construction				the LCA which would be Very Low, with highly localised areas experiencing up to a Medium magnitude of change, particular those areas in close proximity to the access routes. The Moderate effect is assessed as being Not Significant given the urban fringe context and close proximity of railway lines.	
Moore Village and Keckwick Brook Valley LCA	Medium	Very Low to Zero (Year 1)	Minor/Negligible and Not Significant to No Effect (Year 1)	The presence of intervening vegetation and the context of the Higher Walton (HWH2) HAGI adjacent to existing built elements means that indirect effects at Year 1 would be limited.	HBC Appendix 8D Section 8.9
Operation Years 1 & 15		Zero (Year 15)	No Effect (Year 15)	The gradual maturation of the scrub planting to the west of the HAGI is likely to screen the infrastructure in views from within this LCA at Year 15.	
Preston on the Hill Undulating Enclosed Farmland LCA	Medium	High to Zero	Major/Moderate and Significant to No Effect	Collectively, the construction works involving approximately 1.5km of North Corridor and a materials storage area would give rise to locally High magnitudes of change within and close to the pipeline corridor and construction compound, and up to a Medium magnitude of change close to construction routes.	HBC Appendix 8D Section 8.9
Construction					

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
Cronton and Pex Hill LCA <i>Construction</i>	Low	Very Low to Zero	Negligible and Not Significant to No Effect	The construction works involving the North Corridor, Clock Face HAGI, temporary construction compounds and construction access routes would lead to a Very Low magnitude due to separation distance and the layers of vegetation, particularly along transport corridors. The already high levels of vehicle movement along the M62 motorway, 'A' classified roads and major road interchange means that baseline levels of tranquillity are likely to be low.	KC Appendix 8D Section 8.9
Cronton and Pex Hill LCA <i>Operation Years 1 & 15</i>	Low	Zero (Years 1 and 15)	No Effect (Years 1 and 15)	The Clock Face HAGI would have no characterising influence on this LCA at Years 1 and 15.	KC Appendix 8D Section 8.9
LCA BRS5 Rainhill Slopes <i>Construction</i>	Medium	Very Low to No Effect	Minor/Negligible and Not Significant to No Effect.	There would be very limited indirect effects from the proposed North Corridor, St Helens Spurs and construction of the Clock Face HAGI due to distance and intervening woodland, tree belts and transport corridors.	SHBC Appendix 8D Section 8.9
LCA BRS5 Rainhill Slopes	Medium	Zero (Years 1 and 15)	No Effect (Years 1 and 15)	The Clock Face HAGI would have no characterising influence on this LCA at Years 1 and 15.	SHBC

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
Operation Years 1 & 15					Appendix 8D Section 8.9
LCA FF2 Sutton Manor Fringe Construction	Medium-Low	High to Zero	Major/Moderate to Moderate and Significant to No Effect	Collectively, the construction works involving approximately 1.2km of open cut underground pipeline associated with the St Helens Spurs and 0.5km of the Clock Face Spur, two temporary trenchless crossing compounds and a materials storage area would give rise to locally High magnitudes of change within and close to the pipeline corridor and construction compound, and up to a Medium magnitude close to construction routes.	SHBC Appendix 8D Section 8.9
LCA FF2 Sutton Manor Fringe Operation Years 1 & 15	Medium-Low	Low to Zero (Year 1) Zero (Year 15)	Minor to Minor/Negligible and Not Significant to No Effect (Year 1) No Effect (Year 15)	A minimum separation distance of approximately 70m and presence of the intervening M62 motorway and associated fencing, allied with the low height of above ground components within the Clock Face HAGI would lead to a Low magnitude of change at Operation Year 1. The gradually maturing woodland and woodland edge planting proposed around the Clock Face HAGI would screen the infrastructure and perimeter fence at Year 15, with the consequence that the HAGI would	SHBC Appendix 8D Section 8.9

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
				have no characterising influence upon this LCA.	
LCA FF4 Bold Heath Construction	Medium-Low	High/Medium to Zero	Major/Moderate to Moderate and Significant to No Effect	The construction works involving approximately 3.4km of open cut underground pipeline (North Corridor) and four temporary construction and storage compounds would give rise to locally High magnitudes of change within and close to the pipeline corridor and construction compound. The proximity of the Clock Face HAGI site to the M62 motorway would reduce the characterising influence of the construction activities and here, and along the temporary construction access routes, the magnitude would be Medium.	SHBC Appendix 8D Section 8.9
LCA FF4 Bold Heath Operation Years 1 & 15	Medium-Low	Medium to Zero (Year 1) Low to Zero (Year 15)	Moderate to Minor and Not Significant to No Effect (Year 1) Minor to Minor/Negligible and Not Significant to No Effect (Year 15)	The presence of the Clock Face HAGI would give rise to a localised Medium magnitude at Year 1 and within a landscape which is influenced by a busy transport corridor. The gradual maturation of woodland and woodland edge planting proposed around the HAGI would screen the infrastructure and perimeter fence at Year 15. The woodland would also contribute to the “ <i>small pockets of mature woodland associated with hedgerows</i> ”	SHBC Appendix 8D Section 8.9

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
				<i>and field ponds</i> ³⁰ which forms part of the LCA's description.	
LCA FF4 Bold Heath <i>Decommissioning</i>	Medium-Low	High to Zero	Major/Moderate to Moderate and Significant to No Effect	The magnitude of change associated with the decommissioning of the Clock Face HAGI is likely to be high, but with Significant effects extending across a much smaller geographical extent than during the construction phase as a consequence of the woodland proposed around the HAGI post construction (Figure 7 of the Outline LEMP). Elsewhere within the LCA, effects would be Not Significant.	SHBC Section 8.9
LCA EF1 Elton Head Hall Farm <i>Construction</i>	Medium-Low	High to Zero	Major/Moderate to Moderate and Significant to No Effect	Collectively, the construction works involving the approximately 2km of open cut underground pipeline (St Helens Spurs) and three temporary trenchless crossing compounds would give rise to locally High magnitudes of change within and close to the pipeline corridors and construction compounds.	SHBC Appendix 8D Section 8.9
LCA IF1 Link Road <i>Construction</i>	Low	Medium to Zero	Minor and Not Significant to No Effect	Construction activities associated with the St Helens Spurs and Clock Face Spur would appear similar to utilities works along urban roads in the area and would result in a	SHBC Appendix 8D Section 8.9

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
				Medium magnitude of change when experienced locally to the construction works.	
LCA RFS1 Grange Park Construction	Medium	Medium to Zero	Moderate and Not Significant to No Effect	Construction activities associated with the St Helens Spurs would appear similar to utilities roadworks which periodically occur within an urban area, with localised areas experiencing up to a Medium magnitude of change in close proximity to the pipeline corridor.	SHBC Appendix 8D Section 8.9
LCA RFS4 Sutton Construction	Medium	Very Low to Zero	Minor/Negligible and Not Significant to No Effect	There would be limited indirect effects from the proposed North Corridor, St Helens Spurs and Clock Face Spur with their associated temporary trenchless crossing compounds and materials storage area, temporary construction routes and Clock Face HAGI construction due to distance and intervening built environment, woodland and vegetation.	SHBC Appendix 8D Section 8.9
LCA RFS4 Sutton Operation Years 1 & 15	Medium	Very Low to Zero (Year 1) Zero (Year 15)	Minor/Negligible and Not Significant to No Effect (Year 1) No Effect (Year 15)	A minimum separation distance 640m between this LCA and the Clock Face HAGI together with the presence of intervening screening elements (built form, vegetation and road infrastructure) means that the magnitude of change would be locally Very Low within the south-eastern fringes of the LCA at Year 1.	SHBC Appendix 8D Section 8.9

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
				The gradual maturation of woodland and woodland edge planting around the HAGI would screen the infrastructure and perimeter fence at Year 15, with the consequence that the Clock Face HAGI would have no characterising influence upon this LCA.	
LCA RSH1 Sutton Manor Construction	Medium	Low to Zero	Minor and Not Significant to No Effect	There would be limited indirect effects from the proposed construction activities associated with the North Corridor, St Helens Spurs, Clock Face HAGI and their associated construction compounds and access routes due high levels of internal woodland and intervening M62 motorway and roadside vegetation.	SHBC Appendix 8D Section 8.9
LCA RSH1 Sutton Manor Operation Years 1 & 15	Medium	Low to Zero (Year 1) Zero (Year 15)	Minor and Not Significant to No Effect (Year 1) No Effect (Year 15)	The separation distance between this LCA and the Clock Face HAGI, physical separation by the M62 corridor and presence of vegetation both within the LCA and intervening landscape means that the magnitude would not exceed Low at Year 1. The gradual maturation of woodland and woodland edge planting around the Clock Face HAGI would screen the infrastructure in	SHBC Appendix 8D Section 8.9

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
				the limited views available from this LCA at Year 15 and the magnitude of change would be Zero.	
LCA RSH4 Lea Green Construction	Low	Zero	No Effect	Collectively, the construction works involving the underground pipeline (St Helens Spurs and Clock Face Spur) and construction access routes beyond the boundary of this LCA would lead to a Zero level of effect as high levels of intervening built form restrict intervisibility.	SHBC Appendix 8D Section 8.9
LCA RVI1 Thatto Heath Construction	Medium-Low	Medium to Zero	Moderate to Minor and Not Significant to No Effect	Construction activities associated with the St Helens Spurs and small temporary storage compounds would appear similar to utilities works along urban roads in the area and would result in a Medium magnitude of change when experienced locally to the construction works.	SHBC Appendix 8D Section 8.9
LCA SLV1 St Helens Historic Core Construction	Medium	Zero	No Effect	Collectively the construction works involving the St Helens Spurs and construction access routes would lead to a Zero level of effect from within this LCA as high levels of internal and intervening built form restrict outward views.	SHBC Appendix 8D Section 8.9

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
LCA SLV2 St Helens Retail Ring <i>Construction</i>	Low	Very Low to Zero	Negligible and Not Significant to No Effect	The construction works associated with the St Helens Spurs and construction access routes beyond the LCA's boundary would have very limited to no characterising influence on this LCA to high levels of internal and intervening built form which restrict outward views.	SHBC Appendix 8D Section 8.9
LCA SLV3 St Helens Terraces <i>Construction</i>	Medium	Zero	No Effect	The construction works involving the St Helens Spurs and construction access routes located beyond the LCA's boundary would lead to a Zero level of effect as high levels of internal and intervening built form restrict outward views.	SHBC Appendix 8D Section 8.9
LCA SS6 Rainhill <i>Construction</i>	Medium	Low to Zero	Minor and Not Significant to No Effect	Some limited indirect effects from within the eastern edge of the LCA from where there may be partial and occasional views of construction activities associated with the St Helens Spurs crossing fields to the east. There would be no indirect effects associated with the construction of the Clock Face HAGI.	SHBC Appendix 8D Section 8.9
LCA SS6 Rainhill <i>Operation Years 1 & 15</i>	Medium	Zero	No Effect	A minimum separation distance of ~900m and presence of intervening screening elements (including road infrastructure, field and roadside vegetation) means that the Clock	SHBC Appendix 8D Section 8.9

