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Appendix 8D

Landscape Receptor Assessment

October 2024

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1. Introduction

1.1. Overview

1.1.1. This appendix provides an assessment of effects upon landscape receptors which coincide with the Project and its associated LVIA Study Area as follows:

- Landscape character: the potential effects of the Project upon the character and key characteristics of the Landscape Character Types (LCTs) and Landscape Character Areas (LCAs); and
- Landscape designations: the potential effects of the Project upon the local landscape designations and their Special Qualities.

1.1.2. The assessment has been undertaken in accordance with the methodology set out in **Appendix 8A: Landscape and Visual Impact Assessment Methodology**.

1.2. Structure of this Appendix

1.2.1. The assessment of effects on landscape character has been structured by administrative area for ease of navigation as follows:

- Cheshire West and Chester:
  - **Table 8D.1** LCA 9a Dunham to Tarvin Plain;
  - **Table 8D.2** LCA 4a Frodsham, Helsby & Lordship Marshes;
  - **Table 8D.3** LCA 2b Helsby Hill;
  - **Table 8D.4** LCA 5f Helsby to Frodsham;
  - **Table 8D.5** LCA 2a Frodsham Sandstone Ridge;
  - **Table 8D.6** LCA 15c Lower Weaver Valley;
  - **Table 8D.7** LCA 8a Aston;
  - **Table 8D.8** LCA 5d Whitley and Comberbach;
  - **Table 8D.9** LCA 5b Frodsham to Northwich;
  - **Table 8D.10** LCA 5a Norley;
  - **Table 8D.11** LCA 1a Delamere;
  - **Table 8D.12** LCA 15b Mid Weaver Valley;
  - **Table 8D.13** LCA 5e East Winsford;
  - **Table 8D.14** LCA 15e Dane Valley;
  - **Table 8D.15** LCA 10b Stublach Plain;
  - **Table 8D.16** LCA 5c Eaton, Marton & Over; and

- **Table 8D.17** LCA 13b Arley West.

- Halton:
  - **Table 8D.18** LCA Runcorn Hill and Heath Parkland;
  - **Table 8D.19** LCA North Widnes Farmland;
  - **Table 8D.20** LCA Norton Wooded Parkland;
  - **Table 8D.21** LCA Daresbury Sandstone Escarpment;
  - **Table 8D.22** LCA Moore Village and Keckwick Brook Valley; and
  - **Table 8D.23** LCA Preston on the Hill Undulating Enclosed Farmland.
- Knowsley:
  - **Table 8D.24** LCA Cronton and Pex Hill.
- St Helens:
  - **Table 8D.25** LCA BRS5 Rainhill Slopes;
  - **Table 8D.26** LCA FF2 Sutton Manor Fringe;
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  - **Table 8D.28** LCA EF1 Elton Head Hall Farm;
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  - **Table 8D.41** LCA UIV2 Sutton Brook;
  - **Table 8D.42** LCA UIV3 Ravenhead; and
  - **Table 8D.43** LCA WFE4 Bold Hall.
- Trafford:
  - **Table 8D.44** LCT Mossland;

- **Table 8D.45** LCT Settled Sandlands;
- **Table 8D.46** LCT Urban River Valley;
- **Table 8D.47** LCT River Meadowlands; and
- **Table 8D.48** LCT Wooded Estatelands.

- Warrington:
  - **Table 8D.49** LCA 3c Lymm;
  - **Table 8D.50** LCA 5a River Mersey/Bollin;
  - **Table 8D.51** LCA 1f Penketh & Cuerdley;
  - **Table 8D.52** LCA 1a Stretton & Hatton;
  - **Table 8D.53** LCA 3a Appleton Park & Grappenhall; and
  - **Table 8D.54** LCA 6a Victoria Park to Fiddlers Ferry.
- Cheshire East:
  - **Table 8D.55** LCA 7a Arley; and
  - **Table 8D.56** LCA 10a Lower Bollin.

1.2.2. The assessment of effects on local landscape designations is provided in the following tables, again by administrative area:

- Cheshire West and Chester:
  - **Table 8D.57** Helsby and Frodsham ASCV;
  - **Table 8D.58** Weaver Valley ASCV - Lower Weaver; and
  - **Table 8D.59** Weaver Valley ASCV – Mid Weaver.
- Cheshire East:
  - **Table 8D.60** Bollin Valley LLD.

1.3. Structure of each assessment table

1.3.1. Each assessment table is structured as follows:

1. Cross references to relevant figures and landscape context (National Character Area (NCA), landscape designations and administrative area where appropriate).
2. Baseline description of the key characteristics or Special Qualities, as defined by the extant assessments and documents listed in **Table 8.7** of **Chapter 8: Landscape and visual**.
3. Assessment of landscape sensitivity, which considers the value of the landscape and its susceptibility to the type of change proposed to derive an overall landscape sensitivity.

4. Magnitude of landscape change and level of effect: assessed on a project component basis (i.e., pipeline, accesses, HAGI (where appropriate) and BVI (where appropriate) and for each phase of the Project (Construction, Operation Year 1 and Operation Year 15 (the latter two phases for above ground infrastructure only)).
5. Overall assessment.

1.3.2. The landscape assessments contained within **Table 8D.1** to **Table 8D.60** have been informed by the potential tree and hedgerow losses reported within **Appendix 8C: Arboricultural Impact Assessment (AIA)**. The assessments have also been informed by the embedded mitigation measures set out in **Section 8.6** of **Chapter 8: Landscape and visual** and the outline landscape planting proposals for the above ground installations (HAGIs and BVIs) presented in **Figures 1** to **13** of the **Outline Landscape and Ecological Management Plan (LEMP)**.

1.3.3. For the purposes of the assessment and to avoid repetition, the main construction and operational components of the Project are taken to include the following:

- Temporary construction compounds would be enclosed by secure fencing 2.4 to 3.6m high, hard surfaced and contain vehicle, plant and material storage and welfare facilities up to two storeys (approximately 6m). Lighting would be required during the hours of darkness for operational activity typically in winter and may be required for security. Lighting design would minimise light spill outside the compound as set out in **Section 8.6** of **Chapter 8: Landscape and visual** and the **Outline CEMP** in **Appendix 3B**.
- Pipeline corridors (beyond the trenchless crossing compounds) would comprise site fencing, open cut pipeline trench, associated construction machinery, pipe string and construction equipment area, internal running track for through access of construction related personnel and topsoil and subsoil laydown areas.
- HAGIs: the operational HAGIs require security fencing, typically 2.4m to 3.6m high with double-leaf access gates for vehicles. Access would be required from the adjacent road network, access tracks or similar. There would also need to be space for maintenance operatives to safely park their vehicle(s) off the highway and open the gates. The HAGIs would generally be unlit except during maintenance or potential breakdown/ emergency requirements, at which point permanent task lighting mounted on columns (approximately 3-5m high) would be switched on for the duration of the works.
- BVIs: the operations BVIs would be housed in a compound less than 0.5ha in size, with fencing approximately 2.4m high, an access track, facilities for turning vehicles and an access gate. Access would be required for maintenance vehicles, typically Light Goods Vehicles (LGV). The main valve would be in-line with the buried pipeline whilst the bypass and bypass valves would be buried with extended stems for valve operation. The valve actuator would also extend a short height (approximately 1.5m) above ground.

1.3.4. The decommissioning of the Project would likely involve leaving the pipeline in situ whilst 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. 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 AGIs. The relevant LCAs/LCTs and the likely effects during the decommissioning of the Project are set out in **Section 8.9** of **Chapter 8: Landscape and visual.**

2. Assessment of Effects on Landscape Character

2.1. Cheshire West and Chester

Table 8D.1 LCA 9a Dunham to Tarvin Plain

Context	
Relevant figures:	**8.2 and 8.28** (HPP HAGI ZTV) Viewpoint HPP1 (**Figure 8.41**)
LCA hierarchy – NCA:	NCA 60: Mersey Valley and NCA 61: Shropshire, Cheshire and Staffordshire Plain
Landscape Designations:	None
Administrative area:	Cheshire West and Chester
Baseline character description	
The Project passes through the northern fringes of LCA 9a: Dunham to Tarvin Plain, one of four LCAs within the Cheshire Plain West LCT. The key landscape characteristics of the LCA are detailed below taken from *A Landscape Strategy for Cheshire West and Chester Borough*[1]. Key characteristics: • *"A broad, gently shelving and mostly flat plain landscape characterised by hedges and hedgerow trees providing limited vistas.* • *Wide areas of improved grassland for dairy far isolated ming and fodder crops.* • *Limited woodland, confined to coverts and copses, although hedgerow oaks are important elements of the landscape.*	

[1] Cheshire West and Chester (2016), Cheshire West and Chester Landscape Strategy (Online). Available at: https://www.cheshirewestandchester.gov.uk/residents/planning-and-building-control/total-environment/local-landscape-character-assessment-landscape-strategy-2016 (Accessed 10 July 2024)

- *Historic medieval field patterns and increases in tree cover are still found around smaller settlements.*
- *Extensive network of small field ponds which are generally inconspicuous in the landscape.*
- *Larger settlements punctuate the plain where historic form has often been lost within areas of 20th century and later housing development, e.g. at Tarvin.*
- *Elsewhere, settlement is scattered across the plain in small linear hamlets and freestanding farmsteads.*
- *Petro-chemical and Industrial development outside the character area is prominent across the north of the LCA.*
- *The Sandstone Ridge presents a more elevated skyline to the east of the LCA.*
- *Where hedgerows and tree networks remain, the area can present some degree of limited enclosure due to an absence of elevation and viewpoints.*
- *Some loss of field boundaries diminishes this enclosure where some arable farming has been established.*
- *Significant transport infrastructure dissects the area and diminishes tranquillity and rurality, particularly across the north of the LCA."*[1]

Relevant Built Development Guidelines:

1. *"Ensure new built development is of high quality design and responds to local materials and styles. Resist suburban style fencing, garden boundaries, kerbs and lighting.*
2. *Soften built edges by introducing small scale planting schemes using native broadleaved species. Seek to integrate garden boundaries with the rural landscape through use of native hedgerows rather than close-board fencing.*
3. *Conserve rural views towards the Sandstone Ridge in the east.*
4. *Maintain the rural setting to villages and farmsteads which are features of the landscape.*
5. *Ensure any industrial character or large scale commercial development in M56 corridor and beyond is appropriately sited, designed and orientated so as to limit its influence on the rural and tranquil plain to the south, with extensive mitigating planting as necessary.*
6. *Ensure the design of elements associated with new development such as boundary treatments and surfacing recognise, respond to and reflect the traditional vernacular of existing landscape elements that help to define the landscape character, in order* to prevent encroaching sub-urbanisation."[1]

Assessment of sensitivity

Landscape value:

The LCA area is not designated for its scenic landscape value at a national or local level that would denote a higher value. Within the study area, the LCA is influenced by the major M56 transport corridor and powerlines which run parallel with the M56. In addition to the major transport corridor, the proximity of the John Lennon Airport on the northern banks of the River Mersey reduces tranquillity further, particularly from northern 'pockets' of the LCA adjacent to the Manchester Ship Canal. The adjacent industrial petrochemical works at Stanlow also detract from the scenic value in this part of the LCA. The landscape is not rare or particularly scenic, although a regionally important geological site is identified at Dunham -on-the-Hill cutting. Conservation Areas reflect the historic significance of many of the LCAs villages, such as Tarvin, Great Barrow, Little Barrow and Dunham-on-the-Hill. There are a number of recreational routes where the landscape can be experienced within the study area, including several local Public Rights of Way (PRoW) at Hapsford, and to the east and west of Elton Green and some transient views from NCR 5. In the wider LCA, the North Cheshire Way crosses the LCA and there would be some longer-range views into the area from the Sandstone Ridge. Gowy Meadows Nature Reserve at the northwest edge of the LCA indicates local ecological value. The overall landscape value is assessed as Medium.

Landscape susceptibility:

A Landscape Strategy for Cheshire West and Chester Borough[1] describes the susceptibility to urban and industrial development to the north of the LCT and the need to "*conserve and restore the historic field pattern of hawthorn Hedgerows and hedgerow oak trees"*[1]. With regard to the visual character of the LCA, the strategy notes that "*The flatness of the landscape provides opportunities for long views to the Sandstone Ridge which forms a dominant backdrop and prominent skyline to the east. Relatively open character of the plain means there is little opportunity for screening large scale elements, however the visual impact of low level elements could be mitigated using native planting that would not in itself be highly visible"*[1]. In terms of perceptual characteristics, the strategy notes "*The massive petrochemical industrial complex dominates many outward views in the north of the character area… An intrusive overhead power line also traverses this part of the character area introducing industrial scale infrastructure to a large swathe rural parts of the LCA"*[1]*.* Considering the nature of the majority of the Project, predominantly of short-term and temporary duration, apart from the permanent above ground infrastructure of the Stanlow HPP HAGI, the landscape susceptibility to this type of development is reduced. The susceptibility is also assessed in the context of existing extensive industrial, energy and transport infrastructure including the Stanlow petrochemical works immediately adjacent to the LCA. Collectively the extensive man-made development and movement along transport corridors indicates a reduced susceptibility to the construction and operation and maintenance of the Project. Increased susceptibility arises however from the presence of field hedgerows and trees and occasional wider views of construction activity and industrial infrastructure afforded by the flat landscape. The overall susceptibility of the landscape to the Project is assessed as Medium-Low.

Sensitivity	Medium	Landscape value:	Medium
		Landscape susceptibility:	Medium-Low
Magnitude of change and level of effect			
Pipeline (West Corridor)	**Construction phase:** **Figure 8.2, Volume 4** shows approximately 2.2km of the West Corridor of the pipeline within the Dunham to Tarvin Plain LCA. The pipeline corridor would enter the LCA from the Stanlow HPP HAGI from which there would be a trenchless crossing beneath the A5117 and a temporary compound to the south of the road to facilitate the crossing. From here the pipeline corridor crosses several arable fields, passing through field boundaries comprising intermittent hedgerows with infrequent trees, before reaching Cryers Road where there would be an open cut trench across the road. From here the pipeline corridor would continue through further arable fields, passing through field boundaries before reaching the A5117 where three temporary trenchless compounds would be constructed; one within a large agricultural field to the south of the A5117 (with the removal of a section of hedgerow and three hedgerow trees), one within a group of Category C trees between the A5117 and Ince Lane (resulting in the removal of a proportion of these trees as shown in **Figure 8C.92** of **Appendix 8C: Arboricultural Impact Assessment)**, and a final compound sited within a large arable field to the east of Ince Lane (south of Ash Road with no removal of trees or hedgerow). The pipeline corridor would then exit the LCA within this field. A temporary materials storage area would be located in a large pastural field to the east of New Dairy Farm and there would be filtered views through hedgerows from the A5117. The storage area would be in a location where movement and farm equipment would be part of the existing character, and this would reduce the magnitude of change in this location. The pipeline corridor lies broadly parallel to the M56 motorway as it crosses the LCA to the west of the M56 service station. Construction activity along the West Corridor associated with the installation of the pipeline would be transient and of short duration with progressive backfilling and reinstatement as works are completed along the route. The scale and geographical extent of these construction activities would be Medium-High when experienced locally to the construction works (within the same field unit or up to ~300m) including from the local roads and PRoW network, reducing to Medium-Low or less from the wider LCA, where the pipeline corridor would appear contained within the large-scale nature of the open fields, set in the context of major transport corridors, pylons, and large-scale industrial petrochemical works. Visibility would be partly limited in some places by roadside and field boundary vegetation.		

	The open cut sections comprising the majority of the pipeline corridor would cross a maximum of nine no. field boundaries within the LCA that are typically defined by hedgerows with occasional trees. The localised removal of hedgerow at each of these locations would appear as a break in the pattern of field boundary vegetation which would be reinstated post construction. The magnitude of change likely to affect the landscape character, key characteristics and elements would range from High (in respect of landscape elements and LCA within and adjacent to the pipeline corridor and trenchless crossing construction compounds) to Low elsewhere within the LCA.	
	Level of effect:	Locally **Major/Moderate** and **Significant** (within and adjacent to the pipeline corridor and trenchless crossing construction compounds) and **Minor** and **Not Significant** to **No Effect** elsewhere within the wider LCA
	Type of effect:	Short-term duration (temporary with some permanent effects), direct and adverse.
Temporary construction accesses (WH-01, WH-03, WH-04, WH-05, WH-06, WH-24)	**Construction phase:** <u>Temporary construction access routes and designated access points: Pool Lane (WH-01), Cryers Lane (WH-03 and WH-04), New Dairy Farm (WH-05), Ince Lane (WH-06), Ash Road (WH-24).</u> All construction access for the pipeline and HAGI would be north and west of the M56 and would utilise the existing road and track network to join the temporary haul routes within the pipeline corridor and the HPP HAGI under construction. Access would be required for the duration of the construction phase (6-12 months) within the LCA although would be completed sooner is some areas. Where possible, existing field gates would be utilised but there may be some locations (such as along Cryer Lane) where short sections of roadside hedgerow would need to be removed to facilitate access from the highway. Traffic management and control measures would be used to facilitate the safe movement of vehicles into and out of the accesses instead of removing or pruning additional vegetation to create visibility splays. The increase in traffic movements (HGV and light vehicle) along the identified routes would be incremental to the baseline levels of traffic along the A5117 and HGVs already using Pool Lane, Ince Lane and Ash Road to access local industries. The traffic generation quantities prepared as part of **Chapter 11: Traffic and transport** predict a 1% (peak) increase in traffic and a 0% increase in HGVs on the A5117, between Common Lane and Junction 14 of the M56 and a 2.1% increase in traffic and 8.3% increase in HGVs using the A5117 between the M56 and B5132. The magnitude of change resulting from the increased traffic movements and localised removal of vegetation would be Low magnitude affecting a small geographical area of landscape character in the local vicinity of the temporary construction access routes and Very Low to Zero elsewhere resulting in a Minor/Negligible effect that is Not Significant.	

	Level of effect:	**Minor and Not Significant** to **Minor/Negligible** or **Zero** and **Not Significant** across the wider LCA.
	Type of effect:	Short-term duration (temporary), direct and adverse.
HPP HAGI	**Construction phase:** Existing commercial warehouses, infrastructure and storage facilities would be removed to facilitate the works within the south-eastern corner of the large petrochemical site just beyond the northern boundary of the LCA. Mature trees 3m to 18m in height line both sides of the A5117 and heavily filter views from the road and the LCA to the south. These would be retained as shown in **Figure 8C.91** of **Appendix 8C: Arboricultural Impact Assessment**. A construction compound would be sited on hard-standing to the east of the HAGI under construction, with both project components located within an existing area of industrial infrastructure with similar structures located further north and therefore would not appear as an unfamiliar element to the area for the duration of the 6-12 months construction period. The magnitude of change would be Low affecting a small geographical area of landscape character in the local vicinity of the temporary construction compound and HAGI under construction extending to approximately 500m from the works.	
	Level of effect:	**Minor** and **Not Significant** from localised areas close to the A5117 and Pool Lane and **Not Significant** elsewhere within the wider LCA.
	Type of effect:	Short-term duration (temporary), direct and adverse.
	Operation and maintenance (Year 1) phase: The HAGI would be enclosed by security fencing typically 2.4 to 3.6m high with gated access for maintenance and the above ground components would be at a low level (up to 5m for lighting columns). Whilst the ZTV in **Figure 8.28** shows intervisibility from within this LCA, in reality, the existing (retained) roadside vegetation would heavily filter views. Within highly localised areas from where the HAGI would be perceived, it would appear to be part of the surrounding petrochemicals works and would not be incongruent. The effect on the landscape character and key characteristics would be Very Low and localised, affecting a small geographical area in the local vicinity of the HAGI.	
	Level of effect:	**Minor/Negligible** and **Not Significant** to **No Effect** in the wider LCA
	Type of effect:	Permanent, indirect and neutral.

	Operation and maintenance (Year 15) phase: There would be no changes to the assessment of effects for Operation Year 1.	
	Level of effect:	**Minor/Negligible** and **Not Significant** to **No Effect** in the wider LCA
	Type of effect:	Permanent, indirect and neutral.
Overall assessment		
Construction phase:	Collectively the construction works involving the underground pipeline, HPP HAGI, four temporary trenchless crossing compounds and one materials storage area and temporary construction access routes through the 9a Dunham to Tarvin Plain LCA would lead to a moderate scale of development, continuing for the construction phase. Whilst each corridor is expected to take 12-18 months to complete, the laying of approximately 2.2km of pipeline through this LCA would be of shorter duration. Successive layers of vegetation, particularly along major transport corridors, whilst intermittent in nature would combine with the typically flat topography limit the extent of visible influence of the construction works on the landscape character and key characteristics. Overall, the magnitude of change on the LCA would be Low with localised areas experiencing up to a High magnitude of change within and in close proximity to the construction compounds and pipeline corridor. Some localised losses of hedgerows and Category C trees would be reinstated following completion of the construction phase.	
	Level of effect:	**Minor** and **Not Significant** with localised areas of **Major/Moderate** and **Significant** effects close to the pipeline corridor and construction compounds.
	Type of effect:	Short-term duration (temporary), direct and adverse.
Operation and maintenance (Year 1) phase:	The effect on the landscape character and key characteristics as a consequence of the operational HPP HAGI at Operation Year 1 would be **Minor/Negligible** and **Not Significant.**	
Operation and maintenance (Year 15) phase:	The effect on the landscape character and key characteristics as a consequence of the operational HPP HAGI at Operation Year 15 would be **Minor/Negligible** and **Not Significant.**	

Table 8D.2 LCA 4a Frodsham, Helsby & Lordship Marshes

Context	
Relevant figures:	**8.2, 8.3, 8.29** (Rocksavage HAGI ZTV) and **8.30** (Runcorn HAGI ZTV) Viewpoint RCH2 (**Figure 8.46**)
LCA hierarchy – NCA:	NCA 60: Mersey Valley and NCA 61: Shropshire, Cheshire and Staffordshire Plain
Landscape Designations:	None
Administrative area:	Cheshire West and Chester

Baseline character description

The Project passes through the Frodsham, Helsby & Lordship Marshes LCA, which is one of four LCAs within the Drained Marsh LCT. The key landscape characteristics of the LCA are detailed below taken from *A Landscape Strategy for Cheshire West and Chester Borough.* [1]

Key characteristics:

- *"A flat, low-lying landscape (up to 13m AOD) of former mudflats and saltmarsh alongside the Mersey Estuary, contrasting with surrounding built development (previously designated as an Area of Significant Local Environmental Value – ASLEV).*
- *Strong interconnection and intervisibility with LCT 16 Mudflats and Saltmarsh to the north.*
- *Reclaimed as part of the opening of the Manchester Ship Canal in 1894, with further drainage following the Second World War to produce productive farmland.*
- *The flat landscape is etched with a distinctive pattern of straight drainage ditches which delineates the field pattern of planned 19th century enclosure.*
- *There is an extensive ditch system, a stronghold for water voles in the borough.*
- *Incomplete hedgerow boundaries provide partial enclosure along some field boundaries.*

- *Land to the north of Lordship Lane is used as a deposit ground for dredgings from the Manchester Ship Canal and supports a range of wetland habitats.*
- *Land to the south of Lordship Lane is in agricultural use – a mixture of pasture and arable with incomplete thorn hedgerows.*
- *Canal dredging grounds defined by high earth embankments.*
- *The area is of local, national and international importance for its breeding, wintering and passage birds which add movement to the landscape.*
- *An isolated, bleak and open landscape - settlement is limited to isolated farms linked by rough tracks between ditches.*
- *A system of surfaced tracks and bridleways serve the area, including National Cycle Route (NCR) 5.*
- *The M56 and railway utilise the flat landscape, crossing the marsh at the base of the Helsby to Frodsham Undulating Enclosed Farmland that gently rises to the south.*
- *Running parallel to the M56 area a number of large-scale overhead power lines which are dominant features in this flat landscape.*
- *The flat, open landscape provides clear views to and from the adjacent Frodsham Sandstone Ridge and Helsby Hill.*
- *Industrial works at Ince Marshes, and at Halton and Rocksavage in Runcorn, form a backdrop in views to the west and east respectively.*
- *Permitted windfarm would become dominant creating a 'windfarm landscape' when constructed"*[1]*.* [wind farm now operational]

Relevant Built Development Guidelines:

1. *"Conserve the remaining open, undeveloped areas of the marsh.*
2. *Consider using native scrubby vegetation to screen views of traffic on the north side of the M56 motorway (taller species may be appropriate on the southern side of the motorway adjacent to the Helsby to Frodsham Undulating Enclosed Farmland).*
3. *Consider views to and from the Frodsham Sandstone Ridge and Helsby Hill when planning any change."*[1]

Assessment of sensitivity

Landscape value:

The LCA is not designated for its scenic landscape value at a national or local level that would denote a higher value and is influenced by major transport corridors and industrial works at Ince Marshes and beyond the LCA at Halton and Rocksavage in Runcorn forming a backdrop to views. The operational Frodsham Wind Farm comprises 19 wind turbines between Lordship Lane and the Mersey Canal, creating a 'wind farm' landscape across most of the LCA. A number of powerlines run parallel with the M56 and a railway corridor within the LCA. In addition to the major transport corridors, the proximity of the John Lennon Airport on the northern banks of the River Mersey reduces tranquillity further. The landscape is not rare or particularly scenic, although the extant assessment notes important views to and from the Frodsham Sandstone Ridge and Helsby Hill in adjoining LCA's. There are a number of recreational routes where the landscape can be experienced including a moderate to high density of local PRoW and some transient views from NCR 5. Recreational attractions include the Runcorn Model Flying Association aircraft strip and the Hover Force Outdoor Activity Centre. Bird watchers may also be attracted to the area along the PRoW network, given the importance of the estuary for birds. The overall landscape value is assessed as Low.

The landscape between the edge of Frodsham east of Brook Furlong includes the Frodsham Cricket club grounds, Salt Works playing fields and other incidental open space close to the M56 motorway. Whilst tranquillity is adversely impacted by the motorway traffic the recreational value of this landscape closely associated with the adjacent community has a Medium to High value.

Landscape susceptibility:

A Landscape Strategy for Cheshire West and Chester Borough[1] describes the encroachment by industrial development and infrastructure and pressure for further expansion. It also notes the visual impact of prominent development and traffic could be reduced by tree planting, noting that this would change the open character of the LCA. Considering the nature of the majority of the Project, predominantly of short-term and temporary duration, apart from the permanent above ground infrastructure of the Rocksavage HAGI, the landscape susceptibility to this type of development is reduced. The susceptibility is also assessed in the context of existing extensive industrial, energy and transport infrastructure, comprising a history of regular and ongoing changes to the landscape including the Frodsham Wind Farm and adjacent to the LCA, the Ince Resource Recover Park. The continued dredging of the Manchester Ship Canal and dumping of material within the LCA north of Lordship Lane is recorded in the extant assessment. Collectively the extensive man-made development and movement along transport corridors indicates a reduced susceptibility to the construction and operation and maintenance of the Project. Increased susceptibility arises however from the typically open character of the landscape facilitating wider views of construction activity and industrial infrastructure. The overall susceptibility of the landscape to the Project is assessed as Low to Medium.

The landscape between the edge of Frodsham east of Brook Furlong and southeast of the M56 (the 'Frodsham recreational fringe') is described above and includes a number of community outdoor recreation facilities located adjacent to the motorway and is assessed to have a Medium susceptibility to the impact of any additional vehicle movements as part of the scheme.			
Sensitivity	Low Sensitivity of the 'Frodsham recreational fringe': Medium	Overall landscape value: Landscape value of the 'Frodsham recreational fringe':	Low Medium to High
		Overall landscape susceptibility: Landscape susceptibility of the 'Frodsham recreational fringe':	Low to Medium Medium
Magnitude of change and level of effect			
Pipeline (West Corridor)	**Construction phase:** **Figures 8.2 and 8.3, Volume 4** shows approximately 7.5km of the West Corridor of the pipeline within the Frodsham, Helsby & Lordship Marshes LCA. The pipeline corridor crosses several arable and pasture fields, passing through field boundaries comprising ditches and/or intermittent hedgerows with infrequent trees, before reaching two fields south of the Ellesmere Port to Warrington railway where temporary compounds would be constructed on both sides of the railway to facilitate a trenchless crossing with some loss of groups of hawthorn as shown in **Figures 8C.93** and **8C.96** of **Appendix 8C: Arboricultural Impact Assessment**. North-east of the trenchless crossing compounds, the pipeline corridor would follow a route for ~5.8km across open arable and pasture fields and running broadly parallel to the M56 motorway. As it approaches the River Weaver, the pipeline would enter a trenchless crossing compound to the west of the M56. Construction activity along the West Corridor associated with the installation of the pipeline would be transient and of short duration with progressive backfilling and reinstatement as works are completed along the route. The scale and geographical extent of these construction activities would be Medium-High when experienced locally to the construction works (within the same field unit or ~300m) including from the local lanes and PRoW network, reducing to Medium-Low or less from the wider LCA, where the pipeline corridor would appear contained within the large-scale nature of the open fields, set in the context of major transport corridors, pylons, and large-scale energy generation. Visibility would be partly limited in some places by roadside and field boundary vegetation.		

	The open cut sections comprising the majority of the pipeline corridor would cross a maximum of 30 No. drains. At 18 No. locations the field boundaries are defined by hedgerows with occasional trees where the localised removal of hedgerow at each of these locations would appear as a break in the already fragmented pattern of field boundary vegetation, with the incomplete character of hedgerow boundaries being recorded as a key characteristic in the extant assessment. Any hedgerow removal would be reinstated post construction. The magnitude of change likely to affect the landscape character, key characteristics and elements would range from High (in respect of landscape elements and LCA within and adjacent to the pipeline corridor and trenchless crossing construction compounds) to Low elsewhere within the LCA.	
	Level of effect:	Locally **Moderate** and **Significant** (within and adjacent to the pipeline corridor and trenchless crossing construction compounds) and **Minor/Negligible** and **Not Significant** to **No Effect** elsewhere within the wider LCA
	Type of effect:	Short-term duration (temporary), direct and adverse.
Temporary construction accesses (WL-03)	**Construction phase:** <u>Temporary construction access routes and designated access points: Elton Lane, Marsh Lane, Rake Lane, Lordship Lane, Straight Length (WL-03), Moorditch Lane, Weaver Lane.</u> All construction access for the pipeline would be north and west of the M56 and would utilise the existing road and track network to join the temporary haul routes within the pipeline corridor. Access would be required for the duration of the construction phase (6-12 months) within the LCA although would be completed sooner is some areas. The magnitude of change resulting from the increased traffic movements using the existing lanes which cross the marshes would potentially be up to a Medium magnitude affecting a small geographical area of landscape character in the local vicinity of the temporary construction access routes.	
	Level of effect:	**Minor** and **Not Significant**
	Type of effect:	Short-term duration (temporary), direct and adverse.
Rocksavage HAGI	**Construction phase:** The LCA coincides with the 1km LVIA Study Area for the Rocksavage HAGI. A temporary construction compound located between the Rocksavage HAGI site under construction and the River Weaver would be sited at a minimum separation distance of approximately 350m from the LCA. The construction period would be 6-12 months. The construction activities would have minimal characterising influence upon this LCA with the River	

	Weaver, M56 motorway and retained woodland providing physical and visual separation. The magnitude of change would be Low affecting a small geographical area of landscape character on the north-eastern boundary of the LCA.	
	Level of effect:	**Minor/Negligible** and **Not Significant** to **Negligible** or **Zero** and **Not Significant** elsewhere within the wider LCA.
	Type of effect:	Short-term duration (temporary), indirect and adverse.
	Operation and maintenance (Year 1) phase: The ZTV in **Figure 8.29** indicates potential intervisibility between the Rocksavage HAGI and the low lying north-eastern fringes of this LCA which are influenced by the M56 and overhead 400kV lines. The HAGI would be enclosed by security fencing typically 2.4 to 3.6m high and above ground components would be at a low level (up to 5m for lighting columns). It's potential presence in north-easterly views and in context with the Frodsham Substation would have very limited characterising influence on this LCA. The effect on the landscape character and key characteristics would be Very Low and localised, affecting a small geographical area.	
	Level of effect:	**Negligible** and **Not Significant**
	Type of effect:	Permanent, indirect and neutral.
	Operation and maintenance (Year 15) phase: There would be no changes to the assessment of effects predicted for Year 1.	
	Level of effect:	**Negligible** and **Not Significant**
	Type of effect:	Permanent, indirect and neutral.
Runcorn HAGI	**Construction phase:** The LCA coincides with the 1km LVIA Study Area for the Runcorn HAGI. A temporary construction compound would be located to the north-west of the Runcorn HAGI site under construction at a minimum separation distance of approximately 450m from the LCA. Its position to the north of industrial land uses on the northern bank of the Weaver Navigation and the Rocksavage Power Station means that construction activities would have minimal characterising influence upon this LCA during the 6-12 month construction period. The magnitude of change would be Very Low affecting a small geographical area of landscape character on the north-eastern boundary of the LCA.	

	Level of effect:	**Negligible** and **Not Significant**
	Type of effect:	Short-term duration (temporary), indirect and adverse.
	Operation and maintenance (Year 1) phase: The ZTV in **Figure 8.30** indicates potential intervisibility between the Runcorn HAGI and the low lying north-eastern fringes of this LCA which are influenced by the M56 and overhead 400kV lines. The HAGI would be enclosed by security fencing typically 2.4 to 3.6m high and above ground components would be at a low level (up to 5m for lighting columns). It's potential presence in northerly views and in context with the Frodsham Substation and Rocksavage Power Station would have very limited characterising influence on this LCA as indicated in **Figure 8.46** for Viewpoint RCH2. The effect on the landscape character and key characteristics would be Very Low and localised, affecting a small geographical area.	
	Level of effect:	**Negligible** and **Not Significant**
	Type of effect:	Permanent, indirect and neutral.
	Operation and maintenance (Year 15) phase: There would be no changes to the assessment of effects predicted for Year 1.	
	Level of effect:	**Negligible** and **Not Significant**
	Type of effect:	Permanent, indirect and neutral.
Overall assessment		
Construction phase:	Collectively the construction works involving the underground pipeline, temporary trenchless crossing compounds and separate temporary construction access routes through LCA 4a: Frodsham, Helsby & Lordship Marshes LCA would lead to a moderate scale of development, continuing for the construction phase. Whilst each corridor is expected to take 12-18 months to complete, the laying of approximately 7.5km of pipeline through this LCA would be of shorter duration. Successive layers of vegetation, particularly along major transport corridors, whilst intermittent in nature would combine with the typically flat topography limit the extent of visible influence of the construction works on the landscape character and key characteristics. In places, the artificial landform changes including embankments to transport corridors would also contribute to limit the visible influence of construction works. Overall, the magnitude of change on the LCA would be Low with localised areas experiencing up to a High	

	magnitude of change within and in close proximity to the construction compounds and pipeline corridor. Some localised losses of hedgerows and would be reinstated following completion of the construction phase.	
	Level of effect:	**Minor** and **Not Significant** with localised areas of **Moderate** and **Significant** effects close to the pipeline corridor and construction compounds.
	Type of effect:	Short-term duration (temporary), direct and adverse.
Operation and maintenance (Year 1) phase:	The effect on the landscape character and key characteristics as a consequence of the operational Rocksavage and Runcorn HAGIs at Operation Year 1 would be **Negligible** and **Not Significant.**	
Operation and maintenance (Year 15) phase:	The effect on the landscape character and key characteristics as a consequence of the operational Rocksavage and Runcorn HAGIs at Operation Year 15 would be **Negligible** and **Not Significant.**	

Table 8D.3 LCA 2b Helsby Hill

Context	
Relevant figures:	**8.2**
LCA hierarchy – NCA:	NCA 60 Mersey Valley
Landscape Designations:	Helsby and Frodsham Hills ASCV
Administrative area:	Cheshire West and Chester

Baseline character description:

The Project passes to the north of LCA 2b Helsby Hill, which is one of six LCAs within the Sandstone Ridge LCT. The key landscape characteristics of the LCA are detailed below taken from *A Landscape Strategy for Cheshire West and Chester Borough*[1]*.*

Key characteristics:

- *'Outcrop of Triassic sandstone forms a prominent hill (Helsby Hill reaching 141m) with distinctive cliff profile;*
- *Steep sandstone cliffs to the north and west of the hill support dense woodland and are used for rock climbing;*
- *A rich variety of habitats; brown sandy soils support sheep grazed pasture, semi-natural grassland, dwarf shrub heath, bracken and gorse scrub, with woodland on steeper slopes;*
- *Sandstone outcrops, sandstone quarries (Helsby Quarry) and cliffs are features, including the 'Old Man of Helsby';*
- *Regular rectangular fields resulting from late eighteenth and early nineteenth century enclosure of the Forest of Mara by Parliamentary Act;*
- *Low density of dispersed farms; farm buildings are typically constructed from sandstone (quarried from the ridge) with Welsh slate roofs;*
- *Narrow sunken lanes provide access up to the hill – there are no main roads;*
- *A promontory hillfort at Helsby Hill (a Scheduled Monument) occupies a prominent position on the north-western edge of the outcrop overlooking the Mersey Estuary;*

- *The Longster Trail long distance footpath crosses the outcrop, from where there are some spectacular panoramic views over the Mersey Estuary to the north and towards the Frodsham Sandstone Ridge to the east;* and
- *Locally designated as an Area of Special County Value (ASCV) recognising its landscape and scenic quality and its historic, archaeological and ecological importance.'*[1]

Special Landscape Qualities:

The area is covered by the Helsby & Frodsham Hills Area of Special County Value (ASCV). The Special Qualities, as outlined in the *Local Landscape Designations: Areas of Special County Value in Cheshire West and Chester*[2]*,* are set out in **Section 8.5** of **Chapter 8: Landscape and Visual**. An assessment of effects on the Helsby & Frodsham Hills ASCV is set out in **Section 3** of this appendix.

Assessment of sensitivity

Landscape value:

This LCA is designated as an AGLV for its special landscape character and scenic value. Within the LVIA Study Area, cultural value is represented by the Promontory fort Scheduled Monument whilst nature conservation assets are concentrated at the Helsby Quarry Local Nature Reserve. The scenic value of the LCA is experienced through a variety of recreational amenities including the North Cheshire Way and the Longster Trail which provide access to the summit of the hill from which to experience wide, panoramic views. Much of the hill is owned and managed by the National Trust. *A Landscape Strategy for Cheshire West and Chester Borough* cites an overall management strategy for this landscape to '*conserve the strong, prominent and simple skyline and panoramic views from the hill* [1]. The overall landscape value is assessed as High-Medium.

Landscape susceptibility:

There would be no physical change to this LCA as a result of the Project. *A Landscape Strategy for Cheshire West and Chester Borough*[1] states that the '*Expansive 360 degree panoramic views from the top of the hill across the 'Mersey Estuary to Runcorn, Liverpool and north Wales and across Delamere and to the east to the distant Peak District, and southwards across the lower slopes of Helsby Hill*'[1] is a key sensitivity of the LCA indicating a higher susceptibility although this is countered by the presence of woodland on

[2] 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 23 November 2022)

the north facing slopes which provide some visual enclosure, limiting intervisibility with the landscape to the north. In terms of perceptual characteristics, the landscape is described as having a '*sense of peace and quiet away from the popular areas*'[1]. Considering the nature of the majority of the Project, predominantly of short-term and temporary duration, the landscape susceptibility to this type of development beyond the LCAs boundary is reduced. The overall susceptibility of the landscape to the Project is assessed as Medium.

Sensitivity	High-Medium	Landscape value: High-Medium
		Landscape susceptibility: Medium
Magnitude of change and level of effect		
Pipeline (West Corridor)	**Construction phase:** **Figure 8.2, Volume 4** shows the West Corridor of the pipeline passing to the north of this LCA. Landscape effects would therefore be indirect. The pipeline corridor would be visible in the wide, panoramic views which are available from localised areas of the LCA, as it passes through fields to the north of the M56 corridor and parallel overhead line routes and to the south of the Frodsham Wind Farm and other industrial land uses within Ince Marshes. The existing presence of large-scale infrastructure and high levels of movement along the road and rail corridors within these panoramic views would reduce the level of contrast associated with the Project as it progresses across the landscape to the north. Construction activity along the West Corridor associated with the installation of the pipeline would be transient and of short duration with progressive backfilling and reinstatement as works are completed along the route. The magnitude of change likely to affect the landscape character, key characteristics and elements would range from Very Low from open elevated parts of the LCA to Zero elsewhere within the LCA.	
	Level of effect:	**Minor** to **Minor/Negligible** and **Not Significant** to **No Effect.**
	Type of effect:	Short-term duration (temporary), indirect and adverse.
Temporary construction accesses	**Construction phase:** All construction access for the pipeline would utilise the existing road and track network to the north of the LCA's boundary to join the temporary haul routes within the pipeline corridor to the north. The magnitude of change resulting from the increased light vehicle traffic movements along the closest routes to the LCA (the A56) would be Very Low affecting a small geographical area of landscape character in the local vicinity of the temporary construction access routes.	