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
				Face HAGI would give rise to a Zero magnitude of change at both Years 1 and 15.	
LCA UG2 Sherdley Park <i>Construction</i>	Medium	Very Low to Zero	Minor/Negligible and Not Significant to No Effect	There would be limited indirect effects from the proposed St Helens Spurs and construction routes close to the western edge of the LCA, where they would be mostly screened by dense perimeter, internal and intervening and vegetation.	SHBC Appendix 8D Section 8.9
LCA UG3 Rainhill Golf Course <i>Construction</i>	Medium	Very Low to Zero	Minor/Negligible and Not Significant to No Effect	There would be highly limited indirect effects from the proposed St Helens Spurs as a consequence of intervening woodland and built form.	SHBC Appendix 8D Section 8.9
LCA UIV2 Sutton Brook <i>Construction</i>	Medium-Low	Medium to Zero	Moderate and Significant to No Effect	Collectively, the construction works involving the St Helens Spurs and construction access routes through and adjacent to the boundary of the LCA would lead to a localised Medium magnitude of change in close proximity to the pipeline corridor and particularly where street trees or vegetation is removed.	SHBC Appendix 8D Section 8.9
LCA UIV3 Ravenhead <i>Construction</i>	Medium-Low	High-Medium to Zero	Major/Moderate to Moderate and Significant to No Effect	The construction works involving the St Helens Spurs and construction access routes would give rise to locally High-Medium to Medium magnitudes of change within and	SHBC Appendix 8D Section 8.9

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
				close to the pipeline corridor where the removal of trees is necessary on the north-western fringes of the Ravenhead Nature Park (under a worst-case scenario).	
LCA WFE4 Bold Hall Construction	Medium	Low to Zero	Minor and Not Significant to No Effect	There would be limited indirect effects from the proposed North Corridor and temporary construction accesses due to intervening woodland and tree cover and a baseline context in which existing traffic movements on the A57 and M62 are likely to visually and audibly disrupt local levels of tranquillity.	SHBC Appendix 8D Section 8.9
Mossland LCT Construction	Medium	High to Zero	Major/Moderate and Significant to No Effect	The construction works involving approximately 0.8km of East Corridor within the LCT and the presence of the construction compound for the Partington HAGI (Option PH2) would give rise to locally High magnitudes of change within and close to the pipeline corridor and PH2 construction compound.	TMBC Appendix 8D Section 8.9
Mossland LCT Operation Years 1 & 15	Medium	Medium to Zero (Year 1)	Moderate and Significant to No Effect (Year 1)	The Partington HAGI (Option PH2) would give rise to a localised Medium magnitude, affecting a small geographical area in the vicinity of the HAGI (the host field only), at Year 1.	TMBC Appendix 8D Section 8.9

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
		Low to Zero (Year 15)	Minor and Not Significant to No Effect (Year 15)	The presence of the Partington HAGI (Option PH1) would lead to a Low magnitude of change at Years 1 and 15, affecting a small geographical area in the local vicinity of the HAGI which comprises brownfield land with similar types of fenced compounds (i.e. the existing Partington AGI to the north-west). The gradual maturation of hedgerow and tree planting proposed around the Partington HAGI (Option PH2) (Figure 10 of the Outline LEMP) would reinforce the screening provided by existing vegetation and reflect the rectilinear patterns of the landscape.	
Mossland LCT Decommissioning	Medium	High to Zero	Major/Moderate and Significant to No Effect	The magnitude of change associated with the decommissioning of the Partington HAGI (Option PH2) would be up to high, affecting a small area of landscape in the vicinity of the HAGI being decommissioned (the host field only). Short-term effects would therefore be locally Significant, whilst elsewhere within the majority of the LCA, effects would be Not Significant.	TMBC Section 8.9

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
Settled Sandlands LCT Construction	Medium	High to Zero	Major/Moderate and Significant to No Effect	Collectively, the construction works involving approximately 3.5km of East Corridor and the presence of construction access routes, Warburton HAGI construction compound and materials storage areas within the LCT would give rise to locally High magnitudes of change within and close to the pipeline corridor and construction compounds.	TMBC Appendix 8D Section 8.9
Settled Sandlands LCT Operation Years 1 & 15	Medium	Medium to Zero (Year 1) Low to Zero (Year 15)	Moderate and Significant to No Effect (Year 1) Minor and Not Significant to No Effect (Year 15)	The presence of the Warburton HAGI would give rise to a localised Medium magnitude of change at Year 1 and the open roadside boundary with the B5160 and partially open boundary with Carrgreen Lane means that intervisibility with the HAGI would be experienced from within the vicinity of the HAGI, where it would contrast with the rural landscape to the north and west. The gradual maturation of the proposed roadside hedges and pockets of woodland and scrub planting at Year 15 would provide screening of the lower infrastructure and reinforce the screening role of the existing tree groups to the south and east with a corresponding reduction in the magnitude to Low (locally).	TMBC Appendix 8D Section 8.9

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
				There would be No Effect as a consequence of the Partington HAGIs (Options PH1 and PH2) at Years 1 and 15.	
Settled Sandlands LCT <i>Decommissioning</i>	Medium	High to Zero	Major/Moderate and Significant to No Effect	The magnitude of change would be medium to high affecting a very small geographical area in the local vicinity of any temporary construction compound and the Warburton HAGI being decommissioned, reducing to Low to Very Low or Zero across the majority of the LCT.	TC Section 8.9
Urban River Valley LCT <i>Construction</i>	Low	Low to Zero	Minor/Negligible and Not Significant to No Effect	Collectively, the construction works involving the presence of construction access routes, HAGI construction compound and pipeline corridors beyond the LCT's boundary would have limited influence on this LCT which is dominated by large-scale industrial complexes and pockets of woodland.	TC Appendix 8D Section 8.9
Urban River Valley LCT <i>Operation Years 1 & 15</i>	Low	Zero (Years 1 and 15)	No Effect (Years 1 and 15)	There would be No Effect on the landscape character and key characteristics of this LCT as a consequence of the Partington HAGI (Options PH1 and PH2) at Years 1 and 15.	TC Appendix 8D Section 8.9

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
River Meadowlands LCT Construction	Medium	High to Zero	Major/Moderate and Significant to No Effect	The construction works involving the East Corridor within the LCT and associated temporary trenchless crossing compound, and the presence of construction access routes, Warburton HAGI construction compound and material storage area to the north, beyond the LCT's boundary, would give rise to locally High magnitudes of change within and close to the pipeline corridor, particularly where it crosses the River Bollin via a temporary trenchless crossing compound.	TC Appendix 8D Section 8.9
River Meadowlands LCT Operation Years 1 & 15	Medium	Very Low to Zero (Year 1) Zero (Year 15)	Minor/Negligible and Not Significant to No Effect (Year 1) No Effect (Year 15)	Whilst there may be some localised intervisibility between this LCT and the Warburton HAGI, a minimum separation distance of approximately 490m, moderate levels of intervening vegetative screening elements, and presence of the existing and similarly fenced Warburton National Grid AGI Facility reduces its characterising influence at Year 1. The gradual maturation of the woodland and woodland edge planting proposed along the southern edge of the HAGI would reinforce the screening provided by the linear group of	TC Appendix 8D Section 8.9

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
				trees along the former railway corridor at Year 15.	
Wooded Estatelands LCT Construction	Medium	Low to Zero	Minor and Not Significant to No Effect	Collectively, the construction works involving the access routes and the presence of pipeline corridor beyond the LCT's boundary would give rise to locally Low magnitudes of change close to construction access routes.	TC Appendix 8D Section 8.9
LCA 3c Lymm Construction	Medium	High to Zero	Major/Moderate and Significant to No Effect	The construction works involving the presence of temporary trenchless crossing compounds and materials storage area together with the audible influence of construction activities beyond the LCA boundary, but which could locally disrupt perceptions of remoteness and tranquillity from within the areas of rural landscape within the eastern fringes of the LCA, would give rise to locally High magnitudes of change within and close to the temporary compounds.	WBC Appendix 8D Section 8.9
LCA 5a River Mersey/Bollin (East and West) Construction	Medium	High to Zero	Major/Moderate and Significant to No Effect	The construction works involving the underground pipeline (East and North Corridor), temporary construction compounds, Higher Walton HAGI (Option HWH2) and the presence of construction access routes within the LCA, would give rise to locally High	WBC Appendix 8D Section 8.9

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
				magnitudes of change within and close to these components of the Project.	
LCA 5a River Mersey/Bollin (East and West) Operation Years 1 & 15	Medium	Low to Zero (Year 1)	Minor and Not Significant to No Effect (Year 1)	The Higher Walton HAGI (Option HWH2) would give rise to a Low magnitude of change at Year 1 given its immediate context to the east of existing warehousing, whilst the high proportion of woodland to the north of the HAGI would restrict intervisibility. There would be no operational effects associated with the Higher Walton (HWH8) HAGI and Very Low magnitudes of change as a consequence of the Warburton HAGI at Year 1.	WBC Appendix 8D Section 8.9
		Very Low to Zero (Year 15)	Minor/Negligible and Not Significant to No Effect (Year 15)	The gradual maturation of woodland and scrub planting proposed to the east and west of the Higher Walton HAGI (Option HWH2) would reinforce the role of the woodland within with Moore Nature Reserve to the north and reduce the characterising role of the operational HAGI from within the already small area of LCA where effects would be concentrated. There would be no Year 15 operational effects associated with the Higher Walton (HWH8) or Warburton HAGIs.	

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
LCA 5a River Mersey/Bollin (East and West) <i>Decommissioning</i>	Medium	High to Zero	Major/Moderate and Significant to No Effect	The magnitude of change would be medium to high affecting a very small geographical area in the local vicinity of any temporary construction compound and Higher Walton (HWH2) HAGI being decommissioned, reducing to Low to Very Low or Zero across the majority of LCA 5a.	
LCA 1f Penketh & Cuerdley <i>Construction</i>	Low	High to Zero	Moderate and Significant to No Effect	Collectively, the construction works involving approximately 2.5km of North Corridor (including Options NP6 and NP7) and the presence of construction access routes, up to seven temporary trenchless crossing compounds (Option NP7) and three large materials storage areas would give rise to locally High magnitudes of change within and close to these components of the Project	WBC Appendix 8D Section 8.9
LCA 1a Stretton & Hatton <i>Construction</i>	Medium	High to Zero	Major/Moderate and Significant to No Effect	The construction works involving approximately 1.4km of North Corridor, and two temporary trenchless crossing compounds, would give rise to locally High magnitudes of change within and close to the pipeline corridor and construction compounds, and up to a Medium magnitude of change close to construction routes.	WBC Appendix 8D Section 8.9

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
LCA 3a Appleton Park & Grappenhall Construction	Medium	High to Zero	Major/Moderate and Significant to No Effect	The construction works involving approximately 3.7km of North Corridor, temporary trenchless crossing compounds and Option HWH8 of the Higher Walton HAGI, would give rise to locally High magnitudes of change within and close to the pipeline corridor and construction compounds, and up to a Medium magnitude of change close to construction routes.	WBC Appendix 8D Section 8.9
LCA 3a Appleton Park & Grappenhall Operation Years 1 & 15	Medium	Medium to Zero (Year 1) Low to Zero (Year 15)	Moderate and Significant to No Effect (Year 1) Minor and Not Significant to No Effect (Year 15)	The Higher Walton HAGI option HWH8 would be sited within the LCA and whilst the above ground infrastructure would be low level, the security fencing typically 2.4 to 3.6m high would appear incongruous in a largely rural setting giving rise to locally Medium magnitudes of change at Year 1. There would be very limited changes as a consequence of Higher Walton HAGI option HWH2 at Year 1. The gradual maturation of woodland, woodland scrub and hedgerow planting proposed to the north, east and south of the HAGI (Figure 6 of the Outline LEMP), would limit the characterising role of the HAGI and would reinforce the key characteristic relating	WBC Appendix 8D Section 8.9

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
				to “Linear woodlands, coverts and tree clumps”³². The gradually maturing woodland and scrub planting to the east and west of the Higher Walton HAGI option HWH2 would reinforce the screening provided by layers of intervening tree cover and the magnitude would be Zero.	
LCA 3a Appleton Park & Grappenhall Decommissioning	Medium	High to Zero	Major/Moderate and Significant to No Effect	The magnitude of change would be up to high affecting a small area of landscape in the vicinity of the Higher Walton (HWH8) HAGI being decommissioned. Short-term effects would therefore be locally Significant, whilst elsewhere within the majority of the LCA, effects would be Not Significant.	WBC Section 8.9
LCA 6a Victoria Park to Fiddlers Ferry Construction	Medium	Medium to Zero	Moderate and Significant to No Effect	Collectively, the construction works involving the presence of the temporary trenchless crossing compound just beyond the boundary of the LCA would give rise to locally Medium magnitudes of change in close proximity to the temporary trenchless crossing compound. There would be No Effects as a consequence of the Higher Walton HAGI (Options HWH2 and HWH8).	WBC Appendix 8D Section 8.9

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
LCA 6a Victoria Park to Fiddlers Ferry <i>Operation Years 1 & 15</i>	Medium	Zero	No Effect	There would be No Effect as a consequence of the operational Higher Walton HAGI options HWH2 and HWH8 at Operation Years 1 and 15 due to separation distance and intervening woodland.	WBC Appendix 8D Section 8.9
LCA 7a Arley Construction	Medium	High to Zero	Major/Moderate and Significant to No Effect	The construction works involving approximately 7.7km of East Corridor and the presence of nine temporary trenchless crossing compounds and three materials storage areas would give rise to locally High magnitudes of change within and close to the pipeline corridor and construction compounds, and up to a Medium magnitude of change close to construction routes.	CEC Appendix 8D Section 8.9
LCA 7a Arley <i>Operation Years 1 & 15</i>	Medium	Medium to Zero (Year 1) Low to Zero (Year 15)	Moderate and Significant to No Effect (Year 1) Minor and Not Significant to No Effect (Year 15)	The Sworton Heath BVI would give rise to locally Medium magnitudes of change at Year 1 with the perimeter fencing of the BVI appearing incongruous within the rural landscape and the proposed woodland and scrub planting having a minimal landscape role. The gradually maturing woodland and scrub planting proposed outside of the restricted	CEC Appendix 8D Section 8.9

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
				planting zone would partially screen the presence of the BVI in conjunction with the retained field boundary hedgerows. The woodland would contribute to the key characteristic relating to “ <i>localised concentration of woodland, broad-leaved and mixed</i> ”.	
LCA 7a Arley Decommissioning	Medium	Medium to Zero	Moderate and Significant to No Effect	The magnitude of change associated with the decommissioning of the Sworton Heath BVI is likely to be medium but affecting a much smaller geographical extent than during the construction phase as a consequence of the woodland proposed to the east and west of the BVI post construction (Figure 13 of the Outline LEMP). Significant effects would therefore be highly localised whilst elsewhere within the LCA, effects would be Not Significant.	CEC Section 8.9
LCA 10a Lower Bollin Construction	High-Medium	Medium to Zero	Major/Moderate to Moderate and Significant to No Effect	The construction works involving the East Corridor, and the presence of the temporary trenchless crossing compounds, construction access routes, HAGI construction compound and material storage areas to the north, which are all sited beyond but often close to the LCA's boundary would give rise to locally	CEC Appendix 8D Section 8.9

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
				Medium magnitudes of change adjacent to the temporary trenchless crossing compound and construction access routes.	
LCA 10a Lower Bollin <i>Operation Years 1 & 15</i>	High-Medium	Zero (Years 1 and 15)	No Effect (Years 1 and 15)	There would be No Effect as a consequence of the Warburton HAGI at Years 1 and 15 due to separation distance and intervening vegetation.	CEC Appendix 8D Section 8.9
Local landscape designation receptors					
Helsby and Frodsham ASCV <i>Construction</i>	High-Medium	Very Low to Zero	Minor to Minor/Negligible and Not Significant to No Effect	The construction works involving the West Corridor and temporary construction access routes to the north of the ASCV's boundary would give rise to indirect effects and the construction activity would be perceived in the context of heavy industry, major transport corridors and the Frodsham Wind Farm.	CWACC Appendix 8D Section 8.9
Weaver Valley ASCV – Lower Weaver <i>Construction</i>	High-Medium	High to Zero	Major to Major/Moderate and Significant to No Effect	Collectively, the construction works involving the West and South Corridors (Including Options SP5 and SP6), eight separate temporary trenchless crossing and material storage compounds and the temporary construction accesses would give rise to locally High magnitudes of change within and	CWACC Appendix 8D Section 8.9

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
				adjacent to the pipeline corridor and temporary trenchless crossing construction compounds. The Special Qualities most likely to be temporarily affected are those which relate to “ <i>Valley sides also support small/medium scale arable and pastoral fields, bounded by low gappy hedgerows</i> ” and “ <i>Generally, a quiet, tranquil landscape with significant opportunity for quiet recreation.</i> ”	
Weaver Valley ASCV – Lower Weaver Operation Years 1 & 15	High-Medium	Zero (Years 1 and 15)	No Effect (Years 1 and 15)	There would be No Effect on the Special Qualities and integrity of the Weaver Valley ASCV – Lower Weaver at Operation Year 1 and 15 of the Rocksavage HAGI, due to separation distance and intervening influence of major transport corridors and other built development between the HAGI and the ASCV.	CWACC Appendix 8D Section 8.9
Weaver Valley ASCV – Mid Weaver Construction	High-Medium	Low to Zero	Moderate to Minor and Not Significant to No Effect	There would be no direct effects on this ASCV. The South Corridor would cross the River Weaver within the northern half of this ASCV in trenchless crossing (beyond but close to the boundary of the ASCV), thereby ensuring that the clough woodland, valley landform and course of the river with its	CWACC Appendix 8D Section 8.9

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
				associated recreational routes, all of which lie within the ASCV, remain undisturbed.	
Bollin Valley LLD Construction	High-Medium	Medium to Zero	Major/Moderate to Moderate and Significant to No Effect	There would be no direct effects on this LLD. However, the construction works involving the East Corridor, and the presence of the temporary trenchless crossing compounds, construction access routes, Warburton HAGI construction compound and materials storage areas to the north, which are all sited beyond but often close to the LLD's boundary would give rise to locally Medium magnitudes of change.	CEC Appendix 8D Section 8.9

1. The sensitivity of a receptor is defined using the criteria set out in **Section 8.8** and is defined as Low, Medium and High.
2. The magnitude of change on a receptor resulting from activities relating to the development is defined using the criteria set out in **Section 8.8** and is defined as Very Low, Low, Medium and High.
3. The significance of the environmental effects is based on the combination of the sensitivity of a receptor and the magnitude of change and is expressed as Major or Major/Moderate (Significant), Moderate (potentially Significant) or Minor, Minor/Negligible or Negligible (Not Significant), subject to the evaluation methodology outlined in **Section 8.8**.
4. Local Planning Authority: Cheshire West and Chester Council (CWACC); Cheshire East Council (CEC); Halton Borough Council (HBC); Warrington Borough Council (WBC); St. Helens Borough Council (SHBC); Trafford Metropolitan Borough Council (TMBC).

Table 8.23 Summary of significance of visual effects

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
Residential visual receptors					
Thornton-le-Moors <i>Construction</i>	High	Very Low to Zero	Minor and Not Significant to No Effect	Several properties on Yew Tree Close and Poole Lane are predicted to have views of the West Corridor across farmland. Intervening field boundary planting and temporary soil bunds either side of the Pipeline Corridor would partially restrict views to glimpses of the upper parts of construction vehicles. There would be oblique views towards the temporary trenchless crossing compound south of the A5117, partially screened by intermittent field boundary hedgerows and trees. Increase in HGV construction traffic using the A5117 would also be visible. HPP HAGI and the temporary construction compound east of the HAGI Site would be fully screened by woodland to the north and south of the A5117	CWACC Appendix 8F Section 8.10
Thornton-le-Moors	High	Zero (Years 1 and 15)	No Effect (Years 1 and 15)	HPP HAGI would be fully screened by woodland to the north and south of the A5117.	CWACC

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
Operation Years 1 & 15					Appendix 8F Section 8.10
Thornton-le-Moors	High	Zero	No Effect	There would be no views of the decommissioning activities at the HPP HAGI.	CWACC Section 8.10
Decommissioning					
Elton Construction	High	Medium to Zero	Major/ Moderate and Significant to No Effect	Views would be available from the south-east edge of the settlement particularly from upper floor windows at Parkland Drive and Mulberry Close. Views would include the West Corridor and temporary trenchless crossing compounds north and south of the A5117, and to the west and east of Ince Lane. There would also be filtered views of HGV construction traffic accessing the A5117. HPP HAGI and temporary construction compounds east of the HAGI Site would be fully screened by a block of woodland between the compound and Pool Lane to the east	CWACC Appendix 8F Section 8.10
Elton	High	Zero (Years 1 and 15)	No Effect (Years 1 and 15)	HPP HAGI would be fully screened by a block of woodland between the compound and Pool Lane to the east.	CWACC