	Level of effect:	**Minor** to **Minor/Negligible** and **Not Significant** to **No Effect.**
	Type of effect:	Short-term duration (temporary), indirect and adverse.
Overall assessment		
Construction phase:	Collectively the construction works involving the underground pipeline and temporary construction accesses to the north of the LCAs boundary would give rise to 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. Overall, the magnitude of change on the LCA would be Very Low.	
	Level of effect:	**Minor** to **Minor/Negligible** and **Not Significant** to **Zero**
	Type of effect:	Short-term duration (temporary), indirect and adverse.

Table 8D.4 LCA 5f Helsby to Frodsham

Context	
Relevant figures:	**8.2** and **8.3.**
LCA hierarchy – NCA:	NCA 60 Mersey Valley and NCA 62 Cheshire Sandstone Ridge
Landscape Designations:	Helsby and Frodsham Hills ASCV (south of the A56 Chester Road)
Administrative area:	Cheshire West and Chester

Baseline character description

The Project passes to the north of LCA, one of seven LCAs within the Undulating Enclosed Farmland LCT. The key landscape characteristics of the LCA are detailed below taken from *A Landscape Strategy for Cheshire West and Chester Borough*[1].

Key characteristics:

- *'Transitional zone between the prominent and distinctive Frodsham Sandstone Ridge and Helsby Hill, and the flat, low lying Frodsham, Helsby and Lordship Marches forming an undulating landscape that gently rises from 10m to 60m AOD;*
- *Underlying bedrock geology of Helsby Sandstone Formations that has been weathered and overlain by glacio-fluvial drift and till deposits;*
- *Geology gives rise to brown sands and earths which support a mixed agricultural landscape of arable and grassland, with fragments of acid grassland;*
- *Fields are typically small to medium in size, with a combination of irregular medieval enclosure and modern reorganisation and enclosure, enclosed by trimmed thorn hedgerows and trees;*
- *Enclosed medieval townfields around Woodhouses, visible as small scale field divisions;*
- *Low sandstone walls and black and white estate style 'Cheshire Fencing' also form boundaries;*
- *The area is drained by a small stream running south to north, crossed by a footbridge and ford at Chestnut Lane, Woodhouses, and wooded at its southern end;*

- *Otherwise woodland cover is low, with a small broadleaf copse around Foxhill;*
- *Cluster of field ponds west of Tarvin Road and around Godscroft Hall;*
- *A low density settlement pattern of scattered farms, individual dispersed detached properties and halls e.g. Godscroft Hall (a listed building) linked by a small network of minor roads either side of the A56;*
- *Building materials include a mix of red brick and sandstone, with white wash and timber framed buildings, and large red brick barns;*
- *A mix of other road side land uses including small workshops, two static caravan sites, tyre fitters, a nursery and Frodsham Cemetery, representing modern ribbon development on the outskirts of Helsby and Frodsham and blurring the distinction between urban and rural;*
- *Recreational opportunities are provided by public rights of way including the North Cheshire Way long distance route passing through the area from Helsby Hill to join the Sandstone Trail along the Frodsham Sandstone Ridge. A parking area and footpath lead from the B5393 to the Arboretum on the Frodsham Sandstone Ridge;*
- *The wooded high ground of Frodsham Hill and Helsby Hill dominates the southern and western parts of the area, where the very strong skyline terminates all views in these directions;*
- *By contrast the northern boundary is visually indistinct and distant views extend over Frodsham, Helsby and Lordship Marches to the Mersey;*
- *Generally a quiet, rural landscape although the A56 Chester Road passes through the area between Helsby and Frodsham, contributing to the sense of movement and noise locally;*
- *The railway and traffic on the M56 just beyond the character area to the north also adds to the sense of movement and noise;*
- *The area south of the A56 is designated as part of the Helsby & Frodsham Hills Area of Special County Value (ASCV);*
- *The area south of the A56 was also designated as an Area of Significant Local Environmental Value (ASLEV) by the former Vale Royal Borough Council;*
- *The character area is overlooked from many high vantage points on the Helsby Hill Sandstone Ridge and Frodsham Sandstone Ridge and is visually sensitive;*

- *The huge industrial complex at Runcorn is visible, as are electricity pylons that run parallel to the motorway beyond the character area to the north;* and
- *The church spire of Trinity Church at Frodsham is a landmark.'*[1]

Special Landscape Qualities:

The area to the south of the A56 is covered by the Helsby & Frodsham Hills ASCV. The Special Qualities, as outlined in the *Local Landscape Designations: Areas of Special County Value in Cheshire West and Chester*[2], are set out in **Section 8.5** of **Chapter 8: Landscape and Visual**. An assessment of effects on the Helsby & Frodsham Hills ASCV is set out in **Section 3** of this appendix.

Assessment of sensitivity

Landscape value:

The LCA to the south of the A56 Chester Road area is designated as an AGLV for its special landscape character and scenic value whilst the area to the north of the A56 is undesignated and influenced by the noise and movement along the adjoining railway and traffic on the M56 as well as the industrial complex at Runcorn and the electricity pylons that run parallel to the motorway. There are no nature conservation or heritage assets within the part of the LCA which coincides with the study area. In terms of landscape condition this LCA is under active agricultural use and is managed for these land uses with a hedgerow network that is generally intact. Within the LVIA Study Area, the scenic value of the LCA is experienced through a limited number of local PRoW. The overall management strategy for this LCA is to conserve and enhance the rural character, strong field pattern and views to and from the Sandstone Ridge. The overall landscape value is assessed as High-Medium.

Landscape susceptibility:

A Landscape Strategy for Cheshire West and Chester Borough seeks to conserve the "*sense of peace and quiet away from the main roads, and conserve the rural character of the lanes"*[1] and the "*ancient field patterns, particularly those dating to the medieval period or earlier which provide historic continuity in the landscape"*[1] indicting that these elements would be of higher susceptibility to physical change. With regard to the visual character of the LCA, the extant assessment notes that "*the area to the north is larger in scale due to the larger field patterns, more open character and more extensive views across the Frodsham, Helsby and Lordship Marches to the Mersey"*[1] indicting potentially higher levels of intervisibility with the landscape to the north. In terms of perceptual characteristics, the landscape is described as a generally "*quiet, rural landscape although the A56 and railway pass through the area, contributing to the sense of movement and noise locally. The A56 is lit along its entire length through this character area between Helsby and Frodsham, providing a suburbanising influence both during the day and at night-time. The M56 just beyond the character area to the north also*

adds to the sense of movement and noise." [1] Considering the nature of the majority of the Project, predominantly of short-term and temporary duration, the landscape susceptibility to this type of development is reduced. The overall susceptibility of the landscape to the Project is assessed as Medium.

Sensitivity	High-Medium	Landscape value:	Medium to High-Medium
		Landscape susceptibility:	Medium
Magnitude of change and level of effect			
Pipeline (West Corridor)	**Construction phase:** **Figures 8.2 and 8.3, Volume 4** shows the West Corridor of the pipeline passing to the north of this LCA. The pipeline corridor would be visible beyond the railway line, M56 corridor and parallel overhead line routes from localised areas of the LCA where there is an absence of foreground screening elements and would be perceived in context with the Frodsham Wind Farm and other industrial land uses within Ince Marshes. The existing presence of large-scale infrastructure and high levels of movement along the road and rail corridors would reduce the level of contrast associated with the Project as it progresses across the landscape to the north. Construction activity along the West Corridor associated with the installation of the pipeline would be transient and of short duration with progressive backfilling and reinstatement as works are completed along the route. The magnitude of change likely to affect the landscape character, key characteristics and elements would range from Very Low to Zero.		
	Level of effect:	**Minor** to **Minor/Negligible** and **Not Significant** to **No Effect.**	
	Type of effect:	Short-term duration, indirect and adverse.	
Temporary construction accesses	**Construction phase:** <u>Temporary construction access routes: A56 Chester Road and Matty's Lane/Hatley Lane.</u> All construction access for the pipeline would utilise the existing road network to join the temporary haul routes within the pipeline corridor to the north of the LCA. As an existing A classified road, the A56 would not require widening and 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 to access WL-03 beyond the LCA's boundary and it is currently anticipated that there		

	would be no requirement for vegetation removal along these lanes to accommodate visibility splays. Access would be required for the duration of the construction phase (6-12 months) within the LCA although would be completed sooner in some areas. The magnitude of change resulting from the 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.	
	Level of effect:	**Moderate** to **Minor** and **Not Significant** to **No Effect.**
	Type of effect:	Short-term duration (temporary), direct and adverse.
Overall assessment		
Construction phase:	Collectively the construction works involving the underground pipeline to the north of the LCAs boundary and temporary construction accesses within the LCA would be perceived in the context of heavy industry, major transport corridors and the Frodsham Windfarm to the north of the LCA or within the context of a busy road network of the A56 corridor. Overall, the magnitude of change on the LCA would be Low to Very Low.	
	Level of effect:	**Minor** to **Minor/Negligible** and **Not Significant** to **No Effect** with localised areas of **Moderate** to **Minor** and **Not Significant** effects close to the construction access routes.
	Type of effect:	Short-term duration (temporary), direct and adverse.

Table 8D.5 LCA 2a Frodsham Sandstone Ridge

Context	
Relevant figures:	**8.3**
LCA hierarchy – NCA:	NCA 60 Mersey Valley and NCA 62 Cheshire Sandstone Ridge
Landscape Designations:	Helsby and Frodsham Hills ASCV
Administrative area:	Cheshire West and Chester

Baseline character description:

The Project passes to the north of LCA 2a Frodsham Sandstone Ridge, which is one of six LCAs within the Sandstone Ridge LCT. The key landscape characteristics of the LCA are detailed below taken from *A Landscape Strategy for Cheshire West and Chester Borough*[1].

Key characteristics:

- *'Outcrops of Triassic sandstone form a prominent ridge reaching over 150m with hills forming features at Beacon Hill, Harrol Edge and Birch Hill;*
- *Steep sandstone cliffs to the north and west of the ridge 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;*
- *Brown sandy soils support permanent grassland, dwarf shrub heath, bracken and gorse scrub and woodland on steeper slopes, for example at Frodsham and Overton Woods;*
- *Groups of Scots pines form distinctive skyline elements;*
- *Quarries are features, particularly along the west-facing cliff;*
- *Less steep slopes support arable farmland;*

- *Regular geometric fields, resulting from late eighteenth and early nineteenth century enclosure by private agreement and Parliamentary Act, dominate the ridge;*
- *New Pale is a 17th century deer park with a distinctive boundary which 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 provide access over the ridge, responding to landform – there are no main roads;*
- *Late Bronze Age/Iron Age promontory hillfort at Woodhouse Hill on the western edge of the ridge, and a former Roman camp at Birch Hill, occupy prominent positions on the ridge (both Scheduled Monuments);*
- *The War Memorial on Frodsham Hill is a landscape 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;* and
- *Locally designated as an Area of Special County Value (ASCV) recognising its landscape and scenic quality and its historic, archaeological and ecological importance.'* [1]

Special Landscape Qualities:

The area is covered by the Helsby & Frodsham Hills ASCV. The Special Qualities, as outlined in the *Local Landscape Designations: Areas of Special County Value in Cheshire West And Chester*[2], are set out in **Section 8.5** of **Chapter 8: Landscape and Visual**. An assessment of effects on the Helsby & Frodsham Hills ASCV is set out in **Section 3** of this appendix.

Assessment of sensitivity

Landscape value:

This LCA is designated as an AGLV for its special landscape character and scenic value. Within the study area, cultural value is present at the Frodsham War Memorial (a listed building) whilst the scenic value of the LCA is experienced through a variety of recreational amenities including the publicly accessible Frodsham Woods, North Cheshire Way and the Sandstone Trail. A viewpoint at the Frodsham War Memorial, as denoted on OS mapping, with seating and car parking also provides a recreational destination from which to experience wide, panoramic views. *A Landscape Strategy for Cheshire West and Chester Borough*[1] cites an overall management strategy for this landscape to '*conserve the strong, prominent and simple skyline and panoramic views from the ridge*.' [1] The overall landscape value is assessed as High-Medium.

Landscape susceptibility:

There would be no physical change to this LCA as a result of the Project. *A Landscape Strategy for Cheshire West and Chester Borough*[1] states that the '*Long distance panoramic views across the Mersey Estuary to Runcorn, Liverpool and north Wales (in particular from the War Memorial on Frodsham Hill), and across Delamere and to the east to the distant Peak District*' [1] is a key sensitivity of the LCA indicating a higher susceptibility although this is countered by the presence of woodland on the north facing slopes which provide some visual enclosure, limiting intervisibility with the landscape to the north. In terms of perceptual characteristics, the landscape is described as having a '*sense of peace and quiet away from the popular areas'*[1]. Considering the nature of the majority of the Project, predominantly of short-term and temporary duration, the landscape susceptibility to this type of development beyond the LCAs boundary is reduced. The overall susceptibility of the landscape to the Project is assessed as Medium.

Sensitivity	High-Medium	Landscape value:	High-Medium
		Landscape susceptibility:	Medium

Magnitude of change and level of effect

Pipeline (West Corridor)	**Construction phase:** **Figure 8.3, Volume 4** shows the West Corridor of the pipeline passing to the north of this LCA, with a very small proportion of the LCA, concentrated along its northern fringes coinciding with the LVIA Study Area. Landscape effects would therefore be indirect. The pipeline corridor would be visible in the wide, panoramic views which are available from localised areas of the LCA, as it passes through fields to the north of the M56 corridor and parallel overhead line routes and to the south of the Frodsham Wind Farm and other industrial land uses within Ince Marshes. The existing presence of large-scale infrastructure and high levels of movement along the road and rail corridors within these panoramic views would reduce the level of contrast associated with the Project as it progresses across the landscape to the north. Construction activity along the West Corridor associated with the installation of the pipeline would be transient and of short duration with progressive backfilling and reinstatement as works are completed along the route. The magnitude of change likely to affect the landscape character, key characteristics and elements would range from Very Low within open elevated parts of the LCA to Zero elsewhere within the LCA.	
	Level of effect:	**Minor** to **Minor/Negligible** and **Not Significant** to **No Effect.**
	Type of effect:	Short-term duration, indirect and adverse.

Temporary construction accesses	**Construction phase:** All construction access for the pipeline would utilise the existing road and track network to the north of the LCA's boundary to join the temporary haul routes within the pipeline corridor to the north. The magnitude of change resulting from the increased light vehicle traffic movements along the closest routes to the LCA (the A56) would be Very Low affecting a small geographical area of landscape character in the local vicinity of the temporary construction access routes.	
	Level of effect:	**Minor** to **Minor/Negligible** and **Not Significant** to **No Effect**
	Type of effect:	Short-term duration (temporary), indirect and adverse.
Overall assessment		
Construction phase:	Collectively the construction works involving the underground pipeline and temporary construction accesses to the north of the LCAs boundary would give rise to indirect effects from elevated views of the Project to the north of the railway line 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. Overall, the magnitude of change on the LCA would be Very Low.	
	Level of effect:	**Minor** and **Not Significant** to **No Effect**
	Type of effect:	Short-term duration (temporary), indirect and adverse.

Table 8D.6 LCA 15c Lower Weaver Valley

Context	
Relevant figures:	**8.3, 8.4, 8.12, 8.13, 8.29** (Rocksavage HAGI ZTV) and **8.30** (Runcorn HAGI ZTV) Viewpoints RSH3 (**Figure 8.44**) and RC1 (**Figure 8.45**)
LCA hierarchy – NCA:	NCA 60: Mersey Valley, NCA 61: Shropshire, Cheshire and Staffordshire Plain, and NCA 62 Cheshire Sandstone Ridge
Landscape Designations:	Weaver Valley ASCV – Lower Weaver
Administrative area:	Cheshire West and Chester

Baseline character description:

The Project passes through the northern and central parts of LCA 15c: Lower Weaver Valley, which is one of nine LCAs within the River Valleys LCT. The key landscape characteristics of the LCA are detailed below taken from *A Landscape Strategy for Cheshire West and Chester Borough*[1].

Key characteristics:

- *"A broad, gently shelving and mostly flat plain landscape characterised by hedges and hedgerow trees providing limited vistas.*
- *Distinct valley with a flat open floodplain and steep, wooded, valley sides.*
- *Containing the course of the River Weaver and Weaver Navigation with many artificial channels (`cuts'), remnant meanders, locks at Dutton and sluices/weirs.*
- *The steep valley sides and series of steep sided tributary valleys support distinctive clough woodland, much of which is ancient - some have extensive displays of bluebells.*
- *The LCA includes Beechmill Wood and Pasture SSSI and Warburton's Wood and Well Wood SSSI.*
- *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, and the Anderton Boat Lift are 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 side forms a skyline.*
- *Generally, a quiet, tranquil landscape with a low settlement density. However, industrial elements have a defining visual influence on parts of the valley*
- *The Trent and Mersey Canal (a Conservation Area) follows the northern bank 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.*
- *Steel road bridges, such as at Frodsham (A56), Acton (A49), and Northwich Swing Bridge (A533) and two huge sandstone arched railway viaducts (Frodsham and Dutton viaducts) contribute to the industrial character of the valley.*
- *Settlement is generally absent from floodplain, except at locks and alongside the A49. Scattered farms are typical of the less steep valley sides.*
- *Industry has had a great influence on the valley with old tipping lagoons, dredging lagoons and deposit grounds now forming rich wildlife habitats including open water, reed beds and unimproved grassland.*
- *Large scale industrial works have a defining visual influence on the valley at Winnington (Northwich) and Rocksavage (Runcorn)."*[1]

Built Development Guidelines:

"1. Avoid ribbon development along main roads which could obstruct views across the valley and erode the sense of tranquillity of the valley.

2. Support Weaver Navigation and canal-side regeneration that provides opportunities to preserve river structures integral to its function as a navigation.

3. *Preserve the industrial aesthetic of the Trent and Mersey Canal and its setting, including associated structures and artefacts of industrial archaeology. Consider views from the canal in planning new built development.*
4. *Preserve the character of the bridges across the Weaver.*
5. *Protect the valley `crests' from large scale built development that would detract from the `intimate', hidden character of the valley.*
6. *Conserve the low settlement density that results in a quiet, tranquil landscape along much of its length.*
7. *Conserve the undeveloped character of the floodplain away from the industrial works at Winnington.*
8. *Invasive species, e.g. Japanese Knotweed, Himalayan Balsam and Giant Hogweed, should be eradicated prior to any development taking place, and where species are present a method statement should be produced on how to deal with them."*[1]

Special Landscape Qualities: Weaver Valley ASCV - Lower Weaver

The area is partially covered by the Weaver Valley ASCV – Lower Weaver. The Special Qualities, as outlined in the *Local Landscape Designations: Areas of Special County Value in Cheshire West And Chester*[2], are set out in **Section 8.5** of **Chapter 8: Landscape and Visual**. An assessment of effects on the Weaver Valley ASCV – Lower Weaver is set out in **Section 3** of this Appendix.

Assessment of sensitivity

Landscape value:

With the exception of the northern tip of the LCA, the majority of the LCA area is overlapped by the Weaver Valley ASCV – Lower Weaver, denoting its scenic landscape value at a local level. Within the study area, the LCA is predominantly rural but is influenced in the north-west by the settlements of Runcorn and Frodsham and by industrial and transport infrastructure. Cultural heritage value is identified in the LCA with the Trent and Mersey Canal which is a designated Conservation Area and various archaeological features. Recreational value is experienced through a variety of recreational amenities including a number of local PRoW, the North Cheshire Way long distance route and users of the Weaver Navigation system, as well as Sustrans NCR 5. The overall landscape value is assessed as High-Medium (within the ASCV) reducing to Medium-Low at the north-western tip.

Landscape susceptibility:

A Landscape Strategy for Cheshire West and Chester Borough[1] describes the susceptibility of hedgerows, clough woodlands, grasslands and wetlands to change and recommends a management objective to conserve and enhance these elements. With regard to the visual character of the LCA, the strategy notes that "*Visibility is confined to the floodplain and valley sides….Where clough woodland is present, it provides some visual screening and scope to mitigate visual impacts on the valley sides. However, the floodplain is open and provides extremely few opportunities for mitigating visual impacts"*[1] and also notes that "*The valley is hidden*

from the adjacent landscapes (Undulating Enclosed Farmland and Cheshire Plain East) due to its steep sides resulting in little inter-visibility between it and adjacent landscapes"[1]. In terms of perceptual characteristics, the strategy notes "*The presence of major river crossing points, infrastructure and industry, and proximity to built development, all contribute to the incidence of human influences and lighting at night detract locally from the overall perception of tranquillity at the eastern and western edges of the LCA"*[1]. The Weaver Valley ASCV notes Special Landscape Qualities relating to *the area*. Those within the study area include the boat graveyard at Dutton Lochs, Dutton railway viaduct, and those relating to features west of Weaverham. Considering the nature of the majority of the Project, predominantly of short-term and temporary duration, and comprising elements trenchless crossing of the area, the landscape susceptibility to this type of development is reduced. The overall susceptibility of the landscape to the Project is assessed as Medium.

Sensitivity	High-Medium	Landscape value:	High-Medium (Medium-Low at the north-western tip)
		Landscape susceptibility:	Medium
Magnitude of change and level of effect			
Pipeline (West Corridor and South Corridor including options SP5 and SP6)	**Construction phase:** **Figures 8.3 and 8.4, Volume 4** show approximately 2.6km of the West Corridor of the pipeline within LCA 15c Lower Weaver Valley. The western pipeline corridor would pass through the LCA in two locations: at the north-western tip of the LCA (outside the ASCV designated area), and in the low-lying area between Dutton Park and the Trent and Mersey Canal (to the north of the River Weaver). Moving from west to east, the West Corridor would enter the LCA via a trenchless crossing beneath the River Weaver with a trenchless crossing compound located in an area of scrub and middle-age tree cover (comprising Common alder, Silver birch, Goat willow, Elder) between the Frodsham Substation and M56 viaduct with associated removals as shown in **Figure 8C.102** of **Appendix 8C: Arboricultural Impact Assessment.** From there it would turn south-east and cross beneath the M56 viaduct and an area of woodland using open cut with the likely extent of woodland removals shown in **Figure 8C.102**. Three trenchless crossing compounds would be sited within the area between the M56 and the railway, one of which would facilitate the trenchless crossing of the Weaver Navigation (Runcorn/Rocksavage Spur). A further trenchless crossing compound would be located south of the railway line to enable the trenchless crossing of both the railway and the Weaver Navigation where it would enter the adjoining 8a Aston LCA. All five trenchless crossing compounds sited within the north-western tip of LCA 15c would require the removal of a proportion of Category B or C woodland as shown in **Figure 8C.102** of **Appendix 8C: Arboricultural Impact Assessment**. This area of the LCA is influenced by transport routes,		

	engineered bridge and viaduct structures and industrial elements including a substation, overhead power lines and pylons, and industrial / commercial warehouses which reduces the potential magnitude of change. The West Corridor also crosses the LCA near Dutton Park and would continue via open cut across five fields (three hedgerow field boundaries) in low-lying, flat topography. It would then pass beneath the Trent and Mersey Canal via a trenchless crossing, with a trenchless crossing compound sited in a large field on the southern bank of the Trent and Mersey Canal and continuing north through LCA 5d towards the Central Hub HAGI (outside the LCA). **Figure 8.4, Volume 4** shows the South Corridor crossing the LCA between Bartington and Acton Bridge / Weaverham with approximately 2.1km of South Corridor within the LCA. The South Corridor (Options SP5 and SP6) would enter the LCA at a trenchless crossing compound within an agricultural field to the south of the Trent and Mersey Canal and would pass through a pastural and arable field before entering a further trenchless compound to facilitate the trenchless crossing of the River Weaver. To the south of the river, the trenchless crossing compound would avoid the bankside thicket and Category A trees and the South Corridor route would be open cut passing through 13 pastural and arable fields and crossing Acton Lane. A materials storage area would also be sited in a large arable field to the south of the A49 Warrington Road and east of Acton Lane within an area influenced by built development. Construction activity along the West and South Corridors associated with the installation of the pipeline would be transient and of short duration with progressive backfill and reinstatement as works are completed along the route. The scale and geographical extent of these construction activities would be Medium-High when experienced locally to the construction works (within the same field unit or ~300m) including from the local roads and PRoW network, reducing to Medium-Low or less from the wider LCA, where the pipeline corridor would be less visible due to distance and intervening layers of roadside and field boundary vegetation. The open cut sections comprising the majority of the pipeline corridor would cross a maximum of 14 No. field boundaries within the LCA that are typically defined by hedgerows. The localised removal of hedgerow at these 14 No. locations would appear as a break in the pattern of field boundary vegetation with reinstatement of the hedgerow post construction. The magnitude of change likely to affect the landscape character, key characteristics and elements would range from High (in respect of landscape elements and LCA within and adjacent to the pipeline corridor, material storage area and trenchless crossing construction compounds) to Low to Zero elsewhere within the LCA.

	Level of effect:	Locally **Major** to **Major/Moderate** and **Significant** (within and adjacent to the pipeline corridor and trenchless crossing construction compounds) and **Minor** and **Not Significant** to **No Effect** elsewhere within the wider LCA.
	Type of effect:	Short-term duration (temporary with some long-term effects), direct and adverse.
Temporary construction accesses (WH-12, SH-04, SH05, SH06)	**Construction phase:** Temporary construction access routes and designated access points: M56, A56 Sutton Causeway (WH-12), A49 Warrington Road (SH-04), Acton Lane (SH-05 and SH-06). All construction access for the pipeline would utilise the existing road and track network to join the temporary haul routes within the pipeline corridor apart from SH-04 from where a new track would cross two agricultural fields avoiding the Category A and B trees. Some limited hedgerow removal would be required on Acton Lane at SH-05 and SH-06. The traffic generation quantities prepared as part of **Chapter 11: Traffic and transport** predict a 0.6% (peak) increase in traffic and a 47.7% increase in HGVs along the River Weaver Bridge within this LCA. The increase in traffic movements (HGV and light vehicle) along the M56 and A49 is likely to be subsumed within baseline traffic flows and would not notably dilute perceptual qualities be relating to tranquillity. The magnitude of landscape change resulting from the increased traffic movements and localised removal of vegetation to accommodate access from the main road network would be up to a Medium magnitude affecting a small geographical area of landscape character in the local vicinity of the temporary construction access routes.	
	Level of effect:	**Major/Moderate** to **Moderate** and locally **Significant** along Aston Lane to **Minor** or **No Effect** and **Not Significant** elsewhere within the wider LCA.
	Type of effect:	Short-term duration (temporary), direct and adverse.
Rocksavage HAGI	**Construction phase:** Rocksavage HAGI would be located within LCA 15c in an area of Category B woodland to the south of the Weaver Navigation and east of the M56 motorway. This area is influenced by the M56 viaduct and overhead lines and pylons from the Frodsham electricity substation to the north-west and construction activities would therefore not be overtly incongruous within the landscape. Whilst the removal of woodland to accommodate the footprint of the Rocksavage HAGI and associated construction compound to the south-west would not alter any of the cited key characteristics of LCA 15C, it would affect local landscape character and valued landscape elements. The construction period would be 6-12 months. The magnitude of change likely to affect the landscape character and	

	elements would range from High (in respect of landscape elements and LCA within and adjacent to the HAGI site and its construction compound) to Low or Zero elsewhere within the LCA.	
	Level of effect:	**Major** to **Major/Moderate** and **Significant** (within the HAGI and construction compound sites) to **Minor** or **No Effect** and **Not Significant** elsewhere within the wider LCA.
	Type of effect:	Short-term duration (temporary with some permanent effects), direct and adverse.
	Operation and maintenance (Year 1) phase: The Rocksavage HAGI would be enclosed by security fencing typically 2.4 to 3.6m high with gated access for maintenance. The above ground components would be at a low level (up to 5m for lighting columns) and would appear to be part of the surrounding industrial land uses. Whilst it is anticipated that woodland would be reintroduced where possible across the construction compound (with the exception of the pipeline easement), safety requirements mean that tree planting is restricted within 50m of the above ground equipment and meadow planting is therefore proposed. As a consequence, there would be a continued net loss of woodland within this area of LCA 15c and woodland introduced post-construction would play a very minor landscape role. The effect on the landscape character and elements would be Medium and localised, affecting a small geographical area in the local vicinity of the HAGI, to Low to Zero elsewhere within the LCA.	
	Level of effect:	**Major/Moderate** to **Moderate** and **Significant** (within the HAGI site and 50m offset from equipment) to **Minor** or **No Effect** and **Not Significant** elsewhere within the wider LCA.
	Type of effect:	Permanent, direct and adverse.
	Operation and maintenance (Year 15) phase: Gradually maturing woodland would partially compensate for that lost during the construction phase whilst the HAGI itself would not be an uncharacteristic feature amongst the surrounding industrial land uses within the north-western tip of LCA 15c.	
	Level of effect:	**Major/Moderate** to **Moderate** and **Significant** (within the HAGI site and 50m offset from equipment) to **Minor** or **No Effect** and **Not Significant** elsewhere within the wider LCA.
	Type of effect:	Permanent, direct and adverse.

Runcorn HAGI	**Construction phase:** The Runcorn HAGI would be located approximately 250m to the north of the north-western tip of this LCA. It's position adjacent to the Rocksavage Power Station and within an area which is dominated by industrial land uses reduces the potential characterising role of construction activities. Tree removal across the HAGI site may be perceived in northerly views from LCA 15c, beyond an area of unmanaged scrub vegetation on the northern bank of the River Weaver which would continue to contribute to screening and presence of tree cover within northerly views. The construction period would be 6-12 months. The magnitude of change within an area of LCA which is of lower sensitivity (Medium-Low) would be Very Low to Zero.	
	Level of effect:	**Minor/Negligible** to **No Effect** and **Not Significant**
	Type of effect:	Short-term duration (temporary), indirect and neutral.
	Operation and maintenance (Year 1) phase: The ZTV in **Figure 8.30** indicates very limited intervisibility between the operational Runcorn HAGI and LCA 15c. Continued tree loss across the HAGI site may be perceived from localised areas but would have no characterising role. The magnitude of change within an area of LCA which is of lower sensitivity (Medium-Low) would be Very Low to Zero.	
	Level of effect:	**Minor/Negligible** to **No Effect** and **Not Significant**
	Type of effect:	Permanent, indirect and neutral.
	Operation and maintenance (Year 15) phase: The permanent tree loss across the Runcorn HAGI site may be perceived from localised areas but would have no characterising role. The HAGI itself would have limited characterising role 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.	
	Level of effect:	**Minor/Negligible** to **No Effect** and **Not Significant**
	Type of effect:	Permanent, indirect and neutral.

Overall assessment		
Construction phase:	Collectively the construction works involving the Rocksavage HAGI, underground pipelines, 11 separate temporary construction, trenchless crossing and storage compounds along with access routes through the 15c Lower Weaver Valley LCA would affect limited areas of the LCA. These are concentrated in the north-west where the HAGI, West Corridor and trenchless crossings of the River Weaver/Weaver Navigation/railway would be present within an area already influenced by industrial elements, near Dutton Park where the West Corridor crosses a small part of the LCA across agricultural fields for ~1km, and adjacent to the A49 where the South Corridor follows the valley for ~2km. The works would lead to a moderate scale of development, continuing for the construction phase. Whilst each corridor is expected to take 12-18 months to complete, the laying of approximately 4.7km of pipeline through this LCA would be of shorter duration. The influence of the construction works on the landscape character and key characteristics of the areas where it is present would be limited by existing layers of vegetation. Overall, 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 construction compounds, Rocksavage HAGI and pipeline corridor. There would be limited indirect effects on the landscape character from construction of the Runcorn HAGI. Some localised losses of hedgerows would be reinstated following completion of the construction phase although the woodland loss across the footprint of the Rocksavage HAGI and immediate surrounds would be permanent.	
	Level of effect:	**Moderate to Minor** and **Not Significant** with localised areas of **Major/Moderate** and **Significant** effects within and close to the pipeline corridors, Rocksavage HAGI and construction and storage compounds.
	Type of effect:	Short-term duration (temporary with some permanent effects), direct and adverse.
Operation and maintenance (Year 1) phase:	The permanent effects on the landscape elements and landscape character within the Rocksavage HAGI site and 50m offset from equipment would be **Major/Moderate** to **Moderate** and **Significant** whilst landscape effects elsewhere within the LCA would be **Minor** to **No Effect** and **Not Significant**.	
Operation and maintenance (Year 15) phase:	There would be no change to the assessment of effects at Operation Year 1.	

Table 8D.7 LCA 8a Aston

Context	
Relevant figures:	**8.3, 8.4** and **8.29** (Rocksavage HAGI ZTV)
LCA hierarchy – NCA:	NCA 60: Mersey Valley and NCA 61: Shropshire, Cheshire and Staffordshire Plain
Landscape Designations:	Weaver Valley ASCV – Lower Weaver
Administrative area:	Cheshire West and Chester

Baseline character description:

The Project passes through the centre of LCA 8a: Aston, which is the only LCA within the Heathy Farmland & Woodland LCT. The key landscape characteristics of the LCA are detailed below taken from *A Landscape Strategy for Cheshire West and Chester Borough*[1]

Key characteristics:

- *"An 'island' of farmland cut off from its context by a combination of railway lines, the M56 motorway, the Trent & Mersey Canal and River Weaver.*
- *Bedrock geology of Bollin Mudstones (forming part of the Mercia Mudstone Group) forms a prominent flat-topped ridge reaching 65m AOD.*
- *Sand, gravel and boulder clay deposits produce a mixture of slowly permeable clay soils and lighter sandy soils that support pasture, arable and former heath.*
- *Numerous brooks drain towards the Weaver into often in steep wooded valleys immediately to the south and east of the LCA; some have extensive displays of bluebells.*
- *Large areas of ancient deciduous woodland on the ridge slopes and along Longacre Brook provide some enclosure and changing colour with the seasons.*
- *Dutton Park, 281ha woodland managed by the Woodland Trust with a rich mixture of habitats from open grassland, ponds, ancient woodland and grazed riverside meadows.*
- *Large poplar plantation at Dutton Lodge Farm.*
- *The designed parkland surrounding the former Aston Hall (now demolished) contributes to the wooded character of the ridge and is a locally important historic site.*

- *Field ponds are a feature of the landscape - formed by the digging of marl pits before the 19th century, they now form important landscape and ecological features.*
- *Relatively large scale fields resulting from late post-medieval agricultural improvement and 20th century field re-organisation / estate management associated with Aston Hall.*
- *Recreational opportunities are provided by public rights of way, and area of open access land at Longacre Wood and a golf course and driving range at Sutton Weaver.*
- *The scale of the landscape is large as a result of the large scale field units and sense of openness, emphasised by the low hedgerows, the lack of hedgerow trees and long distance views from the ridge in all directions.*
- *Part of the Trent and Mersey Canal passes along the eastern edge of the area adjacent to the railway, providing a link to the River Mersey.*
- *Settlement is sparse – scattered farms and the rural hamlets of Aston, Aston Heath and Sutton Weaver are linked by narrow lanes and tracks.*
- *Buildings are typically constructed from red brick and sandstone, with slate roofs.*
- *A peaceful 'island' in a busy context – surrounded by the M56 motorway, roads, railways, built development and industry.*
- *The 'ridge' forms a strong skyline in views from outside the character area, including from the Frodsham to Northwich Undulating Enclosed Farmland and the Whitley & Comberbach Undulating Enclosed Farmland.*
- *From the ridge views are influenced by industry, located to the north and west."*[1]

Built Development Guidelines:

'1. Conserve the low settlement density and rural character of the hamlets. Avoid 'suburbanising' features such as gate posts, kerbs and close board fences around gardens Ensure new built development fits with the local built vernacular, including use of materials (sandstone and red brick). Use indigenous planting to integrate any new built development into the landscape.

2. *Maintain the external fabric, appearance and setting of farm buildings and promote the use of local materials.*
3. *Ensure conversion of farm buildings is sensitive to the rural landscape and vernacular building style. Pay particular attention to the features which accompany the conversion such as driveways and gardens, ensuring that these features do not 'suburbanise' the landscape.*
4. *Ensure riding schools, stables and equestrian development do not accumulate to detract from the rural character of the area – ensure sensitive integration of fencing, tracks, jumps and ancillary buildings.*

5. *Consider the effects of any development on adjacent landscapes, particularly the Frodsham to Northwich Undulating Enclosed Farmland and the Whitley & Comberbach Undulating Enclosed Farmland.*
6. *Consider views from public rights of way, but particularly the Cheshire Ring Canal Walk long distance recreational route, when considering any new built development.*
7. *Preserve the industrial aesthetic of the Trent and Mersey Canal and its setting, including associated structures and artefacts of industrial archaeology. Consider views from the canal in planning new built development.'*[1]

Special Landscape Qualities: Weaver Valley ASCV - Lower Weaver

The area is partially covered by the Weaver Valley ASCV – Lower Weaver. The Special Qualities, as outlined in the *Local Landscape Designations: Areas of Special County Value in Cheshire West And Chester*[2], are set out in **Section 8.5** of **Chapter 8: Landscape and Visual**. An assessment of effects on the Weaver Valley ASCV – Lower Weaver is set out in **Section 3** of this Appendix.

Assessment of sensitivity

Landscape value:

The southern part of the LCA area is overlapped by the Weaver Valley ASCV – Lower Weaver, denoting its scenic landscape value at a local level and in particular its importance to the setting of the River Weaver and the Weaver Valley located beyond the LCA boundary to the south and southwest. Within the study area, the LCA is predominantly rural but is influenced in the north by the M56 transport corridor, a rail line which forms the northern boundary and cuts through the LCA to the east, and by powerlines which run roughly parallel with the rail line. Cultural heritage value is indicated by Aston parkland, the Trent and Mersey Canal, Scheduled Monuments and listed buildings. The LCA is experienced through a variety of recreational amenities including a network of local PRoW, the Delamere Way and Cheshire Ring Canal Walk (both located at the eastern edge of the LCA), a golf course, Dutton Park and NCR 5. The overall landscape value is assessed as High-Medium.

Landscape susceptibility:

A Landscape Strategy for Cheshire West and Chester Borough[1] describes the susceptibility of hedgerows and woodlands to change and recommends a management objective to enhance the condition of the hedgerow, tree and woodland network. With regard to the visual character of the LCA, the strategy notes that "*There is little inter-visibility with the adjacent Weaver Valley due to the steep topography of the valley sides and its hidden nature… The presence of woodland provides some potential for mitigating visual impact of low level elements without the mitigation measures in themselves having an adverse effect on the character of the landscape"*[1] and also notes that "*From the top of the 'plateau' there are views to large scale industry at Rocksavage and Preston Brook"*[1]. In terms of perceptual characteristics, the strategy notes "*This area is perceived as a peaceful 'island' in a busy context. However, the tranquillity is*

fragile on the edges of the character area (particularly to the north-west, north and north-east) due to proximity to infrastructure and industry"[1]. Within the study area, the Weaver Valley ASCV notes Special Landscape Qualities relating to *"Designed parkland surrounding the former Aston Hall (now demolished) contributes to the wooded character of the ridge and is a locally important historic site."*[2], as well as Dutton Park, views within the valley, arable and pastural fields and hedgerows along the valley sides. Considering the nature of the majority of the Project, predominantly of short-term and temporary duration, the landscape susceptibility to this type of development is reduced. The overall susceptibility of the landscape to the Project is assessed as Medium.