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
Operation Years 1 & 15					Appendix 8F Section 8.10
Elton Decommissioning	High	Zero	No Effect	There would be no views of the decommissioning activities at the HPP HAGI.	CWACC Section 8.10
Frodsham Construction	High	Very Low to None	Minor and Not Significant to No Effect	Views of the West Corridor construction activity from the north-west edge of Frodsham would form a very small element in direct views from properties fronting onto Ship Street Views of the construction activity from the north-east of the settlement would be typically limited by dwelling orientation and intervening planting on both sides of the River Weaver, however restricted glimpses of the West Corridor and to a lesser extent the temporary trenchless crossing compounds north-east of the railway viaduct would be available from 4 No. dwellings on the Quay. Potential views of construction activity at Rocksavage HAGI would be restricted to ~4 No. properties on the Quay to the north-east of Frodsham.	CWACC Appendix 8F Section 8.10

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
Frodsham <i>Operation Years 1 & 15</i>	High	Very Low (Year 1) Zero (Year 15)	Minor and Not Significant. No Effect	There would be potential views of Rocksavage HAGI from ~4 No. properties on the Quay to the north-east of Frodsham. Mitigation planting and vegetation removed during construction and replanted will have matured and the HAGI would be fully screened in views from the settlement.	CWACC Appendix 8F Section 8.10
Frodsham <i>Decommissioning</i>	High	Zero	No Effect	There would be no views of the decommissioning activities at the Rocksavage HAGI.	CWACC Section 8.10
Hapsford <i>Construction</i>	High	Zero	No Effect	There would be no views of the West Corridor from dwellings within Hapsford due to a combination of mature woodland and tree cover to the north and west of the village	CWACC Appendix 8F Section 8.10
Helsby <i>Construction</i>	High	Very Low to Zero	Minor and Not Significant to No Effect	Views of the West Corridor from within the settlement are more frequently restricted by surrounding dwellings, noting that as the ground rises at the eastern edge of the village there would be less restricted views, especially from upper floor windows. Screening offered by the temporary soil bunds either side of the Pipeline Corridor	CWACC Appendix 8F Section 8.10

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
				would largely restrict visibility of construction activity. Views of the temporary trenchless crossing compound north and south of the railway and ~0.9km from the edge of the settlement would be largely screened by tree planting along the M56 corridor and intervening plating closer to the settlement edge.	
Runcorn Construction	High	Zero	No Effect	Potential views of the West Corridor construction activity from the southern edge of Runcorn would be fully screened by the railway on embankment, reinforced by tree cover and parallel dual carriageway (the Weston Point Expressway), with additional woodland between the transport corridors and the Western Pipeline Corridor. Intervening woodland and tree belts on higher intervening land would screen views of Runcorn HAGI and construction activity.	HBC Appendix 8F Section 8.10
Runcorn Operation Years 1 & 15	High	Zero (Years 1 and 15)	No Effect (Years 1 and 15)	Intervening woodland and tree belts on higher intervening land would screen views of Runcorn HAGI	HBC Appendix 8F Section 8.10

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
Runcorn <i>Decommissioning</i>	High	Zero	No Effect	There would be no views of the decommissioning activities at the Runcorn HAGI.	HBC Section 8.10
Clifton <i>Construction</i>	High	Very Low to Zero	Minor and Not Significant to No Effect	Potential views of the West Corridor construction activity to the south and west of the settlement would be typically prevented by a combination of property orientation and screening from mature tree planting and dense understorey shrubs north of Weaver View, although there would be glimpsed or heavily filtered views from the south of the settlement. Runcorn HAGI temporary construction compound and the Runcorn HAGI site would be bounded by existing scattered trees and scrub. Views of the compound from Clifton Hall would be heavily filtered even in winter by mature trees.	HBC Appendix 8F Section 8.10
Clifton <i>Operation Years 1 & 15</i>	High	Very Low (Year 1) Zero (Year 15)	Minor and Not Significant. No Effect	Views of Runcorn HAGI from Clifton Hall would be heavily filtered even in winter by mature trees. Mitigation hedgerow planting to the north of Runcorn HAGI would have matured providing	HBC Appendix 8F Section 8.10

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
				screening of the HAGI and above ground components in winter views from Clifton Hall.	
Clifton <i>Decommissioning</i>	High	Zero	No Effect	There would be no views of the decommissioning activities at the Runcorn HAGI.	HBC Section 8.10
Sutton Weaver <i>Construction</i>	High	Medium to Zero	Major/ Moderate and Significant to No Effect.	There would be frequent unrestricted south facing views of the West Corridor construction activity from ground and upper floor windows from 11 No. detached dwellings on the southern edge of the village that would be filtered to varying degrees by garden trees and shrubs. HGV construction traffic would also be visible on the (A56) Chester Road, and Aston Lane.	CWACC Appendix 8F Section 8.10
Aston <i>Construction</i>	High	Low	Moderate and Significant	There would be frequent unrestricted north facing views of the West Corridor construction activity from dwellings across Aston Lane across open farmland with field boundaries typically defined by low clipped hedgerows. Views in places would be filtered to varying degrees by trees and shrubs in front gardens. There would also be visibility of light construction traffic routed along Aston Lane.	CWACC Appendix 8F Section 8.10

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
Aston Heath <i>Construction</i>	High	Low	Moderate and Not Significant (West Corridor) Moderate and Significant (Construction traffic)	Views of Construction activity along the West Corridor would be typically oblique in nature and partially restricted by garden planting, with a limited number of localised direct views from south facing windows on No. 1 Aston Lane and Four Winds. Temporary HGV construction traffic would be routed along Aston Lane through the settlement resulting in an increase in baseline traffic although effects would be slightly reduced by garden planting and hedgerows from some residential dwellings.	CWACC Appendix 8F Section 8.10
Dones Green <i>Construction</i>	High	Medium to Zero	Major/ Moderate and Significant to No Effect	Views of construction activity along the South Corridor would include views from properties at Dones View Farm, Volver Cottage and adjoining two dwellings overlooking the A353. Views of the material storage area north of dwellings at Dane Farm would be restricted at ground floor level by intervening hedgerows with some restricted upper floor views predicted. The A49 (Tarporeley Road), A533 (Northwich Road) and Marsh Lane would facilitate HGV construction traffic to the East Corridor. Views from dwellings on Marsh Lane and	CWACC Appendix 8F Section 8.10

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
				Heath Lane are typically restricted by dense boundary hedges. The construction compound and the Central Hub HAGI site would be visible from dwellings at Nook Farm less than 90m distant, although restricted in places by farm buildings and localised planting.	
Dones Green <i>Operation Years 1 & 15</i>	High	Low to Zero	Moderate and Not Significant to No Effect	There would be potential for views of Central Hub HAGI from properties at Nook Farm, likely restricted to upper floor views and filtered by retained field boundary planting.	CWACC Appendix 8F Section 8.10
Dones Green <i>Decommissioning</i>	High	Medium to Zero	Major/Moderate and Significant to No Effect	The magnitude of change could be up to a medium magnitude from Nook Farm during the decommissioning of the Central Hub HAGI although more commonly, there would be No Effect from Dones Green.	CWACC Section 8.10
Bartington <i>Construction</i>	High	Low to Zero	Moderate and Significant to No Effect	SP5: Views towards the South Corridor and the temporary trenchless crossing compounds (north and south of the Weaver Navigation and Trent and Mersey Canal) to the west of the settlement would be typically restricted by mature tree cover, with less restricted views predicted from The Old	CWACC Appendix 8F Section 8.10

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
				Granary and The Malthouse at Bartington Hall. SP6: Views towards the South Corridor temporary trenchless crossing compounds to the west would be typically restricted by mature tree cover from the main settlement, although it is noted that there may be more open views from Herons Court from west facing windows. The A49 (Warrington Road) would facilitate HGV construction traffic to the South Corridor and there would be some views from receptors at Martinsfield.	
Acton Bridge Construction	High	Medium to Zero	Major/Moderate and Significant to No Effect	Views of the South Corridor construction activities from the main village would be typically restricted by intervening mature tree cover that is located within or close to the curtilage of the dwellings and set beyond the site boundary, although some narrow and partial views of the Pipeline Corridor are predicted from the rear of dwellings facing north and north-east on Strawberry Lane, Cliff Road, Wall Hill Way. The temporary trenchless crossing compounds (south of the Weaver Navigation	CWACC Appendix 8F Section 8.10

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
				and north of the railway) would be largely screened by mature tree cover with potential very heavily filtered views in winter from dwellings on the northern edge of Cliff Road and Bancroft. The materials storage areas would be visible from facing properties on Warrington Road.	
Weaverham <i>Construction</i>	High	Zero (Pipeline Corridor) Medium to Zero (construction traffic)	Major/Moderate and Significant (construction traffic at Sandy Lane and Station Road) to No Effect (pipeline corridor and construction traffic in the wider settlement)	No views of the South Corridor are predicted, even in winter due to a combination of multiple layers of tree screening and woodland belts along the western edge of the village and both sides of the A49 corridor. Temporary HGV construction traffic would be visible for residential receptors facing Sandy Lane and the B5153 Station Road.	CWACC Appendix 8F Section 8.10
Gorstage <i>Construction</i>	High	Low to Zero	Moderate and Significant to No Effect	Views towards the South Corridor construction activities to the west would be available from the rear of properties on Hall View Close and Hefferston Rise partially filtered and restricted in horizontal extent by occasional mature trees and in places garden shrub cover. The temporary trenchless	CWACC Appendix 8F Section 8.10

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
				crossing compound theoretically visible from the northern edge of the village would be predominantly screened by intervening hedgerows and mature tree cover.	
Bryn Construction	High	Very Low to Zero (Pipeline Corridor) Low (Construction traffic)	Minor and Not Significant to No Effect (Pipeline Corridor) Moderate and Not Significant (Construction traffic)	There would be potential views towards the South Corridor, trenchless compounds, and material storage area to the north of the settlement including dwellings at the northern edge of the village off Cuddington Lane. Views would be heavily restricted by intervening farm buildings and multiple layers of mature tree cover. HGV construction traffic would be routed along the A49 Warrington Road and would be visible to many dwellings that face onto this route.	CWACC Appendix 8F Section 8.10
Cuddington Construction	High	Low (Construction traffic)	Moderate and Not Significant	No views of the South Corridor construction are predicted, even in winter due to a combination of multiple layers of tree screening and woodland belts along the northern and eastern edges of the village and both sides of the A49 corridor. HGV movements along the A49 Warrington Road that passes through the village would	CWACC Appendix 8F Section 8.10

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
				be visible to dwellings that face onto this route.	
Sandiway Construction	High	Zero	No Effect	Potential views towards the South Corridor, trenchless compounds and material storage area to the east of the settlement would be fully restricted by garden planting and/or intervening tree belts. Theoretical views of the Hartford BVI from properties with east facing views on Norley Road and Weaverham Road would be fully restricted by garden planting and/or intervening tree belts.	CWACC Appendix 8F Section 8.10
Sandiway Operation Years 1 & 15	High	Zero (Year 1 and Year 15)	No Effect (Year 1 and Year 15)	There would be no views of the operational Hartford BVI.	CWACC Appendix 8F Section 8.10
Sandiway Decommissioning	High	Zero	No Effect	There would be no views of the decommissioning activities at the Hartford BVI.	CWACC Section 8.10
Hartford Construction	High	Low to Zero	Moderate and Significant to No Effect	Potential views towards the South Corridor, trenchless compound, and material storage area to the north of the A556 would be	CWACC

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
				theoretically available from the south-west edge of the village including Speedwell Bungalow, Blue Cap cottages (4 No.) and several detached properties at Forest Hill, although views would be typically heavily restricted by mature tree cover along property curtilages. HGV traffic routed along the A556 would be screened by mature hedges and trees. Views of Hartford BVI under construction may be partially visible with views most likely from the garden of Speedwell Bungalow, although heavily restricted by intervening tree cover.	Appendix 8F Section 8.10
Hartford <i>Operation Years 1 & 15</i>	High	Very Low (Year 1 and Year 15)	Minor and Not Significant (Year 1 and Year 15)	There would be potentially limited views of the upper structures of Hartford BVI from the southwestern edge of the settlement	CWACC Appendix 8F Section 8.10
Hartford <i>Decommissioning</i>	High	Low to Zero	Moderate and Significant to No Effect	The magnitude of change likely to affect the south-western edge of the settlement could be up to low during the decommissioning of the Hartford BVI. Elsewhere within the settlement, there would be No Effect.	CWACC Section 8.10

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
Whitegate <i>Construction</i>	High	Zero	No Effect	Potential views towards the South Corridor construction and trenchless compounds would be prevented by a combination of landform, mature woodland and intervening buildings.	CWACC Appendix 8F Section 8.10
Davenham <i>Construction</i>	High	Very Low to Zero (Pipeline Corridor) Medium (Construction Traffic)	Minor and Not Significant to No Effect (Pipeline Corridor) Major/Moderate and Significant (Construction Traffic)	Views towards the South Corridor from the south-western edge of the village would be heavily filtered by mature tree belts and woodland close to the settlement, with some potential for glimpses of construction activity from upper floors in winter where the requisite south-west facing views are available. Light construction vehicle movements along Eaton Lane and Hartford Road at the western end of the settlement would be highly visible to dwellings that lie close to the road corridor typically with minimal screening in front gardens.	CWACC Appendix 8F Section 8.10
Moulton <i>Construction</i>	High	Medium to Zero	Major/Moderate and Significant to No Effect	Views towards the South Corridor pipeline from the west and south-western edge of the village would be typically 0.1km distant and would include direct views from dwellings, partly restricted by garden planting and set within the context of existing lattice pylons	CWACC Appendix 8F Section 8.10

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
				that the construction corridor would be located beyond. Temporary soil bunds either side of the Pipeline Corridor would help further restrict visibility of construction activity. No construction traffic routes are located within the settlement.	
Winsford <i>Construction</i>	High	Zero	No Effect	No views of the South Corridor the suburb of Wharton within the LVIA Study Area due to extensive woodland cover along the northern edge of the settlement. No construction traffic routes are located within the settlement.	CWACC Appendix 8F Section 8.10
Bostock Green <i>Construction</i>	High	Low to Zero	Moderate and Significant	Views from the settlement would be intermittent in nature and typically heavily filtered by mature tree cover within or close to individual dwelling curtilages. Views where available would include the trenchless construction compound east of the A533 (which would be enclosed by fencing and/or temporary soil bunds and would represent a modest new element at a lower ground elevation than the village), River Dane trenchless compounds from upper floor views, and the South Corridor pipeline.	CWACC Appendix 8F Section 8.10

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
Whatcroft Construction	High	Very Low to Zero (compounds and pipeline corridor) High to Medium (Construction traffic)	Minor and Not Significant Major to Major/Moderate and Significant (Construction traffic)	The trenchless construction compounds to the east of the River Dane and either side of the Trent and Mersey Canal located to the south and south-west of the settlement would be visible in narrow views between mature vegetation from the upper stories of Whatcroft Hall. The trenchless construction compound to the west of the rail line would be visible in heavily filtered winter views from upper stories of residential properties to the east of the settlement. The trenchless construction compound and material storage area to the east of the rail line would be screened by rail line vegetation and successive mature tree belts. Construction activity associated with the installation of the South Corridor pipeline would be filtered by successive hedgerows and restricted to upper stories. HGV construction traffic would be routed along Whatcroft Hall Lane within the settlement and would be highly visible to dwellings that lie close to the road corridor.	CWACC Appendix 8F Section 8.10
Lower Whitley Construction	High	Low to Zero	Moderate and Significant to No Effect	Views towards the Pipeline Corridor from the rear of dwellings along the eastern edge of the settlement would be available, partially	CWACC

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
				restricted in places by garden planting and fencing, with less restricted first floor views. HGV movements along the A49 to the western edge of village would be visible to many dwellings that face onto this route. The visible increase in traffic compared with baseline levels is assessed to be incremental and the magnitude of change would be Very Low.	Appendix 8F Section 8.10
Higher Whitley Construction	High	Low to Zero	Moderate and Significant (Pipeline corridor)	Views towards the East Corridor construction activity from the rear of dwellings along the southern and southeastern edge of the settlement would be available, often limited in extent by mature tree cover within large gardens and hedgerows with trees along intervening field boundaries. Views of the material storage area and A559 trenchless compounds to the east of the village would be more than 1km from the centre of the village and only perceptible from scattered dwellings at the eastern edge of the village. No views of construction traffic apart from Lake Cottage and Willow Cottage along Old Mill Lane as a result of light construction traffic.	CWACC Appendix 8F Section 8.10

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
Frandleigh <i>Construction</i>	High	Very Low to Zero	Minor and Not Significant to No Effect	Views of the East Corridor pipeline, trenchless compounds and pipeline storage area to the north-west would be heavily restricted by intervening farm buildings and multiple layers of mature tree cover close to dwellings and along the intervening field boundaries between the dwellings and the site boundary. There is the potential for very limited first floor views of the compounds (enclosed by fencing but containing temporary buildings up to 2 storeys high) from north and north-east facing windows and also activity along the Pipeline Corridor. No construction traffic would be routed through the settlement.	CWACC Appendix 8F Section 8.10
Antrobus <i>Construction</i>	High	Very Low to Zero	Minor and Not Significant to No Effect	Potential views towards the East Corridor, trenchless compounds and material storage area to the north-west of the settlement would be experienced from a limited number of dwellings on the western edge of the village. Views would be heavily restricted by intervening farm buildings and multiple layers of hedgerow trees along the intervening field boundaries. No construction traffic would be routed through the settlement.	CWACC Appendix 8F Section 8.10

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
Arley Construction	High	Zero	No Effect	Views of the East Pipeline Corridor or the A559 temporary construction compounds would be fully screened, even in winter, by multiple layers of hedgerows and hedgerow trees within garden curtilage and/or along intervening field boundaries. There would be no views from the main settlement of construction activity associated with the Pipeline Corridor or light construction traffic along Caldwell's Gate Lane and Arley Road.	CEC Appendix 8F Section 8.10
High Legh Construction	High	Very Low to Zero	Minor and Not Significant to No Effect	Some properties on the western edge of the settlement would have restricted views of the trenchless compounds and East Pipeline Corridor. Views of HGV construction traffic along West Lane would be mostly screened or heavily filtered by roadside trees, hedgerows or garden vegetation with views typically from upper stories. Views of Sworton BVI under construction from dwellings fronting onto West Lane would be typically restricted by intervening planting, with upper floor views assumed not to be main living space more likely.	CEC Appendix 8F Section 8.10

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
High Legh <i>Operation Years 1 & 15</i>	High	Very Low to Zero (Year 1 and Year 15)	Minor and Not Significant to No Effect. (Year 1 and Year 15)	Views of Sworton BVI from dwellings fronting onto West Lane would be typically restricted by intervening planting, with upper floor views.	CEC Appendix 8F Section 8.10
High Legh <i>Decommissioning</i>	High	Zero	No Effect	There would be no views of the decommissioning activities at the Sworton Heath BVI	CEC Section 8.10
Broomedge <i>Construction</i>	High	Medium to Zero	Major/Moderate and Significant to No Effect	Views from the northeastern end of the settlement and to the south of the A56 would include relatively unrestricted views of the adjacent materials storage areas and more restricted and distant views of the trenchless construction compounds. There would be restricted views of the East Corridor Pipeline construction include east facing views from dwellings on Agden Park Lane and West Lane. Views of light construction vehicles on the A56, B5159 and Agden Park Lane would be typically heavily filtered by hedgerow and/or garden planting with the majority of views from upper stories.	CEC Appendix 8F Section 8.10

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
Dunham Woodhouses <i>Construction</i>	High	Medium to Zero	Major/Moderate and Significant to No Effect	Potential views of the East Corridor construction activity would be available from dwellings on Barns Lane, Sawpit Street and Dunham Road. Views would be typically partially restricted by hedgerows and tree cover within garden and/or field boundary planting that includes frequent hedgerow trees with some views through gaps. There would be views from dwellings overlooking the B5160 (Dunham Road) of HGV construction traffic which would be partly filtered by garden vegetation. Views of Warburton HAGI under construction and/or construction compound would be available from dispersed dwellings along Dunham Road and to a lesser extent Cargreen Lane, restricted in places by dwelling orientation and intervening planting.	TMBC Appendix 8F Section 8.10
Dunham Woodhouses <i>Operation Years 1 & 15</i>	High	Low to Zero (Year 1) Very Low to Zero (Year 15)	Moderate and Significant to No Effect Minor and Not Significant to No Effect	Restricted views of the Warburton HAGI would be available from the closest dwellings on the edge of the village at Barnslane Farm and Gate House Farm. Views would reduce as mitigation planting matures after 15 years.	TMBC Appendix 8F Section 8.10