Sensitivity	High-Medium	Landscape value:	High-Medium.
		Landscape susceptibility:	Medium.
Magnitude of change and level of effect			
Pipeline (West Corridor)	**Construction phase:** **Figures 8.3 and 8.4, Volume 4** show approximately 5.5km of the West Corridor of the pipeline within the Aston LCA. The pipeline corridor would enter the LCA via a trenchless crossing compound within agricultural land adjacent to the A56 (to the north of the Weaver Navigation) before crossing the A56 Chester Road via trenchless crossing compounds, again sited on agricultural land. Once east of the A56 Chester Road, the West Corridor would pass through arable fields and northern corner of the Sutton Hall Golf Course where a material storage compound would be sited. Continuing eastwards, the West Corridor would cross an avenue of Category A and B trees lining the access drive to Sutton Hall with the removal of two Category B trees. A second avenue leading to the Club House would also be crossed with the loss of six small Category B trees. The extent of tree removal is shown in **Figure 8C.104** of **Appendix 8C: Arboricultural Impact Assessment**. After crossing further arable fields, the route would cross Aston Lane twice (open cut crossing) and NCR 5 to the west of Weaver View Cottages before reaching a trenchless crossing beneath the railway line facilitated by temporary compounds in agricultural fields to the west of the rail line and a pastural field to the east. The temporary construction compounds would feature in the landscape adjacent to the A56 and rail line where man-made elements, audible influence of traffic/trains and movement are already part of the baseline character. The pipeline corridor broadly follows the route of the overhead power line through the LCA and open cut sections would cross 17 hedgerows and one ditch. The localised removal of hedgerow at each of these locations would appear as a break in the pattern of field boundary vegetation and would be reinstated post construction. Construction activity along the West Corridor associated with the installation of the pipeline would be transient and of short duration with progressive backfill and reinstatement as works are completed along the route. The		

	scale and geographical extent of these construction activities would be Medium-High when experienced locally to the construction works (within the same field unit or ~300m) including from the local roads and PRoW network, reducing to Medium-Low or less from the wider LCA, where the pipeline corridor would be less visible due to distance and intervening layers of roadside and field boundary vegetation. The magnitude of change likely to affect the landscape character, key characteristics and elements would range from High (in respect of landscape elements and LCA within and adjacent to the pipeline corridor and trenchless crossing construction compounds) to Low elsewhere within the LCA.	
	Level of effect:	Locally **Major/Moderate** and **Significant** (within and adjacent to the pipeline corridor and trenchless crossing construction compounds) and **Minor** and **Not Significant** to **No Effect** elsewhere within the wider LCA
	Type of effect:	Short-term duration (temporary with some permanent effects), direct and adverse.
Temporary construction accesses (WH-14, WH-15, WH-16, WH-17, WH-18, WH-19, WH-20, WH-25)	**Construction Phase:** Temporary construction access routes and designated access points: M56, A56 Chester Road (WH-14, WH-15 and WH-25), Aston Lane (WH-16, WH-17, WH-18 and WH-19) and WH-20. All construction access for the pipeline would utilise the existing road and track network to join the temporary haul routes within the pipeline corridor. Whilst there would some short lengths of hedgerow removed to form the accesses from the highway, traffic management & control measures would be used to facilitate the safe movement of vehicles into and out of the accesses instead of removing or pruning additional vegetation to create visibility splays. The increase in traffic movements (HGV and light vehicle) along the M56 is likely to be subsumed within baseline traffic flows and would not notably dilute perceptual qualities be relating to tranquillity. However, the additional movement and audible influence associated with an increase in HGV movements on sections of Aston Lane may locally disrupt levels of tranquillity. The traffic generation quantities prepared as part of **Chapter 11: Traffic and transport** predict a 2.7% (peak) increase in traffic and a 67% increase in HGVs along the A557 Clifton Road, which follows a short section of the boundary of the LCA close to the east bank of the River Weaver. A similar increase (3% traffic and 42.2% HGVs) is predicted on the A56 between Station Road and the A533. Access would be required for the duration of the construction phase (6-12 months) within the LCA although would be completed sooner in some areas. The magnitude of change resulting from the increased traffic movements and localised removal of hedgerow to create access points would potentially be up to a Medium magnitude affecting a small geographical area of landscape character in the local vicinity of the temporary construction access routes.	

	Level of effect:	**Major/Moderate** and locally **Significant** along Aston Lane to **Minor** or **No Effect** and **Not Significant** elsewhere within the wider LCA.
	Type of effect:	Short-term duration (temporary), direct and adverse.
Rocksavage HAGI	**Construction phase:** The Rocksavage HAGI would be located beyond the LCA's boundary although its study area coincides with this receptor unit. The HAGI would be located to the west of the LCA between the railway and the M56 at a minimum separation distance of 0.6km. This area is influenced by the M56 viaduct to the south-east and major transport corridors and other built development including light industrial development to the west of the A557 Clifton Road between the HAGI and the LCA. Consequently, the construction activities associated with the Rocksavage HAGI, including the removal of woodland would have no characterising influence on this LCA during the 6-12 month construction period. The magnitude of change would be **Zero**.	
	Level of effect:	**No Effect**
	Type of effect:	N/A
	Operation and maintenance (Year 1) phase: There would be No View of the Rocksavage HAGI in Year 1 due to distance and intervening screening as evidenced in the ZTV in **Figure 8.29**.	
	Level of effect:	**No Effect**
	Type of effect:	N/A
	Operation and maintenance (Year 15) phase: There would be no change to the assessment for Operation Year 1.	
	Level of effect:	**No Effect**
	Type of effect:	N/A

Overall assessment		
Construction phase:	Collectively, the construction works involving the underground pipeline, six separate temporary trenchless crossing and storage compounds and the temporary construction accesses routed through the 8a Aston LCA would lead to a moderate scale of development, continuing for the construction phase. Whilst each corridor is expected to take 12-18 months to complete, the laying of approximately 5.5km of pipeline through this LCA would be of shorter duration. Successive layers of vegetation, particularly along major transport corridors, whilst intermittent in nature would combine with the typically flat topography limit the extent of visible influence of the construction works on the landscape character and key characteristics. Overall, the magnitude of change on the LCA would be Low with localised areas experiencing up to a High magnitude of change within and in close proximity to the construction compounds and pipeline corridor. Some localised losses of hedgerows would be reinstated following completion of the construction phase.	
	Level of effect:	**Minor** and **Not Significant** with localised areas of **Major** to **Major/Moderate** and **Significant** effects within and close to the pipeline corridor and construction and storage compounds.
	Type of effect:	Short-term duration (temporary), direct and adverse.
Operation and maintenance (Year 1) phase:	There would be **No Effect** as a consequence of the operation of the Rocksavage HAGI at Year 1.	
Operation and maintenance (Year 15) phase:	There would be **No Effect** as a consequence of the operation of the Rocksavage HAGI at Year 15.	

2.1.2.

Table 8D.8 LCA 5d Whitley and Comberbach

Context	
Relevant figures:	**8.4, 8.5, 8.9, 8.12** and **8.31** (Central Hub HAGI ZTV) Viewpoints CH1 (**Figure 8.47**), CH2 (**Figure 8.48**) and CH3 (**Figure 8.49**)
LCA hierarchy – NCA:	NCA 61 Shropshire, Cheshire and Staffordshire Plain and NCA 62 Cheshire Sandstone Ridge
Landscape Designations:	None
Administrative area:	Cheshire West and Chester

Baseline Character description

The Project passes through the centre of LCA 5d Whitley and Comberbach, one of seven LCAs within the Undulating Enclosed Farmland LCT. The key landscape characteristics of the LCA are detailed below taken from *A Landscape Strategy for Cheshire West and Chester Borough*[1].

Key characteristics:

- *"Surface deposits give rise to complex soils patterns including a large extent of sandy soils with a peaty surface horizon which supports peaty mosslands at Park Moss and sheep grazed pasture.*
- *A bedrock geology of Bollin Mudstones (part of the Mercia Mudstone Group) covered by a mantle of glacial drift deposits that gives rise to a gently undulating topography generally between 30m and 60m AOD but rising to almost 90m north of Higher Whitley.*
- *Steep wooded cloughs incise the hills, containing small brooks that drain westwards towards the River Weaver, for example Whitley Brook and Cogshall Brook. Semi-improved species rich grassland is found alongside some brooks.*
- *The pastoral character of the landscape – boulder clay deposits mask the underlying mudstones giving rise to a predominance of poorly draining clay soils that support dairying and some arable crops.*
- *Late eighteenth and early nineteenth century enclosure by private agreement and Parliamentary Act which produces a strong field pattern of hedgerows with hedgerow trees (mainly oak).*
- *Small farm woodlands, coverts and designed copses/clumps in parkland are important features of a landscape with generally relatively low woodland cover.*

- *Field ponds are a feature of the lower lying areas, indicating the extraction of marl (calcareous deposits) from the boulder clay for past agricultural improvement. Water bodies to the west of Higher Whitley result from sand/gravel extraction in an area of glacio-fluvial deposits.*
- *Recreational opportunities provided by public rights of way including part of the Delamere Way long distance route, picnic sites, fishing lakes and golf courses.*
- *A network of small rural lanes link scattered farms, cottages, hamlets and villages, with Comberbach the main settlement in the character area.*
- *Great Budworth, Higher Whitley and Lower Whitley are Conservation Areas, with a number of listed buildings, with others across the area.*
- *Building materials are typically red brick and sandstone, with large red brick dairy barns and thatched cottages particular features.*
- *The 'Cheshire railings' – the black and white painted estate railings.*
- *Moated sites were once a feature – a former moated farmstead beside Belmont Hall is a Scheduled Monument.*
- *Generally, a quiet, rural landscape although the A49, A533 and A559 pass through the area, contributing to the sense of movement and noise locally.*
- *A comparatively low lying landscape without a strong skyline – formed by hedgerow trees, woodland and electricity pylons (south). The church at Great Budworth forms a prominent landmark feature.*
- *Long distance views from the southern edge of the area across the Weaver Valley and from the A559 which runs along the ridge top to the east.*
- *Views of large scale industrial works at Northwich (south) and Preston Brook (north west) that lie outside the character area's boundary"* [1]

<u>Relevant Built Development Guidelines:</u>

1. *"Monitor the cumulative effect of piecemeal change in this area – ensure new built single dwellings and their gardens, drives, gates etc. do not accumulate to detract from the rural character of the area through provision of appropriate guidance. Maintain a distinction between urban and rural areas.*
2. *Seek to integrate garden boundaries with the rural landscape through use of native hedgerows.*
3. *Maintain the rural setting to villages and sandstone farmsteads which are features of the landscape.*

4. *Soften built edges and views of infrastructure by introducing small scale planting schemes using native broadleaved species. Use similar planting schemes to integrate new development into the landscape.*
5. *Conserve the rural settings of villages and views to landmark features.*
6. *Resist expansion of Lower Whitely to preserve its distinctive rural character.*
7. *Consider views from Delamere Way when considering locations for new built development.*
8. *Refer to the Whitley Village Plan when considering change in and around Whitley."*[1]

Assessment of sensitivity

Landscape value:

The LCA area is not designated for its scenic landscape value at a national or local level that would denote a higher value, (although it borders the Weaver Valley ASCV along its southeast border and is partially overlapped by the ASCV at its southernmost boundary to the west of Barnton), potentially increasing the value along this boundary). Cultural value is identified by the presence of Conservation Areas in villages of Higher Whitley and Lower Whitley. Within the study area, the scenic value of the LCA is experienced through a variety of recreational amenities including recreational users of the Weaver Navigation (west of Barnton), local PRoW, including the North Cheshire Way, Cheshire Ring Canal Walk, and users of NCR 5. The overall landscape value is assessed as Medium**.**

Landscape susceptibility:

A Landscape Strategy for Cheshire West and Chester Borough[1] describes the susceptibility of the hedgerow and the woodland networks to change and the need to conserve and enhance these elements as well as the overall rural pastoral character of the area. With regard to the visual character of the LCA, strategy notes that "*The presence of undulating topography, woodland and hedgerow trees means there is some potential for mitigating visual impact without the mitigation measures in themselves having an adverse effect on the character of the landscape*" [1]. In terms of perceptual characteristics, the landscape is described as "*Generally a quiet, rural landscape but with features that detract from the overall sense of tranquillity whilst providing sensitive visual receptors, including the main roads, the relatively dense network of rural lanes and the scattered settlement including Comberbach*" [1]. Considering the nature of the majority of the Project, predominantly of short-term and temporary duration, the landscape susceptibility to this type of development is reduced. The overall susceptibility of the landscape to the Project is assessed as Medium.

Sensitivity	Medium	Landscape value:	Medium
		Landscape susceptibility:	Medium

Magnitude of change and level of effect	
Pipeline (West Corridor, North Corridor, East Corridor and South Corridor (including Options SP5 and SP6))	**Construction phase:** **Figures 8.4, 8.9 and 8.12, Volume 4** show approximately 12.8km of pipeline crossing LCA 5d as follows: <u>West Corridor</u> The West Corridor enters the LCA via a trenchless crossing beneath the Trent and Mersey Canal facilitated by trenchless crossing compounds on the northern and southern banks of the canal to the south of Dutton Hall Farm. From here it would continue north-west across a farm track and two arable fields towards trenchless crossing compounds sited on agricultural land and facilitating the crossing of the A533. The West Corridor would then continuing north-west across five mainly pastural fields before reaching the Central Hub HAGI. The route would cross approximately seven field boundaries comprising hedgerow. <u>North Corridor</u> The North Corridor enters the LCA via open cut across a pastural field near Pear Tree Farm (close to Higher Lane) within the north-western fringes of the LCA. The corridor travels southeast across Higher Lane and six mostly pastural fields before turning south-west to cross Marsh Lane and turning again to continue in a south-easterly direct across a further seven mostly pastural fields before reaching the Central Hub HAGI. The route would cross up to thirteen hedgerow field boundaries. <u>East Corridor</u> The East Corridor enters the LCA via open cut in a large pastural field within the north-eastern fringes of the LCA between Reed Lane and Barber's Lane. From here it would continue south-west across a farm access track and five mostly pastural fields before crossing Knutsford Road and continuing across a further two pastural fields. The corridor would then cross the A559 via a trenchless crossing facilitated by construction compounds in open pastural fields to the east and west of the A559 and continue west and then south-west via open cut across Old Mill Lane and Normans Lane and five pastural and arable fields, Back Lane, a further seven fields and then Red Lane. Trenchless crossing compounds sited within fields to the east and west of the A49 would facilitate the crossing of this transport corridor. Continuing southwest, the corridor would cross Whitley Brook and associated group of trees and pass through a further four mostly arable fields and Marsh Lane via open cut before reaching the Central Hub HAGI. The approximately 5.7km of East Corridor would cross up to thirty field boundaries comprising mostly hedgerow.

	South Corridor The South Corridor (Options SP5 and SP6) enters the LCA at a trenchless crossing beneath the Trent and Mersey Canal within the south-western fringes of the LCA and to the west of Bartington. Option SP5 would then cross a farm access track and six fields via open cut before reaching a trenchless crossing compound on the southern side of the A533, Northwich Road. Option SP6 would cross two fields to reach the same trenchless crossing compound on the southern side of the A533, Northwich Road. From the trenchless crossing compound on the northern side of the A533, Northwich Road, the South Corridor would cross a further two fields in open cut to join the Central Hub HAGI. As well as the pipeline corridors and their associated trenchless crossing compounds, two temporary material storage areas would be located within the LCA, one of which would span three open fields to the south of the Central Hub HAGI, with a second smaller storage area sited close to the A559 trenchless crossing compound on the East Corridor. Their siting, together with the trenchless crossing compounds close to A classified roads, where high levels of movement and audible disturbance is common, would reduce the potential effects on perceptual qualities such as tranquillity. Construction activity along the pipeline corridors would be transient and of short duration with progressive backfilling and reinstatement as works are completed along the route. The scale and geographical extent of these construction activities would be Medium-High when experienced locally to the construction works (within the same field unit or ~300m) including from the local roads and PRoW network, reducing to Medium-Low or less from the wider LCA, where the pipeline corridors would be less visible due to distance and roadside and field boundary vegetation. The open cut sections comprising the majority of the pipeline corridor would cross approximately 60 field boundaries within the LCA that are typically defined by hedgerows with occasional trees. The hedgerow removal would be reinstated post construction. The magnitude of change likely to affect the landscape character, key characteristics and elements would range from High (in respect of landscape elements and LCA within and adjacent to the pipeline corridor and trenchless crossing construction compounds) to Low to Zero elsewhere within the LCA.	
	Level of effect:	Locally **Major/Moderate** and **Significant** (within and adjacent to the pipeline corridor and trenchless crossing construction compounds) and **Minor** and **Not Significant** to **No Effect** elsewhere within the wider LCA.
	Type of effect:	Short-term duration (temporary with some permanent effects), direct and adverse.

Temporary construction accesses (SH-03, EH-01, EH-02, EH-03, EH-04, EH-05, EH-06, EH-07, EH-08, EH-09, EH-10, EH-11, EH-12, NH-01, NH-02, NH-03, NH-04, WH-21, WH-22)	**Construction phase:** Temporary construction access routes and designated access points: A533 Northwich Road (WH-21, WH-22, SH-01, SH-02), A49 Warrington / Tarporley Road (SH-03, EH-03, EH-04), Marsh Lane (EH-01, EH-02, NH-01, NH-02), Norman's Lane (EH-05, EH-06), Old Mill Lane (EH-07, EH-08), A559 Northwich Road (EH-09, EH-10), Knutsford Road (EH-11, EH-12), Higher Lane (NH-03, NH-04). All construction access for the pipeline would utilise the existing road and track network to join the temporary haul routes within the pipeline corridor. Whilst a proportion of the access points within the LCA would require the localised removal of short sections of hedgerow to facilitate access from the highway, it is anticipated that traffic management and control measures would be used to facilitate the safe movement of vehicles into and out of the accesses instead of removing or pruning additional vegetation to create visibility splays. The increase in traffic movements (HGV and light vehicle) along the A49, A559 and A533 is likely to be subsumed within baseline traffic flows and would not notably dilute perceptual qualities relating to 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 11.5% increase in HGVs along the A533 between the A49 and Higher Lane and a 3.3% increase in traffic and 13.4% increase in HGVs using the A49 between Grimsditch Lane and Street Lane and also between Junction 10 of the M56 and Limes Lane. However, the additional movement and audible influence associated with an increase in HGV movements on sections of the local road network (Marsh Lane, Norman's Lane, Old Mill Lane, Knutsford Road and Higher Lane) may locally disrupt levels of tranquillity with the traffic generation quantities predicting a 41.4% (peak) increase in traffic and a 192% increase in HGVs along Higher Lane between the A533 and A49. Access would be required for the duration of the construction phase (6-12 months) within the LCA although would be completed sooner in some areas. The magnitude of change resulting from the increased traffic movements and localised removal of vegetation to accommodate access points would potentially be up to a Medium magnitude affecting a small geographical area of landscape character in the local vicinity of the temporary construction access routes.	
	Level of effect:	**Moderate** and locally **Significant** along sections of Marsh Lane, Norman's Lane, Old Mill Lane, Knutsford Road and Higher Lane to **Minor** or **No Effect** and **Not Significant** elsewhere within the wider LCA.
	Type of effect:	Short-term duration (temporary), direct and adverse.

Central Hub HAGI	**Construction phase:** A temporary construction compound would be located on an agricultural field to the east of the HAGI and sited to minimise any loss of trees and hedgerows. The construction period would be 6-12 months and solid hoarding to the perimeter of the compound would minimise visibility of activity and structures. The magnitude of change would be High affecting a small geographical area of landscape character in the local vicinity of the temporary construction compound and HAGI under construction.	
	Level of effect:	**Major/Moderate and Significant** within the vicinity of the temporary construction compound and HAGI and **Minor** and **Not Significant** elsewhere within the wider LCA.
	Type of effect:	Short-term duration (temporary), direct and adverse.
	Operation and maintenance (Year 1) phase: The ZTV in **Figure 8.31** shows the geographical extent of the LCA from where the Central Hub HAGI may be visible. 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. The proposed woodland planting would play a very minor role at Year 1. The effect on the landscape character and key characteristics would be Medium and localised, affecting a small geographical area in the local vicinity of the HAGI.	
	Level of effect:	**Moderate** and **locally Significant** within the vicinity of the HAGI and **Minor to No Effect** and **Not Significant** elsewhere within the wider LCA.
	Type of effect:	Permanent, direct and adverse.
	Operation and maintenance (Year 15) phase: 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 security fenceline of the HAGI in views from the surrounding rural landscape and reduce its characterising role. The proposed woodland would reinforce the key characteristic relating to "*Small farm woodlands, coverts and designed copses/clumps in parkland are important features of a landscape with generally relatively low woodland cover*" [1] 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"* [1]. The magnitude of change would be Low.	
	Level of effect:	**Minor** and **Not Significant** within the vicinity of the HAGI and **Minor/Negligible** to **No Effect** and **Not Significant** elsewhere within the wider LCA

	Type of effect:	Permanent, direct and neutral.
Overall assessment		
Construction phase:	Collectively the construction works involving the underground pipelines, Central Hub HAGI, temporary construction and storage compounds and temporary construction accesses within the 5d Whitley and Comberbach would lead to a moderate scale of development, continuing for the construction phase. Whilst each corridor is expected to take 12-18 months to complete, the laying of approximately 12.8km of pipeline through this LCA would be of shorter duration. Successive layers of vegetation, whilst intermittent in nature would combine with the topography to limit the extent of visible influence of the construction works on the landscape character and key characteristics. Overall, 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 Central Hub HAGI, construction and storage compounds and pipeline corridor. Some localised losses of hedgerows and hedgerow trees would be reinstated following completion of the construction phase.	
	Level of effect:	**Minor** and **Not Significant** with localised areas of **Major/Moderate** and **Significant** effects close to the pipeline corridor, Central Hub HAGI and construction and storage compounds.
	Type of effect:	Short-term duration (temporary), direct and adverse.
Operation and maintenance (Year 1) phase:	The effect on the landscape character and key characteristics as a consequence of the operational Central Hub HAGI at Operation Year 1 would be **Moderate** and **locally Significant.**	
Operation and maintenance (Year 15) phase:	The effect on the landscape character and key characteristics as a consequence of the operational Central Hub HAGI at Operation Year 15 would be **Minor** and **Not Significant.**	

Table 8D.9 LCA 5b Frodsham to Northwich

Context	
Relevant figures:	**8.3, 8.4, 8.12, 8.13, 8.29** (Rocksavage HAGI ZTV) and **8.39** (Hartford BVI ZTV)
LCA hierarchy – NCA:	NCA 60: Mersey Valley and NCA 62 Cheshire Sandstone Ridge
Landscape Designations:	Weaver Valley ASCV – Lower Weaver
Administrative area:	Cheshire West and Chester

Baseline character description

The Project passes through LCA 5b Frodsham to Northwich, one of seven LCAs within the Undulating Enclosed Farmland LCT. The key landscape characteristics of the LCA are detailed below taken from *A Landscape Strategy for Cheshire West and Chester Borough*[1].

Key characteristics:

- *"A bedrock geology of Bollin Mudstones (part of the Mercia Mudstone Group) covered by a mantle of glacial drift deposits that gives rise to a gently undulating topography between 25m and 50m AOD (rising to 90m where it joins the Frodsham Sandstone Ridge).*
- *Steep, wooded cloughs and valleys incise the hills, containing small brooks that drain towards the River Weaver, for example along Cliff Brook, and are of local wildlife importance.*
- *Grassland meadows that are of local wildlife importance.*
- *Boulder clay deposits mask the underlying mudstones giving rise to a predominance of poorly draining clay soils that support dairying and some arable crops.*
- *Small scale fields resulting from late eighteenth and early nineteenth century enclosure by private agreement and Parliamentary Act are bounded by hedgerows with hedgerow trees and drainage ditches. Small scale Medieval townfields surround Kingsley · Small farm woodlands and coverts are important features of a landscape with generally relatively low woodland cover.*
- *Historic orchards throughout the area (previously designated as Areas of Significant Local Environmental Value (ASLEV).*
- *Field ponds are a feature of the lower lying areas, indicating the extraction of marl (calcareous deposits) from the boulder clay for past agricultural improvement.*

- *Designed landscapes at Pike Nook Farm, Hefferston Grange, Weaver Holt, and Hollies Farm are associated with large country houses or farmsteads.*
- *Passive recreation in the form of public footpaths, including parts of the Delamere Way, Eddisbury Way and North Cheshire Way.*
- *Community woodland sites at Thorn Wood and Hazel Pear Wood are managed by the Woodland Trust and provide open access.*
- *A network of small sunken lanes link scattered farms, hamlets and halls. Kingsley, Acton Bridge and Weaverham form nucleated settlements on the edge of the area.*
- *Building materials are typically red brick with large red brick dairy barns a particular feature. Peel Hall is a medieval moated farmstead and a Scheduled Monument.*
- *Promontory hillfort at Bradley, a Scheduled Monument.*
- *Mainline railway lines, the disused ICI mineral railway, electricity pylons, the A49 and A556 pass through the area, contributing to the sense of movement and noise locally.*
- *The Frodsham Sandstone Ridge and the Norley Undulating Enclosed Farmland form a backdrop to views, and Weaverham Church tower is a landmark on the skyline, but generally there is no strong skyline to this relatively low lying landscape. There are panoramic views from the B5152 across the Weaver Valley."*[1]

Relevant Built Development Guidelines:

1. *"Monitor the cumulative effect of piecemeal change in this area – ensure new built single dwellings and their gardens, drives, gates etc. do not accumulate to detract from the rural character of the area through provision of appropriate guidance.*
2. *Local distinctiveness: maintain the rural setting to villages and sandstone farmsteads which are features of the landscape.*
3. *Soften built edges by introducing small scale planting schemes using native broadleaved species.*
4. *Consider views from Delamere Way, Eddisbury Way and North Cheshire Way long distance footpaths in any new development proposals.*
5. *Conserve the open setting of Weaverham Church on the skyline.*
6. *Refer to local Village Design Statement (VDS) and Neighbourhood Plans when considering change."*[1]

Special Landscape Qualities:

The area to the south of the A56 is covered by the Helsby & Frodsham Hills ASCV. A second smaller area to the west of Acton Bridge coincides with the Weaver Valley ASCV – Lower Weaver. The Special Qualities of these local landscape designations, as outlined in the *Local Landscape Designations: Areas of Special County Value in Cheshire West and Chester*[2], are set out in **Section 8.5** of

Chapter 8: Landscape and Visual. An assessment of effects on the Helsby & Frodsham Hills ASCV and Weaver Valley ASCV – Lower Weaver is set out in **Section 3** of this appendix.

Assessment of sensitivity

Landscape value:

Part of the northern tip of this LCA coincides with the Helsby & Frodsham Hills ASCV whilst a small area on the northern fringes close to Acton Bridge lies within the Weaver Valley ASCV – Lower Weaver. Within the LVIA Study Area, the LCA is influenced by surrounding settlement, road and rail infrastructure, and overhead lines and pylons. Cultural heritage value is indicated by a number of Conservation Areas throughout the LCA including Kingsley, Weaverham and Hartford. Recreational value is experienced within the study area, through several local PRoW to the south of Acton Bridge and Hafferston Hall, and south of Gorstage which include part of the Delamere Way long distance route. There would also be some transient views from NCR 5, southeast of Weaverham. In the wider LCA, the North Cheshire Way crosses the LCA and there would be some longer range views into the area from the Sandstone Ridge to the south of the LCA. The overall landscape value is assessed as High-Medium to Medium.

Landscape susceptibility:

A Landscape Strategy for Cheshire West and Chester Borough[1] describes the susceptibility of hedgerow boundaries and the woodland network to change and the need to conserve and enhance these elements. With regard to the visual character of the LCA, the strategy notes that "*The presence of undulating topography, woodland and hedgerow trees means there is some potential for mitigating visual impact without the mitigation measures in themselves having an adverse effect on the character of the landscape*" [1]. In terms of perceptual characteristics, the strategy notes "*Generally a quiet, rural landscape but with features that detract from the overall sense of tranquillity whilst providing sensitive visual receptors, including the main roads and railway, the relatively dense network of rural lanes, small scale industry (including sewage works) and the presence of sizeable settlements including 'suburban' development and industry on the edge of the character area*" [1]. Considering the nature of the majority of the Project, predominantly of short-term and temporary duration, the landscape susceptibility to this type of development is reduced. Collectively, the linear man-made features including transport corridors and overhead lines indicate a reduced susceptibility to the Project. Increased susceptibility arises however from the presence of field hedgerows and trees and occasional wider views afforded by the gently undulating landscape. The overall susceptibility of the landscape to the Project is assessed as Medium.

Sensitivity	Medium	Landscape value:	High-Medium to Medium
		Landscape susceptibility:	Medium

Magnitude of change and level of effect	
Pipeline (South Corridor)	**Construction phase:** **Figures 8.12 and 8.13, Volume 4** shows approximately 5.4km of South Corridor of the pipeline crossing LVIA study area and LCA 5b Frodsham to Northwich LCA. The pipeline corridor would enter the LCA as an open cut in arable fields between Acton Bridge and Weaverham and would pass through four arable and pastural fields and would cross Station Road before entering trenchless compounds within large fields to facilitate the trenchless crossing of a rail line. The pipeline corridor would then continue south in open cut across Grange Brook and seven pastural fields and with field boundaries including hedgerows and mature trees as well as riparian scrub along Grange Brook and an area of scrub woodland to the north-west of Cuddington Manor Farm. At Cuddington Manor Farm, the route would head south-east, crossing the A49 on trenchless crossing and emerging north of Millington Lane. Trenchless crossing compounds would be located at either side of the A49 with tree belts lining the A49 being retained. Exiting the compound, the pipeline corridor would continue as open cut heading south-east and crossing Grange Lane, Millington Lane and Weaverham Road and seven fields comprising both arable and pasture usage. Field boundaries would include hedgerow with hedgerow trees. A second trenchless rail line crossing is facilitated by a construction compound to the south of Hodge Lane and the pipeline corridor would pass briefly out of the LCA near Forest Hill Quarry (entering LCA 1a), before returning into the LCA at a trenchless crossing compound to the north of the A556 Chester Road. The South Corridor would leave the trenchless crossing compound in a pastural field to the south of the A556 Chester Road and east of Sandiway Golf Club. At this point, the South Corridor would continue across a further three pastural fields before leaving the LCA, turning east through LCA 1a before re-entering the LCA, crossing four arable fields at the southern tip of the LCA. It would exit the LCA via a trenchless crossing compound to the west of the River Weaver at Vale Royal. A temporary storage compound would be located in a large pastoral field to the north of Millington Lane and east of Grange Lane. A further temporary storage compound would be located adjacent to Forest Hill Quarry, to the north of the A556. The storage areas would be partially screened by roadside vegetation but would have some visual presence in the landscape. The trenchless crossing compounds would be sited adjacent to road corridors or rail lines where man-made elements, audible influence of traffic/trains and movement are already part of the baseline character. Construction activity along the South Corridor associated with the installation of the pipeline would be transient and of short duration with progressive backfilling and reinstatement as works are completed along the route. The scale and geographical extent of these construction activities would be Moderate when experienced locally to the construction works (within the same field unit or ~300m) including from the local roads and PRoW network,

	reducing to Medium-Low or less from the wider LCA, where the pipeline corridor would be less visible due to distance and roadside and field boundary vegetation. The open cut sections comprising the majority of the pipeline corridor would cross a maximum of 22 No. field boundaries within the LCA, nearly all of which are defined by hedgerows with occasional trees. The localised removal of trees and shrubs at each of these locations would appear as a break in the pattern of field boundary vegetation which would be mitigated by replacement planting in-situ post construction. The magnitude of change likely to affect the landscape character, key characteristics and elements would range from High (in respect of landscape elements and LCA within and adjacent to the pipeline corridor and trenchless crossing construction compounds) to Low to Zero elsewhere within the LCA.	
	Level of effect:	Locally **Major/Moderate** and **Significant** (within and adjacent to the pipeline corridor and trenchless crossing construction compounds) and **Minor** and **Not Significant** to **No Effect** elsewhere within the wider LCA.
	Type of effect:	Short-term duration (temporary with some permanent effects), direct and adverse.
Temporary construction accesses (SH-07, SH-08, SH-09, SH-11, SH-12, SH-13, SH-14)	**Construction phase:** Temporary construction access routes and designated access points: B5153 Station Road (SH-07, SH-08), Hefferston Rise (SH-09), A49, Hodge Lane (SH-11, SH-12), Weaverham Road (SH-13, SH-14), Whitegate Lane, A556 All construction access for the pipeline would utilise the existing road and track network to join the temporary haul routes within the pipeline corridor. Whilst there would some short lengths of hedgerow removed to form the accesses from the highway, traffic management and control measures would be used to facilitate the safe movement of vehicles into and out of the accesses instead of removing or pruning additional vegetation to create visibility splays. The increase in traffic movements (HGV and light vehicle) along the 'A' classified roads is likely to be subsumed within baseline traffic flows and would not notably dilute perceptual qualities relating to tranquillity. However, the additional movement and audible influence associated with an increase in HGV movements on sections of the local road network may locally disrupt levels of tranquillity. Access would be required for the duration of the construction phase (6-12 months) within the LCA although would be completed sooner in some areas. The magnitude of change resulting from the increased traffic movements and localised removal of hedgerow to create access points would potentially be up to a Medium magnitude affecting a small geographical area of landscape character in the local vicinity of the temporary construction access routes.	

	Level of effect:	**Moderate** and locally **Significant** along sections of Station Road, Hefferston Rise, Hodge Lane, Weaverham Road and Whitegate Lane to **Minor** or **No Effect** and **Not Significant** elsewhere within the wider LCA.
	Type of effect:	Short-term duration (temporary), direct and adverse.
Hartford BVI	**Construction phase:** The Hartford BVI would be located in fields to the north of the A556 (Chester Road) and within an area where a trenchless crossing compound would be sited. There would be some loss of grassland, but it is anticipated that the nearby roadside tree cover along the A556 would be retained and protected. The construction period would be 4 months. The magnitude of change would be Medium affecting a small geographical area of landscape character in the local vicinity of the temporary construction compound and BVI under construction between the A556 to the south, residential property to the east and Forest Hill Quarry access road to the west. This is an area which is already subject to movement of HGVs associated with Forest Hill Quarry and construction activities would therefore be incremental to the baseline levels of visual and audible disturbance.	
	Level of effect:	**Moderate** and **Not Significant** within the vicinity of the temporary construction compound and BVI compound and **Minor** and **Not Significant** to **No Effect** elsewhere within the wider LCA. The Moderate effect is judged to be Not Significant due to the baseline context.
	Type of effect:	Short-term duration (temporary), direct and adverse.
	Operation and maintenance (Year 1) phase: The Hartford BVI would be enclosed by security fencing typically 2.4m high with gated access for maintenance. The above ground components would be at a low level and would have minimal characterising role across the LCA, as indicated by the ZTV in **Figure 8.39.** The effect on the landscape character and key characteristics would be Low and localised, 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 access road to the west.	
	Level of effect:	**Minor** and **Not Significant** within the vicinity of the Hartford BVI to **No Effect** elsewhere within the wider LCA.
	Type of effect:	Permanent, direct and adverse.

	Operation and maintenance (Year 15) phase: The assessment of effects would remain the same as concluded for Year 1.	
	Level of effect:	**Minor** and **Not Significant** within the vicinity of the Hartford BVI to **No Effect** elsewhere within the wider LCA.
	Type of effect:	Permanent, direct and adverse.
Rocksavage HAGI	**Construction phase:** A small area within the north-western fringes of this LCA coincides with LVIA Study Area for the Rocksavage HAGI. A minimum separation distance of 0.8km between the HAGI's construction compound and the LCA, the intervening built form on Mill Lane on the eastern bank of the River Weaver, tree cover and the railway viaduct would combine to limit any characterising influence from HAGI construction activities upon this LCA during the 6-12 month construction period. The magnitude of change would be Very Low to Zero.	
	Level of effect:	**Minor/Negligible** to **No Effect** and **Not Significant**
	Type of effect:	Short-term duration (temporary), indirect and neutral.
	Operation and maintenance (Year 1) phase: The ZTV in **Figure 8.29** indicates a very small area of landscape from which the Rocksavage HAGI may be perceived in northerly views. In reality, the separation distance (0.9km), low height of the above ground infrastructure and intervening railway viaduct and groups of trees (not allowed for in the ZTV calculation) means that the magnitude of change would be Zero.	
	Level of effect:	**No Effect**
	Type of effect:	N/A
	Operation and maintenance (Year 15) phase: There would be no change to the assessment of effects at Operation Year 1.	
	Level of effect:	**No Effect**
	Type of effect:	N/A

Overall assessment		
Construction phase:	Collectively the construction works involving the underground pipeline, Hartford BVI, temporary construction and storage compounds and temporary construction access routes through the 5b Frodsham to Northwich LCA would lead to a moderate scale of development, continuing for the construction phase. Whilst each corridor is expected to take 12-18 months to complete, the laying of approximately 5.4km of pipeline through this LCA would be of shorter duration. Successive layers of vegetation, particularly along major transport corridors, whilst intermittent in nature would combine with the gently undulating topography limit the extent of visible influence of the construction works on the landscape character and key characteristics. Overall, 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 construction and storage compounds and pipeline corridor. Some localised losses of hedgerows and hedgerow trees can be largely reinstated following completion of the construction phase.	
	Level of effect:	**Minor** and **Not Significant** with localised areas of **Major/Moderate** and **Significant** effects close to the pipeline corridor and construction and storage compounds.
	Type of effect:	Short-term duration (temporary), direct and adverse.
Operation and maintenance (Year 1) phase:	The effect on the landscape character and key characteristics as a consequence of the operational Hartford BVI at Operation Year 1 would be **Minor** and **Not Significant.** There would be **No Effect** as a consequence of the operational Rocksavage HAGI.	
Operation and maintenance (Year 15) phase:	The effect on the landscape character and key characteristics as a consequence of the operational Hartford BVI at Operation Year 15 would be **Minor** and **Not Significant.** There would be **No Effect** as a consequence of the operational Rocksavage HAGI.	

Table 8D.10 LCA 5a Norley

Context	
Relevant figures:	**8.13** and **8.14**
LCA hierarchy – NCA:	NCA 62 Cheshire Sandstone Ridge
Landscape Designations:	None
Administrative area:	Cheshire West and Chester

Baseline character description:

The Project passes to the east of LCA 5a Norley, one of seven LCAs within the Undulating Enclosed Farmland LCT. The key landscape characteristics of the LCA are detailed below taken from *A Landscape Strategy for Cheshire West and Chester Borough*[1]

Key characteristics:

- *"A bedrock geology of Bollin Mudstones (part of the Mercia Mudstone Group) covered by a mantle of glacial drift deposits that gives rise to an undulating topography between 35m and 90m AOD.*
- *Steep, wooded valleys incise the hills, containing small brooks that drain towards the River Weaver. Gorse occupies steep slopes.*
- *Glacio-fluvial deposits mask the underlying mudstones giving rise to well drained sandy and coarse loamy soils. These soils support a mixture of dairying on short term grassland and arable crops.*
- *Small scale fields resulting from late eighteenth and early nineteenth century enclosure by private agreement and Parliamentary Act are bounded by hedgerows with hedgerow trees.*
- *The sheltered valleys and steeper slopes support woodland – for example along Small Brook and the upper reaches of Crowton Brook.*
- *Remnant historic orchards e.g. to the south-west of Kingsley (previously designated as Areas of Significant Local Environmental Value (ASLEV).*
- *Glacio-fluvial deposits have been quarried in the past.*
- *Areas of former parkland at Norley Hall, Norley Bank, around Royalty Covert and at Delamere Park.*

- *Passive recreation in the form of public footpaths, including part of the Delamere Way which provides access to the adjacent Delamere Forest. Breech Moss is a small area of Registered Common Land with open access.*
- *A network of small sunken lanes link scattered farms and hamlets while the post-medieval settlement of Norley forms a focus for the area.*
- *Characteristic vernacular architecture including sandstone farmsteads and a sandstone church at Norley.*
- *Steep undulations and woodland contribute to an enclosed, intimate landscape.*
- *Views across Delamere to the south-west and across Frodsham to Northwich Undulating Enclosed Farmland to the north-east."*[1]

Built Development Guidelines:

"1. Maintain the low density, scattered settlement pattern of villages/hamlets and farmsteads, retaining Norley as the main focus for development.

2. *Monitor the cumulative effect of piecemeal change in this area – ensure new built single dwellings and their gardens, drives, gates etc. do not accumulate to detract from the rural character of the area through provision of appropriate guidance.*
3. *Conserve the local vernacular built form - red brick/sandstone buildings with slate roofs. Ensure new built development is of high quality design and responds to local materials and styles. Resist suburban style fencing, garden boundaries, kerbs and lighting.*
4. *Ensure conversion of farm buildings is sensitive to the vernacular style of farmsteads in this area, by maintaining the existing structure of simple form and sandstone/red brick finish. Pay particular attention to the features which accompany the conversion such as driveways and gardens, ensuring that these features do not 'suburbanise' the landscape.*
5. *Soften built edges by introducing small scale planting schemes using native broadleaved species. Seek to integrate garden boundaries with the rural landscape through use of native hedgerows rather than close-board fencing.*
6. *Ensure riding schools, stables and equestrian development do not accumulate to detract from the rural character of the area – ensure sensitive integration of fencing, tracks, jumps and ancillary buildings.*
7. *Conserve rural views from Delamere Way long distance footpath.*
8. *Maintain the rural setting to villages and sandstone farmsteads which are features of the landscape.*
9. *Consider views to the skyline ridges e.g. Gallowsclough Hill, and the function of these skyline ridges as a backdrop to the Frodsham to Northwich Undulating Enclosed Farmland, in relation to any change.*
10. *Restrict incremental linear development, which may see distinct rows of housing being connected causing suburbanisation."*[1]

Assessment of sensitivity			
Landscape value: The LCA area is not designated for its scenic landscape value at a national or local level that would denote a higher value, (although it borders the Delamere/Utkinton ASCV and Helsby and Frodsham Hills ASCV at points along its western boundary, potentially increasing the value in these areas). The eastern tip of this LCA is located within the LVIA Study Area. Although is area has many of the features and key characteristics of the wider LCA, it spans a limited area of the LCA area between Delamere Park and Cuddington where the LCA is partially transitioning from the elevated ridge to lower lying landform to the east. Recreational value is experienced by the Delamere Way long distance route is located in the wider landscape to the west of the study area. The overall landscape value is assessed as Medium. Landscape susceptibility: *A Landscape Strategy for Cheshire West and Chester Borough*[1] describes the susceptibility of hedgerow boundaries and the woodland network to change and the need to conserve and enhance these elements as well as the overall pastoral character of the area. With regard to the visual character of the LCA, the strategy notes that "*The presence of undulating topography, woodland and hedgerow trees means there is some potential for mitigating visual impact without the mitigation measures in themselves having an adverse effect on the character of the landscape"*[1]. In terms of perceptual characteristics, the strategy notes "*Generally a quiet, rural landscape but with features that detract from the overall sense of tranquillity*" [1]. Considering the nature of the majority of the Project, predominantly of short-term and temporary duration, the landscape susceptibility to this type of development is reduced. Surrounding woodland limits visibility within the study area, particularly along minor roads and PRoW, reducing susceptibility to change in distant views. The overall susceptibility of the landscape to the Project is assessed as Medium.			
Sensitivity	Medium	Landscape value:	Medium
		Landscape susceptibility:	Medium
Magnitude of change and level of effect			
Pipeline (South Corridor)	**Construction phase:** The South Corridor would not pass through this LCA and effects would be indirect. At its nearest point, the South Corridor would pass approximately 700m to the north-east of the LCA. At this distance, there would be no audible disturbance and the scale of the activities means that it is unlikely that there would be a visual effects pathway		

	due to the intervening settlement and layers of vegetation leading to a Zero magnitude of change on the character and key characteristics of this LCA.	
	Level of effect:	**No Effect**
	Type of effect:	N/A
Temporary construction accesses	**Construction phase:** There would be no temporary construction access points within the LCA. An increase in HGVs using the A49 as it passes through the LCA is unlikely to be readily discernible amongst baseline traffic flows. The effects associated with the movement and audible influence of construction HGVs would be incremental and the magnitude of change would not exceed Very Low.	
	Level of effect:	**Minor/Negligible** and **Not Significant**
	Type of effect:	Short-term duration (temporary), direct and neutral.
Overall assessment		
Construction phase:	There would be no direct or indirect effects as a consequence of the construction of the pipeline within the South Corridor and associated construction compounds, due to distance and intervening, settlement, woodland and tree belts. An increase in construction traffic on the A49 as it passes through the LCA would not alter the character and key characteristics of this landscape.	
	Level of effect:	**Minor/Negligible** and **Not Significant**
	Type of effect:	Short-term duration (temporary), direct and neutral.