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
Dunham Woodhouses <i>Decommissioning</i>	High	Very Low to Zero	Minor and Not Significant to No Effect	There would be restricted views of decommissioning activities at the Warburton HAGI from a small number of properties with no views from the majority of the settlement.	TMBC Section 8.10
Sinderland Green <i>Construction</i>	High	Low to Zero	Moderate and Significant to No Effect	There would be potential views towards the East Corridor Pipeline construction in west and south-west facing views from dwellings on Red House Lane, Sinderland Lane and Henshall Lane. Ground floor views would be frequently restricted by garden planting and field boundary hedgerows.	TMBC Appendix 8F Section 8.10
Partington <i>Construction</i>	High	Medium to Zero	Major/Moderate and Significant to No Effect	There would be potential views from the eastern edge of the new housing estate under construction off Moss View Road and Heath Farm Lane resulting in potential views of construction activity along the East Pipeline Corridor construction. There would be an incremental increase to the baseline HGV traffic for some residents overlooking the A6144. There would be no views of the Partington HAGI (both Option PH1 and Option PH2) under construction and/or construction compound.	TMBC Appendix 8F Section 8.10

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
Partington <i>Operation Years 1 & 15</i>	High	Zero	No Effect	There would be no views of the Partington HAGI (Options PH1 and PH2).	TMBC Appendix 8F Section 8.10
Partington <i>Decommissioning</i>	High	Zero	No Effect	There would be no views of the decommissioning activities at the Partington HAGI (Options PH1 and PH2).	TMBC Section 8.10
Carrington <i>Construction</i>	High	Low	Moderate and Not Significant to No Effect	There would be an incremental increase to the baseline HGV traffic for some residents overlooking the A6144. There would be no views of the East Corridor Pipeline under construction from the settlement and no views of the Partington HAGI (Options PH1 and PH2) under construction.	TMBC Appendix 8F Section 8.10
Carrington <i>Operation Years 1 & 15</i>	High	Zero (Year 1 and Year 15)	No Effect (Year 1 and Year 15)	There would be no views of the Partington HAGI (both Option PH1 and Option PH2).	TMBC Appendix 8F Section 8.10
Hatton <i>Construction</i>	High	Very Low to Zero	Minor and Not Significant to No Effect	Restricted views of the North Corridor would be available from the western edge of the settlement including some dwellings on	WBC

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
				Warrington Road with variable local tree cover and hedgerows along the perimeter of gardens. Mature hedgerows with frequent hedgerow trees define intervening field boundaries further restricting the potential for views of the Pipeline Corridor. The trenchless construction compounds ~0.8km south-west of the village would be screened. Construction traffic would not pass through the village and views would be limited to views of vehicles along Danesbury Lane where they meet the Pipeline Corridor.	Appendix 8F Section 8.10
Moore Construction	High	Medium to Zero	Major/Moderate and Significant to No Effect	There would be very localised views of construction activity along the North Pipeline Corridor construction, including trenchless construction compounds with the exception of Nos 1-4 Cockfight Cottages where there would be first floor views. HGV construction traffic would pass through a localised part of the village along Runcorn Road. Views from the front of dwellings would vary from unrestricted views e.g. the terraced dwellings of Nos. 47-57 Runcorn Road to views from other dwellings that are more restricted by garden planting.	WBC Appendix 8F Section 8.10

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
Higher Walton Construction	High	Medium to Zero Low to Zero (HWH8 HAGI)	Major/Moderate and Significant to No Effect Moderate and Significant to No Effect (HWH8 HAGI)	Localised views of the North Pipeline Corridor construction and associated trenchless construction compound would be available at the south-west edge of the village including from dwellings on Thomason's Bridge Lane where there would be views of the Pipeline Corridor including the temporary trenchless crossing compound. HGV access on Runcorn Road would be visible to dwellings that lie close to the road corridor typically with minimal screening in front gardens. Layers of intervening planting would screen most views of the Higher Walton HAGI (HWH8) under construction and construction compound. HWH2 would be fully screened.	WBC Appendix 8F Section 8.10
Higher Walton Operation Years 1 & 15	High	Low to Zero (Year 1) (HWH8) Very Low to Zero (Year 15) (HWH8)	Moderate and Not Significant to No Effect Minor and Not Significant to No Effect	There would be potential for views of HWH8 HAGI from properties at Mill Lane, likely restricted to filtered upper floor views and narrow views from driveway entrances or between trees.	WBC Appendix 8F Section 8.10

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
Higher Walton <i>Decommissioning</i>	High	Low to Zero	Moderate and Significant to No Effect	Up to a low magnitude of change may occur for residents on Mill Lane, as a consequence of decommissioning activities at the Higher Walton (HWH8) HAGI. There would be no views of the decommissioning activities at the Higher Walton (HWH2) HAGI.	WBC Section 8.10
Lower Walton <i>Construction</i>	High	Low to Zero	Moderate and Not Significant to No Effect	Both Warrington Spur Pipeline Options would be located north of the Manchester Ship canal and construction activity screened by intervening built development. At the north-western edge of the settlement, there would be filtered views of the Higher Walton (HWH8) HAGI under construction from Walnut Tree Farm and the rear of properties on Springbrook at a minimum distance of 0.7km. Construction traffic on the A56, A5060 would be visible from some dwellings that face onto these routes, however the increase would be incremental to the baseline.	WBC Appendix 8F Section 8.10
Lower Walton <i>Operation Years 1 & 15</i>	High	Very Low to Zero	Minor and Not Significant to No Effect	The top of the perimeter fence around the HAGI would be visible from Walnut Tree Farm and the rear of properties on Springbrook above intervening hedgerows and through tree cover in close proximity to	WBC Appendix 8F Section 8.10

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
				the properties. The magnitude of change would be Very Low (during the winter months).	
Lower Walton <i>Decommissioning</i>	High	Zero	No Effect	There would be no views of decommissioning activities at the Higher Walton (HWH8) HAGI as a consequence of the screening provided maturing woodland between the HAGI and settlement.	WBC Section 8.10
Warrington <i>Construction</i>	High	High-Medium (Option NP6) / Low (other Options) to Zero	Major to Major/Moderate and Significant (NP6) to Moderate and Not Significant (other options)	Construction relating to the North Corridor Pipeline Option NP6 would be visible to the south of Tannery Lane where there would be relatively open views of the construction works associated with the pipeline and temporary trenchless crossing compound. Warrington Spur Options WSp2 and WSp3 would appear as street works along urban streets, that would be visible to facing residential properties. HGV construction traffic would be visible on various roads within the settlement where they would be incremental to the baseline traffic in views from facing residential properties.	WBC Appendix 8F Section 8.10

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
Widnes <i>Construction</i>	High	Low to Zero	Moderate and Not Significant to No Effect	The majority of views east from the edge of the settlement would be predominantly screened by woodland planting and consequently any views of the North Pipeline Corridor and material storage areas located would be infrequent and seen beyond the pylons. HGV construction traffic would use the A-road network including the A557 and A5080 with potential views of increased traffic from some dwellings that face onto the A5080 at Derby Road and Rivenmill Way with limited intervening planting.	HBC Appendix 8F Section 8.10
Cuerdley Cross <i>Construction</i>	High	Very Low to Zero	Minor and Not Significant to No Effect	The easterly views to the North Pipeline Corridor (NP7) construction and the temporary trenchless crossing compound north of the A562, would be partially screened by garden planting and intervening field boundary hedgerows and tree planting and buildings associated with Rose Tree Farm. There would be oblique views towards the material storage area ~0.4km north-east off Mowcroft Lane, largely screened from view by field boundary planting.	WBC Appendix 8F Section 8.10

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
				No construction traffic would be routed through the settlement or would be visible from the settlement.	
Bold Heath Construction	High	Low to Zero	Moderate and Not Significant	The oblique views in the direction of the North Pipeline Corridor from dwellings at the southern end of Mill Lane and the western edge of the settlement would be heavily filtered by a tall mature hedgerow. The materials storage area and A57 trenchless construction compounds over would be barely discernible from upper floor windows of the Mill Lane dwellings due to separation distance and screening provided by intervening farm buildings and hedgerows. HGV construction traffic would be routed along the A57 through the settlement. There would be some open views from receptors facing the road with little screening. The increase in HGV traffic would be incremental to the baseline.	SHBC Appendix 8F Section 8.10
Sutton Manor Construction	High	Low to Zero	Moderate and Significant to No Effect	Views of construction activity relating to the North Corridor, St Helens Spurs, and Clock Face Spur and Clock Face HAGI would be screened from the majority of the settlement by surrounding buildings and extensive tree	SHBC Appendix 8F Section 8.10

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
			Moderate and Significant to No Effect	belts, hedgerows and woodland to the south-west of the settlement. HGV access on Runcorn Road would be visible to dwellings that lie close to the road corridor typically with minimal screening in front gardens.	
Sutton Manor <i>Operation Years 1 & 15</i>	High	Very Low to Zero (Year 1) Zero (Year 15)	Minor and Not Significant to No Effect (Year 1) No Effect (Year 15)	There would be very limited visibility of the Clock Face HAGI beyond the M62, mainly restricted to the southern edge of the settlement. Mitigation woodland planting to the north of the HAGI (Figure 7 of the Outline LEMP) would have matured at Year 15 and would screen the HAGI.	SHBC Appendix 8F Section 8.10
Sutton Manor <i>Decommissioning</i>	High	Zero	No Effect	There would be no views of the decommissioning activities at the Clock Face HAGI.	SHBC Section 8.10
Rainhill <i>Construction</i>	High	Low to Zero Zero (HAGI)	Moderate and Not Significant to No Effect No Effect (HAGI)	Views of construction activity relating to St Helens Spurs west of the A570 would be frequently heavily filtered by tree cover close to the settlement with some rear elevation views from dwellings on Bishopdale Drive and further north from dwellings at the end of Elderswood Road, Gardeners Way and Field Way where there would be frequent glimpses of construction activity. Views of the	SHBC Appendix 8F Section 8.10

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
				trenchless compound north and south of the railway would be available from dwellings at the end of Elderswood Road (partially filtered by intervening planting). Clock Face HAGI under construction would be fully screened by woodland planting along the A570 and north of the A62.	
Rainhill <i>Operation Years 1 & 15</i>	High	Zero (Year 1 and Year 15)	No Effect (Year 1 and Year 15)	There would be no views of Clock Face HAGI.	SHBC Appendix 8F Section 8.10
Rainhill <i>Decommissioning</i>	High	Zero	No Effect	There would be no views of the decommissioning activities at the Clock Face HAGI.	SHBC Section 8.10
St Helens <i>Construction</i>	High	Low to Zero	Moderate and Not Significant to No Effect	Views towards the North Corridor west of the A570 would be frequently heavily filtered by tree cover close to the settlement including on the edge of Albert Fellows Park, although less restricted views would also be occasionally available where intervening vegetation is more limited from rear elevation views on Bishopdale Drive and from dwellings at the end of Elderswood Road,	SHBC Appendix 8F Section 8.10

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
Gardeners Way and Field Way. Direct views from dwellings at the end of Elderswood Road would be available of the trenchless compound north and south of the railway (partially filtered by intervening planting). HGV construction traffic would use the A570, B5204 and Sherdley Road, with potential views of increased traffic relative to the baseline most likely to be experienced from dwellings that face onto the B5204 and Sherdley Road in locations where there is limited intervening planting.					
Visual effects on users of promoted recreational routes					
NCR 5 Construction	High	High to Medium (pipeline crossings) to Low and Zero	Major to Major/Moderate, to Moderate and Significant to No Effect	West Corridor: Views would be screened for the majority of the route. There would be open cut crossings of the pipeline on Hare's Lane and Moorditch Lane where the cycle route would require temporary stopping up or diversion. There would also be close range views of the Pipeline construction, temporary trenchless crossing works, or material storage areas on short sections of the route from: A56 Frodsham to junction with Halton Station Road, Aston Lane, Dutton Park Farm, and East of Dutton Locks.	CWACC Appendix 8F Section 8.11

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
				South Corridor: Views would be screened for the majority of the route. There would be views of construction works at Mouton including Pipeline crossings and the trenchless compound north of Eaton Lane. There would also be close range views of the Pipeline construction, temporary trenchless crossing works, or material storage areas on short sections of the route from: A49 Warrington Road, and Bartington. Construction traffic: HGV construction traffic would be visible at various points along the route including: A511, A49, A56 and Aston Lane. There would be heavily filtered views of construction relating to the HPP HAGI and in oblique views, Rocksavage HAGI along the route.	
NCR 5 Operation Years 1 & 15	High	Very Low to Zero (HPP and Rocksavage) (Year 1 and Year 15 HPP, Year 1 Rocksavage).	Minor and Not Significant to No Effect	HPP HAGI would be barely discernible set behind the mature tree belt and within a backdrop and surrounding context of Stanlow refinery. Mitigation and replanting at Rocksavage HAGI will not be mature in Year 1 but would have matured to provide screening by Year 15.	CWACC Appendix 8F Section 8.11

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
		Zero (Rocksavage Year 15)	No Effect (Rocksavage Year 15)		
NCR 5 <i>Decommissioning</i>	High	Very Low to Zero	Minor and Not Significant to No Effect	There would be limited views of the decommissioning activities at the HPP and Rocksavage HAGIs.	CWACC Section 8.11
NCR 562 <i>Construction</i>	High	High-Medium to Zero	Major to Major / Moderate and Significant to No Effect.	Trees, hedges and built-form adjacent to the cycle route filter the majority of views. There would be open views of the construction works associated with the West Corridor pipeline along Aston Lane south of the railway line between Aston and Aston Heath where there would also be a crossing point. HGV construction traffic would overlap the route on the A533 between Chester Road and Aston Lane South, and Aston Lane.	CWACC / HBC Appendix 8F Section 8.11
RCR 70 / Cheshire Cycleway <i>Construction</i>	High	High to Medium (pipeline crossings) to Low and Zero	Major to Major/Moderate, to Moderate and Significant to No Effect	Trees, hedges and built-form adjacent to the cycle route filter the majority of views. There would be open views of the construction works associated with the South Corridor pipeline along Acton Lane between the A49 and north of Acton Bridge where there would	CWACC / CEC Appendix 8F Section 8.11

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
				also be a crossing point. There would be limited views from Acton Swing Bridge. HGV construction traffic would overlap the route on the A49 at Bartington (~0.3km) and Acton Lane (for ~0.1km). There would be some filtered views of the East Corridor Pipeline construction including temporary trenchless crossing compounds from the Western and northern edges of High Legh. There would be heavily filtered views of the Sworton BVI construction machinery.	
RCR 70 / Cheshire Cycleway Operation Years 1 & 15	High	Zero (Year 1 and Year 15)	No Effect (Year 1 and Year 15)	There would be no visibility of the Sworton BVI due to screening from built-form and / or vegetation.	CEC Appendix 8F Section 8.11
RCR 70 / Cheshire Cycleway Decommissioning	High	Zero	No Effect	There would be no views of the decommissioning activities at the Sworton Heath BVI.	CEC Section 8.10

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
NCR 573 <i>Construction</i>	High	Zero	No Effect	Trees, hedges and buildings adjacent to the route filter the majority of views along the cycle route	CWACC Appendix 8F Section 8.11
RCR 71 <i>Construction</i>	High	Zero	No Effect	Trees, hedges and buildings adjacent to the route filter the majority of views along the cycle route	CWACC Appendix 8F Section 8.11
NCR 62 <i>Construction</i>	High	High to Medium (pipeline crossings) to Low and Zero	Major to Major/Moderate, to Moderate and Significant to No Effect	North Corridor: Views would be screened for the majority of the route. There would be close range views of the Pipeline construction and temporary trenchless crossing works on short sections of the route from: East of Fiddler's Ferry, Junction of River Mersey and Runcorn and Latchford Canal, North of Morley Common, Chester Road to Cranborne Avenue (WSp3), Knutsford Road north of Latchford Swing Bridge and Manchester Ship Canal. East Corridor: Views would be screened for the majority of the route. There would be close range views of the Pipeline construction including a trenchless crossing,	HBC/WBC/TMBC Appendix 8F Section 8.11

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
				and material storage areas to the north of Dunham Woodhouses. Construction traffic: HGV construction traffic would be visible at various in Warrington. There would be heavily filtered views of the Warburton HAGI visible to the south of the HAGI.	
NCR 62 <i>Operation Years 1 & 15</i>	High	Very Low to Zero (Year 1 and Year 15).	Minor and Not Significant to No Effect (Year 1 and Year 15).	Very limited components of the Warburton HAGI would be visible from this route due to the heavily vegetated section of the route to the south. There would be no views of the Higher Walton (HWH8) HAGI.	HBC/WBC/TMBC Appendix 8F Section 8.11
NCR 62 <i>Decommissioning</i>	High	Low to Zero	Moderate and Not Significant to No Effect	The magnitude of visual change would be low from a very short section of route to the south of the Warburton HAGI being decommissioned, which coincides with where tree planting is restricted above the pipeline depending on species type (within an approximately 12m section). There would be no views of decommissioning activities at the Higher Walton (HWH8) HAGI.	HBC/WBC/TMBC Section 8.11

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
Weaver Way Construction	High	High to Medium (pipeline crossings) to Low and Zero	Major to Major/Moderate, to Moderate and Significant to No Effect	West Corridor: Views would be screened for the majority of the route. There would be views of the Pipeline construction and temporary trenchless crossing works on a short section of the route from: East of Dutton Locks. South Corridor: Views would be screened for the majority of the route. There would be views of the Pipeline construction including a temporary trenchless crossing at Bartington. Construction traffic: Receptors using the route would experience some HGV construction activity as the route crosses the A49 (Warrington Road) at Bartington. The construction compounds at the Rocksavage HAGI would not be visible from this route due to screening from built-form and / or vegetation.	CWACC Appendix 8F Section 8.11
Weaver Way Operation Years 1 & 15	High	Zero (Year 1 and Year 15).	No Effect (Year 1 and Year 15).	No visibility of the Rocksavage HAGI due to screening from built-form and / or vegetation.	CWACC Appendix 8F Section 8.11
Weaver Way	High	Zero	No Effect	There would be no views of decommissioning activities at the Rocksavage HAGI.	CWACC

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
Decommissioning					Section 8.11
Trent and Mersey Canal Walk	High	High to Low/ Very Low and Zero	Major to Major/Moderate and Significant (~0.8km section north of Bartington and ~0.2-0.4km south of Whatcroft) to Moderate and Minor and Not Significant to No Effect (remainder of route).	West Corridor: Views would be screened for the majority of the route. There would be close range views of the Pipeline construction and temporary trenchless crossing works on a short section of the route from Dutton. South Corridor: Views would be screened for the majority of the route. There would be views of the Pipeline construction including a temporary trenchless crossing at Bartington and intermittent views of the pipeline works at Whatcroft and materials storage area at Rudheath. Construction traffic: HGV construction traffic would be visible as the route passes beneath the A49 (Warrington Road) at Bartington, and along Whatcroft Hall Lane in filtered views across the canal.	CWACC/ HBC Appendix 8F Section 8.11
E8	Assessed above as part of NCR 62 as it overlaps with this route within the Study Area.				
North Cheshire Way	Overlaps with the Weaver Way for the majority of its length within the Study Area between east of Frodsham and Barnton / Anderton and is therefore assessed above as part of the Weaver Way. The remainder of the route which doesn't follow the Weaver Way would have no view of the Pipeline Corridor, access routes or any HAGIs due to screening from intervening vegetation and / or built-form.				

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
Delamere Way <i>Construction</i>	High	High to Medium to Zero	Major to Major/Moderate and Significant to No Effect	West Corridor: Views would be screened for the majority of the route. There would be close range views of the Pipeline construction including a crossing point on a short section of the route from Dutton Park Farm. North Corridor: Views would be screened for the majority of the route. There would be views of the Pipeline construction including a crossing point east of Lightwood Farm and Marsh Lane. Construction traffic: Temporary construction access would be visible on a short section of the route off Marsh Lane where there would be some small loss of roadside hedgerow.	CWACC /WBC Appendix 8F Section 8.11
Dane Valley Way <i>Construction</i>	This route overlaps with the Trent and Mersey Canal Walk for the majority of its length within the Study Area at Whatcroft and is therefore assessed above as part of the Trent and Mersey Canal Walk. The remainder of the route which doesn't follow the Trent and Mersey Canal Walk would have No Effect of the Pipeline Corridor, access routes and HAGIs due to screening from intervening vegetation and / or built-form.				
Bollin Valley Way <i>Construction</i>	High	High to Medium (pipeline crossing) to Very Low and Zero	Major to Major/Moderate and Significant to Minor and No Effect	East Corridor: Views would be screened for the majority of the route. There would be views of construction works at Carr Green Lane including Pipeline and materials storage. There would also be close range	TMBC / CEC Appendix 8F Section 8.11