Table 8D.11 LCA 1a Delamere

Context	
Relevant figures:	**8.13** and **8.39** (Hartford BVI ZTV)
LCA hierarchy – NCA:	NCA 62 Cheshire Sandstone Ridge
Landscape Designations:	None
Administrative area:	Cheshire West and Chester

Baseline character description:

The Project passes through the eastern fringes of LCA 1a Delamere, which is one of three LCAs within the Woodland, Heaths, Meres and Mosses LCT. The key landscape characteristics of the LCA are detailed below taken from *A Landscape Strategy for Cheshire West and Chester Borough*[1].

Key characteristics:

- *"A gently undulating large scale landscape of woodland, farmland and heathland overlying sand and gravel glacio-fluvial drift material, deposited during the last glaciation, lying between 65m and 85m AOD.*
- *An organic mosaic of meres, mosses, swamp, fen, woodland and heathland forming part of the ancient Forest of Mara and Mondrem, interspersed with conifer plantations, quarries and large, straight sided field.*
- *A dynamic landscape with many areas showing different stages of peatland/ mossland development and vegetation succession.*
- *Large open water bodies occupying kettle holes formed during the last glaciation, known as meres, are associated with fen, mire, acidic grassland and bog habitats and form part of the Meres and Mosses Ramsar site.*
- *Peatland features include quaking bogs or 'schwing moor', where Sphagnum moss has formed over the water surface e.g. at Abbots Moss.*
- *Large areas of plantation woodland on former heath and peatland, dominated by conifers, at Delamere Forest.*
- *Sandy soils also support species rich acid grassland, oak-birch woodland and lowland heath – Little Budworth Common, one of best surviving examples of lowland heath in Cheshire.*
- *Active and inactive sand and gravel and sandstone extraction sites.*

- *Extensive glacio-fluvial drift deposits have created a resource of sand which is actively quarried to create large water bodies and lakes.*
- *Around and between the woodland and water is pattern of planned 19th century enclosure representing relatively late enclosure of this landscape from waste heath.*
- *Large areas managed for recreation including Delamere Forest, Little Budworth Country Park, parking and picnic sites, two golf courses and part of the Sandstone Trail long distance recreational path.*
- *Low settlement density. Settlement form is relatively late in origin and comprises farmsteads of 18th-19th century origin, linked by turnpike roads, and set within areas of relatively recent enclosure together with scattered linear development.*
- *Buildings are characteristically red brick or sandstone with clay or slate tiles. White washed buildings are also characteristic and prominent features within the landscape.*
- *A great contrast between the openness of the heaths, clearings and meres, and the enclosed nature of the woodland.*
- *The skyline is dominated by trees, most often the dark line of conifer plantations.*
- *There is a great diversity of visual experiences - of particular significance are the open views across the Meres."*[1]

Built Development Guidelines:

"1. Conserve the 18th-19th century farmsteads and hamlets that provide evidence of the relatively late enclosure of this landscape from waste heath.

2. *Conserve the low settlement density and sense of tranquillity of this well-visited landscape.*
3. *Monitor the cumulative effect of piecemeal change in this area – ensure new buildings and their gardens, drives, gates, etc. do not accumulate to detract from the rural character of the area through provision of appropriate guidance.*
4. *Ensure riding schools, stables and equestrian development do not accumulate to detract from the rural character of the area – ensure sensitive integration of fencing, tracks, jumps and ancillary buildings.*
5. *Conserve open areas along roads, particularly views across meres – seek to limit incremental linear development which could create a continuous built edge.*
6. *Using local materials such as red Cheshire brick and sandstone with slate or clay tile roofs, and white-washed finishes, will maintain the local vernacular and enhance sense of place."*[1]

Assessment of sensitivity

Landscape value:

Within the LVIA Study Area, the LCA area is not designated for its scenic landscape value at a national or local level that would denote a higher value. Local recreational value would be experienced through minor roads and lanes within the study area, as well as golf courses and Petty Pool Activity Centre. Local PRoW are mostly limited to the densely wooded area around Petty Pool and east of Sandiway. Forest Hill Quarry is located within the northern tip of this LCA which detracts from its scenic value in this area. Manicured golf courses also influence this part of the LCA. The Delamere Way long distance route is located in the wider landscape to the west of the LVIA Study Area. The overall landscape value within the study area is assessed as Medium.

Landscape susceptibility:

A Landscape Strategy for Cheshire West and Chester Borough[1] describes the susceptibility of organic mosaic of open water, mires, mosses, woodland and heathland to change and recommends a management objective to conserve these elements. With regard to the visual character of the LCA, the strategy notes that "*The presence of woodland indicates that this landscape provides opportunities for some screening of low level elements without the mitigation measures in themselves having an adverse effect on views"*[1]. In terms of perceptual characteristics, the strategy recognises "*The low settlement density and sense of tranquillity of this well-visited landscape"*[1]. Considering the nature of the majority of the Project, predominantly of short-term and temporary duration, landscape susceptibility to this type of development is reduced. The overall susceptibility of the landscape to the Project is assessed as Medium.

Sensitivity	Medium	Landscape value:	Medium
		Landscape susceptibility:	Medium

Magnitude of change and level of effect

Pipeline (South Corridor)	**Construction phase:** **Figure 8.13, Volume 4** shows approximately 1.6km of the South Corridor of the pipeline within the LVIA study area and 1a Delamere LCA. The pipeline corridor would enter the LCA at a trenchless crossing compound to the south of the rail line and north of the Forest Hill Quarry where it would cross through a large pastural field and one hedgerow before continuing through the Forest Hill Quarry to the west of an area of woodland which would be retained. The pipeline corridor would enter a trenchless crossing compound which straddles the LCA and adjoining LCA 5b to cross the A556. Two material storage areas would be located within the Forest Hill Quarry to the north of the trenchless crossing compound.

	A second section of South Corridor (0.5km in length) would pass through this LCA at Whitegate Lane, crossing a large pastural and arable field to the west and east of Whitegate Lane as well as Whitegate Lane itself in open cut. Construction activity along the South Corridor associated with the installation of the pipeline would be transient and of short duration with progressive backfill and reinstatement as works are completed along the route. The scale and geographical extent of these construction activities would be Medium-High when experienced locally to the construction works (within the same field unit or ~300m) including from the local roads and PRoW network, reducing to Medium-Low or less from the wider LCA, where the pipeline corridor would be less visible due to distance and roadside and field boundary vegetation. The open cut sections of the pipeline corridor would cross a maximum of 3 No. field boundaries within the LCA that are typically defined by hedgerows with occasional trees. The localised removal of hedgerow at each of these locations would appear as a break in the pattern of field boundary vegetation which would be replanted post construction. The magnitude of change likely to affect the landscape character, key characteristics and elements would range from High (in respect of landscape elements and LCA within and adjacent to the pipeline corridor and trenchless crossing construction compounds) to Low to Zero elsewhere within the LCA.	
	Level of effect:	Locally **Major/Moderate** and **Significant** (within and adjacent to the pipeline corridor and trenchless crossing construction compounds) and **Minor** and **Not Significant** to **No Effect** elsewhere within the wider LCA
	Type of effect:	Short-term duration (temporary with some permanent effects), direct and adverse.
Temporary construction accesses (SH-15, SH-22, SH-23)	**Construction phase:** <u>Temporary construction access routes and designated access points: A556 Chester Road (SH-15), Whitegate Lane (SH-22, SH-23):</u> All construction access for the pipeline would utilise the existing road and track network to join the temporary haul routes within the pipeline corridor. The three access points within the LCA align with existing entrances or field gates and traffic management and control measures would be used to facilitate the safe movement of vehicles into and out of the accesses instead of removing or pruning additional vegetation to create visibility splays. The increase in traffic movements (HGV and light vehicle) along the A556 is likely to be subsumed within baseline traffic flows and would not notably dilute perceptual qualities be relating to tranquillity. However, the additional movement and audible influence associated with an increase in HGV movements on sections of the local road network (Whitegate Lane) may locally disrupt levels of tranquillity. Access would be	

	required for the duration of the construction phase (6-12 months) within the LCA although would be completed sooner in some areas. The magnitude of change resulting from the increased traffic movements would potentially be up to a Medium magnitude affecting a small geographical area of landscape character in the local vicinity of the temporary construction access routes.	
	Level of effect:	**Moderate** and locally **Significant** along a section of Whitegate Lane to **Minor** or **No Effect** and **Not Significant** elsewhere within the wider LCA.
	Type of effect:	Short-term duration (temporary), direct and adverse.
Hartford BVI	**Construction phase:** The Hartford BVI would be sited beyond but close to the boundary of this LCA and within an area where a trenchless crossing compound would be sited. The construction period would be 4 months. The magnitude of change would be Medium affecting a small geographical area of landscape character in the local vicinity of the temporary construction compound and BVI under construction between the A556 and tree belt to the south, tree belt to the east and Forest Hill Quarry access road to the west. This is an area which is already subject to movement of HGVs associated with Forest Hill Quarry and construction activities would therefore be incremental to the baseline levels of visual and audible disturbance.	
	Level of effect:	**Moderate** and **Not Significant** within the vicinity of the temporary construction compound and BVI compound and **Minor** and **Not Significant** to **No Effect** elsewhere within the wider LCA. The Moderate effect is judged to be Not Significant due to the baseline context.
	Type of effect:	Short-term duration (temporary), direct and adverse.
	Operation and maintenance (Year 1) phase: The Hartford BVI sited just beyond the LCA's boundary would be enclosed by security fencing typically 2.4m high with gated access for maintenance. The above ground components would be at a low level and would have minimal characterising role across the LCA, as indicated by the ZTV in **Figure 8.39.** The effect on the landscape character and key characteristics would be Low and localised, affecting a small geographical area in the local vicinity of the BVI, between the A556 to the south, residential property to the east and Forest Hill Quarry access road to the west.	

	Level of effect:	**Minor** and **Not Significant**
	Type of effect:	Permanent, indirect and adverse.
	Operation and maintenance (Year 15) phase: The assessment of effects would remain the same as those concluded for Year 1.	
	Level of effect:	**Minor** and **Not Significant**
	Type of effect:	Permanent, indirect and adverse
Overall assessment		
Construction phase:	Collectively the construction works involving the underground pipeline, Hartford BVI, two trenchless crossing compounds, temporary material storage compounds and three temporary construction access points through the 1a Delamere LCA would lead to a moderate scale of development, continuing for the construction phase. Whilst each corridor is expected to take 12-18 months to complete, the laying of approximately 1.6km of pipeline through this LCA would be of shorter duration. BVI construction would take up to four months. Successive layers of vegetation, whilst intermittent in nature would combine with the undulating topography to limit the extent of visible influence of the construction works on the landscape character and key characteristics. Overall, the magnitude of change on the LCA would be Low with localised areas experiencing up to a High or Medium magnitude of change in close proximity to the BVI compound, construction and storage compounds and pipeline corridor. Some localised losses of hedgerows would be reinstated following completion of the construction phase.	
	Level of effect:	**Minor** and **Not Significant** with localised areas of **Major/Moderate** and **Significant** effects close to the pipeline corridor and construction and storage compounds.
	Type of effect:	Short-term duration (temporary), direct and adverse.
Operation and maintenance (Year 1) phase:	The effect on the landscape character and key characteristics overall would be **Negligible** and **Not Significant,** with **Minor (Not Significant)** effects occurring close to the BVI at Year 1.	
Operation and maintenance (Year 15) phase:	The effect on the landscape character and key characteristics overall would be **Negligible** and **Not Significant,** with **Minor (Not Significant)** effects occurring close to the BVI at Year 15.	

Table 8D.12 LCA 15b Mid Weaver Valley

Context	
Relevant figures:	**8.13** and **8.14**
LCA hierarchy – NCA:	NCA 61 Shropshire, Cheshire and Staffordshire Plain
Landscape Designations:	Weaver Valley ASCV – Mid Weaver
Administrative area:	Cheshire West and Chester

Baseline Character description:

The Project passes through the centre of LCA 15b Mid Weaver Valley, which is one of nine LCAs within the River Valleys LCT. The key landscape characteristics of the LCA are detailed below taken from *A Landscape Strategy for Cheshire West and Chester Borough*[1].

Key characteristics:

- *"Distinct valley with a relatively narrow, flat floodplain and steep, wooded, valley sides.*
- *Containing the course of the Weaver Navigation with many artificial channels (`cuts'), locks and bridges, including Vale Royal 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 permanent pasture including unimproved seasonally wet species rich grassland.*
- *Recreational opportunities are provided by public footpaths alongside the river/navigation, and the river itself which supports boat traffic.*
- *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 side forms a skyline.*
- *Generally a quiet, tranquil landscape with a low settlement density. However, industrial elements have a defining visual influence on parts of the valley – particularly close to Northwich and Winsford.*
- *Steel road bridges, such as in the centre of Northwich and at Hartford Bridge, and two huge sandstone arched railway viaducts contribute to the industrial character of the valley.*

- *Settlement is generally absent from the floodplain, except at locks and in the centre of Northwich. Scattered farms are typical of the less steep valley sides.*
- *Industry has had a great influence on the valley with old works sites now supporting a wide range of habitats, for example at Weaver Parkway.*
- *Large scale industrial works have a defining visual influence on the valley between Winsford and Meadowbank (the Winsford Salt Works).”*[1]

Built Development Guidelines:

“1. Support river and canal-side regeneration that provides opportunities to preserve river structures integral to its function as a navigation.

2. *Protect the valley `crests’ from conspicuous built development that would detract from the `intimate’, hidden character of the valley.*
3. *Conserve the low settlement density that results in a quiet, tranquil landscape along much of its length, particularly between Meadowbank and Hartford Bridge.*
4. *Conserve the undeveloped character of the floodplain – this part of the valley is generally unsuitable for built development and would be a risk from flooding. Avoid the use of the floodplain for car parks and light industrial units.*
5. *Invasive species, e.g. Japanese Knotweed, Himalayan Balsam and Giant Hogweed, should be eradicated prior to any development taking place, and where species are present a method statement should be produced on how to deal with them in accordance with best practice guidance.”*[1]

Special Landscape Qualities: Weaver Valley ASCV – Mid Weaver

The area is partially covered by the Weaver Valley ASCV – Mid Weaver. The Special Qualities, as outlined in the *Local Landscape Designations: Areas of Special County Value In Cheshire West and Chester*[2] are set out in **Section 8.5** of **Chapter 8: Landscape and Visual**. An assessment of effects on the Weaver Valley ASCV – Mid Weaver is set out in **Section 3** of this appendix.

Assessment of sensitivity

Landscape value:

The LCA within the LVIA Study Area coincides with the Weaver Valley ASCV – Mid Weaver, denoting its scenic landscape value at a local level. Within the LVIA Study Area, the scenic value of the LCA is experienced through a variety of recreational amenities including recreational users of the Weaver Navigation, local PRoW, including the Weaver Navigation canal path, and users of NCR 5. The overall landscape value is assessed as High-Medium.

Landscape susceptibility:

A Landscape Strategy for Cheshire West and Chester Borough[1] describes the susceptibility of ancient clough woodlands, unimproved grassland and wetland habitats to change and recommends a management objective to conserve and enhance these elements. With regard to the visual character of the LCA, the strategy notes that "*Visibility is confined to the floodplain and valley sides; clough woodland provides some screening on valley sides but the floodplain is open with few opportunities to mitigate visual impacts"*[1]. In terms of perceptual characteristics, the strategy notes "*Low settlement density results in a quiet, tranquil landscape along much of its length"*[1]. The Weaver Valley ASCV – Mid Weaver notes Special Landscape Qualities relating to the area with those presents within the LVIA Study Area associated with views within the valley, tranquillity, clough woodland and industrial and heritage landmarks. Considering the nature of the majority of the Project, predominantly of short-term and temporary duration, and comprising elements trenchless crossing of the area, the landscape susceptibility to this type of development is reduced. The overall susceptibility of the landscape to the Project is assessed as Medium.

Sensitivity	High-Medium	Landscape value:	High-Medium
		Landscape susceptibility:	Medium

Magnitude of change and level of effect		
Pipeline (South Corridor)	**Construction phase:** **Figures 8.13 and 8.14, Volume 4** show the South Corridor of the pipeline within the LVIA study area and 15b Mid Weaver Valley LCA. Trenchless crossing compounds would be sited in large-scale agricultural fields on the eastern and western banks of the river (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 along the South Corridor beyond the LCA and within the trenchless crossing compounds would be reduced as a consequence of the heavily wooded and steeply sided valley landform meaning that "*Views are typically restricted to within the valley*"[1]. The magnitude of change likely to affect the landscape character, key characteristics and elements would range from Low to Very Low with increasing separation distance from the South Corridor to Zero elsewhere within the LCA.	
	Level of effect:	**Moderate** and **Not Significant** within localised areas to **Minor** and **Not Significant** or **No Effect** for the majority of the LCA. The **Moderate** effect is assessed as being Not Significant due to only one of the 11 key characteristics potentially being affected

		(relating to a "*Generally a quiet, tranquil landscape"*[1]) and the temporary nature of the effects.
	Type of effect:	Short-term duration (temporary), direct and adverse/neutral.
Temporary construction accesses	**Construction phase:** Temporary construction access routes: A556 There would be no access requirements within this LCA. HGVs using the A556, which passes through the LCA, would be subsumed within the baseline volumes of traffic movements and the incremental visual and audible effects of the HGVs would not alter the character or key characteristics of this LCA.	
	Level of effect:	**No Effect**
	Type of effect:	N/A
Overall assessment		
Construction phase:	Collectively, the construction works involving the underground pipeline (South Corridor), and the presence of the trenchless crossing compounds and construction access routes, would represent a moderate scale development continuing for the duration of the construction phase. Whilst each corridor is expected to take 12-18 months to complete, the laying of approximately 0.5km of pipeline through this LCA via trenchless crossing would be of shorter duration. The visual influence of construction activities would be reduced by the presence of the valley landform and clough woodland. 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. This Low magnitude would typically occur in close proximity to the temporary crossing compounds where the audible disturbance may temporarily affect the key characteristic relating to "*Generally a quiet, tranquil landscape"*[1].	
	Level of effect:	**Minor** and **Not Significant** or **No Effect** for the majority of the LCA with potentially **Moderate** and **Not Significant** localised effects.
	Type of effect:	Short-term duration (temporary), direct and adverse/neutral.

Table 8D.13 LCA 5e East Winsford

Context	
Relevant figures:	**8.13** and **8.14**
LCA hierarchy – NCA:	NCA 61 Shropshire, Cheshire and Staffordshire Plain
Landscape Designations:	Weaver Valley ASCV – Mid Weaver
Administrative area:	Cheshire West and Chester

Baseline character description

The Project passes through the centre of LCA 5e East Winsford, one of seven LCAs within the Undulating Enclosed Farmland LCT. The key landscape characteristics of the LCA are detailed below taken from *A Landscape Strategy for Cheshire West and Chester Borough*[1].

Key characteristics:

- *"A bedrock geology of Mercia Mudstone covered by a mantle of glacial drift deposits that gives rise to a gently undulating, lush landscape generally between 30m and 50m AOD, gradually flattening out to the south.*
- *Small, mostly wooded brooks in narrow valleys that drain westwards towards the River Weaver and eastwards to the River Dane.*
- *The lush pastoral character of the landscape - boulder clay deposits mask the underlying mudstones giving rise to a predominance of poorly draining clay soils that support dairying, with some arable crops.*
- *Late eighteenth and early nineteenth century enclosure by private agreement and Parliamentary Act which produces a strong field pattern of hedgerows with hedgerow trees, and drainage ditches.*
- *Isolated pockets of glacio-fluvial sands and gravels with potential to support acid grassland or heathland.*
- *Low lying areas support wetland habitats such as willow beds that are important features of a landscape with generally relatively low woodland cover.*
- *Designed parkland landscapes and woodland at Bostock Hall, Davenham Hall (historic park and garden of local significance) and Stanthorne Hall indicate the wealth of the 19th century and provide a well-manicured character.*
- *Occasional field ponds.*

- *Recreational opportunities provided by Sustrans' National Cycle Route 5 between Northwich and Winsford, and the towpath alongside the Shropshire Union Canal (Middlewich Branch) running through the southern tip of the area, both providing public access to the countryside.*
- *A network of rural lanes link scattered farmsteads, hamlets and halls, while the character area wraps around the settlements of Davenham, Mere Heath and Moulton.*
- *Significant 20th century development on the southern edge of Northwich, the eastern edge of Winsford (and the western edge of Middlewich beyond the borough boundary to the east) have a significant urbanising influence on the character of the area.*
- *Open land between Davenham and Moulton, between Davenham and Leftwich, between Davenham and Kingsmead (Leftwich Grange), and between Moulton and Winsford previously designated as ASLEV and are now recognised as candidate Key Settlement Gaps.*
- *Davenham Hall, Bostock Hall and Bostock Green (late 18th century planned estate village associated with Bostock Hall) are Conservation Areas, with a number of listed buildings.*
- *Building materials are typically red brick and sandstone, with timber framed buildings, large red brick dairy barns and thatched cottages particular features.*
- *The Shropshire Union Canal (Middlewich Branch including Stanthorne Lock) is an important part of the industrial archaeology of the area – it is also a local wildlife site noted for its emergent vegetation and grassland.*
- *Scheduled Monuments at Moultonbank Farm (Bowl Barrow) and Old Bostock Hall (moated site).*
- *Generally a quiet, rural landscape although the A533, A556 Davenham Bypass, A5018, A54 and mainline railway pass through the area, contributing to the sense of movement and noise locally.*
- *Power lines running parallel with the railway and cutting through the Winsford and Wharton Industrial estates also erode rural character and tranquillity.*
- *A comparatively low lying landscape without a strong skyline – formed by hedgerow trees, woodland, farm buildings, industry (at Wharton/Winsford) and electricity pylons. The church spire at Davenham forms a prominent landmark feature."*[1]

Relevant Built Development Guidelines:

1. *"Conserve the rural settlement pattern comprising scattered farms, halls and hamlets linked by a network of rural lanes – ensure new built development does not obliterate this characteristic.*

2. *Conserve the open undeveloped areas between settlements that have been identified as a Candidate Key Settlement Gaps where development could lead to coalescence and the loss of identity of the separate communities of Davenham, Moulton and Northwich (Kingsmead and Leftwich).*
3. *Monitor the cumulative effect of piecemeal change in this area – ensure new built single dwellings and their gardens, drives, gates etc. do not accumulate to detract from the rural character of the area through provision of appropriate guidance.*
4. *Conserve the settings of Davenham Hall (Grade II*) and Bostock Hall (Grade II*) (including Bostock Green estate village) that are designated Conservation Areas.*
5. *Soften built edges and views of infrastructure by introducing planting schemes using native broadleaved species. Use similar planting schemes to integrate new development into the landscape.*
6. *Consider views from Sustrans NCR 5 and the canal towpath when considering the location of new built development.*
7. *Refer local documents such as Village Design Statement (VDS), Conservation Area Appraisals and Neighbourhood Plans when considering change."*[1]

Special Landscape Qualities: Weaver Valley ASCV – Mid Weaver

The area is partially covered by the Weaver Valley ASCV – Mid Weaver. The Special Qualities, as outlined in the *Local Landscape Designations: Areas of Special County Value In Cheshire West and Chester*[2]*,* are set out in **Section 8.5** of **Chapter 8: Landscape and Visual.** An assessment of effects on the Weaver Valley ASCV – Mid Weaver is set out in **Section 3** of this Appendix.

Assessment of sensitivity

Landscape value:

The majority of the LCA is not designated for its scenic landscape value at a national or local level with the exception of the area to the west of the railway line (west of Moulton) which coincides with the Weaver Valley ASCV – Mid Weaver indicating a higher value in this part of the LCA. Cultural value is indicated by the Conservation Area status of Davenham Hall, Bostock Hall and Bostock Green, and by the historic canals that run through the area. Within the study area, the scenic value of the LCA is experienced through a variety of recreational amenities including recreational users of the local PRoW, the Weaver Navigation canal, and users of NCR 5. The overall landscape value is assessed as Medium (High-Medium to the west of Moulton).

Landscape susceptibility:

A Landscape Strategy for Cheshire West and Chester Borough[1] describes the susceptibility of urban edges, hedgerows and unimproved grassland to change and recommends a management objective to conserve and enhance these elements. With regard to

the visual character of the LCA, the strategy notes that "*The presence of undulating topography, woodland and hedgerow trees means there is some potential for mitigating visual impact of low lying elements without the mitigation measures in themselves having an adverse effect on the character of the landscape"*[1]. In terms of perceptual characteristics, the strategy notes "*the presence of industry, extensive 20th century residential areas, electricity pylons, railway and main roads that cut across the landscape bearing no relation to landform or field pattern detract from the tranquillity of the area…. Despite these detracting elements, the landscape is generally quiet and rural in areas some distance from, or visually screened from them. The most tranquil parts of the landscape include the area around Bostock Hall/Bostock Green where woodland screens views of these elements, and the area around the canal which is located away from the main built development and infrastructural elements of the landscape"*[1]. The Mid Weaver Valley ASCV – Mid Weaver notes Special Landscape Qualities with those within the LVIA Study Area relating to the Vale Royal Cut and Lochs, views within the valley, tranquillity, clough woodland, and industrial and heritage landmarks. Considering the nature of the majority of the Project, predominantly of short-term and temporary duration, the landscape susceptibility to this type of development is reduced. Susceptibility is increased around Bostock and Bostock Green. The overall susceptibility of the landscape to the Project is assessed as Medium (High-Medium at Bostock / Bostock Green).

Sensitivity	High-Medium	Landscape value:	Medium (High-Medium west of Moulton)
		Landscape susceptibility:	Medium (High-Medium at Bostock / Bostock Green)
Magnitude of change and level of effect			
Pipeline (South Corridor)	**Construction phase:** **Figure 8.14, Volume 4** shows approximately 4.5km of the South Corridor of the pipeline within the LVIA study area and 5e East Winsford LCA. The South Corridor would enter the LCA within a trenchless crossing compound sited within a large arable field to the east of the Vale Royal Locks. It would then continue in a south-easterly direction in open cut, running parallel to the railway line through 11 open fields and Niddries Lane (twice) via open cut trench. The corridor would then turn east and north-east through a further four fields and Jack Lane via open cut to the A533 which would be crossed using a trenchless crossing facilitated by trenchless crossing compounds in open fields on either side of the road. A materials storage area would be located adjacent to the western trenchless crossing compounds in open fields, and vegetation along the boundaries and a Category A tree within the field would be retained and protected as shown in **Figure 8C.165** of **Appendix 8C: Arboricultural Impact Assessment.** Once beyond the A533, a further four open fields would be crossed in open cut before trenchless crossing compounds either side of London Road allow for the retention of a Category B and Category A group of		

	trees which line London Road. The South Corridor would continue across a further field boundary before exiting the LCA. The South Corridor would cross up to 22 field boundaries including hedgerows with hedgerow trees and post and wire fencing. The localised removal of hedgerow at each of these locations would appear as a break in the pattern of field boundary vegetation with hedgerow planting reinstating these narrow breaks post construction. The route would also pass-through mature roadside trees where it crosses Jack Lane. Whilst a proportion of the temporary trenchless crossing compounds would be sited adjacent to road corridors (A533) where movement and audible disturbance are already part of the baseline character, the compounds at Vale Royal Lock and Bostock Green are rural in location and the high levels of movement and visual and audible disturbance may locally disrupt levels of tranquillity within "*Generally a quiet, rural landscape*[1]. Construction activity along the South Corridor associated with the installation of the pipeline would be transient and of short duration with progressive backfill and reinstatement as works are completed along the route. The scale and geographical extent of these construction activities would be Medium-High when experienced locally to the construction works (within the same field unit or ~300m) including from the local roads and PRoW network, reducing to Medium-Low or less from the wider LCA, where the pipeline corridor would be less visible due to distance and roadside and field boundary vegetation. The magnitude of change likely to affect the landscape character, key characteristics and elements would range from High (in respect of landscape elements and LCA within and adjacent to the pipeline corridor and trenchless crossing construction compounds) to Low to Zero elsewhere within the LCA.	
	Level of effect:	Locally **Major** to **Major/Moderate** and **Significant** (within and adjacent to the pipeline corridor and trenchless crossing construction compounds) and **Minor** and **Not Significant** to **No Effect** elsewhere within the wider LCA.
	Type of effect:	Short-term duration (temporary with some permanent effects), direct and adverse.
Temporary construction accesses (SH-29, SH-30, SH-31, SH-32, SH-33)	**Construction phase:** <u>Temporary construction access routes and designated access points: Jack Lane (SH-29, SH-30), A533 (SH-31, SH-32), London Road (SH-33):</u> All construction access for the pipeline would utilise the existing road and track network to join the temporary haul routes within the pipeline corridor. Where available, access points will utilise existing field gates although some hedgerow and tree loss may be required to form the access from the highway. Traffic management and control measures would be used to facilitate the safe movement of vehicles into and out of the accesses instead of removing or pruning additional vegetation to create visibility splays. The increase in	

	traffic movements (HGV and light vehicle) along the A533 are likely to be subsumed within baseline traffic flows and would not notably dilute perceptual qualities relating to tranquillity. However, the additional movement and audible influence associated with an increase in HGV movements on sections of the local road network (Jack Lane and London Road) may locally disrupt levels of tranquillity. The magnitude of change resulting from the increased traffic movements would potentially be up to a Medium magnitude affecting a small geographical area of landscape character in the local vicinity of the temporary construction access routes and for a short duration.	
	Level of effect:	**Moderate** and locally **Significant** along a section of Jack Lane and London Road to **Minor** or **No Effect** and **Not Significant** elsewhere within the wider LCA.
	Type of effect:	Short-term duration (temporary), direct and adverse.
Overall assessment		
Construction phase:	Collectively the construction works involving the underground pipeline, temporary trenchless crossing compounds and materials storage areas and construction access routes within the 5e East Winsford LCA would lead to a moderate scale of development. Whilst each corridor is expected to take 12-18 months to complete, the laying of approximately 4.5km of pipeline through this LCA would be of shorter duration. Successive layers of vegetation, whilst intermittent in nature would combine with the topography to limit the extent of visible influence of the construction works on the landscape character and key characteristics. Overall, the magnitude of change on the LCA would be Low with localised areas experiencing up to a Medium-High magnitude of change in close proximity to the construction and storage compounds and pipeline corridor. Some localised losses of hedgerows and hedgerow trees would be reinstated following completion of the construction phase.	
	Level of effect:	**Minor** and **Not Significant** with localised areas of **Major** to **Major/Moderate** and **Significant** effects close to the pipeline corridor and trenchless crossing compounds and materials storage area.
	Type of effect:	Short-term duration (temporary), direct and adverse.

Table 8D.14 LCA 15e Dane Valley

Context	
Relevant figures:	**8.14**
LCA hierarchy – NCA:	NCA 62 Mersey Valley
Landscape Designations:	None
Administrative area:	Cheshire West and Chester

Baseline character description

The Project passes through the centre of LCA 15e Dane Valley, one of nine LCAs within the River Valley LCT. The key landscape characteristics of the LCA are detailed below taken from *A Landscape Strategy for Cheshire West and Chester Borough*[1].

Key characteristics:

- *"*Shallow valley with low, steep sides containing the natural meandering course of the River Dane and part of the Trent and Mersey Canal.
- *The* valley sides support small remnants of ancient woodland, e.g. Sproston Wood and Peck Mill Valley.
- *Alluvium on the valley floor gives rise to waterlogged soils which generally support pasture, but also some arable farmland. Only small remnants of unimproved or semi- improved grassland*.
- *Fields tend to be relatively large in size on the floodplain with smaller fields on the valley sides*.
- *Willows and riverine vegetation border the river, marking its meandering course across the landscape*.
- *Part of the* Trent and Mersey Canal, constructed in 1777 by James Brindley to link the navigable River Trent to the River Mersey, contributes associated structures and artefacts of industrial archaeology, including a listed milepost.
- *Recreational opportunities are* provided by the towpath alongside the Trent and Mersey Canal (forming part of the Cheshire Ring Canal Walk) and the Dane Valley Way.
- *Sandstone bridges are distinctive features of the valley, located at historic listed crossing points of the River e.g. Shipbrook Bridge and Ravenscroft Bridge*.
- *A notable absence of settlement/development – forms a 'green lung' entering Northwich*.

- *A highly tranquil landscape due to lack of settlement, natural meandering river course, presence of woodland, pasture and riverside vegetation*.
- *Views are generally restricted to within the valley, although St Wilfred's Church spire in Davenham is prominent on the skyline."*[1]

Built Development Guidelines:

"1. Conserve the undeveloped character of the floodplain and maintain the low settlement density that results in a quiet, tranquil landscape.

2. *Protect the valley 'crests' from large scale built development that would detract from the 'intimate', hidden character of the valley.*
3. *Conserve the sandstone bridges that are distinctive feature of the valley, reflect the local geology and mark historic crossing points of the river.*
4. *Preserve the industrial aesthetic of the Trent and Mersey Canal and its setting, including associated structures and artefacts of industrial archaeology. Consider views from the canal in planning new built development in adjacent areas.*
5. *Ensure rock salt extraction does not threaten the floodplain habitats such as unimproved grassland, traditionally managed meadows, reedbeds and riverside trees which contribute to the natural character of the floodplain.*
6. *Conserve the open undeveloped area between Rudheath and Leftwich (Northwich) identified as a Candidate Key Settlement Gap where development could lead to coalescence and the loss of the separate identity of the communities.*
7. *Protect views to St Wilfred's Church spire in Davenham."*[1]

Assessment of sensitivity

Landscape value:

The LCA area is not designated for its scenic landscape value at a national or local level that would denote a higher value. The study area covers the central area of the LCA, and features most of the key characteristics of the LCA. There are a number of recreational routes from which the scenic value of the landscape can be experienced within the study area including a number of scattered local PRoW, most notably, the Dane Valley Way and the Cheshire Ring Canal Walk long distance routes. Landscape features would also be experienced from recreational users of the local Trent and Mersey Canal system on the eastern boundary of the LCA. The overall landscape value is assessed as Medium.

Landscape susceptibility:

A Landscape Strategy for Cheshire West and Chester Borough[1] describes the susceptibility of the rural, pastoral character and woodland to change. With regard to the visual character of the LCA, '*Views are generally restricted within the valley'* [1] it is noted that *'The crests of the valley sides form a skyline in views from within the valley, punctuated by trees, woodland and farmsteads that typically sit at the crest of the valley'* [1]. In terms of perceptual characteristics, '*The sense of perceived naturalness (due to the natural river course, presence of woodland, pasture and riverside vegetation), contributes to a highly tranquil landscape*' [1], although this is reduced where there are road crossings. Considering the nature of the majority of the Project, predominantly low lying and of short-term and temporary duration, the landscape susceptibility to this type of development is reduced, although potential for disturbance to woodland areas increases susceptibility. The overall susceptibility of the landscape to the Project is assessed as Medium.

Sensitivity	Medium	Landscape value:	Medium
		Landscape susceptibility:	Medium
Magnitude of change and level of effect			
Pipeline **South Corridor**	**Construction phase:** **Figure 8.14, Volume 4** shows approximately 600m of the South Corridor of the pipeline within the LVIA study area and 15e Dane Valley LCA. The South Corridor would pass through the central part of the LCA and would enter via open cut in an open pastural field to the east of Bostock Green before crossing a hedgerow into an adjoining open field to the east where it would enter a trenchless crossing construction compound to facilitate the trenchless crossing of the River Dane. A further, large trenchless crossing compound would be sited across two arable fields between the River Dane and the Trent and Mersey Canal at the eastern boundary of the LCA, which would require the temporary removal of a section of hedgerow and a limited number of small Category C trees. The trenchless crossing of the River Dane would ensure that the "*natural meandering course of the River Dane*" and the "*Willows and riverine vegetation border the river, marking its meandering course across the landscape*", which are key characteristics of this landscape, remain intact. Construction activity along the South Corridor associated with the installation of the pipeline would be transient and of short duration with progressive backfill and reinstatement as works are completed along the route. The scale and geographical extent of these construction activities would be Medium-High when experienced locally to the construction works (within the same field unit or ~300m), reducing to Medium-Low or less from the wider LCA, where the pipeline corridor would be less visible due to distance and vegetation along the valley.		

	The open cut section of the pipeline corridor would cross a single field boundary within the LCA that is defined by a hedgerow. The localised removal of hedgerow at this location and to accommodate the trenchless crossing compound to the west of the River Dane would appear as a break in the pattern of field boundary vegetation which would be reinstated in-situ, following the construction phase. The magnitude of change likely to affect the landscape character, key characteristics and elements would range from High (in respect of landscape elements and LCA within and adjacent to the pipeline corridor and trenchless crossing compounds) to Low to Zero elsewhere within the LCA	
	Level of effect:	Locally **Major/Moderate** and **Significant** (within and adjacent to the pipeline corridor and trenchless crossing construction compounds) and **Minor** and **Not Significant** to **No Effect** elsewhere within the wider LCA
	Type of effect:	Short-term duration (temporary), direct and adverse.
Temporary construction accesses	**Construction phase:** There would be no temporary construction access points within the LCA. An increase in HGVs using short sections of the A556 and A533 as they pass through the LCA is unlikely to be readily discernible amongst baseline traffic flows. The effects associated with the movement and audible influence of construction HGVs would be incremental and the magnitude of change would not exceed Very Low.	
	Level of effect:	**Minor/Negligible** and **Not Significant**
	Type of effect:	Short-term duration (temporary), direct and neutral.
Overall assessment		
Construction phase:	Collectively, the construction works involving the underground pipelines and two trenchless crossing compounds within LCA 15e Dane Valley would lead to a moderate scale of development, continuing for the construction phase. Whilst each corridor is expected to take 12-18 months to complete, the laying of approximately 600m of pipeline through this LCA would be of shorter duration. Successive layers of vegetation, whilst intermittent in nature would combine with the topography to limit the extent of visible influence of the construction works on the landscape character and key characteristics. Overall, 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 trenchless crossing compounds. Localised losses of hedgerows and hedgerow trees would be reinstated following completion of the construction phase.	

	Level of effect:	**Minor** and **Not Significant** with localised areas of **Major/Moderate** and **Significant** effects close to the pipeline corridor and the construction compounds.
	Type of effect:	Short-term duration (temporary), direct and adverse.

Table 8D.15 LCA 10b Stublach Plain

Context	
Relevant figures:	**8.14** and **8.38** (Hydrogen Storage Facility HAGI ZTV) Viewpoints HSF1 (**Figure 8.50**) and HSF2 (**Figure 8.51**)
LCA hierarchy – NCA:	NCA 61 Shropshire, Cheshire and Staffordshire Plain
Landscape Designations:	None
Administrative area:	Cheshire West and Chester

Baseline Character description

The Project passes through the centre of LCA 10b Stublach Plain, one of four LCAs within the Cheshire Plain East LCT. The key landscape characteristics of the LCA are detailed below taken from *'A Landscape Strategy for Cheshire West and Chester Borough*[1].

Key characteristics:

- *"Flat plain-like topography resulting from the uniform characteristics of the underlying Eldersfield Mudstone bedrock.*
- *Salt bearing strata underlie the area – the landscape is influenced in part by features associated with the brine/salt extraction and gas storage industries with well-heads, fenced compounds and tracks visible.*
- *The surface mantle of glacial till (boulder clay) gives rise to seasonally waterlogged soils that are suited to dairying on short term and permanent grassland, interspersed with some arable fields.*
- *A pattern of small and medium sized fields is overlaid onto the flat plain providing unity across the landscape – some fields are Medieval in origin e.g. around Stublach Grange.*
- *Fields are bounded by an intact network of low thorn hedgerows with some hedgerow trees that filter views across the area. Ditches are also present along field boundaries.*
- *Woodland cover is generally absent, although the occasional covert or copse punctuates the landscape.*

- *The area is drained by a small number of brooks and streams.*
- *Field ponds, formed when pits were dug to extract marl for improving fields, are a common feature of the plain.*
- *The Trent and Mersey Canal that includes associated structures and artefacts of industrial archaeology.*
- *The Billinge flashes beside the canal, formed land subsidence due to brine pumping, now support important wetland habitats, including swamp.*
- *Recreational use of the landscape is limited to a few public rights of way that follow tracks and field boundaries across the farmland and the canal towpath.*
- *Low density of settlement – the settlement pattern is defined by scattered red brick or white washed farmsteads with distinctive red brick dairy barns (with round windows). Two moated medieval sites remain.*
- *The road network is typically comprised of narrow, rural unmarked lanes linking farmsteads, although the M6 motorway, A530 and a small number of 'B' roads also pass through the character area.*
- *A straight Roman Road that crosses the plain, connecting Middlewich to Northwich. A railway line follows a similar route across the plain.*
- *Long range views across the open, flat landscape with electricity pylons prominent on the skyline. Industrial works at Northwich East have a visual influence on the Stublach Plain.*
- *Church spires at Moulton and Davenham are features in views across the plain."*[1]

Relevant Built Development Guidelines:

1. *"Maintain the rural character of the narrow, unmarked lanes – resist improvements such as additions of kerbs and lighting that would erode the rural character of the landscape.*
2. *Protect the character of Kings Street Roman Road, including the avenue of trees along its length.*
3. *Screen brine/salt extraction, gas storage and quarrying activities using planting of broadleaved species. Consider the long term restoration of these areas for the benefit of wildlife, creating new wetland habitats and recreational access where possible.*
4. *Preserve the industrial aesthetic of the Trent and Mersey Canal and its setting, including associated structures and artefacts of industrial archaeology. Consider views from the canal in planning new built development.*
5. *Ensure any structures associated with the brine/salt extraction, gas storage and quarrying industries are well integrated into the landscape using native planting, and proposals are accompanied by enhancement of existing hedgerows and hedgerow trees in the vicinity of the site to ensure the landscape structure around any new facility is maintained/improved."*[1]

Assessment of sensitivity

Landscape value:

The LCA area is not designated for its scenic landscape value at a national or local level that would denote a higher value. The LVIA Study Area coincides with the central, western part of the LCA, where the LCA features many of the key characteristics. There are a number of recreational routes from which the scenic value of the landscape can be experienced within the study area including a number of scattered local PRoW including part of the Dane Valley Way and the Cheshire Ring Canal Walk long distance routes. Landscape features would also be experienced from recreational users of the local Trent and Mersey Canal system. The overall landscape value is assessed as Medium.

Landscape susceptibility:

A Landscape Strategy for Cheshire West and Chester Borough[1] describes the susceptibility of hedgerow and hedgerow trees to change and the need to maintain and enhance these elements. With regard to the visual character of the LCA, '*The open character means there is little opportunity for screening any large scale elements or for mitigating visual impact without the mitigation measures in themselves being highly visible - making it a visually sensitive landscape. However, the low density of settlement and few recreational opportunities means there are relatively few sensitive visual receptors in the area'*[1] although it is also noted that some natural screening may be present: *'The presence of hedgerow oaks … filter views'*[1]. In terms of perceptual characteristics, '*In places the landscape … feels 'remote', but the strong field pattern indicates that this landscape has been tamed by man… A generally tranquil, still, rural landscape although the presence of the main road and railway contributes movement and noise locally'*[1]. Considering the nature of the majority of the Project, predominantly of short-term and temporary duration, relatively near to the less sensitive 'A' road and rail line, the landscape susceptibility to this type of development is reduced. Susceptibility is increased, however, by the presence of field hedgerows and trees and occasional wider views of construction activity afforded by the flat, open landscape. The overall susceptibility of the landscape to the Project is assessed as Medium.

Sensitivity	Medium	Landscape value:	Medium
		Landscape susceptibility:	Medium

Magnitude of change and level of effect

Pipeline (South Corridor)	**Construction phase:** **Figure 8.14, Volume 4** shows approximately 1.9km of the South Corridor of the pipeline within the LVIA study area and 10b Stublach Plain LCA. The pipeline corridor would enter the LCA via a trenchless crossing of the Trent and Mersey Canal and the trenchless crossing compound would span two arable fields and adjoining hedgerow to the east of the canal. The pipeline corridor would then cross a farm access track as open cut and continue east-

	northeast across a further two open fields before crossing a group of Category B trees and Puddinglake Brook and entering a further arable field and a trenchless crossing compound either side of the railway line. The west compound would span two fields and the adjoining Category B and single Category A trees would be retained. The pipeline would emerge to the east of the railway line within a smaller trenchless crossing compound located alongside a large material storage area, which combined span two open fields with hedgerow and hedgerow trees and would then cross a further three open fields via open cut before crossing the A530 via a trenchless crossing facilitated by trenchless crossing compounds in open fields. From here, the pipeline would cross a further three fields via open cut before reaching the Hydrogen Storage Facility HAGI. The temporary trenchless crossing compounds and material storage area would be sited adjacent to road or rail corridors where man-made elements, movement and the audible influence of traffic and trains are already part of the baseline character and where levels of tranquillity are locally disrupted. Construction activity along the South Corridor associated with the installation of the pipeline would be transient and of short duration with progressive backfill and reinstatement as works are completed along the route. The scale and geographical extent of these construction activities would be Medium-High when experienced locally to the construction works (within the same field unit or ~300m) including from the local roads and PRoW network, reducing to Medium-Low or less from the wider LCA, where the pipeline corridor would be less visible due to distance and roadside and field boundary vegetation. The open cut sections comprising the majority of the pipeline corridor would cross a maximum of six field boundaries that are typically defined by hedgerows with occasional trees. The localised removal of hedgerow at each of these locations would appear as a break in the pattern of field boundary vegetation with replacement of planting in-situ, following the construction phase. The magnitude of change likely to affect the landscape character, key characteristics and elements would range from High (in respect of landscape elements and LCA within and adjacent to the pipeline corridor and trenchless crossing construction compounds) to Low elsewhere within the LCA.	
	Level of effect:	Locally **Major/Moderate** and **Significant** (within and adjacent to the pipeline corridor and trenchless crossing construction compounds) and **Minor** and **Not Significant** to **No Effect** elsewhere within the wider LCA
	Type of effect:	Short-term duration (temporary with some permanent effects), direct and adverse.

Temporary construction accesses (SH-35, SH-36, SH37, SH38)	**Construction phase:** Temporary construction access routes and designated access points: Whitecroft Road (SH-35, SH-36), A530 (SH-37, SH-38): All construction access for the pipeline would utilise the existing road and track network to join the temporary haul routes within the pipeline corridor. Whilst there may be some short lengths of hedgerow removed to form the accesses from the highway, traffic management and control measures would be used to facilitate the safe movement of vehicles into and out of the accesses instead of removing or pruning additional vegetation to create visibility splays. The increase in traffic movements (HGV and light vehicle) along the A530 is likely to be subsumed within baseline traffic flows and would not notably dilute perceptual qualities relating to tranquillity. However, the additional movement and audible influence associated with an increase in HGV movements on sections of Whitecroft Road may locally disrupt levels of tranquillity. Access would be required for the duration of the construction phase (6-12 months) within the LCA although would be completed sooner in some areas. The magnitude of change resulting from the increased traffic movements and localised removal of hedgerow to create access points would potentially be up to a Medium magnitude affecting a small geographical area of landscape character in the local vicinity of the temporary construction access routes.	
	Level of effect:	**Moderate** and locally **Significant** along Whitecroft Road to **Minor** or **No Effect** and **Not Significant** elsewhere within the wider LCA.
	Type of effect:	Short-term duration (temporary), direct and adverse.
Hydrogen Storage Facility HAGI	**Construction phase:** The Hydrogen Storage Facility HAGI site would be located in an open pastural field, bound by hedgerow with mature hedgerow trees and Puddinglake Brook to the south. It would be sited to ensure that there would be no loss of mature trees and surrounding hedgerows. The construction period would be 6-12 months. Construction traffic may be similar to farm vehicles and road traffic along the A530. The magnitude of change would be High affecting a small geographical area of landscape character in the local vicinity of the Hydrogen Storage Facility HAGI compound (within 100m), within field boundary trees, including those retained around the HAGI construction compound reducing the visual effects pathway from within the wider landscape.	
	Level of effect:	**Major/Moderate and Significant** within the vicinity of the Hydrogen Storage Facility HAGI compound and **Not Significant** elsewhere within the wider LCA.
	Type of effect:	Short-term duration (temporary), direct and adverse.

Operation and maintenance (Year 1) phase: The HAGI would be enclosed by security fencing typically 2.4 to 3.6m high with gated access for maintenance. The above ground components would be at a low level (up to 5m in height for lighting columns). Whilst the ZTV presented in **Figure 8.38** is moderately extensive across the HAGI Study Area and LCA 10b, this doesn't allow for the screening effect of the individual and groups of trees which filter views across the area. The HAGI would also be 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*" [1] recognised as a key characteristic of this landscape. The area of woodland planting to the west of the HAGI would play a minimal landscape role in Year 1. The effect on the landscape character and key characteristics would be localised, affecting a small geographical area in the local vicinity of HAGI and filtered by field boundary trees resulting in Medium localised magnitude of change reducing to Low to Very Low elsewhere and Zero within areas of LCA which fall outside of the ZTV.	
Level of effect:	**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 the baseline role which is already played by numerous, similar fenced compounds within the Storengy Stublach Natural Gas Storage site.
Type of effect:	Permanent, direct and adverse.
Operation and maintenance (Year 15) phase: The gradually maturing woodland proposed to the west of the HAGI would contribute to the key characteristic relating to "*the occasional covert or copse punctuates the landscape"* [1] and would screen the presence of the HAGI in views from within areas of LCA to the west, with the retained perimeter trees providing screening from the north, east and south. In doing so, the proposed planting would adhere to the Built Development Guideline relating to "*Ensure any structures associated with the brine/salt extraction, gas storage and quarrying industries are well integrated into the landscape using native planting, and proposals are accompanied by enhancement of existing hedgerows and hedgerow trees in the vicinity of the site to ensure the landscape structure around any new facility is maintained/improved."* [1] The effect of the HAGI on the landscape character and key characteristics would be Low.	

	Level of effect:	**Minor** and **Not Significant**
	Type of effect:	Permanent, direct and neutral
Overall assessment		
Construction phase:	Collectively the construction works involving the underground pipeline, Hydrogen Storage Facility HAGI, six temporary trenchless crossing and material storage compounds and temporary construction accesses routed through the 10b Stublach Plain LCA would lead to a moderate scale of development, continuing for the construction phase. Whilst each corridor is expected to take 12-18 months to complete, the laying of approximately 1.9km of pipeline through this LCA would be of shorter duration. HAGI construction would be 6-12 months. Successive layers of vegetation along major transport corridors and field boundaries, whilst intermittent in nature, would combine with the gently undulating topography to limit the extent of visible influence of the construction works on the landscape character and key characteristics. Overall, the magnitude of change on the LCA would be Low with localised areas experiencing up to a High magnitude of change within and in close proximity to the HAGI compound, construction and storage compounds and pipeline corridor. Some localised losses of hedgerows and hedgerow trees would be reinstated following completion of the construction phase.	
	Level of effect:	**Minor** and **Not Significant** with localised areas of **Major/Moderate** and **Significant** effects close to the pipeline corridor and construction and storage compounds.
	Type of effect:	Short-term duration (temporary), direct and adverse.
Operation and maintenance (Year 1) phase:	Effects from the HAGI at Operation Year 1 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 the baseline role which is already played by numerous, similar fenced compounds within the Storengy Stublach Natural Gas Storage site.	
Operation and maintenance (Year 15) phase:	The effect on the landscape character and key characteristics would be **Minor** to **Minor/Negligible** or **No Effect** and **Not Significant** at Year 15 as a consequence of the Hydrogen Storage Facility HAGI. The small area of gradually maturing woodland proposed within the LCA to the west of the HAGI, would give rise to beneficial landscape effects, contributing to the key characterises relating to **"***the occasional covert or copse punctuates the landscape"*[1]*.*	

Table 8D.16 LCA 5c Eaton, Marton & Over

Context	
Relevant figures:	**8.13** and **8.14**
LCA hierarchy – NCA:	NCA 61 Shropshire, Cheshire-Staffordshire plain; NCA 62 Cheshire Sandstone Ridge
Landscape Designations:	None
Administrative area:	Cheshire West and Chester

Baseline character description:

The Project passes to the north and east of LCA Eaton, Marton & Over, one of seven LCAs within the Undulating Enclosed Farmland LCT. The key landscape characteristics of the LCA are detailed below taken from *A Landscape Strategy for Cheshire West and Chester Borough*[1].

Key characteristics:

- *"A bedrock geology of Bollin Mudstones (part of the Mercia Mudstone Group) covered by a mantle of glacial drift deposits that gives rise to a gently undulating topography between 50m and 70m AOD.*
- *Steep wooded cloughs incise the hills, containing small brooks that drain eastwards towards the River Weaver, for example Bogart Brook, Pettypool Brook, Cat's Clough (ancient woodland) and Firwood Brook, and are of local wildlife importance.*
- *Glacio-fluvial outwash deposits of sands and gravels support some fragments of acid grassland/heathland.*
- *Unimproved meadows and species rich grassland along brooks and on lower lying areas e.g. Beauty Bank and Brookhouse Farm Meadows.*
- *Boulder clay deposits mask the underlying mudstones giving rise to a predominance of poorly draining clay soils that support dairying and some arable crops.*
- *Small scale fields resulting from late eighteenth and early nineteenth century enclosure by private agreement and Parliamentary Act are bounded by hedgerows with hedgerow trees and drainage ditches. Small scale medieval townfields surround Eaton, Little Budworth, Tiverton, Marton House Farm and Church Hill.*
- *Small farm woodlands, coverts and willow withy beds are important features of a landscape with generally relatively low woodland cover.*

- *Field ponds are a feature of the lower lying areas, indicating the extraction of marl (calcareous deposits) from the boulder clay for past agricultural improvement.*
- *Larger pools are also a feature of the area, e.g. Marton Hole, Bradford Wood Pool, Sixes Pool.*
- *Designed landscape at Tilstone Hall with woodland and ornamental landscaped gardens associated with the hall, Tilstone lodge and Tilstone Hall Farm.*
- *Recreational opportunities provided by public rights of way including the Whitegate Way (disused mineral railway mainly for transporting salt), picnic sites, fishing lakes and golf courses.*
- *A network of small rural lanes link scattered farms, cottages, hamlets and halls. Eaton, Little Budworth and Whitegate form nucleated settlements; Tiverton is a linear village; with Winsford / Over a large conurbation on the eastern edge of the area.*
- *Eaton, Little Budworth and Tiverton (and Tarporley abutting the LCA) are Conservation Areas, with a number of listed buildings, with others across the area e.g., Tilstone Hall Folly.*
- *Building materials are typically red brick and sandstone, with large red brick dairy barns and thatched cottages particular features.*
- *The 'Cheshire railings' – the black and white painted estate railings.*
- *The site of Vale Royal Abbey, once the largest Cistercian abbey church in Britain, is a Scheduled Monument located in Vale Royal Park; the house is a Grade II* listed building.*
- *Moated sites were once a feature – surviving medieval sites on the outskirts of Eaton and Marton Hall are Scheduled Monuments.*
- *Roman Villa site at Eaton, the only such site in Cheshire.*
- *The A49, A51 and A54 pass through the area, contributing to the sense of movement and noise locally (as does Oulton park race track which lies just outside the area).*
- *The skyline is punctuated by hedgerow trees, copses and farm buildings. The church spire at Over forms a prominent landmark feature.*
- *Long distance views from high vantage ground including important views to Beeston Castle and Peckforton Castle on the wooded Sandstone Ridge to the south and Vale Royal Park on the edge of the Weaver Valley."*[1]

Relevant Built Development Guidelines:

1. *"Monitor the cumulative effect of piecemeal change in this area – ensure new built single dwellings and their gardens, drives, gates etc. do not accumulate to detract from the rural character of the area through provision of appropriate guidance. Maintain a distinction between urban and rural areas.*

2. *Conserve the local vernacular built form - red brick/sandstone or white washed farmsteads and buildings, and thatched cottages. Ensure new built development is of high quality design and responds to local materials and styles. Resist suburban style fencing, garden boundaries, kerbs and lighting.*
3. *Seek to integrate garden boundaries with the rural landscape through use of native hedgerows.*
4. *Conserve the black and white estate railings known as 'Cheshire Railings'.*
5. *Maintain the rural setting to villages and sandstone farmsteads which are features of the landscape.*
6. *Soften built edges and views of infrastructure by introducing small scale planting schemes using native broadleaved species.*
7. *Refer to local Village Design Statement (VDS) when considering change."*[1]

Assessment of sensitivity

Landscape value:

The LCA is not designated for its scenic landscape value at a national or local level that would denote a higher value, although a small area of landscape on its eastern boundary coincides with the Weaver Valley ASCV – Mid Weaver indicating increased value in this part of the LCA (around the Vale Royal Cut). The eastern fringes of this LCA are located within the LVIA Study Area. Local recreational value would be experienced through minor roads and lanes within the study area, as well as Vale Royal Park and the extensive local PRoW in its grounds and further south around Meadowbank. The Delamere Way long distance route is located in the wider landscape to the west of the LVIA Study Area. The overall landscape value within the study area is assessed as Medium.

Landscape susceptibility:

A Landscape Strategy for Cheshire West and Chester Borough[1] describes the susceptibility of the rural, pastoral character, hedgerows and woodland to change. With regard to the visual character of the LCA, "*The large scale, undulating landscape overlaid by a small scale field pattern allows varying views, from enclosed low lying views to open long distance views from higher ground which is visually more sensitive"*[1] it is noted that "*The presence of undulating topography, woodland and hedgerow trees means there is some potential for mitigating visual impact without the mitigation measures in themselves having an adverse effect on the character of the landscape"*[1]. In terms of perceptual characteristics, this is "*Generally a quiet, rural landscape but with features that detract from the overall sense of tranquillity whilst providing sensitive visual receptors, including the main roads, the relatively dense network of rural lanes, the scattered settlement, …, and the sizeable settlement of Winsford/Over"*[1]. Considering the majority of the Project is predominantly low lying and of short-term and temporary duration, the landscape susceptibility to this type of development is reduced. The overall susceptibility of the landscape to the Project is assessed as Medium.

Sensitivity	Medium	Landscape value:	Medium
		Landscape susceptibility:	Medium
Magnitude of change and level of effect			
Pipeline (South Corridor)	**Construction phase:** **Figures 8.13 and 8.14, Volume 4** shows the LVIA study area coinciding with the 5c Eaton, Marton & Over LCA. The South Corridor would pass to the north and east of the LCA and as a consequence, there would be no direct landscape effects. Indirect effects would also be limited by the separation distances (which exceed 500m), and the heavily vegetated northern boundary to the Vale Royal Academy Golf Course, with the potential for the section of South Corridor which passes to the west of Moulton to have an occasional visual presence in easterly views. This would have limited characterising influence and would not alter the key characteristics of this landscape. The magnitude of change likely to affect the landscape character and key characteristics would be Very Low to Zero.		
	Level of effect:	**Minor/Negligible** and **Not Significant** to **No Effect**.	
	Type of effect:	Short-term duration, indirect and adverse.	
Overall assessment			
Construction phase:	There would be no direct effects as a consequence of the construction of the pipeline within the South Corridor and associated construction compounds. Indirect effects would be limited due to distance and intervening woodland and tree belts.		
	Level of effect:	**Minor/Negligible** and **Not Significant** to **No Effect.**	
	Type of effect:	Short-term duration (temporary), indirect and adverse.	

Table 8D.17 LCA 13b Arley West

Context	
Relevant figures:	**8.9**
LCA hierarchy – NCA:	NCA 61 Shropshire, Cheshire and Staffordshire Plain
Landscape Designations:	None
Administrative area:	Cheshire West and Chester

Baseline character description

The Project passes through the centre of LCA 13b Arley West, one of two LCAs within the Lowland Farmland & Mosses LCT. The key landscape characteristics of the LCA are detailed below taken from *A Landscape Strategy for Cheshire West and Chester Borough*[1].

Key characteristics:

- *"Surface deposits give rise to complex soils patterns including a large extent of sandy soils with a peaty surface horizon which supports peaty mosslands at Park Moss and sheep grazed pasture.*
- *Ditches and brooks drain the area. Field ponds are also a feature of this seasonally waterlogged landscape.*
- *Distinctive small irregular/semi regular assarts of the medieval and early post medieval periods, followed by the regular enclosure patterns of the eighteenth and early nineteenth century.*
- *The influence of the Arley Estate is evident in the large areas of reorganised fields, which replaced the earlier small irregular/semi regular assarts.*
- *A landscape of colonisation by successive generations of sizable areas of common/waste (i.e. Whitley Reed).*
- *Dispersed settlement pattern is characterised by low density, scattered farmsteads linked by a network of narrow, rural lanes.*
- *Built materials include red brick and white wash finishes. Red brick barns are a feature of the landscape.*
- *A sense of openness results from the flat topography, large fields, low cut hedgerows and low woodland cover.*
- *However, the skyline appears to be wooded, formed by hedgerow trees and birch woodland at Park Moss.*
- *Public rights of way create passive recreational opportunities and an area of open access land at the Woodland Trust's Park Moss provides trails through woodland.*

- *Quiet and rural in character, with some areas having a sense of 'remoteness' due to the general absence of large scale visually intrusive built elements."*[1]

Relevant Built Development Guidelines:

1. *"Monitor the cumulative effect of piecemeal change in this area – ensure new built single dwellings and their gardens, drives, gates etc. do not accumulate to detract from the rural character of the area.*
2. *Conserve the local building vernacular including local red brick and white wash materials/finishes - ensure new built development is of high quality design and responds to local materials and styles. Resist suburban style garden boundaries, kerbs and lighting outside the main settlements. Seek to integrate garden boundaries with the rural landscape through use of native hedgerows."*

Assessment of sensitivity

Landscape value:

The LCA area is not designated for its scenic landscape value at a national or local level that would denote a higher value. The LVIA Study Area covers a large proportion of the LCA, and therefore most of the key features of the LCA. Within the LVIA Study Area, the scenic value of the LCA is experienced through a variety of recreational amenities including recreational users of local PRoW, and Park Moss open access land. The overall landscape value is assessed as Medium.

Landscape susceptibility:

A Landscape Strategy for Cheshire West and Chester Borough[1] describes the susceptibility of the rural character and wetland and mossland habitats. With regard to the visual character of the LCA, strategy notes that "*The presence of undulating topography, woodland and hedgerow trees means there is some potential for mitigating visual impact of low lying elements without the mitigation measures in themselves having an adverse effect on the character of the landscape"*[1]. In terms of perceptual characteristics, the landscape is described as being "*quiet and rural in character despite the presence of 'suburban' style development, nurseries, the M6 and the A50"*[1]. Considering the nature of the majority of the Project, predominantly low lying and of short-term and temporary duration, the landscape susceptibility to this type of development is reduced, although potential for disturbance to wetland and moss areas increases susceptibility. The overall susceptibility of the landscape to the Project is assessed as Medium.

Sensitivity	Medium	Landscape value:	Medium
		Landscape susceptibility:	Medium

Magnitude of change and level of effect		
Pipeline (East Corridor)	**Construction phase:** **Figure 8.9, Volume 4** shows approximately 2.3km of the East Corridor of the pipeline crossing LCA 13b Arley West. The East Corridor would enter via open cut in an open field and would cross a further 12 open pastural and arable fields before leaving the LCA. The pipeline corridor would cross four minor roads via open cut: Barber's Lane, Pools Platt Lane, Arley Road, and Caldwell's Gate Lane and a farm access track at Galemoss Farm, as well as Gale Brook. Approximately 15 field boundaries would be crossed including hedgerows with hedgerow trees, riparian brook-side trees, and post and wire fencing. Construction activity along the South Corridor associated with the installation of the pipeline would be transient and of short duration with progressive backfilling and reinstatement as works are completed along the route. The scale and geographical extent of these construction activities would be Medium-High when experienced locally to the construction works (within the same field unit or ~300m) including from the local roads and PRoW network, reducing to Medium-Low or less from the wider LCA, where the pipeline corridor would be less visible due to distance and roadside and field boundary vegetation. The magnitude of change likely to affect the landscape character, key characteristics and elements would range from High (in respect of landscape elements and LCA within and adjacent to the pipeline corridor) to Low to Zero elsewhere within the LCA	
	Level of effect:	Locally **Major/Moderate** and **Significant** (within and adjacent to the pipeline corridor) and **Minor** and **Not Significant** to **No Effect** elsewhere within the wider LCA.
	Type of effect:	Short-term duration (temporary), direct and adverse.
Temporary construction accesses (EH-13, EH-14, EH15, EH16, EH17, EH18, EH-19, EH-20)	**Construction phase:** Temporary construction access routes and designated access points: Barber's Lane (EH-13, EH-14), Pools Platt Lane (EH-15, EH-16), Arley Road (EH-17, EH-18), Caldwell's Gate Lane (EH19, EH-20): All construction access for the pipeline would utilise the existing road and track network to join the temporary haul routes within the pipeline corridor. The access strategy indicates that Arley Road would provide access for HGVs with Barber's Lane, Pools Platt Lane and Caldwell's Gate Lane forming light construction access routes, where a reduced number of HGV vehicles are expected. Some localised sections of hedgerow are likely to be removed to accommodate access points from the highway whilst traffic management and control measures would be used to facilitate the safe movement of vehicles into and out of the accesses instead of removing or pruning additional	

	vegetation to create visibility splays. The increase in traffic movements and audible influence on sections of the local road network may locally disrupt levels of tranquillity within this LCA which is "*Quiet and rural in character, with some areas having a sense of 'remoteness'*". The magnitude of change resulting from the increased traffic movements would potentially be up to a Medium magnitude affecting a small geographical area of landscape character in the local vicinity of the temporary construction access routes and for a short duration. The magnitude of change elsewhere within the LCA would be Very Low to Zero.	
	Level of effect:	**Moderate** and locally **Significant** to **Minor/Negligible** or **Zero** and **Not Significant**.
	Type of effect:	Short-term duration (temporary), direct and adverse.
Overall assessment		
Construction phase:	Collectively the construction works involving the underground pipeline and temporary construction access routes within the 13b Arley West LCA would lead to a moderate scale of development, continuing for the construction phase. Whilst each corridor is expected to take 12-18 months to complete, the laying of approximately 2.3km of pipeline through this LCA would be of shorter duration. Successive layers of vegetation, whilst intermittent in nature would combine with the topography to limit the extent of visible influence of the construction works on the landscape character and key characteristics. Overall, 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. Some localised losses of hedgerows and hedgerow trees would be reinstated following completion of the construction phase.	
	Level of effect:	Locally **Major/Moderate to Moderate** and **Significant** (within and adjacent to the pipeline corridor and access routes) and **Minor** and **Not Significant** to **No Effect** elsewhere within the wider LCA
	Type of effect:	Short-term duration (temporary), direct and adverse.

2.3. Halton

Table 8D.18 LCA Runcorn Hill and Heath Parkland

Context	
Relevant figures:	**8.3, 8.29** (Rocksavage HAGI ZTV) **and 8.30** (Runcorn HAGI ZTV) Viewpoint RS2 (**Figure 8.43**)
LCA hierarchy – NCA:	NCA 60 Mersey Valley
Landscape Designations:	None
Administrative area:	Halton
Baseline character description:	
The Project coincides with the southern part of LCA Runcorn Hill and Heath Parkland, the only LCA within the Sandstone Hill LCT. The key landscape characteristics of the LCA are detailed below taken from the *Halton Landscape Character Assessment*[3]*.* Key characteristics: • *"Prominent sandstone hill which provides a feature and backdrop to views from other parts of Halton;* • *Wide variety of land uses including Runcorn Hill Local Nature Reserve, pockets of farmland, a golf course and public open space;* • *Corridor of urban greenspace in the south west of Runcorn;* • *Steep slopes and vertical rock faces below a rocky plateau characterise Runcorn Hill, with remnant quarrying on the lower slopes. Steeply sloping farmland leading down to industrial and wetland landscapes along the banks of the Mersey;* • *Long views over the surrounding landscape and Mersey Estuary;* • *Heathland is a distinctive feature of Runcorn Hill with pockets of remnant heathland elsewhere;*	

[3] TEP (2009), Halton Landscape Character Assessment (Online). Available at: https://www3.halton.gov.uk/Documents/planning/planning%20policy/evidencebase/green/Halton_Landscape_Character_Assessment_(2009).pdf (Accessed 10 July 2024).

- *Birch scrub woodland establishing on the slopes of Runcorn;*
- *Frequent horse grazing paddocks;*
- *The A577, a number of B roads and an overhead electricity line are notable infrastructure routes in the south of the area;* and
- *Industry and urban development along the fringes of the area are almost always visible."*[3]

Relevant Built Development Guidelines:

1. *"Conserve and enhance the small agricultural hamlet character of Clifton, in the farmland to the south of the area.*
2. *Enhance the open space by ensuring built development does not marginalise or fragment the green corridor."*[3]

Assessment of sensitivity

Landscape value:

The LCA is not designated for its scenic landscape value at a national or local level that would denote a higher value. There are a small number of nature conservation and heritage designations in the LCA including Runcorn Hill Local Nature Reserve, a local wildlife site close to the Rocksavage Roundabout and Higher Runcorn Conservation Area. The LCA is valued more widely for its recreational assets including Runcorn Hill and neighbouring Runcorn Hill Park, Heath Park and Runcorn Golf Course. Recreational routes include the Timberland Trail. The landscape is cited in the extant assessment as being of moderate strength with Runcorn Hill displaying a distinctive 'sense of place' with a unique and strong character although other parts of the LCA are less distinctive. The landscape condition is assessed as being moderate to poor with an overall landscape strategy to enhance and restore. The overall landscape value is assessed as Medium.

Landscape susceptibility:

The *Halton Landscape Character Assessment*[3] identifies landscape guidelines which seek to conserve the "*well wooded boundaries along the roads through the area"* and the "*well laid and stock proof hawthorn hedges in the south of the area"*[3] indicating their potential susceptibly to change. The susceptibility is also assessed in the context high levels of woodland which provides some visual containment and filtering of view with corresponding moderate to low levels of intervisibility with surrounding landscapes. The proximity of the landscape to busy road corridors and industrial development beyond the LCA's boundary is likely to locally disruption perceptions of tranquillity and remoteness. Considering the nature of the Project, predominantly of short-term and temporary duration, the landscape susceptibility to this type of development is reduced. The overall susceptibility of the landscape to the Project is assessed as Medium-Low.

Sensitivity	Medium	Landscape value:	Medium
		Landscape susceptibility:	Medium to Low
Magnitude of change and level of effect			
Pipeline Runcorn/ Rocksavage Spur	**Construction phase:** **Figure 8.3, Volume 4** shows approximately 1.1km of the Runcorn/Rocksavage Spur of the pipeline crossing this LCA. The pipeline corridor would enter the LCA to the west of the M56, where it would head north-east and then north-west to cross a group of unmanaged Category B trees with the loss of a proportion of these trees. The corridor would then cross Cholmondeley Road and continue west close to Weaver View (with the loss of Category C trees) before meeting the Runcorn HAGI to the east of the Rocksavage Power Station. All tree removals within this LCA associated with the Runcorn/Rocksavage Spur are shown in **Figures 8C.102** and **8C.103** of **Appendix 8C: Arboricultural Impact Assessment.** Construction activity would be transient and of short duration with progressive backfill and reinstatement as works are completed along the route. Whilst trees lost would be replaced in accordance with the ratios set out in **Section 8.6** of **Chapter 8: Landscape and visual,** trees would not be replaced within a 6m offset from the pipeline. This break in canopy cover may be discernible from localised areas within the LCA. The scale and geographical extent of these construction activities would be Medium-High when experienced locally to the construction works, reducing to Low or less from the wider LCA, where the pipeline corridor would be screened by the prevalence of woodland and tree belts. The magnitude of change likely to affect the landscape character, key characteristics and elements would range from High (in respect of landscape elements and LCA within and adjacent to the pipeline corridor) to Low or less elsewhere within the LCA.		
	Level of effect:	Locally **Major/Moderate** and **Significant** (within and adjacent to the pipeline corridor) to **Minor** and **Not Significant** to No Effect elsewhere within the wider LCA.	
	Type of effect:	Short-term duration (temporary with some permanent effects), direct and adverse	
	Operation and maintenance (Year 1) phase: The loss of trees from within the pipeline easement at a number of locations throughout the LCA would be permanent although partly mitigated by replacement planting of small trees and shrubs within the remainder of the corridor, outside the easement. When viewed from outside of the pipeline corridor, the heavily wooded character of this part of the LCA is likely to prevail. Consequently, there would be a Low to Zero magnitude of change on		

	landscape character and key characteristics and a Medium magnitude of change on landscape elements until replacement planting is established.	
	Level of effect:	**Moderate** to **Minor** and **Not Significant** to **No Effect**
	Type of effect:	Permanent and adverse
	Operation and maintenance (Year 15) phase: The gradual maturation of replacement trees would mitigate for those lost during the construction phase. Whilst there would be a permanent loss of trees from the pipeline easement, this would be subsumed within the wider woodland and tree cover within the LCA. Consequently, there would be a Very Low to Zero magnitude of change on landscape character and key characteristics and a Low magnitude of change on landscape elements.	
	Level of effect:	**Minor** to **Minor/Negligible** and **Not Significant** to **No Effect**
	Type of effect:	Permanent and neutral
Temporary construction accesses	**Construction phase:** <u>Temporary construction access routes: Weaver View, Cholmondeley Road</u> All construction access for the pipeline would utilise the existing road network to join the temporary haul routes within the pipeline corridor. The access strategy identifies the A557 Weston Point Expressway as a HGV route, where the presence of a high number of HGVs along this routes is already part of the baseline and additional traffic movements are unlikely to be readily distinguishable. The magnitude of change resulting from the increased traffic movements along Weaver View and Cholmondeley Road would be Low affecting a small geographical area of landscape character in the local vicinity of the temporary construction access routes.	
	Level of effect:	**Minor** and **Not Significant** to **No Effect**
	Type of effect:	Short-term duration (temporary), direct and adverse.
Runcorn HAGI	**Construction phase:** A temporary construction compound would be located within an agricultural field to the north-west of the HAGI site under construction and connected via an onsite access track. The Category B group of trees to the south of the compound would be retained and protected whilst other Category B and C trees within and around the footprint of the HAGI would be removed, the extent of which is indicated in **Figure 8C.103** of **Appendix 8C:**	

	Arboricultural Impact Assessment. The construction period would be 6-12 months during which the construction compound would include the presence of welfare facilities up to two storeys (6m high); vehicle and plant storage and movement; and the storage for pipes in stacks 4m (up to 4m in height), equipment and materials. The existing presence of dense retained tree cover around the perimeter of the field means that the characterising influence of construction activities would be minimal. The works would also take place in the context of the Rocksavage Power Station to the west and the Frodsham Substation to the south with multiple overhead lines crossing the landscape. The magnitude of change likely to affect the landscape character, key characteristics and elements would range from High (in respect of landscape elements within the HAGI site) to Low or less with regard to landscape character and key characteristics.	
	Level of effect:	Locally **Major/Moderate** and **Significant** (in respect to landscape elements) to **Minor** and **Not Significant** in terms of landscape character
	Type of effect:	Short-term duration (temporary with some permanent effects), direct and adverse.
	Operation and maintenance (Year 1) phase: The Runcorn HAGI would be enclosed by security fencing typically 2.4 to 3.6m high with gated access for maintenance. The above ground components would be at a low level (up to 5m for lighting columns). The effect on the landscape character and key characteristics would be Low and localised, affecting a very small geographical area in the local vicinity of the HAGI with retained vegetation limiting its characterising role within a landscape where there are similar types of fenced compounds. The permanent loss of tree cover from within the HAGI footprint would however, represent a High magnitude of change in respect of landscape elements. The magnitude of change across the majority of the LCA would be Very Low/Zero.	
	Level of effect:	Locally **Major/Moderate** and **Significant** (in respect to landscape elements and landscape character within the HAGI site) to **Minor/Negligible** and **Not Significant** to **No Effect** elsewhere within the LCA.
	Type of effect:	Permanent, direct and adverse
	Operation and maintenance (Year 15) phase: The assessment of effects would be comparable to that concluded for Operation Year 1.	

	Level of effect:	Locally **Major/Moderate** and **Significant** (in respect to landscape elements and landscape character within the HAGI site) to **Minor/Negligible** and **Not Significant** to **No Effect** elsewhere within the LCA.
	Type of effect:	Permanent, direct and adverse
Rocksavage HAGI	**Construction phase:** The Rocksavage HAGI would be located beyond the LCA's boundary although its study area coincides with this receptor unit. The HAGI would be located to the south of the LCA to the east of the M56 at a minimum separation distance of approximately 150m. This area is influenced by the M56 viaduct to the south-east and intervening tree cover and vegetation. Consequently, the construction activities associated with the Rocksavage HAGI, including the removal of woodland would have limited characterising influence on this LCA during the 6-12 month construction period. The magnitude of change would be Very Low.	
	Level of effect:	**Minor/Negligible** and **Not Significant** to **No Effect**
	Type of effect:	Short-term duration (temporary), indirect and neutral
	Operation and maintenance (Year 1) phase: The ZTV in **Figure 8.29** shows some localised and fragmented areas of intervisibility between this LCA and the operational Rocksavage HAGI. However, the intervening M56 viaduct and layers of tree cover and vegetation would limit views and it is likely that the HAGI would have no characterising influence upon the character and key characteristics of this LCA.	
	Level of effect:	**No Effect**
	Type of effect:	N/A
	Operation and maintenance (Year 15) phase: There would be no change to the assessment of effects at Year 1.	
	Level of effect:	**No Effect**
	Type of effect:	N/A

Overall assessment		
Construction phase:	Collectively the construction works involving the underground pipeline (Runcorn/Rocksavage Spur), Runcorn HAGI and construction access routes would represent a moderate scale development continuing for the duration of the construction phase. Whilst each corridor is expected to take 12-18 months to complete, the laying of approximately 1.1km of pipeline through this LCA would be of shorter duration with the construction of the Runcorn HAGI taking 6-12 months. The loss of tree cover from within the pipeline corridor and footprint of the HAGI would give rise to a High magnitude of change with respect to landscape elements and landscape character within and adjacent to these components of the Project. Overall, the magnitude of change on the LCA would be Low.	
	Level of effect:	**Minor** and **Not Significant** to **No Effect** with localised areas of **Major/Moderate** and **Significant** effects within the pipeline corridor and Runcorn HAGI footprint.
	Type of effect:	Short-term duration (temporary with some permanent effects), direct and adverse.
Operation and maintenance (Year 1) phase:	The continued loss of trees from within the pipeline easement and Runcorn HAGI footprint would give rise to a localised **Major/Moderate** and **Significant** effect with a **Minor** to **Minor/Negligible** and **Not Significant** or **No Effect** occurring elsewhere within the wider LCA**.**	
Operation and maintenance (Year 15) phase:	The permanent loss of trees from within the pipeline easement and Runcorn HAGI footprint would give rise to a localised **Major/Moderate** and **Significant** effect with a **Minor** to **Minor/Negligible** and **Not Significant** or **No Effect** occurring elsewhere within the wider LCA	

Table 8D.19 LCA North Widnes Farmland

Context	
Relevant figures:	**8.7** and **8.34** (Clock Face HAGI ZTV)
LCA hierarchy – NCA:	NCA 60 Mersey Valley
Landscape Designations:	None
Administrative area:	Halton

Baseline character description:

The Project passes through the north-eastern corner of LCA North Widnes Farmland, the only LCA within the Floodplain Farmland LCT. The key landscape characteristics of the LCA are detailed below taken from the *Halton Landscape Character Assessment*[3].