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
				views of the Pipeline construction at Barns Lane. Construction traffic: Light construction access would be visible at Woodhouse Lane. There would be heavily filtered views of construction activity at the Warburton HAGI.	
Bollin Valley Way <i>Operation Years 1 & 15</i>	High	Very Low to Zero (Year 1). Zero (Year 15)	Minor and Not Significant to No Effect (Year 1) No Effect (Year 15)	Warburton HAGI would be visible in filtered winter views in Year 1. By Year 15 mitigation planting will have matured to provide screening.	TMBC / CEC Appendix 8F Section 8.11
Bollin Valley Way <i>Decommissioning</i>	High	Very Low to Zero	Minor and Not Significant to No Effect	Potential views from the section of route directly south of the Warburton HAGI and west of Barns Lane, with decommissioning activities potentially visible through the permanent narrow gap in vegetation where tree planting is restricted above the pipeline depending on species type (within an approximately 12m section).	HBC/WBC/TMBC Section 8.11
Timberland Trail <i>Construction</i>	High	High to Medium (pipeline)	Major to Major/Moderate (pipeline)	North Corridor: Views would be screened for the majority of the route. There would be views of the Pipeline construction including a	HBC /WBC

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
		crossing) to Low and Zero	crossing) to Moderate (construction traffic) and Significant to No Effect	crossing point at Warrington Road and further views of the pipeline and/or trenchless crossings on short sections at Hall Lane Farm Stables, and Outer Wood and Row's Wood. Construction traffic: The Timberland Trail would be overlapped by temporary light construction traffic access for ~0.5km along Daresbury Lane.	Appendix 8F Section 8.11
Mersey Way Construction	High	High to Medium (pipeline crossing) to Low and Zero	Major to Major/Moderate (pipeline crossing) and Significant to Moderate and Not Significant to No Effect	North Corridor: Views would be screened for the majority of the route. There would be views of the Pipeline construction on short sections at: East of Fiddler's Ferry (trenchless compound), Junction of River Mersey and Runcorn and Latchford Canal (crossing point), Chester Road to Cranborne Avenue (WSp3) (compound). Warrington Spur: A5060 at Wilderspool (crossing point). Construction traffic: HGV construction traffic would be visible in various locations in Warrington.	HBC /WBC Appendix 8F Section 8.11
Mersey Way	High	Zero	No Effect	The ZTV in Figure 8.33 indicates no areas of intervisibility with the Higher Walton (HWH8) HAGI from the Mersey Way.	WBC

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
Operation Years 1 & 15					Appendix 8F Section 8.11
Mersey Way Decommissioning	High	Zero	No Effect	There would be no views of decommissioning activities at the Higher Walton (HWH8) HAGI.	WBC Section 8.11
Trans Pennine Way	Assessed above as part of NCR 62 and E8 as it overlaps with these routes within the Study Area. It also partially overlaps with the Mersey Way between south of Great Sankey / Penketh and Wilderspool within the Study Area.				
Bridgewater Way Construction	High	High to Low (pipeline crossing) to Very Low and Zero	Major (pipeline crossing) and Significant to Moderate and Not Significant and No Effect	North Corridor: Views would be screened for the majority of the route. There would be views of construction works West of Higher Walton (Pipeline and temporary trenchless crossing compounds). East Corridor: Views would be screened for the majority of the route. There would be views of construction works West of Higher Walton (Pipeline and temporary trenchless crossing compounds). Construction traffic: Filtered views affecting very short sections of the route. Higher Walton HAGI Options: No visibility due to screening from built-form and / or vegetation.	HBC /WBC/TMBC Appendix 8F Section 8.11

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
Bridgewater Way <i>Operation Years 1 & 15</i>	High	Zero (Year 1 and Year 15).	No Effect (Year 1 and Year 15)	Higher Walton HAGI Options: No visibility due to screening from built-form and / or vegetation.	WBC Appendix 8F Section 8.11
Bridgewater Way <i>Decommissioning</i>	High	Zero	No Effect	There would be no views of decommissioning activities at the Higher Walton (HWH2 or HWH8) HAGI.	WBC Section 8.11
Cheshire Ring Canal Walk <i>Construction</i>	Assessed above as part of Bridgewater Way and Trent and Mersey Canal Walk routes as it overlaps with these routes within the Study Area.				
Palatine Plod <i>Construction</i>	High	Medium to Low and Zero	Major / Moderate (Trenchless compound) and Significant to Moderate and Not Significant to No Effect	North Corridor: Views would be screened for the majority of the route. There would be views of the Pipeline construction on short sections at: East of Fiddler's Ferry (trenchless compound). Construction traffic: There would be an incremental increase in HGV traffic where the route is overlapped by temporary construction accesses at Liverpool Road / Old Liverpool Road.	HBC /WBC Appendix 8F Section 8.11

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
Longster Trail Construction	High	Very Low to Zero	Minor and Not Significant to No Effect	West Corridor: Views would be screened for the majority of the route. There would be views of the Pipeline construction on short sections at: Helsby Hill. Construction traffic: Distant views of construction traffic from Helsby Hill.	CWACC Appendix 8F Section 8.11
Sandstone Trail Construction	High	Very Low to Zero	Minor and Not Significant to No Effect	West Corridor: Views would be screened for the majority of the route. There would be views of the Pipeline construction on short sections at: Frodsham War Memorial and Overton Hill. Construction traffic: Distant views of construction traffic from Frodsham War Memorial and Overton Hill.	CWACC Appendix 8F Section 8.11
Eddisbury Way	No Effect due to screening from intervening vegetation and/or built-form.				
Salford Trail	No Effect due to screening from intervening vegetation and/or built-form.				
Visual effects on recreational canal / river users					
Manchester Ship Canal Construction	High	High to Medium (crossing compounds /	Major to Major/Moderate and Significant to No Effect	North Corridor: Views would be screened for the majority of the route. There would be views of construction works at Acton Grange Viaduct including temporary trenchless	HBC /WBC/TMBC

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
		HAGI) to Zero		crossing compounds (for both NWH2 and NWH8 options). Warrington Spur: Filtered views of the Warrington Spur construction works beyond vegetation along the canal. Construction traffic: Potentially visible at Chester Road Swing Bridge and Knutsford Road Swing Bridge. There would be views the construction works associated with the Higher Walton HAGI (HWH2) located adjacent to the canal (with potential filtered views of HWH8).	Appendix 8F Section 8.12
Manchester Ship Canal Operation Years 1 & 15	High	High to Medium to Zero (HWH2) (Year 1).	Major to Major / Moderate and Significant to No Effect (HWH2) (Year 1).	There would be intermittent views of the Higher Walton HAGI (HWH2) located adjacent to the canal and no views of HWH8. By Year 15 mitigation planting will have matured to provide some screening of the Higher Walton HAGI (HWH2).	WBC Appendix 8F Section 8.12
		Low to Very Low (HWH2) (Year 15)	Moderate to Minor and Not Significant to No Effect (HWH2) (Year 15)		

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
		Zero (HWH8) (Years 1 and 15)	No Effect (HWH8) (Years 1 and 15)		
Manchester Ship Canal <i>Decommissioning</i>	High	Low to Very Low to Zero (HWH2)	Moderate to Minor and Not Significant to No Effect (HWH2)	Localised visibility of decommissioning activities at the Higher Walton (HWH2) HAGI to the west of the Acton Grange Viaduct. The ZTV for the Higher Walton (HWH8) HAGI in Figure 8.33 , indicates no intervisibility from within the Manchester Ship Canal.	WBC Section 8.12
		Zero (HWH8)	No Effect (HWH8)		
Weaver Navigation <i>Construction</i>	High	High to Medium (crossing compounds / Rocksavage HAGI) to Zero	Major to Major/Moderate and Significant to No Effect	West Corridor: Views would be screened for the majority of the route. There would be close range views of construction works between the M56 overbridge and the A56 overbridge where there would be open views four temporary trenchless crossing compounds (either side of the canal). Construction traffic: Potentially visible at Sutton Weaver Swing Bridge. There would be open views the construction works associated with the Rocksavage HAGI located adjacent to the canal. Views to Runcorn HAGI would be heavily screened.	HBC /CWACC Appendix 8F Section 8.12

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
Weaver Navigation <i>Operation Years 1 & 15</i>	High	High to Medium to Zero (Rocksavage HAGI) (Year 1)	Major to Major / Moderate and Significant to No Effect (Rocksavage) (Year 1).	There would be open views the Rocksavage HAGI located adjacent to the canal in Year 1. By Year 15 mitigation and replacement planting would have matured to provide screening. As indicated by the ZTV (Figure 8.30) there would be no views of the Runcorn HAGI from the waterway	HBC / CWACC Appendix 8F Section 8.12
Weaver Navigation <i>Decommissioning</i>	High	Very Low to Zero	Minor and Not Significant to No Effect (Rocksavage) (Year 15)	Limited views of decommissioning activities at the Rocksavage HAGI due to screening provided by retained and replanted vegetation. There would be no views of the Runcorn HAGI being decommissioned.	WBC Section 8.11
River Weaver	Assessed above as part of the Weaver Way recreational route as the route runs along the River.				
River Mersey	Assessed above as part of the Weaver Way recreational route as the route runs along the River.				
River Bollin <i>Construction</i>	High	High (crossing	Major and Significant to No Effect	East Corridor: Views would be screened for the majority of the route. There would be close range views of construction works	HBC /CWACC

Receptor and summary of predicted effects	Sensitivity of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale	LPA ⁴ and Chapter section reference
		compounds) to Zero		north-east of Heatley Farm and west of Dunham Woodhouses where there would be open views four temporary trenchless crossing compounds (either side of the river). There would be filtered views the construction works associated with the Warburton HAGI between Heatley farm and the Dunham Massey Wastewater Treatment Works.	Appendix 8F Section 8.12
River Bollin <i>Operation Years 1 & 15</i>	High	Very Low to Zero (Years 1 and 15).	Minor and Not Significant to No Effect (Years 1 and 15).	There would be moderate levels of intervening vegetative screening elements Warburton HAGI in Year 1. By Year 15 mitigation and replacement planting will have matured to increase screening.	WBC Appendix 8F Section 8.12
River Bollin <i>Decommissioning</i>	High	Very Low to Zero	Minor and Not Significant to No Effect	Limited views of decommissioning activities at the Warburton HAGI due to screening provided by retained and now mature proposed vegetation.	WBC Section 8.11

1. The sensitivity of a receptor is defined using the criteria set out in **Section 8.88.9** and is defined as Low, Medium and High.
2. The magnitude of change on a receptor resulting from activities relating to the development is defined using the criteria set out in **Section 8.8** and is defined as Very Low, Low, Medium and High.
3. The significance of the environmental effects is based on the combination of the sensitivity of a receptor and the magnitude of change and is expressed as Major or Major/Moderate (Significant), Moderate (potentially Significant) or Minor, Minor/Negligible or Negligible (Not Significant), subject to the evaluation methodology outlined in **Section 8.8**

4. Local Planning Authority: Cheshire West and Chester Council (CWACC); Cheshire East Council (CEC); Halton Borough Council (HBC); Warrington Borough Council (WBC); St. Helens Borough Council (SHBC); Trafford Council (TC).

HyNet North West Hydrogen Pipeline

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