Key characteristics:

- *"Flat agricultural landscape falling subtly to the built edge of Widnes.*
- *Large scale agricultural landscape with fields enclosed by hedgerows and drainage ditches.*
- *Hedgerows are fragmented and often replaced by timber fencing around horse paddocks but are in better condition along the roads.*
- *Heathland was a characteristic feature of this area but it has now mostly been replaced by agricultural land.*
- *Woodland is sparse and where present is predominantly linear, isolated hedgerow trees or in clumps around field ponds.*
- *Open character to the landscape created by low woodland cover and large field size.*
- *Infrastructure routes such as roads and overhead lines are prominent landscape features. Roads often cross the landscape in straight alignments.*
- *Urban fringe elements always visible.*
- *Frequent isolated farms, large properties and small commercial units.*
- *Fiddlers Ferry power station is a prominent feature on the horizon."*[3]

Relevant Built Development Guidelines:

1. *"Ensure advanced planting of copses and trees along roads and urban fringes and within any new developments.*
2. *Enhance planting and create new linear woodland belts along urban fringes to soften the edges and filter views of the built form."*[3]

Assessment of sensitivity			
Landscape value: The LCA is not designated for its scenic landscape value at a national or local level that would denote a higher value. There are a no nature conservation designations in the LCA and heritage assets are limited to Cranshaw Hall moated site scheduled monument to the south of the A557. There are also no recreational routes or destinations within the LCA. Detractive features include the overhead lines which are prominent in views as they pass through the character area whilst Industrial buildings and Fiddlers Ferry power station are also prominent in outward views. The landscape is cited in the extant assessment as being of moderate-weak strength with few key features which contribute a strong 'sense of place' or define the character of the area. The assessment notes that "*Although the rural character is consistent across the area, infrastructure and urban fringe interrupt and fragment this rural character*"[3]. In terms of condition this is recognised as being moderate. The overall value is assessed as Medium-Low. Landscape susceptibility: The *Halton Landscape Character Assessment*[3] identifies landscape guidelines which seek to enhance the landscape through restoring field patterns indicating a lower susceptibly to change. The visual susceptibility is also assessed in the context of sparse woodland cover which allows open views over the agricultural landscape although hedgerows provide some foreshortening of views. The proximity of the landscape to busy road corridors of the A57 and A557 as well as the Manchester and Allerton Junction Line to the south and infrastructure development within and beyond the LCA's boundary is likely to disruption perceptions of tranquillity and remoteness. Considering the nature of the Project, predominantly of short-term and temporary duration, the landscape susceptibility to this type of development is reduced. The overall susceptibility of the landscape to the Project is assessed as Medium-Low.			
Sensitivity	Medium-Low	Landscape value:	Medium-Low
		Landscape susceptibility:	Medium-Low
Magnitude of change and level of effect			
Pipeline (North Corridor)	**Construction phase:** **Figure 8.7, Volume 4** shows approximately 0.8km of the North Corridor of the pipeline crossing this LCA between Twyford Lane and the A57 with the A557 road corridor sited approximately 300m to the south. The pipeline corridor crosses three arable fields and reference to **Figures 8C.118** and **8C.119** of **Appendix 8C: Arboricultural Impact Assessment** indicates that a short section of hedgerow and trees would be removed at two locations along the route. Hedgerow and tree replacement would be undertaken following the construction phase in line with the commitments made in **Section 8.6** of **Chapter 8: Landscape and visual**. Construction		

	activity would be transient and of short duration with progressive backfilling and reinstatement as works are completed along the route. A trenchless crossing compound would be sited across two fields to the south of the A57 and would require the temporary removal of approximately 100m of hedgerow which would be reinstated post construction. The siting of this compound adjacent to a busy road corridor would reduce the visual and audible influence of construction activities on perceptual qualities such as tranquillity. The scale and geographical extent of these construction activities would be Medium when experienced locally to the construction works (within the same field unit), reducing to Low or less from the wider LCA, where the pipeline corridor would be screened by tree belts including more substantial tree cover along the A557. The magnitude of change likely to affect the landscape character, key characteristics and elements would range from Medium (in respect of landscape elements and character within and adjacent to the pipeline corridor and trenchless crossing compound) to Low or less elsewhere within the LCA.	
	Level of effect:	**Moderate** and locally **Significant** to a **Minor** and **Not Significant** to **No Effect** elsewhere within the wider LCA.
	Type of effect:	Short-term duration (temporary), direct and adverse
Temporary construction accesses (NH-47, NH-48)	**Construction phase:** Temporary construction access routes and designated access points: A557, A5080, Mill Lane, Twyford Lane (NH-47) and A57 Warrington Road (NH-48). All construction access for the pipeline would utilise the existing road network to join the temporary haul routes within the pipeline corridor and trenchless crossing compound. Some limited hedgerow removal would be required at the designated access points (NH-47 and NH-48) within the LCA whilst traffic management and control measures would be used to facilitate the safe movement of vehicles into and out of the accesses instead of removing or pruning additional vegetation to create visibility splays. An increase in HGVs using the A5080, A57 and A557 is unlikely to be readily perceived within baseline traffic flows, as evidenced in the traffic generation quantities prepared as part of **Chapter 11: Traffic and transport** which predict a 1.7% (peak) increase in traffic and a 9.7% increase in HGVs along the A5080 between the A557 and South Lane and a 0.5% increase in traffic and 2.9% increase in HGVs along the A557 between Junction 13 of the M62 and the B5419. However, an increase in HGVs using a section of the local road network (Mill Lane and Twyford Lane) may locally dilute perceptual qualities relating to tranquillity. The magnitude of change resulting from the increased traffic movements would potentially be up to a Medium magnitude affecting a small	

	geographical area of landscape character in the local vicinity of the temporary construction access routes and for a short duration. The magnitude of change elsewhere within the LCA would be Very Low to Zero.	
	Level of effect:	**Moderate** and locally **Significant** to **Minor/Negligible** and **Not Significant** to **No Effect.**
	Type of effect:	Short-term duration (temporary), direct and adverse.
Clock Face HAGI	**Construction phase:** A temporary construction compound would surround the HAGI under construction in an open pastural field between the M62 and the A57. This would be sited beyond the LCA's boundary although its study area coincides with a small proportion of this receptor unit along its northern edge. The construction period would be 6-12 months during which the construction would include the presence of welfare facilities up to two storeys (6m high); vehicle and plant storage and movement; and the storage for pipes in stacks (up to 4m in height), equipment and materials. Solid hoarding to the perimeter of the associated construction compounds would minimise visibility of activity and structures within the compound. The presence of hedgerows along the A57 between the LCA and the HAGI and its associated construction compound, a minimum separation distance of approximately 250m and a landform within the LCA which slopes southwards away from the site, means that the construction activities would have a limited characterising role, concentrated across the northern fringes of this LCA only. The magnitude of change would commonly be Low or less, potentially increasing to Medium from along the closest northern edge.	
	Level of effect:	**Minor** and locally **Moderate** and **Not Significant** to **No Effect.**
	Type of effect:	Short-term duration (temporary), indirect and adverse.
	Operation and maintenance (Year 1) phase: The ZTV in **Figure 8.34** indicates some localised and generally limited intervisibility between this LCA and the Clock Face HAGI. The HAGI would be enclosed by security fencing typically 2.4 to 3.6m high with gated access for maintenance and the above ground components would be at a low level (up to 5m for lighting columns). The woodland and woodland edge planting around the HAGI would play a minor landscape role at Year 1. The magnitude of change would be Low to Very Low and commonly Zero as increasing separation distance and vegetative screening reduce any characterising influence of the operational HAGI.	
	Level of effect:	**Minor** to **Minor/Negligible** and **Not Significant** to **No Effect**

	Type of effect:	Permanent, indirect and neutral
	Operation and maintenance (Year 15) phase: The gradually maturing woodland and woodland edge planting around the HAGI would screen any views of the above ground infrastructure and fence line from the within the localised areas of LCA indicated in the ZTV in **Figure 8.34.** The magnitude of change would be Very Low to Zero	
	Level of effect:	**Minor/Negligible** and **Not Significant** to **No Effect**
	Type of effect:	Permanent, indirect and neutral
Overall assessment		
Construction phase:	Collectively the construction works involving the underground pipeline (North Corridor), temporary trenchless crossing compound and construction access routes would represent a moderate scale development continuing for the duration of the construction phase. Whilst each corridor is expected to take 12-18 months to complete, the laying of approximately 0.8km of pipeline through this LCA would be of shorter duration with the construction of the Clock Face HAGI in an adjoining LCA taking 6-12 months. Overall, 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 trenchless crossing compound.	
	Level of effect:	**Minor** and **Not Significant** to **No Effect** with localised areas of **Major/Moderate** and **Significant** effects close to the pipeline corridor and trenchless crossing compound.
	Type of effect:	Short-term duration (temporary), direct and adverse.
Operation and maintenance (Year 1) phase:	The effect on the landscape character and key characteristics as a consequence of the Clock Face HAGI at Year 1 would be **Minor** to **Minor/Negligible** and **Not Significant** to **No Effect.**	
Operation and maintenance (Year 15) phase:	The effect on the landscape character and key characteristics as a consequence of the Clock Face HAGI at Year 15 would be **Minor/Negligible** and **Not Significant** to **No Effect.**	

Table 8D.20 LCA Norton Wooded Parkland

Context	
Relevant figures:	**8.3**
LCA hierarchy – NCA:	NCA 60 Mersey Valley
Landscape Designations:	None
Administrative area:	Halton

Baseline Character description:

The Project passes to the south of LCA Norton Wooded Parkland, one of two LCAs within the Urban Fringe Parkland LCT. The key landscape characteristics of the LCA are detailed below taken from the *Halton Landscape Character Assessment*[3].

Key characteristics:

- *"Linear strip of land between urban development on high ground.*
- *High woodland cover within area.*
- *Combination of blocks of woodland, avenues of trees and areas of grassland create a parkland character.*
- *Remnant hedgerows and hedgerow trees indicate former agricultural land prior to New Town development in 1970s.*
- *All managed for informal and formal recreation and nature conservation.*
- *Important green buffer within an urban area.*
- *Housing on sloping ground set within a strong woodland framework.*
- *Network of small streams, man-made pools and lakes.*
- *Wooded formal grounds of Norton Priory are a local feature.*
- *Norton Water Tower is a feature on high ground".* [3]

Relevant Built Development Guidelines:

1. *"Conserve and enhance the wooded setting of Norton Priory; ensure any new development close to the priory does not adversely affect its setting.*

2. Conserve and enhance the character of development set within woodland on rising ground on the fringes of the character area."[3]

Assessment of sensitivity

Landscape value:

The LCA is not designated for its scenic landscape value at a national or local level that would denote a higher value. A small part of the LCA at its southern end coincides with the LVIA Study Area for the West Corridor. This wooded area lies adjacent to the M56 to its south, A533/A56 to its east and the Muirdishaw Roundabout to its west. There are no recreational assets or nature/heritage designations, and tranquillity levels would be low. Whilst it is recognised that areas of LCA which are of higher value are present to the north, the overall landscape value of the area which coincides with the study area is assessed as Low.

Landscape susceptibility:

There would be no physical change to this LCA as a result of the Project. In terms of visual susceptibility, the woodland which covers this part of the LCA would contain views with a corresponding limited visual relationship with surrounding landscapes. The high levels of traffic movement along the adjoining major road corridors would reduce levels of tranquillity and remoteness. The overall susceptibility of the part of the LCA which coincides with the LVIA Study Area to the Project is assessed as Low.

Sensitivity	Low	Landscape value:	Low
		Landscape susceptibility:	Low

Magnitude of change and level of effect

Pipeline (West Corridor)	**Construction phase:** **Figure 8.3, Volume 4** shows the LVIA Study Area for the West Corridor of the pipeline coinciding with a very small part of the Norton Wooded Parkland LCA at its southern end. Construction activity along the West Corridor associated with the installation of the pipeline would be transient and of short duration with progressive backfill and reinstatement as works are completed along the route. The high incidence of woodland within the part of the LCA which coincides with the Study Area and a context in which high levels of traffic movement is an established part of the baseline, means that there would be no intervisibility with the West Corridor located a minimum of approximately 860m to the south. There would also be no audible influence on the already low perception of tranquillity. The magnitude of change likely to affect the landscape character, key characteristics and elements would be Zero.

	Level of effect:	**No Effect**
	Type of effect:	N/A
Temporary construction accesses	**Construction phase:** Temporary construction access routes: A533, A56. The A533 and A56 to the south and west of this LCA are identified in the access strategy as HGV routes for construction access. These are busy highway networks under baseline conditions and the visual and audible influence of construction vehicles would be incremental to the baseline and unlikely to be readily distinguishable. The magnitude of change would be Very Low.	
	Level of effect:	**Negligible** and **Not Significant** to **No Effect**
	Type of effect:	Short-term duration (temporary), indirect and adverse
Overall assessment		
Construction phase:	Collectively the construction works involving the underground pipeline (West Corridor) and construction access routes would lead to a Negligible level of effect from within a very small proportion of this LCA and continuing for the construction phase (6-12 months). The high incidence of woodland would restrict intervisibility whist the visual and audible influence of construction vehicles on the adjacent highways would be incremental to the baseline and unlikely to be readily distinguishable. Overall, the magnitude of change on the LCA would be Very Low to Zero.	
	Level of effect:	**Negligible** and **Not Significant** to **No Effect.**
	Type of effect:	Short-term duration (temporary), indirect and adverse.

Table 8D.21 LCA Daresbury Sandstone Escarpment

Context	
Relevant figures:	**8.5** and **8.32** (Higher Walton (Option HWH2) ZTV)
LCA hierarchy – NCA:	NCA 60 Mersey Valley
Landscape Designations:	None
Administrative area:	Halton

Baseline Character description:

The Project passes to the east of the Daresbury Sandstone Escarpment LCA, which is only LCA within the Red Sandstone Escarpment LCT. The key landscape characteristics of the LCA are detailed below taken from the *Halton Landscape Character Assessment*[3].

Key characteristics:

- *"Distinctive escarpment landform with the east steeply sloping, western slopes are more gently undulating;*
- *Rural character although views of industry in the north reduce this slightly;*
- *Land use is predominantly pasture on steeper slopes and pockets of arable on gentler slopes;*
- *Regular geometric field pattern with a high proportion of post medieval fields;*
- *Farmland bordered by generally intact closely clipped low hedgerows and frequent hedgerow trees;*
- *Pockets of parkland around Daresbury Hall;*
- *Frequent isolated trees within fields;*
- *Frequent clusters of wooded field ponds;*
- *Long linear tree groups; most are prominent on high ground;*
- *Small tracks and lanes often with walled boundaries;*
- *Avenues of trees along tracks and lanes Small linear settlement and infrequent scattered farmsteads;* and
- *Expansive views from high ground although landform creates a high level of enclosure on lower ground."* [3]

Relevant Built Development Guidelines:

1. *"Ensure that tall features within any future developments respect the uniform wooded nature of the horizon and limit the scale and number of features which protrude above it."*[3]

Assessment of sensitivity			
Landscape value: The LCA is not designated for its scenic landscape value at a national or local level that would denote a higher value. There is a single nature conservation designation in the LCA (a local wildlife site) and heritage assets at Daresbury and Moore Conservation Areas. The Timberland Trail, Cheshire Ring Canal Walk and Bridgewater Way are promoted long distance walking routes which pass through the LCA which is also host to the Creamfields Music Festival. The landscape is cited in the extant assessment as being of strong landscape strength with a distinctive character and strong sense of place associated with the escarpment and the landscape's rurality. The condition is recorded as being good with the majority of the landscape being well maintained with evidence of landscape features such as hedgerow and hedgerow tree planting being replaced. The overall value is assessed as High-Medium. Landscape susceptibility: The *Halton Landscape Character Assessment*[1] identifies a landscape strategy which seeks to conserve and enhance with an emphasis on managing key features such as woodland blocks, wooded field ponds, parkland and postmedieval field patterns indicating that these features are of a higher susceptibly to change. The visual susceptibility is assessed in the context of prevalent woodland cover which encloses views although extensive panoramas are available from highpoints. The proximity of the landscape to busy road corridors of the A56 as well as views of infrastructure development beyond the LCA's boundary (long distance views across Runcorn towards the industry along the Mersey and at Manor Park which appears close by) is likely to partially disruption perceptions of tranquillity and remoteness. Considering the nature of the Project, predominantly of short-term and temporary duration, the landscape susceptibility to this type of development is reduced. The overall susceptibility of the landscape to the Project is assessed as Medium.			
Sensitivity	Medium	Landscape value:	High to Medium
		Landscape susceptibility:	Medium
Magnitude of change and level of effect			
Pipeline (North Corridor)	**Construction phase:** **Figure 8.5, Volume 4** shows North Corridor of the pipeline crossing the landscape to the east of the LCA and as a consequence, landscape effects would be indirect. At its nearest point, 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*". Construction activity would be transient and of short duration with progressive backfilling and reinstatement as works are completed along the route. 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), reducing to Low or less from the wider LCA.	
	Level of effect:	**Moderate** and locally **Significant** within a very small proportion of the LCA adjacent to the North Corridor to a **Minor** and **Not Significant** to **No Effect** elsewhere within the wider LCA.
	Type of effect:	Short-term duration (temporary), indirect and adverse
Temporary construction accesses	**Construction phase:** <u>Temporary construction access routes: Runcorn Road and A56 Chester Road.</u> No temporary access points would be required within this LCA. The access strategy identifies the A56 and Runcorn Road at Moore as HGV routes, although additional traffic movements are unlikely to be readily distinguishable along these routes and there would be no requirement for the localised removal of vegetation. This is evidenced in the traffic generation quantities prepared as part of **Chapter 11: Traffic and transport** predict a 1.6% (peak) increase in traffic and a 5.6% increase in HGVs along the A56 between the M56 and A558. The magnitude of change resulting from the increased traffic movements would be Very Low affecting a small geographical area of landscape character in the local vicinity of the temporary construction access routes.	
	Level of effect:	**Minor/Negligible** to **No Effect** and **Not Significant**
	Type of effect:	Short-term duration (temporary), direct and adverse.
Higher Walton HAGI (Option HWH2)	**Construction phase:** Option HWH2 of the Higher Walton HAGI would be located approximately 0.9km to the north-east of the LCA at its closest point. Temporary construction compounds would be sited to the east and west of the HAGI site on land to the east of warehousing on the northern bank of the Manchester Ship Canal. The presence of tree cover, including that lining the intervening railway line, hedgerows and separation distance of the LCA from the temporary construction compound would result in highly restricted views which would have no characterising influence adjacent to warehousing and beyond the railway line during the 6-12 month construction period. Construction activities associated with the DNO Connection would take place between two warehouse buildings and would have no characterising influence. The magnitude of change would be Zero.	
	Level of effect:	**No Effect**

	Type of effect:	N/A
	Operation and maintenance (Year 1) phase: Reference to the ZTV in **Figure 8.32** shows no potential intervisibility with the Option HWH2 of the Higher Walton HAGI and there would be a Zero magnitude of change.	
	Level of effect:	**No Effect**
	Type of effect:	N/A
	Operation and maintenance (Year 15) phase: There would be no change to the assessment conclusions for Operation Year 1.	
	Level of effect:	**No Effect**
	Type of effect:	N/A
Overall assessment		
Construction phase:	Overall, the magnitude of change on the LCA would be Low to Very Low as a consequence of the Northern Corridor, temporary construction accesses and Higher Walton HAGI (Option HWH2) with highly localised areas experiencing up to a Medium magnitude of change where the LCA lies adjacent to the pipeline corridor.	
	Level of effect:	**Minor** to **Zero** and **Not Significant** to **No Effect** with localised areas of **Moderate** and **Significant** effects close to the pipeline corridor.
	Type of effect:	Short-term duration (temporary), indirect (Northern Corridor and HAGI)/direct (temporary construction accesses) and adverse.
Operation and maintenance (Year 1) phase:	There would be **No Effect** on the landscape character and key characteristics of this LCA at Operation Year 1 of the Higher Walton HAGI (Option HWH2).	
Operation and maintenance (Year 15) phase:	There would be **No Effect** on the landscape character and key characteristics of this LCA at Operation Year 15 of the Higher Walton HAGI (Option HWH2).	

Table 8D.22 LCA Moore Village and Keckwick Brook Valley

Context	
Relevant figures:	**8.5** and **8.32** (Higher Walton (Option HWH2) ZTV)
LCA hierarchy – NCA:	NCA 60 Mersey Valley
Landscape Designations:	None
Administrative area:	Halton

Baseline character description:

The Project coincides with the far northern part of LCA Moore Village and Keckwick Brook Valley, which is the only LCA within the Urban Fringe/River Valley LCT. The key landscape characteristics of the LCA are detailed below taken from the *Halton Landscape Character Assessment*[3].

Key characteristics:

- *"Narrow shallow river valley.*
- *Informal open space and isolated pockets of farmland.*
- *Frequent infrastructure routes such as railways overhead lines and roads.*
- *Long linear field pattern following watercourse; smaller fields closer to settlements.*
- *Segmentation of the landscape through railways on embankments; watercourses and canals and roads which bisect the area.*
- *Prominent wooded watercourse.*
- *Two spurs of the Bridgewater Canal are features within the area.*
- *Small pockets of woodland and clumps of trees.*
- *Daresbury Firs is a prominent conifer woodland on high ground.*
- *Large areas of informal open space and rough grassland on the fringes of Runcorn Frequent stone and brick bridges over canals.*

- *Urban fringe and industrial development prominent within views.*
- *Commercial/industrial development prominent on ridgeline".*[3]

Relevant Built Development Guidelines:

1. *"Provide woodland planting within and around development on high ground to reinforce the continuous wooded character of high ground.*
2. *Create a wooded setting to any new development on the fringes of the character area.*
3. *Conserve existing woodlands and trees where they lie within or immediately adjacent to land identified for future development*
4. *Enhance and maintain a wooded horizon; the number and scale of development punctuating the wooded skyline should be limited."*[3]

Assessment of sensitivity

Landscape value:

The LCA is not designated for its scenic landscape value at a national or local level that would denote a higher value. A proportion of the LCA which coincides with the study area features a number of local wildlife sites and local nature reserves including Pitts Heath Wood and Daresbury Firs as well as areas to the west, east and south of Moss Lane Nursery. A conservation area with a concentration of listed buildings is also present at Moore. Detracting features within the LCA include the large-scale office and warehouse buildings within Daresbury Laboratory and on the ridgeline at Daresbury Park which is noted in the extant assessment as being "*prominent within the landscape and visible on the skyline between blocks of woodland*". Large wholesale and distribution warehousing beyond the LCA boundary in the north is also locally visible. The LCA is also crossed by a number of transport routes including the West Coast Main Line, M56, A56 and A558 where high levels of visual and audible traffic movements are likely to disrupt perceptions of tranquillity and remoteness. The landscape is not rare and is cited in the extant assessment as being in "*poor to moderate"* condition with an overall landscape strategy to enhance, restore and create. Recreational routes include the Cheshire Ring Canal Walk which coincides with the route of the Bridgewater Way and a number of local PRoWs and informal routes within nature conservation areas. The overall landscape value is assessed as Medium-Low.

Landscape susceptibility:

The *Halton Landscape Character Assessment*[3] identifies the key features of this landscape which include prominent woodland on high ground, pockets of farmland and open space, all of which would be sensitive to change. Considering the nature of the Project,

predominantly of short-term and temporary duration, the landscape susceptibility to this type of development is reduced. The susceptibility is also assessed in the context of existing extensive industrial and transport infrastructure which reduce perceptions of tranquillity, naturalness and remoteness whilst the woodland provides some visual containment and filtering of view with corresponding moderate to low levels of intervisibility with surrounding landscapes. This collectively indicates a reduced susceptibility to the construction and operation and maintenance of the Project. Increased susceptibility arises however from within areas which display a more open character of the landscape facilitating wider views. The overall susceptibility of the landscape to the Project is assessed as Low to Medium.

Sensitivity	Medium	Landscape value:	Medium to Low
		Landscape susceptibility:	Medium to Low
Magnitude of change and level of effect			
Pipeline (North Corridor)	**Construction phase:** **Figure 8.5, Volume 4** shows North Corridor of the pipeline crossing the landscape to the east of the LCA and as a consequence, landscape effects would be indirect. At its nearest point, the North Corridor would pass approximately 0.6km from the LCA's eastern boundary and construction activity may give rise to visual disturbance from within localised areas of landscape. Construction activity would be transient and of short duration with progressive backfilling and reinstatement as works are completed along the route. The magnitude of change would commonly be Very Low or Zero, occasionally increasing to Low.		
	Level of effect:	**Minor** to **Minor/Negligible** and **Not Significant** to **No Effect**	
	Type of effect:	Short-term duration (temporary), indirect and adverse	
Temporary construction accesses (NH-65)	**Construction phase:** Temporary construction access routes and designated access points: Moore Lane (NH-65). All construction access for the pipeline would utilise the existing road network to join the temporary haul routes within the pipeline corridor and associated pipe storage area. The access strategy identifies Runcorn Road and Moore Lane as HGV routes with access point NH-65 located at the Moore Lane bridge to take vehicles over the Manchester Ship Canal. It is not anticipated that vegetation would be removed to facilitate access and the magnitude of change resulting from the increased traffic movements would potentially be up to a Medium magnitude affecting a small geographical area of landscape character in the local vicinity of the temporary construction access routes and within a LCA which features "*Frequent infrastructure routes such as railways overhead lines and roads"*.		

	Level of effect:	**Minor/Negligible** and **Not Significant** to **No Effect** with localised areas of **Moderate** and **Not Significant** effects close to the construction access routes. This Moderate effect is assessed a being Not Significant given the urban fringe context and close proximity of railway lines.
	Type of effect:	Short-term duration (temporary), direct and adverse.
Higher Walton HAGI (Option HWH2)	**Construction phase:** The LVIA Study Area for Option HWH2 of the Higher Walton HAGI coincides with a small proportion of this LCA at its north-western corner. A temporary construction compound would be sited to the west and east of the HAGI to the west of the West Coast Main Line and east of existing warehousing on the northern bank of the Manchester Ship Canal. This would be located approximately 0.6km from the LCA at its closest point. The construction period would be 6-12 months. The high prevalence of tree cover within the part of the LCA which coincides with the study area and intervening tree belts along the southern and northern banks of the Manchester Ship Canal, allied with the separation distance would limit intervisibility. Construction activities associated with the DNO Connection would take place between two warehouse buildings and would have no characterising influence. The magnitude of change would be Very Low.	
	Level of effect:	**Minor/Negligible** and **Not Significant** to **No Effect**
	Type of effect:	Short-term duration (temporary), indirect and adverse
	Operation and maintenance (Year 1) phase: Reference to the ZTV in **Figure 8.32** shows a localised area of landscape within the LCA to the east of Moore Lane from which Option HWH2 of the Higher Walton HAGI may be perceived. The area of scrub and woodland planting proposed to the west and east of the HAGI respectively would play no landscape role from within this LCA at Year 1. The presence of intervening vegetative screening elements and the context of the HAGI adjacent to existing built elements means that the indirect effect on the landscape character and key characteristics of this LCA would be Very Low and commonly Zero.	
	Level of effect:	**Minor/Negligible** and **Not Significant** to **No Effect**
	Type of effect:	Permanent, indirect and neutral
	Operation and maintenance (Year 15) phase:	

	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. As a consequence, a Zero magnitude of change is predicted for Year 15.	
	Level of effect:	**No Effect**
	Type of effect:	N/A
Overall assessment		
Construction phase:	Collectively the construction works involving construction access routes and the presence of the underground pipeline (North Corridor) and HAGI Option HWH2 to the east and north-east, beyond the LCA's boundary, would give rise to a magnitude of change on 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.	
	Level of effect:	**Minor** to **Minor/Negligible** and **Not Significant** to **No Effect** with localised areas of **Moderate** and **Not Significant** effects close to the construction access routes.
	Type of effect:	Short-term duration (temporary), indirect (Northern Corridor and HAGI) and neutral Short-term duration (temporary), direct (temporary construction accesses) and adverse.
Operation and maintenance (Year 1) phase:	The effect on the landscape character and key characteristics at Operation Year 1 of the Higher Walton HAGI (Option HWH2) would be **Minor/Negligible** and **Not Significant** to **No Effect**	
Operation and maintenance (Year 15) phase:	There would be **No Effect** on the landscape character and key characteristics of this LCA at Operation Year 15 of the Higher Walton HAGI (Option HWH2).	

Table 8D.23 LCA Preston on the Hill Undulating Enclosed Farmland

Context	
Relevant figures:	**8.5** and **8.6**
LCA hierarchy:	NCA 60 Mersey Valley
Landscape Designations:	None
Administrative area:	Halton

Baseline character description:

The Project passes through the centre of LCA Preston on the Hill Undulating Enclosed Farmland, which is the only LCA within the Undulating Enclosed Farmland LCT. The key landscape characteristics of the LCA are detailed below taken from the *Halton Landscape Character Assessment.*[3].

Key characteristics:

- *"Gently undulating landform.*
- *Regular gentle knolls and smaller valleys created by small steams and tributaries.*
- *Mixture of dairy farming and arable with a small amount of horse paddocks close to farms.*
- *Irregular field pattern of post-medieval origin with some pockets of ancient fieldscape.*
- *Hedgerow trees often present in small groups.*
- *Keckwick Brook is a prominent wooded stream.*
- *Frequent clusters of wooded field ponds.*
- *Frequent linear woodland and small copses at field margins and around farmsteads.*
- *Small linear settlement and individual properties and farmsteads."*[3]

Relevant Built Development Guidelines:

1. *"Conserve the rural character of the area and ensure that new development does not increase the prominence and frequency of built form within the landscape.*

2. *Encourage planting of small copses around Daresbury Park fringes along the M56 to reduce the prominence and scale of buildings in views within this character area."*[3]

Assessment of sensitivity			
Landscape value: The LCA is not designated for its scenic landscape value at a national or local level that would denote a higher value although the extant assessment notes that "*The landscape has a distinctive character and strong sense of place"*[3] and a landscape condition which is cited as good with the majority of the landscape being well maintained *and "evidence of replacement of landscape features such as new hedgerow and hedgerow tree planting"*[3]*.* There are limited designated nature conservation or heritage assets (the New Manor Farm moated site scheduled monument is located within the LCA) and recreational value is restricted to a small number of local PRoWs which provide opportunity to experience and view the landscape. The M56 motorway is one of the few detracting features in the LCA and has a "*localised effect on views from roads and fields closest to the motorway"*[3] as well as effects on levels of tranquillity. The overall landscape value is assessed as Medium. Landscape susceptibility: The rural landscape, a gently undulating landform, strong intact field pattern of mainly post-medieval fields bordered by hedgerows and hedgerow trees; scattered copses of woodland and linear woodland belts, field ponds are all cited as being and the key features that should be conserved and enhanced within the *Halton Landscape Character Assessment*[3] indicating that they would be susceptible to change. In terms of perceptual susceptibility, the LCA is typically rural in character with moderate to high levels of tranquillity and remoteness away from the M56. Views tend to be over long distances across the character area. Considering the nature of the Project, predominantly of short-term and temporary duration, the landscape susceptibility to this type of development is reduced. The overall susceptibility of the landscape to the Project is assessed as Medium.		
Sensitivity	Medium	Landscape value:	Medium
		Landscape susceptibility:	Medium
Magnitude of change and level of effect			
Pipeline (North Corridor)	**Construction phase:** **Figures 8.5 and 8.6, Volume 4** show approximately 1.5km of the North Corridor of the pipeline crossing the LCA. The North Corridor would enter the LCA at the administrative boundary close to Higher Lane before heading north, crossing eight arable and pasture fields as well as Newton Lane, with open cut sections crossing through		

	field boundaries comprising hedgerows with hedgerow trees at up to eight locations. The localised removal of hedgerow at each of these locations would appear as a break in the generally intact field pattern but would be reinstated post construction. Construction activity would be transient and of short duration with progressive backfilling and reinstatement as works are completed along the route. In addition to the pipeline corridor, a temporary materials storage area would be sited across two fields to the north-west of Higher Lane with materials stored up to 4m in height and for a maximum duration of 6 months. The perimeter and internal field boundary vegetation would be retained and protected in this area. The scale and geographical extent of these construction activities would be Medium-High when experienced locally to the construction works (within the same field unit or ~250m) including from the local lanes, local PRoW network and isolated residential properties, reducing to Low or less from the wider LCA, where the pipeline corridor would begin to become partially screened by retained hedgerow field boundaries, gently undulating topography or "*Frequent linear woodland and small copses"*. The magnitude of change would also be lower as the North Corridor crosses fields close to the M56 Corridor, where high levels of movement and the audible influence of traffic reduce levels of tranquillity. The magnitude of change likely to affect the landscape character, key characteristics and elements would range from High (in respect of landscape elements and LCA within and adjacent to the pipeline corridor and temporary materials storage areas) to Low or less elsewhere within the LCA.	
	Level of effect:	**Major/Moderate** and **locally Significant** to **Minor** or less and **Not Significant** elsewhere within the wider LCA.
	Type of effect:	Short-term duration (temporary), direct and adverse.
Temporary construction accesses (NH-05 and NH-06)	**Construction phase:** <u>Temporary construction access routes and designated access points: Newton Lane (NH-05 and NH-06).</u> All construction access for the pipeline within this LCA would utilise a short (200m) section of the existing road network to join the temporary haul routes within the pipeline corridor. Whilst there would be some short lengths of hedgerow removed to form the accesses from the Newton Lane, traffic management and control measures would be used to facilitate the safe movement of vehicles into and out of the accesses instead of removing or pruning additional vegetation to create visibility splays. The increase in traffic movements (light construction access where a reduced number of HGV vehicles are expected) along the Newtown Lane whilst perceptible, would not notably dilute perceptual qualities relating to tranquillity given the proximity to the M56 Corridor. Access would be required for the duration of the construction phase (6-12 months) within the LCA although would be completed sooner in	

	some areas. The magnitude of change resulting from the increased traffic movements and localised removal of hedgerow to create access points would potentially be up to a Medium magnitude affecting a small geographical area of landscape character in the local vicinity of the temporary construction access routes.	
	Level of effect:	**Moderate** to **Minor/Negligible** and **Not Significant** to **No Effect** elsewhere within the wider LCA. The Moderate effect is judged to be Not Significant given the baseline context close to the M56 Corridor.
	Type of effect:	Short-term duration (temporary), direct and adverse
Overall assessment		
Construction phase:	Collectively the construction works involving the underground pipeline (North Corridor) and the presence of construction access routes and a materials storage area within the LCA would represent a moderate scale development continuing for the duration of the construction phase. Whilst each corridor is expected to take 12-18 months to complete, the laying of approximately 1.5km of pipeline through this LCA would be of shorter duration. Overall, the magnitude of change on the LCA would be Low with localised areas experiencing up to a Medium-High magnitude of change, particular those areas in close proximity to the pipeline corridor. The landscape elements within the materials storage area and along the pipeline corridor would be reinstated upon completion of the construction phase.	
	Level of effect:	**Minor or less** and **Not Significant** with localised areas of **Major**/**Moderate** and **Significant** effects close to the pipeline corridor and materials storage area.
	Type of effect:	Short-term duration (temporary), direct and adverse.

2.6. Knowsley

Table 8D.24 LCA Cronton and Pex Hill

Context	
Relevant figures:	**8.7** and **8.34** (Clock Face HAGI ZTV)
LCA hierarchy – NCA:	NCA 60 Mersey Valley and NCA 56 Lancashire Coal Measures
Landscape Designations:	None
Administrative area:	Knowsley
Baseline character description:	

The Project passes to the north-east of LCA Cronton and Pex Hill, the only LCA within the Undulating Enclosed Farmland LCT. The key landscape characteristics of the LCA are detailed below taken from the *Landscape Character Assessment of Knowsley Metropolitan Borough*[4]

Key characteristics:

- *"Topography: Rolling lowland.*
- *Geology: Glacial drift overlying sandstone (Carboniferous and Triassic) and undivided cyclic sedimentary rocks (Carboniferous).*
- *Soil Types: Sandy Clay – well drained.*
- *Land Use: Mainly agricultural arable cropping with some pasture and buffer zones against the urban fringe.*
- *Tree Cover: Generally deciduous woodland in clumps or as isolated trees following dwelling boundaries, urban fringes or tracks.*
- *Settlement: Isolated farmsteads and residential dwelling with some in small clusters. Mainly red brick with pitched grey slate roofs.*

[4] 2020 Knowsley Ltd (2007), Landscape Character Assessment of Knowsley Metropolitan Borough (Online). Available at: http://www.knowsley.gov.uk/pdf/eb20_landscapecharacterassessment.pdf (Accessed 10 July 2024).

- *Other Distinguishing Features: - Isolated trees and woodland clumps provide a solid tree line on the sky line in most directions - Landscape is generally well maintained with little intrusion from urban areas - Pex Hill is a dominant feature on the landscape with its profile and deciduous tree planting - Some drainage ditches and field ponds exist along field boundaries but they are not a dominant characteristic across this landscape - Urban fringe settlement visible along boundaries in Widnes and Cronton."*[4]

Built Development Guidelines:

None specified for the LCA

Assessment of sensitivity

Landscape value:

The LCA is not designated for its scenic landscape value at a national or local level that would denote a higher value. Its north-eastern corner coincides with the LVIA Study Area for the Clock Face HAGI as well as the North Corridor of the pipeline. Here, perceptual qualities are influenced by the M62 transport corridor and Rainhill Stoops Interchange which adjoin the northern edge and where high levels of visual and audible traffic movements are likely to disrupt perceptions of tranquillity and remoteness. The landscape is not rare, although is cited in the extant assessment as being '*generally well maintained*'[4] and there are no nature conservation designations, long distance footpaths or national/regional cycle routes within the LCA. Pex Hill Country Park is located in the wider landscape to the south of the LVIA Study Area, where its elevation may provide some opportunities to view across the adjoining landscape to the north-east whilst a small number of local PRoWs also cross the landscape beyond the study area. The overall landscape value is assessed as Medium-Low.

Landscape susceptibility:

There would be no direct (physical) changes to this LCA as a consequence of the Project. Considering the nature of the closest section of the Project, predominantly of short-term and temporary duration, apart from the permanent above ground infrastructure of the Clock Face HAGI, the landscape susceptibility to this type of development is reduced. The susceptibility is also assessed in the context of existing extensive transport network immediately adjacent to the LCA where high levels of movement and audible disturbance are already baseline characteristics for those areas of LCA which coincide with the study area. Increased susceptibility arises around Pex Hill Country Park due to its elevated nature and potential for higher levels of intervisibility with surrounding landscapes however this area of LCA lies beyond the study area. The overall susceptibility of the landscape to the Project is assessed as Low.

Sensitivity	Low	Landscape value:	Medium-Low
		Landscape susceptibility:	Low

Magnitude of change and level of effect		
Pipeline (North Corridor)	**Construction phase:** The proposed North Corridor would not pass through this LCA (as shown in **Figure 8.7, Volume 4**) and as a consequence, landscape effects would be indirect. At its nearest point, the North Corridor would pass approximately 800m to the north-east of the LCA as it passes between the B5419 and the M62. There would be two construction compounds within this section of pipeline route to facilitate the trenchless crossing of the M62 and B5419 with a further pipeline construction compound co-located with the HAGI construction compound. There would be no effect on the key characteristics of the LCA and north-easterly views towards the construction compounds and pipeline laying would be partially screened by vegetation and tree cover within the intervening landscape including that along the adjoining A557. Any audible disturbance to the already low levels of tranquillity would be incremental to the noise generated by the high volumes of traffic along the A557, M62 and Rainhill Stoops Interchange and is unlikely to be discernible. The magnitude of change would be Very Low.	
	Level of effect:	**Negligible** and **Not Significant** to **No Effect**
	Type of effect:	Short-term duration (temporary), indirect and adverse
Temporary construction accesses	**Construction phase:** The A557 passes through the far eastern edge of this LCA and forms part of the access strategy for the Project. As an existing strategic route this would not require widening or any tree works to facilitate construction vehicle movements. Any increase in traffic is unlikely to be readily discernible along the A577 or the adjoining Rainhill Stoops Interchange which borders the LCA. Construction traffic using the existing road network to the east (the A57 and B5419) would also have limited characterising visual or audible influence given the partial screening provided by intervening vegetation and the low baseline levels of tranquillity as a consequence of this LCA's proximity to the A577, M62 and Rainhill Stoops Interchange. The magnitude of change would be Very Low.	
	Level of effect:	**Negligible** and **Not Significant** to **No Effect**
	Type of effect:	Short-term duration (temporary), direct and indirect and adverse
Clock Face HAGI	**Construction phase:** A temporary construction compound would surround the HAGI under construction in an open pastural field between the M62 and the B5419. This would be sited beyond the LCA's boundary although its study area coincides with the north-eastern fringes of the receptor unit. The construction period would be 6-12 months.	

	Construction traffic may be similar to farm vehicles and road traffic along the intervening A557 and A57, and is unlikely to have a discernible characterising influence from within a landscape which is already influenced (both visual and audible) by high levels of vehicle movements along the adjoining motorway (M62) and 'A' classified roads. The presence of vegetation and tree cover between the HAGI and its associated construction compound and minimum separation distance of 500m means that north-easterly views would be filtered and very localised. The magnitude of change would be Very Low.	
	Level of effect:	**Negligible** and **Not Significant** to **No Effect**
	Type of effect:	Short-term duration (temporary), indirect and adverse
	Operation and maintenance (Year 1) phase: The Clock Face HAGI would be enclosed by security fencing typically 2.4 to 3.6m high with gated access for maintenance. The above ground components would be at a low level (up to 5m) and the ZTV in Figure 8.34 indicates that there would be no intervisibility between this LCA and the operational Clock Face HAGI at Year 1. The magnitude of change would be Zero.	
	Level of effect:	**No Effect**
	Type of effect:	N/A
	Operation and maintenance (Year 15) phase: The gradually maturing woodland and woodland edge planting around the Clock Face HAGI is unlikely to have a presence in easterly views from this LCA and the level of effect would be the same as that reported for Year 1.	
	Level of effect:	**No Effect**
	Type of effect:	N/A
Overall assessment		
Construction phase:	Collectively the construction works involving the underground pipeline, Clock Face HAGI, temporary construction compounds and construction access routes would lead to a Negligible level of effect continuing for the construction phase (6-12 months). This level of effect is due to the separation distance between the Project and the LCA (with the exception of a short section of the A557 access route) and the layers of vegetation, particularly along transport corridors, which would combine with the typically flat topography to limit the extent of visible	

	influence of the construction works on the landscape character and key characteristics. Furthermore, the already high levels of vehicle movement along the adjoining motorway, 'A' classified roads and major road interchange means that baseline levels of tranquillity are likely to be low. Overall, the magnitude of change on the LCA would be Very Low.	
	Level of effect:	**Negligible** and **Not Significant** to **No Effect.**
	Type of effect:	Short-term duration (temporary), direct and indirect and adverse.
Operation and maintenance (Year 1) phase:	The effect on the landscape character and key characteristics overall would be **No Effect**.	
Operation and maintenance (Year 15) phase:	The effect on the landscape character and key characteristics overall would be **No Effect**.	

2.7. St Helens

Table 8D.25 LCA BRS5 Rainhill Slopes

Context	
Relevant figures:	**8.8** and **8.34** (Clock Face HAGI ZTV)
LCA hierarchy – NCA:	NCA 56 Lancashire Coal Measures
Landscape Designations:	None
Administrative area:	St Helens
Baseline character description:	

The Project passes to the west of LCA BRS5 Rainhill Slopes, which is one of five LCAs within the Broad Rural Slopes LCT. The description of the LCA is detailed below taken from the *Landscape Character Assessment for St Helens*[5].

Area Description (LCA)

- *"The area lies on gently undulating slopes with southern aspect which runs down from the adjacent broad summit of Blundell's Hill at 78m AOD to the flatter landscape which extends up to and is defined by the prominent embankments to the M62.*
- *The area is predominantly arable farmland with medium to large scale irregular fields overlaying the slope sand highlighting the fall of the contours. The field boundaries are mostly drainage ditches with degraded hedgerows with some remnant mature trees, which give a degraded character to the landscape. In many cases the hedgerows have been lost.*
- *A golf course is located on the slopes within the area and creates a contrast in character by the smooth uniform green of the fairways and associated planting to the rural character of the fields.*
- *'Water pits' are a distinctive landscape feature located within depressions in the fields and are generally associated with small blocks of mature deciduous woodland.*

[5] Land Use Consultants (LUC) on behalf of 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 10 July 2024)

- *The M62 and a line of pylons cross the area to the south and are both dominant visual features. The embankments of the M62 create an unnatural defined hard edge to the character area. The frequent movement and noise of traffic along the motorway imposes a strong urban character on the rural landscape.*
- *Area limited number of small residences and a farm steading is located off the B road which runs between Rainhill and Whiston. The historic urban edge of Rainhill is visually prominent on the ridgeline to the north. In particular the historic skyline with a prominent church tower is a distinct visual horizon in views from along the M62.*
- *Views from the upper elevated slopes to Rainhill are across the M62 embankments to the floodplains of the Mersey which progressively flatten out to the highly developed Mersey Valley. The large cooling towers at Fiddlers Ferry Power Station are prominent features on the distant skyline."*[5]

Judgement about Potential to Accommodate Development

"This area is generally unsuitable for development as this would further weaken the landscape character and reduce the clarity of the rural landscape as a setting of the historic skyline of Rainhill. The existing mature historic urban edge of Rainhill should pose a constraint to further development."[5]

Assessment of sensitivity

Landscape value:

The LCA area is not designated for its scenic landscape value at a national or local level that would denote a higher value. The eastern area of this LCA is located within the LVIA Study Area and is increasingly influenced by built development and road infrastructure. There are no long-distance walking routes or national cycle routes in the LVIA Study Area and the scenic qualities of the LCA are experienced through the road network and built environment as well as a local PRoW. The overall landscape value is assessed as Medium.

Landscape susceptibility:

The *Landscape Character Assessment for St Helens*[5] defines the overall landscape sensitivity of the LCA as '*Medium'* and describes the *"rural character of field and woodland groups and landscape pattern degraded"*[5] and the "*strong influence of surrounding urban features in particular the motorway corridor"*[5]. There is susceptibility of the rural landscape to change from development, and in particular from development affecting the skyline of Rainhill. The study also considers the visual characteristics of the LCA and notes "*limited visibility from landscape to north, but strong intervisibility with flat landscape to south partially screen by motorway embankments"*[5] as well as "*limited visibility by scatter of dwellings within character area"*[5]. In terms of perceptual characteristics, the

visibility of the surrounding developed edge reduces the sense of tranquillity and remoteness. Considering the nature of the majority of the Project which would be of short-term and temporary duration, the landscape susceptibility to this type of development is reduced. The overall susceptibility of the landscape to the Project is assessed as Medium.

Sensitivity	Medium	Landscape value:	Medium
		Landscape susceptibility:	Medium
Magnitude of change and level of effect			
Pipeline (North Corridor and St Helens Spurs)	**Construction phase:** **Figure 8.8, Volume 4** shows the North Corridor and St Helens Spurs of the pipeline within the LVIA study area to the east of the BRS5 Rainhill Slopes LCA and effects would be indirect. At its nearest point, the St Helens Spurs would pass approximately 0.7km to the east of the LCA as it passes to the north-east of the Rainhill Stoops Interchange. The potential visual and audible influence of construction activities along the North Corridor and the trenchless crossing compounds in fields to the north and south of the M62 would have limited characterising influence as a consequence of the built development within the eastern tip of the LCA, tree cover around the Rainhill Stoops Interchange and along the A570 and the high levels of vehicle movements. The magnitude of change would be Very Low to Zero.		
	Level of effect:	**Minor/Negligible** and **Not Significant** to **No Effect**.	
	Type of effect:	Short-term duration (temporary), indirect and neutral.	
Clock Face HAGI	**Construction phase:** The Clock Face HAGI would be sited in an open field adjacent to the M62 transport route to the south-east of the LCA. This would be located beyond the LCA's boundary although its Study Area coincides with this receptor unit. Engineered landform of the M62 and Rainhill Stoops Interchange to the south-east in combination with woodland and dense roadside vegetation and field boundary vegetation between the LCA and the HAGI and its associated construction compound, together with a minimum separation distance of approximately 550m means that views towards the construction activities associated with the HAGI would be severely restricted during the 6-12 month construction period. The magnitude of change would be Zero.		
	Level of effect:	**No Effect**	
	Type of effect:	N/A	

	Operation and maintenance (Year 1) phase: The ZTV in **Figure 8.34** indicates no intervisibility between this LCA and the operational Clock Face HAGI. As a consequence, the magnitude of landscape change would be Zero.	
	Level of effect:	**No Effect**
	Type of effect:	N/A
	Operation and maintenance (Year 15) phase: There would be no changes to the assessment of effects as reported for the operation and maintenance (Year 1) phase.	
	Level of effect:	**No Effect**
	Type of effect:	N/A
Overall assessment		
Construction phase:	There would be very limited indirect effects from the proposed North Corridor, St Helens Spurs and associated construction compounds due to distance and intervening woodland, tree belts and transport corridors.	
	Level of effect:	**Minor/Negligible** and **Not Significant** to **No Effect.**
	Type of effect:	Short-term duration (temporary), indirect and neutral.
Operation and maintenance (Year 1) phase:	There would be No Effect on the landscape character and key characteristics as a consequence of the Clock Face HAGI at operation Year 1.	
Operation and maintenance (Year 15) phase:	There would be No Effect on the landscape character and key characteristics as a consequence of the Clock Face HAGI at operation Year 15.	

Table 8D.26 LCA FF2 Sutton Manor Fringe

Context	
Relevant figures:	**8.8** and **8.34** (Clock Face HAGI ZTV) Viewpoint CF1 **(Figure 8.69),** Viewpoint CF2 **(Figure 8.70),** Viewpoint CF3 **(Figure 8.71),** Viewpoint CF4 **(Figure 8.72)**
LCA hierarchy – NCA:	NCA 56 Lancashire Coal Measures
Landscape Designations:	None
Administrative area:	St Helens

Baseline character description:

The Project passes through the centre of LCA FF2 Sutton Manor Fringe, one of four LCAs within the Floodplain Farmland LCT. The key landscape characteristics of the LCA are detailed below taken from the *Landscape Character Assessment for St Helens*[5].

Area Description (LCA)

- *"Smaller fragmented pocket of agricultural landscape which is delineated to the west and south by the unnatural linear forms of the embankments to the A570 and M62 respectively.*
- *To the north the area abuts the residential and industrial developed edges of Sutton Manor and to the east the slopes of Clock Face spoil heap.*
- *The area is a flat agricultural landscape of small to medium irregular fields with degraded field boundaries.*
- *Large industrial components and buildings to the north, as well as former spoil heaps, create focal points and seek to contain and direct views.*
- *A small network of small narrow rural roads link through the area and contrast with the larger elevated road corridor to the west and south.*
- *Residential edge of Sutton Manor is remnants of narrow red brick terraces some of which have been demolished and create an abrupt and neglected character."*[5]

Judgement about Potential to Accommodate Development

"There may be opportunities for small scale development in particular along, and sympathetic to, the residential edge of terraces to strengthen the developed edges."[5]

Assessment of sensitivity

Landscape value:

The LCA area is not designated for its scenic landscape value at a national or local level that would denote a higher value. Local recreational value is experienced through minor roads and the A570 as well as local PRoW to the south and west of Sutton. The LCA is influenced by industrial elements to the north, spoil heaps and the M62 to the south which reduce scenic value. The overall landscape value within the study area is assessed as Medium-Low.

Landscape susceptibility:

The *Landscape Character Assessment for St Helens*[5] defines the overall landscape sensitivity of the LCA as "*Low to Medium"* and describes the LCA as a "*small agricultural area fragmented by more recent infrastructure"*[5] with a "*strong influence of urban and industrial development with little rural character remaining"*[5]. The study also considers the visual characteristics of the LCA and notes "*some intervisibility with adjacent character types"*[5]*.* In terms of perceptual characteristics, the 'high' visibility from the surrounding developed edge reduces the sense of tranquillity and remoteness. Considering the nature of the majority of the Project would be predominantly of short-term and temporary duration, the landscape susceptibility to this type of development is reduced. The overall susceptibility of the landscape to the Project is assessed as Medium-Low.

Sensitivity	Medium-Low	Landscape value:	Medium-Low
		Landscape susceptibility:	Medium-Low
Magnitude of change and level of effect			
Pipeline (North Corridor, St Helens Spurs and Clock Face Spur)	**Construction phase:** **Figure 8.8, Volume 4** shows approximately 1.2km of the St Helens Spurs and 0.5km of the Clock Face Spur of the pipeline passing through FF2 Sutton Manor Fringe LCA. The North Corridor would cross the landscape to the south of the M62 motorway and effects from construction activities associated with this Corridor would therefore be indirect. The St Helens Spurs would enter the LCA at a trenchless crossing compound in an open arable field to the north of the M62 motorway where boundary Category B trees would be retained and protected. The route would		

	continue in open cut trench across a further two pastural fields (separated by occasional Category C trees), a minor road (School Lane), two boundary hedgerows and one arable field before crossing Chapel Lane in open cut and entering a trenchless crossing compound on the east side of the A570 St Helens Linkway, where the route would exit the LCA. The Clock Face Spur pipeline corridor would start at the trenchless crossing compound to the north of Chapel Lane and would follow parallel to Chapel Lane, heading north-east through Category C scrub woodland, Category B groups of trees and a pastural field where it would pass into the adjoining IF1 Link Road LCA with the associated removal of a small number of Category B trees at the boundary between the two LCAs. Construction along Lea Green Road (within the adjoining LCA) would involve roadside and road excavation. The extent of tree removal is shown in **Figure 8C.116** of **Appendix 8C: Arboricultural Impact Assessment**. A large materials storage area would occupy an open field to the south of Chapel Lane, on the western side of School Lane with no loss of perimeter Category B Trees. Construction activity along the North Corridor as it approaches the Clock Face HAGI would occur at a minimum separation distance of approximately 300m from this LCA, beyond the M62 motorway and as such, the characterising effects of this section of pipeline route would be limited The St Helens Spurs and Clock Face Spur associated with the installation of the pipeline would be transient and of short duration with progressive backfill and reinstatement as works are completed along the route. The scale and geographical extent of these construction activities would be Medium-High when experienced locally to the construction works (within the same field unit or ~300m) including from the local roads and PRoW network, reducing to Medium-Low or less from the wider LCA, where the pipeline corridor would be less visible due to distance and vegetation along the valley. The localised removal of trees, hedgerow and scrub would appear as a break in the pattern of field boundary and scrub vegetation. The potential loss of localised trees and hedgerows in this LCA would be mitigated by replacement of planting in-situ or close to their original locations as set out in **Section 8.6** of **Chapter 8 Landscape and Visual**. The magnitude of change likely to affect the landscape character, key characteristics and elements would range from High (in respect of landscape elements and LCA within and adjacent to the pipeline corridors, trenchless crossing compounds and materials storage areas) to Low to Zero elsewhere within the LCA.	
	Level of effect:	Locally **Major/Moderate to Moderate** and **Significant** and **Minor** to **Minor/Negligible** and **Not Significant** to **No Effect** elsewhere within the wider LCA.
	Type of effect:	Short-term duration (temporary with some permanent effects), direct and adverse.

<table>
<tr><td>Temporary construction accesses (NH-53, NH-54, NH-55, NH-56)</td><td colspan="2">Construction phase:
<u>Temporary construction access routes and designated access points: School Lane (NH-53, NH-54), Chapel Lane (NH-55, NH-56), Jubits Lane and A570 St Helens Linkway.</u>
All construction access for the pipeline would utilise the existing road network to join the temporary haul routes within the pipeline corridor.
The Access Strategy indicates that the A570 St Helens Linkway, a short section of Chapel Lane and a short section of Jubits Lane on the eastern boundary of the LCA would provide access for HGVs with School Lane forming light construction access routes, where a reduced number of HGV vehicles are expected. Some localised sections of hedgerow are likely to be removed to accommodate access points from the highway (NH-53 and NH-54) whilst traffic management and control measures would be used to facilitate the safe movement of vehicles into and out of the accesses instead of removing or pruning additional vegetation to create visibility splays. The increase in traffic movements and audible influence on sections of the local road network may locally disrupt levels of tranquillity within this LCA. The traffic generation quantities prepared as part of Chapter 11: Traffic and transport predict a 1.1% (peak) increase in traffic and a 7.5% increase in HGVs along the A570 St Helens Linkway between Chapel Lane and Eurolink. The magnitude of change resulting from the increased traffic movements and localised hedgerow removal would potentially be up to a Medium magnitude affecting a small geographical area of landscape character in the local vicinity of the temporary construction access routes and designated access locations and for a short duration. The magnitude of change elsewhere within the LCA would be Low to Zero.</td></tr>
<tr><td></td><td>Level of effect:</td><td>Moderate and locally Significant and Minor and Not Significant to No Effect</td></tr>
<tr><td></td><td>Type of effect:</td><td>Short-term duration (temporary), direct and adverse.</td></tr>
<tr><td>Clock Face HAGI</td><td colspan="2">Construction phase:
The Clock Face HAGI is sited in an open field to the south of the M62 transport route. This would be located beyond the LCA’s boundary although its study area coincides with this receptor unit. 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 – albeit tempered by the busy motorway traffic and roadside fencing. The construction period would be 6-12 months during which construction compounds would surround the HAGI under construction. Temporary solid hoarding to the perimeter of the associated construction compounds would minimise visibility of activity and structures within the compound, with high levels of movement and audible influence of traffic on the M62 tempering the potential characterising influence. The magnitude of change would be Low to Zero.</td></tr>
</table>

	Level of effect:	**Minor** to **Minor/Negligible** and **Not Significant** to **No Effect**
	Type of effect:	Short-term duration (temporary) and neutral.
	Operation and maintenance (Year 1) phase: The ZTV in **Figure 8.34** indicates areas of intervisibility with the Clock Face HAGI from a moderate proportion of this LCA. The Clock Face HAGI would be enclosed by security fencing typically 2.4 to 3.6m high with gated access for maintenance. The above ground components would be at a low level (up to 5m) whilst the proposed planting would play a minor role at Operation Year 1. The separation distance (a minimum of approximately 70m) and presence of intervening M62 road infrastructure and fencing means that the effect on the landscape character and key characteristics would be Low to Zero.	
	Level of effect:	**Minor** to **Minor/Negligible** and **Not Significant** to **No Effect**
	Type of effect:	Permanent, indirect and neutral.
	Operation and maintenance (Year 15) phase: The gradually maturing woodland and woodland edge planting proposed around the Clock Face HAGI would screen the infrastructure and fenceline in southerly views from this LCA with the exception of narrow glimpses which planting is restricted due to pipeline easements. The Clock Face HAGI would have no characterising influence within this LCA at Year 15 and the magnitude of change would be Zero.	
	Level of effect:	**No Effect**
	Type of effect:	N/A
Overall assessment		
Construction phase:	Collectively the construction works involving the underground pipelines, temporary trenchless crossing compounds and construction access routes through the FF2 Sutton Manor Fringe LCA would lead to a moderate scale of development, continuing for the construction phase. Whilst each corridor is expected to take 12-18 months to complete, the laying of approximately 1.7km of pipeline through this LCA would be of shorter duration. Successive layers of vegetation, whilst intermittent in nature would combine with the topography to limit the extent of visible influence of the construction works on the landscape character and key characteristics. Overall, 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 corridors and construction compounds. Some localised losses of	

	hedgerows would be reinstated post construction whilst tree loss would be replaced in line with the commitments made in **Section 8.6** of **Chapter 8 Landscape and Visual**.	
	Level of effect:	**Minor** to **Negligible** and **Not Significant** with localised areas of **Major/Moderate** to **Moderate** and **Significant** effects close to the pipeline corridor and construction compounds.
	Type of effect:	Short-term duration (temporary), direct and adverse.
Operation and maintenance (Year 1) phase:	There would be localised **Minor** to **Minor/Negligible** and **Not Significant** effects on the character and key characteristics of LCA FF2 Sutton Manor Fringe at Operation Year 1 of the Clock Face HAGI.	
Operation and maintenance (Year 15) phase:	The gradual maturation of woodland planting in the vicinity of the Clock Face HAGI means that there would be **No Effect** on the character and key characteristics of LCA FF2 Sutton Manor Fringe at Operation Year 15 of the Clock Face HAGI.	

Table 8D.27 LCA FF4 Bold Heath

Context	
Relevant figures:	**8.7** and **8.34** (Clock Face HAGI ZTV) Viewpoints CF1 (**Figure 8.52**), CF2 (**Figure 8.53**) and CF3 (**Figure 8.54**)
LCA hierarchy – NCA:	NCA 60: Mersey Valley
Landscape Designations:	None
Administrative area:	St Helens

Baseline character description:

The Project passes through the west of LCA FF4 Bold Heath, this is the one of four LCAs within the Floodplain Farmland LCT. The key landscape characteristics of the LCA are detailed below taken from the *Landscape Character Assessment for St Helens*[5].

Area Description (LCA)

- *"Largest of the floodplain landscapes located to the extreme south of the Borough. In places the southern boundary, defined by the administrative boundary is arbitrary and therefore the landscape character is likely to extend into adjacent council area.*
- *Landform is overriding flat landform running down to the Mersey floodplain to the south. The area is open and exposed and any vertical elements become strong visual foci. This is the case with pylon lines and especially Fiddlers Ferry Power Station to the south.*
- *The arable agricultural landscape is composed of large scale geometric fields almost in a loose grid pattern situated perpendicular to the main parallel A roads which run north west to south east Between the M62 and Penketh.*
- *Mature shelterbelts and hedgerows bound the fields although the majority are degraded which reinforces the open landscape character. There are also small pockets of mature woodland associated with hedgerows and field ponds.*
- *To the northwest the grade separated motorway junction and associated embankments forms a pronounced boundary to the area and is a dominant visual feature containing views.*
- *There are sporadic isolated large farms some of vernacular stone or red brick construction within the landscape accessed immediately off the parallel roads. In addition there are a number of more recent buildings and residential dwellings along the rod*

which are unsympathetic in scale and design to the vernacular. These include highly visible petrol stations and office buildings which form a ribbon of development.

- *Former spoil heaps are key focal points and backdrops to the landscape and often enclose or restrict views to the wider landscape.*
- *Pylon lines to the south and west impose large scale vertical features which reinforce the influence of urban feature in the landscape unsympathetic to the rural character.*
- *Highly visible residential developed edge to the south and south east, which whilst outwith the Borough landscape, form prominent hard visual edges to the character area."*[5]

Judgement about Potential to Accommodate Development

"The opportunity to incorporate a stronger landscape structure could be developed in tandem with some small scale development sympathetic to the vernacular clusters of buildings. Any development should avoid contributing to the ribbon development along the A roads."[5]

Assessment of sensitivity

Landscape value:

The LCA area is not designated for its scenic landscape value at a national or local level that would denote a higher value. There are no long-distance walking routes or national cycle routes within the LCA and local recreational value is experienced through minor roads and the A57, A569 as well as local PRoW. The LCA is influenced by the M62 to the north which reduces scenic value. The overall landscape value within the study area is assessed as Medium-Low.

Landscape susceptibility:

The *Landscape Character Assessment for St Helens*[5] defines the overall landscape sensitivity of the LCA as '*Low to Medium'* and describes an "*open rural landscape"*[5], noting "*landscape patterns degraded by loss of vegetated boundaries encroachment of urban features – road corridors and pylons"*[5]. There is therefore a susceptibility of hedgerows and shelterbelts to further degradation. The study also considers the visual characteristics of the LCA and notes "*intervisibility with adjacent flat landscapes"*[5] with a "*high number of viewers along A roads"*[5]*.* In terms of perceptual characteristics, the rural tranquillity is slightly reduced by the presence of A roads and the M62 to the north. Considering the nature of the majority of the Project would be predominantly of short-term and temporary duration, the landscape susceptibility to this type of development is reduced. The overall susceptibility of the landscape to the Project is assessed as Medium-Low.

Sensitivity	Medium-Low	Landscape value:	Medium-Low
		Landscape susceptibility:	Medium-Low
Magnitude of change and level of effect			
Pipeline (North Corridor)	**Construction phase:** **Figure 8.7, Volume 4** shows approximately 3.4km of the North Corridor of the pipeline within the FF4 Bold Heath LCA. The North Corridor would pass through the LCA in two locations, passing briefly through the adjoining North Widnes Farmland LCA between Bridge Farm and Old Brook Hall Farm. The North Corridor would enter the LCA at a trenchless crossing compound in an open field to the north of a rail line and would pass through seven open fields before entering the adjacent LCA. In this section, the corridor would pass through eight field boundaries comprising hedgerow with one hedgerow also containing Category B and C trees and would cross two minor roads (Mill Lane and Twyford Lane) in open cut. The pipeline corridor would re-enter the LCA in a trenchless crossing compound in a field on the northern side of the A57 Warrington Road and continue across two fields and the B5419 Jubits Lane in open cut before entering a trenchless crossing compound in an open field between the B5419 Jubits Lane and the M62 where it would connect to the Clock Face HAGI and enter a trenchless crossing compound to facilitate the crossing of the M62. The North Corridor would cross a further three hedgerows along this section of the route. In addition to the trenchless crossing compounds, a temporary materials storage area would be located to the north of the A49 Warrington Road. All temporary construction compounds would be sited adjacent to road and rail corridors where movement of vehicles and trains visually and audible disrupt levels of tranquillity under baseline conditions. Construction activity along the North Corridor associated with the installation of the pipeline would be transient and of short duration with progressive backfill and reinstatement as works are completed along the route. The scale and geographical extent of these construction activities would be Medium-High when experienced locally to the construction works (within the same field unit or ~300m), reducing to Medium-Low or less from the wider LCA, where the pipeline corridor would be less visible due to distance and roadside and field boundary vegetation. The open cut sections comprising the majority of the pipeline corridor would cross a maximum of 11 No. field boundaries within the LCA that are typically defined by hedgerows with few hedgerow trees and a single ditch. The localised removal of hedgerow and a small number of trees at these locations would appear as a break in the pattern of field boundary vegetation. The removal of short sections of hedgerow would be mitigated by		

	replacement planting in-situ, following the construction phase, whilst trees would be replaced in line with the Commitments made in **Section 8.6** of **Chapter 8: Landscape and visual** and the AIA in **Appendix 8C**. The magnitude of change likely to affect the landscape character, key characteristics and elements would range from High (in respect of landscape elements and LCA within and adjacent to the pipeline corridor and trenchless crossing construction compounds) to Low to Zero elsewhere within the LCA.	
	Level of effect:	**Major/Moderate** to **Moderate** and **locally Significant** and **Minor** and **Not Significant** to **No Effect** elsewhere within the wider LCA.
	Type of effect:	Short-term duration (temporary), direct and adverse.
Temporary construction accesses (NH-44, NH-45, NH-46, NH-50, NH-51)	**Construction phase:** Temporary construction access routes and designated access points: Mill Lane (NH-44, NH-45), Twyford Lane (NH-46), A57 Warrington Road, B5419 Jubits Lane (NH-50, NH-51). All construction access for the pipeline would utilise the existing road and track network to join the temporary haul routes within the pipeline corridor. The access strategy indicates that the A57 Warrington Road and B5419 Jubits Lane as well as sections of Mill Lane and Twyford Lane would provide access for HGVs. Designated access points would require the removal of shorts sections of hedgerow whilst traffic management and control measures would be used to facilitate the safe movement of vehicles into and out of the accesses instead of removing or pruning additional vegetation to create visibility splays. The traffic generation quantities prepared as part of **Chapter 11: Traffic and transport** predict a 1.6% (peak) increase in traffic and a 11.2% increase in HGVs along the A57 between the A5149 and Junction 7 of the M62. The magnitude of change resulting from the increased traffic movements and localised removal of vegetation to accommodate road widening and visibility splays would potentially be up to a Medium magnitude affecting a small geographical area of landscape character in the local vicinity of the temporary construction access routes.	
	Level of effect:	**Moderate** and **Not Significant**
	Type of effect:	Short-term duration (temporary), direct and adverse.
Clock Face HAGI	**Construction phase:** The Clock Face HAGI site is located in an open field to the south of the M62 motorway and within the far northern fringes of the LCA. Construction compounds would encompass the HAGI site under construction and construction activities would be perceived in context with the existing high levels of road movements on the M62 motorway and	

	the corresponding visual and audible disturbance and lower levels of tranquillity present under baseline conditions. The construction period would be 6-12 months. The magnitude of change would be Medium affecting a small geographical area of landscape character in the local vicinity of the temporary construction compound and HAGI under construction between the M62 to the north and the B5419 Jubits Lane to the east and south and Low to Zero elsewhere within the LCA.	
	Level of effect:	Locally **Moderate** and **Significant** to **Minor** or less and **Not Significant** to **No Effect** elsewhere within the LCA.
	Type of effect:	Short-term duration (temporary), direct and adverse.
	Operation and maintenance (Year 1) phase: Clock Face HAGI would be enclosed by security fencing typically 2.4 to 3.6m high with gated access for maintenance. The above ground components would be at a low level (up to 5m) whilst the proposed woodland planting would play a minor landscape roles at Year 1. 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 effect on the landscape character and key characteristics would be Medium and localised, affecting a small geographical area in the local vicinity of the 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.	
	Level of effect:	**Moderate to Minor** and **Not Significant** to **No Effect.**
	Type of effect:	Permanent, direct and adverse.
	Operation and maintenance (Year 15) phase: The gradual maturation of the woodland and woodland edge planting proposed around the HAGI would screen the infrastructure and fenceline in views from the surrounding landscape. The woodland would also contribute to the *"small pockets of mature woodland associated with hedgerows and field ponds"* which forms part of the LCA's description. The magnitude of change would be Low.	
	Level of effect:	**Minor** to **Minor/Negligible** and **Not Significant** to **No Effect.**
	Type of effect:	Permanent, direct and beneficial.

Overall assessment		
Construction phase:	Collectively the construction works involving underground pipelines, temporary construction and storage compounds, Clock Face HAGI and temporary construction access routes and designated access points within the FF4 Bold Heath LCA would lead to a moderate scale of development, continuing for the construction phase. Whilst each corridor is expected to take 12-18 months to complete, the laying of approximately 3.4km of pipeline through this LCA would be of shorter duration. Overall, 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 construction compounds and pipeline corridor, whilst the proximity of the HAGI site to the M62 motorway would reduce the characterising influence of the construction activities and here, the magnitude of landscape change would be Medium. The removal of short sections of hedgerow would be mitigated by replacement planting in-situ, following the construction phase, whilst trees would be replaced in line with the Commitments made in **Section 8.6** of **Chapter 8: Landscape and visual** and the AIA in **Appendix 8C**.	
	Level of effect:	**Moderate** to **Minor** and **Not Significant** to **No Effect** with localised areas of **Major/Moderate** to **Moderate** and **Significant** effects close to the pipeline corridor, HAGI, and construction and storage compounds.
	Type of effect:	Short-term duration (temporary), direct and adverse.
Operation and maintenance (Year 1) phase:	The presence of the Clock Face HAGI would give rise to a localised **Moderate to Minor** and **Not Significant** effect with a **Minor** to **Minor/Negligible** and **Not Significant** or **No Effect** occurring elsewhere within the wider LCA.	
Operation and maintenance (Year 15) phase:	The gradual maturation of woodland and woodland edge planting would screen the Clock Face HAGI. Landscape effects would be locally **Minor** to **Minor/Negligible** and **Not Significant** to **Minor/Negligible** and **Not Significant** or **No Effect** occurring elsewhere within the wider LCA**.**	

Table 8D.28 LCA EF1 Elton Head Hall Farm

Context	
Relevant figures:	**8.8**
LCA hierarchy – NCA:	NCA 56 Lancashire Coal Measures
Landscape Designations:	None
Administrative area:	St Helens
Baseline character description:	

The Project passes through the centre of LCA EF1 Elton Head Hall Farm, one of two LCAs within the Edge Farmland LCT. The key landscape characteristics of the LCT are detailed below taken from the *Landscape Character Assessment for St Helens*[5].

Area Description (LCA)

- *"This area is defined by the residential urban edge to the north, west and south and industrial development and A570 corridor to the east, creating an elongated triangle of open land which encompasses an elevated ridge rising up to 75 metres at Elton Head, and sloping gradually south to 55 metres AOD.*
- *The area has a predominantly agricultural land use with a series of large scale irregular fields bounded by hedgerows both intact and degraded. The open character of the landscape is reinforced by a lack of prominent woodland blocks, with small woodland groups and belts located along the field boundaries and around the principal building cluster of Elton Head Hall Farm.*
- *Long wide views are possible south from the elevated open position in particular to the open floodplain to the south and the adjacent visually prominent urban edges of Rainhill and Lea Green.*
- *The urban influence of the rural landscape is reinforced by the railway line which crosses the centre of the area running east to west, movement and traffic on the A570 and the pylon lines which cross the landscape to the south.*
- *The area is generally inaccessible with most roads ringing around the area. A number of footpaths cross the area."*[5]

Judgement about Potential to Accommodate Development

"Further development should be avoided in this fragmented and degraded landscape strongly influenced by the surrounding urban landscape. Reinforcement of landscape character would be beneficial to strengthen the contrast between the rural and urban landscape creating a strong setting the south of St Helens. Development on the ridge should be avoided due to its high visibility. The visual and physical connection between the area and the rural floodplain areas should be maintained."[5]

Assessment of sensitivity

Landscape value:

The LCA area is not designated for its scenic landscape value at a national or local level that would denote a higher value. Local recreational value is experienced through a minor road to the south, a rail line and two local PRoWs. The LCA is influenced by the pylons and transmission lines, the rail line and surrounding urban development which reduce scenic value. The overall landscape value within the study area is assessed as Medium-Low.

Landscape susceptibility:

The *Landscape Character Assessment for St Helens*[5] defines the overall landscape sensitivity of the LCA as '*Medium'* and describes a '*rural character dominated by urban influences'*[5] that is susceptible to development and coalescence. The study also considers the visual characteristics of the LCA and notes a "*intervisibility with landscape to south."*[5] In terms of perceptual characteristics, the "*urban influences*"[5] in combination with the rail line and nearby M62 reduce the degree of rural tranquillity and remoteness within the LCA. Considering the nature of the majority of the Project would be predominantly of short-term and temporary duration, the landscape susceptibility to this type of development is reduced. The overall susceptibility of the landscape to the Project is assessed as Medium-Low.

Sensitivity	Medium-Low	Landscape value:	Medium-Low
		Landscape susceptibility:	Medium-Low
Magnitude of change and level of effect			
Pipeline (St Helens Spurs)	**Construction phase:** **Figure 8.8, Volume 4** shows approximately 2km of the St Helens Spurs of the pipeline passing through the centre of the EF1 Elton Head Hall Farm LCA from the south to the north of the area. The St Helens Spurs would enter the LCA at a trenchless crossing compound in an open field to the west of the A570 St Helens Linkway and would pass through three open arable and pasture fields before crossing the rail line		

	on trenchless crossing facilitated by trenchless crossing compounds in open fields to the north and south of the railway. The pipeline would then cross a further four open arable and pasture fields before following the B5204 east and exiting the LCA. The corridor would pass through six field boundaries comprising hedgerow, a tree belt of Category B and C trees and would cross a farm access track in open cut. On-site access tracks away from the pipeline corridor would also require the removal of a short section of hedgerow and a small number of Category C trees. The localised removal of hedgerow and trees would appear as a break in the pattern of field boundary vegetation. The removal of short sections of hedgerow would be mitigated by replacement planting in-situ, following the construction phase, whilst trees would be replaced in line with the Commitments made in **Section 8.6** of **Chapter 8: Landscape and visual** and the AIA in **Appendix 8C**. The trenchless crossing compounds would be sited adjacent to the A570 St Helens Linkway and rail line where man-made elements, movement and audible disturbance are already part of the character of the area. Construction activity along the St Helens Spurs associated with the installation of the pipeline would be transient and of short duration with progressive backfill and reinstatement as works are completed along the route. The scale and geographical extent of these construction activities would be Medium-High when experienced locally to the construction works (within the same field unit or ~300m), reducing to Medium-Low or less from the wider LCA, where the pipeline corridor would be less visible due to distance and roadside and field boundary vegetation. The magnitude of change likely to affect the landscape character, key characteristics and elements would range from High (in respect of landscape elements and LCA within and adjacent to the pipeline corridor and trenchless crossing compounds) to Low elsewhere within the LCA.	
	Level of effect:	**Major/Moderate to Moderate** and **Significant** (within and in close proximity to the pipeline corridors and trenchless crossing compounds) and **Minor to Minor/Negligible** and **Not Significant** to **No Effect** elsewhere within the wider LCA.
	Type of effect:	Short-term duration (temporary), direct and adverse.
Temporary construction accesses (NH-57, NH-58)	**Construction phase:** <u>Temporary construction access routes and designated access points: A570 St Helens Linkway / Eurolink roundabout (NH-57) and B5204 Elton Head Road (NH-58).</u> All construction access for the pipeline would utilise the existing road and track network to join the temporary haul routes within the pipeline corridor. The access strategy indicates that the A570 St Helens Linkway and the B5204 Elton Head Road would provide access for HGVs. Designated access point NH-57 and NH-58 would be sited at existing farm accesses which would minimise vegetation removal and traffic management and control measures	

	would be used to facilitate the safe movement of vehicles into and out of the accesses instead of removing or pruning additional vegetation to create visibility splays. The traffic generation quantities prepared as part of **Chapter 11: Traffic and transport** predict a 1.8% (peak) increase in traffic and a 17.9% increase in HGVs using the B5204 between the A570 and Rainhill Road. The magnitude of change resulting from the increased traffic movements would potentially be up to a Low magnitude affecting a small geographical area of landscape character in the local vicinity of the temporary construction access routes and designated access locations and for a short duration. The magnitude of change elsewhere within the LCA would be Very Low to Zero.	
	Level of effect:	**Minor to Minor/Negligible** and **Not Significant** to **No Effect**
	Type of effect:	Short-term duration (temporary), direct and adverse.
Overall assessment		
Construction phase:	Collectively the construction works involving underground pipeline, temporary construction compounds, construction access routes and designated access points within the EF1 Elton Head Hall Farm LCA, would lead to a moderate scale of development, continuing for the construction phase. Whilst each corridor is expected to take 12-18 months to complete, the laying of approximately 2km of pipeline through this LCA would be of shorter duration. Overall, the magnitude of change on the LCA would be Low with localised areas experiencing up to a High magnitude of change with respect to landscape elements and landscape character within and adjacent to the construction compounds and pipeline corridor. The removal of short sections of hedgerow would be mitigated by replacement planting in-situ, following the construction phase, whilst trees would be replaced in line with the Commitments made in **Section 8.6** of **Chapter 8: Landscape and visual** and the AIA in **Appendix 8C**.	
	Level of effect:	**Minor** and **Not Significant** to **No Effect** with localised areas of **Major/Moderate** to **Moderate** and **Significant** effects close to the pipeline corridor and trenchless crossing compounds.
	Type of effect:	Short-term duration (temporary), direct and adverse.

Table 8D.29 LCA IF1 Link Road

Context	
Relevant figures:	**8.8**
LCA hierarchy – NCA:	NCA 56 Lancashire Coal Measures
Landscape Designations:	None
Administrative area:	St Helens
Baseline character description:	

The Project passes through LCA IF1 Link Road, which is one of two LCAs within the Industrial Fringe LCT. The key landscape characteristics of the LCA are detailed below taken from the *Landscape Character Assessment for St Helens*[5].

Area Description (LCA)

- *"The area is located on the broadly flat to subtly undulating slopes on the landscape which gradually falls south to the Mersey floodplain.*
- *A large road infrastructure dominates the character of the landscape and the way the landscape is accessed. Key elements of the road corridor include the wide straight dual carriageways, roundabouts, kerbs, pavements and lighting that reinforce and extend the urban character outwith the immediate confines of St Helens creating a 'fringe' landscape with less defined setting. This imposes a cluttered complex landscape with a lack of an overriding structure or hierarchy of landmarks that would aid orientation.*
- *Presence of artificial mounding of former spoil heaps and road embankments overlying the natural landform gives perception of a valley landform in some locations and changing patterns of enclosure.*
- *The area forms a large industrial corridor with several large buildings and large former spoil heaps that selectively enclose and frame views over the generally open landscape.*
- *Large industrial units are often located adjacent (or within) existing degraded agricultural field pattern and or historic rural road infrastructure.*
- *A large substation and high density of pylons impose prominent vertical structures in an otherwise open landscape.*
- *A railway crosses and further divides the area adding to the fragmented landscape character."*[5]

Judgement about Potential to Accommodate Development

"Industrial development has had a significant influence on the character of the area. The townscape and landscape has suffered as a consequence of haphazard development. Opportunities for large scale development within the area exist. The area would benefit from the introduction of a strong landscape framework and structure with smooth urban rural transition and gateway to St Helens. The design and layout of which should ensure a positive and integrated approach. Future development could be incorporated into the framework."[5]

Assessment of sensitivity

Landscape value:

The LCA area is not designated for its scenic landscape value at a national or local level that would denote a higher value. Local recreational value is experienced through minor roads and the A570, a rail line, and local PRoW on the edges of the LCA to the south, northwest and east. There are no long-distance walking routes or national cycle routs within the area. The LCA is influenced by industrial elements, adjacent spoil heaps and road and rail infrastructure which reduce scenic value. The overall landscape value within the study area is assessed as Low.

Landscape susceptibility:

The *Landscape Character Assessment for St Helens*[5] defines the overall landscape sensitivity of the LCA as 'Low' and states that there is "*no overriding character*"[5] and "*very little remaining of the underlying natural landform or historic character*"[5]. The study also considers the visual characteristics of the LCA and notes there are "*Few views to other areas due to the containment of the area by these areas and the large-scale building development that restricts views.*"[5] In terms of perceptual characteristics, the urban and industrial character reduces the degree of rural tranquillity and remoteness within the LCA. Considering the nature of the majority of the Project would be predominantly of short-term and temporary duration and located in a landscape already heavily influenced by man-made elements and infrastructure the landscape susceptibility to change from this type of development is reduced. The overall susceptibility of the landscape to the Project is assessed as Low.

Sensitivity	Low	Landscape value:	Low
		Landscape susceptibility:	Low
Magnitude of change and level of effect			
Pipeline	**Construction phase:**		

(St Helens Spurs and Clock Face Spur)	**Figure 8.8, Volume 4** shows the St Helens Spurs and Clock Face Spur of the pipeline within the LVIA study area and IF1 Link Road LCA. The St Helens Spurs would skirt the north-western boundary of the LCA as it passes along Sherdley Road in open cut between Elton Head Road and The Score. This area is influenced by large industrial buildings which transition to residential housing and a different LCA to the west of Sherdley Road. Construction activities along the pipeline corridor would appear similar to utilities roadworks in an urban area, and would therefore not an unfamiliar temporary feature of the streetscape. Small, localised materials storage areas would be sited on verges along the western side of Sherdley Road and the assessment assumes that street trees in these areas would be retained. The Clock Face Spur would enter the LCA to the north of Chapel Lane where it would cross two access paths and enter Lea Green Road which it would follow for ~200m before turning east through a roadside hedge and into a small cluster of Category C trees (with occasional Category B trees) beside commercial buildings where it would terminate. Construction activities along Lea Green Road would involve roadside and road excavation. The likely extent of tree removal is shown in **Figure 8C.116** of **Appendix 8C: Arboricultural Impact Assessment**. Construction activity along the St Helens Spurs and Clock Face Spur associated with the installation of the pipeline would be transient and of short duration with progressive backfill and reinstatement as works are completed along the route. The scale and geographical extent of these construction activities 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 (along the same road) reducing to Very Low or Zero from the wider LCA, where the pipeline corridor would be screened by the surrounding built form. The removal of short sections of roadside hedgerow would be mitigated by replacement planting in-situ, following the construction phase, whilst trees would be replaced in line with the Commitments made in **Section 8.6** of **Chapter 8: Landscape and visual** and the AIA in **Appendix 8C**. The magnitude of change likely to affect the landscape character, key characteristics and elements would range from Medium (in respect of landscape elements and LCA within and adjacent to the pipeline corridor) to Very Low to Zero elsewhere within the LCA.	
	Level of effect:	Locally **Minor** and **Not Significant** to **Negligible** and **Not Significant** to **No Effect** elsewhere within the wider LCA.
	Type of effect:	Short-term duration (temporary), direct and adverse.

Temporary construction accesses	**Construction phase:** <u>Temporary construction access routes: A570 Saint Helens Linkway, Eurolink, Lea Green Road, B5204 Elton Head Road, Sherdley Road</u> All construction access for the pipeline would utilise the existing road network. The traffic generation quantities prepared as part of **Chapter 11: Traffic and transport** predict a 1.2% (peak) increase in traffic and a 6.2% increase in HGVs along the A570 between Burtonhead Road and the B5204 and a 1.8% in traffic and 17.9% increase in HGVs using the B5204 between the A570 and Rainhill Road. High levels of traffic movement are not uncommon in an urban environment where levels of tranquillity would be lower. As a consequence, the magnitude of change resulting from any potential temporary partial road closure and movement of construction vehicles would be Low, affecting a small geographical area of landscape character in the local vicinity of the temporary construction access routes.	
	Level of effect:	**Minor/Negligible and Not Significant** to **Zero**
	Type of effect:	Short-term duration (temporary), direct and adverse.
Overall assessment		
Construction phase:	Collectively the construction works involving the underground pipelines, small temporary storage compounds and temporary construction access routes within the IF1 Link Road LCA would lead to a moderate scale of development, continuing for the construction phase. The surrounding built environment would limit the extent of visible influence of the construction works on the landscape character and key characteristics. Overall, the magnitude of change on the LCA would be Very Low with localised areas experiencing up to a Medium magnitude of change in close proximity to the pipeline corridor. The removal of short sections of roadside hedgerow would be mitigated by replacement planting in-situ, following the construction phase, whilst trees would be replaced in line with the Commitments made in **Section 8.6** of **Chapter 8: Landscape and visual** and the AIA in **Appendix 8C**.	
	Level of effect:	**Negligible** and **Not Significant** with localised areas of **Minor** and **Not Significant** effects close to the pipeline corridor.
	Type of effect:	Short-term duration (temporary), direct and adverse.

Table 8D.30 LCA RFS1 Grange Park

Context	
Relevant figures:	**8.8**
LCA hierarchy – NCA:	NCA 56 Lancashire Coal Measures
Landscape Designations:	None
Administrative area:	St Helens

Baseline character description:

The Project passes to the south of LCA RFS1 Grange Park, one of five LCAs within the Raised Fringe Settlement LCT. The key landscape characteristics of the LCA are detailed below taken from the *Landscape Character Assessment for St Helens*[5].

Area Description (LCA)

- *"Geographically convoluted area extending in over gently undulating landform of between 55 and 75 metres AOD comprising two subtle ridgelines orientated northwest to southeast, which the more pronounced ridge under Grange Park only partially settled.*
- *Settlement developed along former turnpike which linked Liverpool to the northeast through St Helens. The turnpike road, now the A58 cuts across the landscape grain over ridgeline and travelling north gives a strong perception of arrival into the urban industrial centre of St Helens.*
- *Streets run perpendicular to contours and are located on relatively steep slopes, occasionally offering framed views down the road to surrounding areas.*
- *Predominantly inter-war housing along long wide streets, but interspersed with pockets of distinct industrial red brick terraces at Brown Edge and more recent housing.*
- *Housing is predominantly semi-detached suburban housing with gardens.*
- *Streets often have mature tree avenues or garden vegetation which give an open wooded townscape character.*
- *A railway line transects the ridgeline to the south on the lower slopes and is situated partially in cutting and as such is reduced in prominence.*
- *Small but pronounced historic core at Thatto Heath centred on the historic cross roads, developed on lower slopes with brick terraces is present adjacent to train station. In addition further core at Portico.*

- *Some enclosed areas of modern housing in particular along southern edge in designed landscape framework of former asylum often forming hard edge to rural environment."*[5]

Judgement about Potential to Accommodate Development

"There are limited opportunities for new large scale residential development given the intact nature of the townscape character the adjacent sensitive Green Belt rural landscape and limited opportunities to expand outwith the settlement edges. However, opportunities exist for redevelopment within the townscape area to maintain the wooded townscape structure and along the urban edges where development can contribute to a more robust edge."[5]

Assessment of sensitivity

Landscape value:

The LCA area is not designated for its scenic landscape value at a national or local level that would denote a higher value. Local recreational value is experienced through the urban streetscape, rail line and minor connecting roads, a local PRoW at Brown Edge, and scattered urban green spaces. There are no long-distance footpaths, national/regional cycle routes within the LCA. The overall landscape value within the study area is assessed as Medium.

Landscape susceptibility:

The *Landscape Character Assessment for St Helens*[5] defines the overall landscape sensitivity of the LCA as 'Medium' relating to the "*less distinctive urban townscape"*[5]. The study also considers the visual characteristics of the LCA and notes that due to the elevated position of the townscape, there is a *"strong intervisibility to adjacent landscapes"*[5]*.* In terms of perceptual characteristics, the "*busy road and railway routes"*[5] within and adjacent to the LCA present baseline characteristics which reduce levels of tranquillity and remoteness. Considering the nature of the majority of the Project would be predominantly of short-term and temporary duration, the landscape susceptibility to change from this type of development is reduced. The overall susceptibility of the landscape to the Project is assessed as Medium.

Sensitivity	Medium	Landscape value:	Medium
		Landscape susceptibility:	Medium

Magnitude of change and level of effect		
Pipeline (St Helens Spurs)	**Construction phase:** **Figure 8.8, Volume 4** shows the St Helens Spurs crossing fields to the south of RFS1 Grange Park LCA and skirting its south-eastern boundary as it passes from arable and pastural fields in the adjoining LCA to follow the B5204 Elton Head Road. The pipeline construction would be an open cut in the fields and along Elton Head Road, where it would appear similar to utilities roadworks in an urban area, and therefore not an unfamiliar temporary feature of the streetscape. Construction activity along the St Helens Spurs associated with the installation of the pipeline would be transient and of short duration with progressive backfill and reinstatement as works are completed along the route. The scale and geographical extent of these construction activities 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 (along the same road) reducing to Very Low or Zero from the wider LCA, where the pipeline corridor would be less visible due to distance and the built environment. Intervisibility with the St Helens Spurs as it crosses field to the south of the B5204 Elton Head Road would be limited as a consequence of high levels of built form and woodland within and along the southern boundary of the RFS1 Grange Park LCA. The magnitude of change likely to affect the landscape character, key characteristics and elements would range from Medium (in respect of landscape elements and character within and adjacent to the pipeline corridor) to Very Low to Zero elsewhere within the LCA.	
	Level of effect:	Locally **Moderate** and **Not Significant** (where the St Helens Spurs skirts a short section of the southern boundary) and **Minor/Negligible** and **Not Significant** to **No Effect** elsewhere within the wider LCA.
	Type of effect:	Short-term duration (temporary), direct and adverse.
	Type of effect:	Permanent and neutral.
Temporary construction accesses (NH-58)	**Construction phase:** <u>Temporary construction access routes and designated access points: Elton Head Road (NH-58).</u> All construction access for the pipeline would utilise the existing road network. Elton Head Road on the southern boundary of the LCA is identified as a access route for HGVs with designated access point NH-58 utilising an existing farm access just beyond the boundary of the LCA. The magnitude of change resulting in increased traffic	

	movements along an existing B classified road would potentially up Medium affecting a small geographical area of landscape character in the local vicinity of the temporary construction access routes.	
	Level of effect:	Locally **Moderate** and **Not Significant** to **Zero**
	Type of effect:	Short-term duration (temporary), direct and adverse.
Overall assessment		
Construction phase:	Collectively the construction works involving the underground pipeline and construction access routes along the southern boundary of RFS1 Grange Park LCA would lead to a moderate scale of development, continuing for the construction phase. Woodland along the southern edge of the LCA would combine with the internal built environment to limit the extent of visible influence of the construction works on the landscape character and key characteristics. From localised areas where construction activities are perceived, they would appear similar to utilities roadworks which periodically occur within an urban area, and therefore not an unfamiliar temporary feature of the streetscape. Overall, the magnitude of change on the LCA would be Very Low with localised areas experiencing up to a Medium magnitude of change in close proximity to the pipeline corridor.	
	Level of effect:	**Minor/Negligible** and **Not Significant** to **Zero** with localised areas of **Moderate** and **Not Significant** effects close to the pipeline corridor. The Moderate level of effect is assessed as being Not Significant as a consequence of the urban context.
	Type of effect:	Short-term duration (temporary), direct and adverse.

Table 8D.31 LCA RFS4 Sutton

Context	
Relevant figures:	**8.8** and **8.34** (Clock Face HAGI ZTV) Viewpoint CF5 **(Figure 8.73)**
LCA hierarchy – NCA:	NCA 56 Lancashire Coal Measures
Landscape Designations:	None
Administrative area:	St Helens

Baseline character description:

The Project passes to the south-west of LCA RFS4 Sutton, one of five LCAs within the Raised Fringe Settlement LCT. The key landscape characteristics of the LCA are detailed below taken from the *Landscape Character Assessment for St Helens*[5].

Area Description (LCA)

- *"Elevated settlement on broad undulating ridgeline which subtly gains height from the north southwards ranging from 30 metres to 50 metres AOD, out into a flat plateau character.*
- *The Sutton Brook flows southward through the area and has a limited visual presence due to the incised nature of the river and the extent of development extending up to the course of the river. The river is dammed to form Sutton Mill Dam and a reservoir further south, both of which form locally important features which are typically hidden from wider view.*
- *Predominantly post-war housing in a series of curves and crescents accessed by a hierarchy of local distributor and minor access roads feeding primarily from the A569 dual carriageway to the west. Small isolated pockets of industrial terraced housing to the south of the area.*
- *Lack of local distinctiveness to the style of residential landscapes with a lack of a strong landform to define the townscape, the edges are formed by infrastructure in particular roads to the west and south and the line of a disused railway to the east (reinforced by large scale buildings from an industrial estate).*
- *The urban character is further reinforced by the railway lines which dissects the area although it has a reduced visual presence when running at cutting, and the dual pylon line which crosses to the south of the area.*

- *Lack of dominant woodland blocks, although some trees associated with street and gardens. In addition, there is remnant riparian woodland running along the course of the Sutton Brook which varies in character and condition. The eastern mature tree line to Sherdley Park forms a prominent wooded edge to the northwest and imposes a sense of grandeur when travelling along the boundary of this area."*[5]

Judgement about Potential to Accommodate Development

"The townscape has suffered as a consequence of mixed past and recent residential development. With strong defined urban edges primarily created by large scale infrastructure, and the extent of development within the area there are limited opportunities for further development. However, one such area is to the south in the area between the current developed edge and the Sutton Manor Spoil heap. The spoil heap would act as a natural edge to the developed edge.

Opportunities do exist for small scale development which could contribute to the creation of a central focus or series of foci within the predominantly residential landscape which would help to in still a sense of local distinctiveness. This could be reinforced through an appropriate landscape structure."[5]

Assessment of sensitivity

Landscape value:

The LCA area is not designated for its scenic landscape value at a national or local level that would denote a higher value. The south-western part of this LCA is located within the study area and is mostly influenced by residential housing, although there are some pastural fields to the south of Gartons Lane. There are no long-distance walking routes or national cycle routes in the area and the scenic value within the study area is experienced through a local PRoW between Garton Road and Sutton Manor Woodland in the adjoining Sutton Manor LCA to the south and through residential roads and connecting road corridors. The overall landscape value is assessed as Medium.

Landscape susceptibility:

The Landscape Character Assessment for St Helens[5] defines the overall landscape sensitivity of the LCA as '*Low-Medium'* and describes "*lack of identifiable historical core or distinct character"*[5] and notes an "*area fragmented by infrastructure"*[5]. The study also considers the visual characteristics of the LCA and notes the ''*gently undulating landscape with some intervisibility to adjacent areas."*[5] In terms of perceptual characteristics, the urban character reduces the degree of rural tranquillity and remoteness within the LCA. Considering the nature of the majority of the Project would be outside the LCA and would be predominantly of short-term and

temporary duration, the landscape susceptibility to this type of development is reduced. The overall susceptibility of the landscape to the Project is assessed as Medium-Low.

Sensitivity	Medium	Landscape value:	Medium
		Landscape susceptibility:	Medium - Low
Magnitude of change and level of effect			
Pipeline (North Corridor, St Helens Spurs and Clock Face Spur)	**Construction phase:** **Figure 8.8, Volume 4** shows that the North Corridor, St Helens Spurs and Clock Face Spur would be located beyond the LCA's boundary although their LVIA Study Areas coincide with this receptor unit. As a consequence, landscape effects would be indirect. At its nearest point, the North Corridor would pass approximately 800m to the southwest of the LCA as it approaches the Clock Face HAGI. The St Helens Spurs and associated trenchless crossing compounds to the north and south of the M62 motorway and to the east of the A570 Saint Helens Linkway would pass through fields at a minimum distance of approximately 600m whilst the Clock Face Spur would pass at a minimum of 150m from the LCA as the corridor route follows Chapel Lane. A materials storage area would also be sited to the east of the A570 Saint Helens Linkway, close to the junction between Chapel Lane and School Lane. With the exception of the far south-eastern corner of the LCA from where the construction activities associated with the North Corridor and St Helens Spurs may be perceived, it is unlikely that the pipeline corridors would be visible or would have a characterising influence upon the LCA due to extensive existing built elements in the area and areas of woodland to the north of Bell Lane. The magnitude of change would be locally Very Low and more commonly Zero.		
	Level of effect:	Locally **Minor/Negligible** and **Not Significant** to **No Effect**.	
	Type of effect:	Short-term duration (temporary), indirect and neutral.	
Temporary construction accesses	**Construction phase:** There would be no temporary construction accesses within this LCA. The A570 Saint Helens Linkway, a section of Jubits Lane Chapel Lane and Lea Green Road to the west and south of the LCA are all identified as HGV access routes. However, increased HGV movements along these roads and the associated aural and visual disturbance would have limited characterising role from within this LCA. The magnitude of change would be locally Very Low and more commonly Zero.		

	Level of effect:	Locally **Minor/Negligible** and **Not Significant** to **No Effect**.
	Type of effect:	Short-term duration (temporary), indirect and neutral.
Clock Face HAGI	**Construction phase:** The Clock Face HAGI is sited in an open field to the south of the M62 corridor to the south of the LCA. This would be located beyond the LCA's boundary although its study area coincides with this receptor unit. The high level of internal built from in combination with some field boundary vegetation between the LCA and the HAGI and its associated construction compound, together with a minimum separation distance of approximately 600m means that southerly views towards the HAGI would be restricted, although there is potential for visibility of construction activity beyond the motorway from the south-eastern edge of the LCA. The construction period would be 6-12 months. Temporary solid hoarding to the perimeter of the associated construction compounds would minimise visibility of activity and structures within the compound. The magnitude of change would be locally Very Low and more commonly Zero.	
	Level of effect:	Locally **Minor/Negligible** and **Not Significant** to **No Effect**.
	Type of effect:	Short-term duration (temporary), indirect and neutral.
	Operation and maintenance (Year 1) phase: The Clock Face HAGI would be enclosed by security fencing typically 2.4 to 3.6m high with gated access for maintenance. The above ground components would be at a low level (up to 5m) whilst the proposed woodland planting in the vicinity of the HAGI would play a minor landscape role at Year 1. The separation distance (a minimum of 640m) and presence of intervening screening elements (built form, vegetation and road infrastructure) means that the effect on the landscape character and key characteristics would be locally Very Low within the south-eastern fringes of the LCA and Zero elsewhere as evidenced in the ZTV in **Figure 8.34**.	
	Level of effect:	Locally **Minor/Negligible** and **Not Significant** to **No Effect**
	Type of effect:	Permanent, indirect and neutral.
	Operation and maintenance (Year 15) phase: The gradual maturation of woodland and woodland edge planting around the HAGI would screen views of the infrastructure and fence line from the south-eastern fringes of this LCA. As a consequence, the magnitude of change would be Zero.	

	Level of effect:	**No Effect**
	Type of effect:	N/A
Overall assessment		
Construction phase:	There would be limited indirect effects from the proposed North Corridor, St Helens Spurs and Clock Face Spur with their associated 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. Overall, the magnitude of change would be locally Very Low but more commonly Zero within the LCA.	
	Level of effect:	Locally **Minor/Negligible** and **Not Significant** to **No Effect**
	Type of effect:	Short-term duration (temporary), indirect and neutral.
Operation and maintenance (Year 1) phase:	There would be locally **Minor/Negligible** and **Not Significant** effects within the south-eastern fringes of the LCA but more commonly **No Effect** on the character and key characteristics of LCA RFS4 Sutton at Operation Year 1 of the Clock Face HAGI.	
Operation and maintenance (Year 15) phase:	There would be **No Effect** on the character and key characteristics of LCA RFS4 Sutton at Operation Year 15 of the Clock Face HAGI.	

Table 8D.32 LCA RSH1 Sutton Manor

Context	
Relevant figures:	**8.8** and **8.34** (Clock Face HAGI ZTV)
LCA hierarchy – NCA:	NCA 56 Lancashire Coal Measures
Landscape Designations:	None
Administrative area:	St Helens

Baseline character description:

The Project passes to the west of LCA RSH1 Sutton Manor, one of five LCAs within the Raised Spoil Heap LCT. The key landscape characteristics of the LCT are detailed below taken from the *Landscape Character Assessment for St Helens*[5].

Area Description (LCA)

- *"This is a former spoil heap that forms a large low mound or hill to the north of the M60. It contrasts with the surrounding flat landform of the Mersey floodplain. There are wide panoramic views of the surrounding areas from elevated positions on the former spoil heap.*
- *The spoil heap has been reclaimed and has been replanted with new woodland planting. As this still relatively new planting the landscape has an immaturity to it.*
- *There are a number of surfaced footpaths and cycle ways across the former spoil heap which proves popular for recreation. There are also a number of small ponds with reed vegetation.*
- *The adjacent surrounding area is predominantly urban with large residential areas to the north, west and east as well as the M60 immediately to the south."*[5]

Judgement about Potential to Accommodate Development

"The area should be considered a constraint to development given the unsuitable character of the material and the pronounced form and visible character of the spoil heap. In addition, the spoil heaps have been developed and restored and now make an important contribution to the townscape character and local recreation."[5]

Assessment of sensitivity			
Landscape value: The LCA area is not designated for its scenic landscape value at a national or local level that would denote a higher value, although a piece of public art (Dream) is promoted in tourist literature and on OS mapping as a monument to the site's mining heritage, slightly increasing its local value. The scenic value of the area is experienced through a network of footpaths within a restored spoil-heap landscape. The overall landscape value is assessed as Medium. Landscape susceptibility: The *Landscape Character Assessment for St Helens*[5] defines the overall landscape sensitivity of the LCA as 'Medium' and describes the (at that time) "*immature woodland planting"*[5] with susceptibility of the woodlands to change. The study also considers the visual characteristics of the LCA and notes "*The former spoil heap forms a small hill surrounded by relatively open landscape and as such is highly visible".* In terms of perceptual characteristics, the enclosure by mature woodland provides a sense of tranquillity which is slightly reduced by the presence of A roads and the M62 to the south. Considering the nature of the majority of the Project, outside of the LCA and would be predominantly of short-term and temporary duration, the landscape susceptibility to this type of development is reduced. The overall susceptibility of the landscape to the Project is assessed as Medium.			
Sensitivity	Medium	Landscape value:	Medium
		Landscape susceptibility:	Medium
Magnitude of change and level of effect			
Pipeline (North Corridor, St Helens Spurs and Clock Face Spur)	**Construction phase:** **Figure 8.8, Volume 4** shows the North Corridor crossing the landscape to the south of the RSH1 Sutton Manor LCA and the St Helens Spurs and Clock Face Spur passing to the west. As a consequence, landscape effects would be indirect. At its nearest point, the North Corridor would pass approximately 300m to the south-west of the LCA as it enters the Clock Face HAGI, whilst the St Helens Spurs would pass at a similar distance as it emerges within a trenchless crossing compound to the north of the M62. The high incidence of woodland within the LCA and location adjacent to the M62 motorway means that the characterising influence of the construction activities would be limited. The magnitude of change would be Low within localised elevated and open areas and more commonly Zero.		

	Level of effect:	**Minor** and **Not Significant** to **No Effect**.
	Type of effect:	Short-term duration (temporary), indirect and adverse.
Temporary construction accesses (NH-52)	**Construction phase:** Temporary construction access routes and designated access points: B5419 Jubits Lane (NH-52). An existing access track would be used to the west of Jubits Lane (which forms the boundary of this LCA) to join the temporary haul routes within the pipeline corridor. This route would run alongside the M62 along the southern edge of an adjacent field whilst traffic management and control measures would be used to facilitate the safe movement of vehicles into and out of the access instead of removing or pruning additional vegetation to create visibility splays. A short section of the B5419 Jubits Lane adjacent to the south-western corner of the LCA would be used as access for HGVs. The magnitude of change resulting from the increased traffic movements, albeit adjacent to the M62 and outside the LCA, would potentially be up to a Low magnitude affecting a small geographical area of landscape character in the local vicinity of the temporary construction access routes.	
	Level of effect:	**Minor** and **Not Significant** to **No Effect**
	Type of effect:	Short-term duration (temporary), indirect and adverse.
Clock Face HAGI	**Construction phase:** The Clock Face HAGI is sited in an open field adjacent to the M62 motorway to the south-west of the LCA. This would be located beyond the LCA's boundary although its study area coincides with this receptor unit. Engineered landform and the B5419 overbridge to the west-southwest in combination with woodland within the LCA and roadside vegetation between the LCA and the HAGI and its associated construction compound, together with a minimum separation distance of 100m means that views towards the construction activities would be limited. The construction period would be 6-12 months. The magnitude of change would be Low to Zero.	
	Level of effect:	**Minor** and **Not Significant** to **No Effect**
	Type of effect:	Short-term duration (temporary), indirect and adverse.
	Operation and maintenance (Year 1) phase: The Clock Face HAGI would be enclosed by security fencing typically 2.4 to 3.6m high with gated access for maintenance. The above ground components would be at a low level (up to 5m) with limited intervisibility from within this LCA as shown in the ZTV in **Figure 8.34.** The proposed planting in the vicinity of the HAGI would play	

	a very minor landscape role at Year 1. The separation distance, physical separation by the M62 corridor and presence of vegetation both within the LCA and intervening landscape means that the magnitude of change on the landscape character and key characteristics would be Low to Very Low (within areas of LCA which coincide with the ZTV) and more commonly Zero.	
	Level of effect:	**Minor** and **Not Significant** within highly localised areas to **No Effect**
	Type of effect:	Permanent, indirect and neutral
	Operation and maintenance (Year 15) phase: The gradual maturation of woodland and woodland edge planting around the Clock Face HAGI would screen the infrastructure in the limited views available from this LCA. The magnitude of change would be Zero.	
	Level of effect:	**No Effect**
	Type of effect:	N/A
Overall assessment		
Construction phase:	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 engineered road embankment and roadside vegetation.	
	Level of effect:	**Minor** and **Not Significant** to **No Effect**
	Type of effect:	Short-term duration (temporary), indirect and adverse.
Operation and maintenance (Year 1) phase:	There would be highly localised **Minor** and **Not Significant** effects on the character and key characteristics of LCA RSH1 Sutton Manor at Operation Year 1 of the Clock Face HAGI.	
Operation and maintenance (Year 15) phase:	The gradual maturation of woodland planting in the vicinity of the Clock Face HAGI means that there would be **No Effect** on the character and key characteristics of LCA RSH1 Sutton Manor at Operation Year 15 of the Clock Face HAGI.	

Table 8D.33 LCA RSH4 Lea Green

Context	
Relevant figures:	**8.8**
LCA hierarchy – NCA:	NCA 56 Lancashire Coal Measures
Landscape Designations:	None
Administrative area:	St Helens
Baseline character description:	

The Project passes to the south-west of LCA RSH4 Lea Green, one of five LCAs within the Raised Spoil Heap LCT. The key landscape characteristics of the LCT are detailed below taken from the *Landscape Character Assessment for St Helens*[5].

Area Description (LCA)

- *"This is a former spoil heap that sits adjacent to surrounding industrial areas.*
- *The spoil heap is under restoration and thus the landscape is in a state of flux and retains a character of industry and reclamation. The slopes of the site have unnatural straight profiles and consist of dark grey material which reinforce the artificial appearance of the site.*
- *The site is bordered to the north and west by a railway line and road, and sits adjacent to a brick works and prominent residential edge to the south. In addition the pylon lines which cross the site and the substation outwith the site bust immediately to the west emphasis the industrial degraded character.*
- *To the north of the site is the active Newtonmore landfill site. The raised for the landfill site has an unnatural profile which is open and degraded with the appearance of the dumped litter. The industrial character of the site is reinforced by the movement of large trucks on and around the site, and in particular where they skyline on the raise site.*
- *There are some minimal areas of scrub and woodland planting as well as some areas of extensive new woodland planting, which until the planting starts to mature and thicken, retains a raw character to the woodland*." [5]

Judgement about Potential to Accommodate Development

"The area should be considered a constraint to development given the unsuitable character of the material and the pronounced form and visible character of the spoil heap. In addition the spoil heaps have been developed and restored and now make an important contribution to the townscape character."[5]

Assessment of sensitivity

Landscape value:

The LCA area is not designated for its scenic landscape value at a national or local level that would denote a higher value. The area partly comprises a spoil heap which reflects its industrial past, and which is now a recreational woodland area. There are no long-distance walking routes or national cycle routes, and the scenic value of the area is experienced through the woodland area accessed by local PRoW and through road corridors. The overall landscape value is assessed as Low.

Landscape susceptibility:

The *Landscape Character Assessment for St Helens*[5] defines the overall landscape sensitivity of the LCA as 'Low' as a result of the "*degraded"*[5] character and partial restoration of the character area at the time of writing (2006). The study also considers the visual characteristics of the LCA and notes there are "*The former spoil heap forms a small hill surrounded by relatively open landscape and as such is highly visible."*[5] In terms of perceptual characteristics, the urban and industrial character reduces the degree of rural tranquillity and remoteness within the LCA. Considering the nature of the majority of the Project would be outside the LCA and would be predominantly of short-term and temporary duration, the landscape susceptibility to this type of development is reduced. The overall susceptibility of the landscape to the Project is assessed as Low.

Sensitivity	Low	Landscape value:	Low
		Landscape susceptibility:	Low

Magnitude of change and level of effect

Pipeline (St Helens Spurs and Clock Face Spur)	**Construction phase:** **Figure 8.8, Volume 4** shows that the Clock Face Spur would pass to the south-west of this LCA whilst the St Helens Spurs would follow a route to the north-west and effects would therefore be indirect. At its nearest point, the Clock Face Spur would pass approximately 100m from the boundary of this LCA at its termination in an industrial area off Lea Green Road in the adjoining IF1 Link Road LCA. The St Helens Spurs would pass

	approximately 750m to the northwest of the LCA as it turns into Sherdley Road in the adjacent RVI1 Thatto Heath LCA The presence of extensive areas of built form between the LCA and the pipeline corridors which would be routed through highways (Lea Green Road and Elton Head Road/Sherdley Road) at their closest point means that intervisibility would be highly limited with no characterising influence upon this LCA. The magnitude of change would be Zero.	
	Level of effect:	**No Effect**
	Type of effect:	N/A
Temporary construction accesses	**Construction phase:** There would be no access requirements within this LCA. Any increase in traffic along the A570 St Helens Linkway, Eurolink or Lea Green Road to the west and south-west, would not be discernible due to the high proportion of intervening built form. The magnitude of change would be Zero.	
	Level of effect:	**No Effect**
	Type of effect:	N/A
Overall assessment		
Construction phase:	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 magnitdue as high levels of intervening built form restrict intervisibility. Overall, the magnitude of change on the LCA would be Zero.	
	Level of effect:	**No Effect**
	Type of effect:	N/A

Table 8D.34 LCA RVI1 Thatto Heath

Context	
Relevant figures:	**8.8**
LCA hierarchy – NCA:	NCA 56 Lancashire Coal Measures
Landscape Designations:	None
Administrative area:	St Helens
Baseline character description:	

The Project passes through the centre of LCA RVI1 Thatto Heath, one of three LCAs within the Residential Valley Infill LCT. The key landscape characteristics of the LCA are detailed below taken from the *Landscape Character Assessment for St Helens*[5].

Area Description (LCA)

- *"Thatto Heath sits on low lying ground between a prominent ridgeline and the St Helens Link Road and therefore is relatively contained with little intervisibility to surrounding areas.*
- *It comprises a complex mix of residential styles and types predominantly late 20th century housing and recent housing developments. The area also includes small blocks of historic terraces the dense built form and strong formal grid pattern which sit uncomfortably adjacent to modern development.*
- *The modern housing is usually high density and incorporates a mix of architectural styles and materials. This produces a lack of cohesion to adjacent historic cores and can create 'suburban' townscape that has no distinct character.*
- *Edge of character area to east defined by large scale form of the depot which creates a simple light colour horizontal visual horizon only partially screened by adjacent trees. Strong intervisibility to Ravenhead works and chimneys, imposes industrial partially degraded character on experience within residential landscape.*
- *Small areas of amenity open space exist around and within housing areas.*
- *Disused tip located centrally within residential landscape containing an old lagoon has been restored to scrub woodland and grassland, with an area of open water. This smaller landscape creates a more natural parkland character which provides a contrast to the residential landscape."*[5]

Judgement about Potential to Accommodate Development

"There are limited opportunities for further large scale residential development given the current extent of housing in the area. However opportunities do exist for development of sensitivity designed and sited feature housing that could seek to promote a sense of focus within the residential landscape. This could address the lack of cohesion that exists in the area and be reinforced with an appropriate landscape structure. The past residential development has had a detrimental impact on the townscape character and where redevelopment of the area is required this should seek to look at distinctive styles and quality of design.

Any redevelopment or new development should be undertaken to ensure this does not undermine or conflict with the role of the historical core of Thatto Heath in the adjacent character area.

Extension of the development to the south should be avoided to maintain the effectiveness of the Green Belt landscape and separate between Thatto Heath and Rainhill."[5]

Assessment of sensitivity

Landscape value:

The LCA area is not designated for its scenic landscape value at a national or local level that would denote a higher value. Local recreational value is experienced through the urban streetscape and minor connecting roads, local PRoW, and scattered urban green spaces including a small parkland around an area of open water. The LCA is predominantly characterised by a mix of residential housing elements which reduce scenic value. The overall landscape value within the study area is assessed as Medium-Low.

Landscape susceptibility:

The *Landscape Character Assessment for St Helens*[5] defines the overall landscape sensitivity of the LCA as '*Low'* due to a "*lack of focal features"*[5], distinct urban character or "*quality open space"*[5]. The study also considers the visual characteristics of the LCA and notes that there is *"some intervisibility to adjacent more elevated landscapes"*[5]*.* In terms of perceptual characteristics, the "*urban character"* within and adjacent to the LCA present baseline characteristics which reduce levels of tranquillity and remoteness. Considering the nature of the majority of the Project would be predominantly of short-term and temporary duration and located in a landscape already heavily influenced by man-made elements and infrastructure the landscape susceptibility to change from this type of development is reduced. The overall susceptibility of the landscape to the Project is assessed as Low.

Sensitivity	Medium-Low	Landscape value:	Medium-Low
		Landscape susceptibility:	Low

Magnitude of change and level of effect		
Pipeline (St Helens Spurs)	**Construction phase:** **Figure 8.8, Volume 4** shows approximately 1.7km of the St Helens Spurs of the pipeline passing through the RVI1 Thatto Heath LCA. The St Helens Spurs would skirt the south-western boundary of the LCA as it passes along the B5204 Elton Head Road, before passing through the south-eastern fringes of the LCA and turning north and northeast to follow Sherdley Road along the eastern boundary of the LCA. The pipeline construction would be an open cut along the roads, involving roadside and road excavation and would appear similar to utilities roadworks in the urban area. Small, localised materials storage areas would be sited on verges along the western side of Sherdley Road and the assessment assumes that street trees in these areas would be retained. Construction activity along the St Helens Spurs associated with the installation of the pipeline would be transient and of short duration with progressive backfill and reinstatement as works are completed along the route. The scale and geographical extent of these construction activities 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 (along the same road) reducing to Very Low or Zero from the wider LCA, where the pipeline corridor would be screened by the surrounding built form. Any removal of street trees would be replaced in line with the Commitments made in **Section 8.6** of **Chapter 8: Landscape and visual** and the AIA in **Appendix 8C**. The magnitude of change likely to affect the landscape character, key characteristics and elements would range from Medium (in respect of landscape elements and LCA within and adjacent to the pipeline corridor) to Very Low to Zero elsewhere within the LCA.	
	Level of effect:	Locally **Moderate to Minor** and **Not Significant** and **Minor/Negligible to Negligible** and **Not Significant** to **No Effect** elsewhere within the wider LCA.
	Type of effect:	Short-term duration (temporary), direct and adverse.
Temporary construction accesses	**Construction phase:** Temporary construction access routes: B5204 Elton Head Road and Sherdley Road. All construction access for the pipeline would utilise the existing road network within the pipeline corridor. The traffic generation quantities prepared as part of **Chapter 11: Traffic and transport** predict a 1.2% (peak) increase in traffic and a 6.2% increase in HGVs along the A570 between Burtonhead Road and the B5204 and a 1.8% in traffic and 17.9% increase in HGVs using the B5204 between the A570 and Rainhill Road. High levels of traffic movement are not uncommon in an urban environment where levels of tranquillity would be lower. As a consequence, the magnitude of change resulting from any potential temporary partial road closure and movement	

	of construction vehicles would be Low, affecting a small geographical area of landscape character in the local vicinity of the temporary construction access routes.	
	Level of effect:	Locally **Minor** to **Minor/Negligible** and **Not Significant** to **Zero**
	Type of effect:	Short-term duration (temporary), direct and adverse.
Overall assessment		
Construction phase:	Collectively the construction works involving the underground pipelines, small temporary storage compounds and construction access routes within the RVI1 Thatto Heath LCA would lead to a moderate scale of development, continuing for the construction phase. Whilst each corridor is expected to take 12-18 months to complete, the laying of approximately 1.7km of pipeline through this LCA would be of shorter duration. High levels of surrounding built form would limit the extent of visible influence of the construction works on the landscape character and key characteristics. Overall, the magnitude of change on the LCA would be Very Low with localised areas experiencing up to a Medium magnitude of change in close proximity to the pipeline corridor. Any loss of street trees would be replaced in line with the Commitments made in **Section 8.6** of **Chapter 8: Landscape and visual** and the AIA in **Appendix 8C**.	
	Level of effect:	**Minor/Negligible to Negligible** and **Not Significant** with localised areas of **Moderate to Minor** and **Not Significant** effects close to the pipeline corridor.
	Type of effect:	Short-term duration (temporary), direct and adverse.

Table 8D.35 LCA SLV1 St Helens Historic Core

Context	
Relevant figures:	**8.8**
LCA hierarchy – NCA:	NCA 56 Lancashire Coal Measures
Landscape Designations:	None but partly located in a conservation area
Administrative area:	St Helens

Baseline character description:

The Project passes to the south of LCA SLV1 St Helens Historic Core, one of three LCAs within the Settled Low-lying Valley LCT. The key landscape characteristics of the LCA are detailed below taken from the *Landscape Character Assessment for St Helens*[5].

Area Description (LCA)

- *"The area is generally flat although the perception of topography and landform is difficult to determine due to dense built form. The landform is on the flat plateau basin within the broad valley. There are densely settled slopes rising up to the west, north and east. This creates a strong experience of enclosure in views north up to the adjacent dense terraces. Views south are limited due to the urban fabric and street pattern which radiates out to the southwest and typically blocks views.*
- *This is the civic and retail centre of St Helens with a generally dense built form and high vitality.*
- *Late 20th century architecture, of simplistic design and constructed in concrete with large panels of fenestration contrasts markedly with the remnants of sandstone and deep-red brick built vernacular architecture. In many places this predominant building form, although broadly responding to the historic street pattern, encroaches upon and developed into some of the narrow road form and has markedly changed the scale proportions of built form to street pattern.*
- *The large scale development of late 20th century architecture and pedestrianisation have both led to the fragmentation of the historic street structure and patterns of movement and use in the core of St Helens. The present built form acts as a barrier creating a 'front' and 'back' to the urban core. The front focuses on the open character of Church Street and Victoria Square, whilst the back rings around this landscape, accessed by the pedestrian roads and defines the edges to the core character area. This is emphasised by the previous development of several historic thoroughfares including Market Street and the covering of St Mary's Market, reducing physical and visual links, and the later separation of vehicular and pedestrian traffic.*

- *Orientation through the enclosed retail street pattern is sometimes difficult due to the lack of a strong sense of urban character and place.*
- *Several large areas of public realm have been pedestrianised which reduces the perception of road width and influences the experience of street scale. In many locations contemporary brick paving and concrete paviors have contributed to this loss of urban character and sense of place of St Helens. More recently some street development retaining the original street patterns and urban fabric, incorporate high quality materials such as natural stone and lighting, which seek to encourage movement and reinforce links within the urban landscape."*[5]

Judgement about Potential to Accommodate Development

"More recent 20th century development has often had a detrimental influence on the townscape of St Helens core. Further redevelopment is possible but should reflect, enhance and or complement the existing street structure and scale. High quality architecture and public realm development would enhance the character of the area. There is limited opportunity for large scale development."[5]

Assessment of sensitivity

Landscape value:

The LCA is not designated for its scenic landscape value at a national or local level that would denote a higher value. Heritage designations include two conservation areas (Victoria Square and George Street) and a number of listed buildings although there are no nature conservation designations. In terms of recreational value there are no long-distance footpaths, national/regional cycle routes or PRoWs although there is an accessible streetscape within this historic core. The overall landscape value is assessed as Medium.

Landscape susceptibility:

There would be no direct (physical) changes to this LCA as a consequence of the Project. Considering the nature of the closest section of the Project, being of short-term and temporary duration, the landscape susceptibility to this type of development is reduced. The susceptibility is also assessed in the context of the LCA's visual characteristics, where "*Views south are limited due to the urban fabric and street pattern which radiates out to the southwest and typically blocks views"*[5] with corresponding low levels of intervisibility with surrounding landscapes/townscapes. In terms of perceptual characteristics, the existing "*high vitality"*[5] and movement along the local transport network within and adjacent to the LCA are already baseline characteristics which reduce levels of tranquillity and remoteness. The overall susceptibility of the landscape to the Project is assessed as Low.

Sensitivity	Medium	Landscape value:	Medium
		Landscape susceptibility:	Low
Magnitude of change and level of effect			
Pipeline (St Helens Spurs)	**Construction phase:** **Figure 8.8, Volume 4** shows that the St Helens Spurs would be located beyond the LCA's boundary although its study area coincides with this receptor unit. As a consequence, landscape effects would be indirect. The St Helens Spurs would pass approximately 600m to the south-east of the LCA. The high levels of intervening built form and highway infrastructure within St Helens would restrict intervisibility and the magnitude of landscape change would be Zero.		
	Level of effect:	**No Effect**	
	Type of effect:	N/A	
Temporary construction accesses	**Construction phase:** There would be no access requirements within this LCA. Any increase in traffic along the A570 St Helens Linkway, approximately 600m to the south-east, would not be discernible due to the high proportion of intervening built form. The magnitude of change would be Zero.		
	Level of effect:	**No Effect**	
	Type of effect:	N/A	
Overall assessment			
Construction phase:	Collectively the construction works involving the underground pipeline (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. Baseline levels of vehicle movement within and along the perimeter of the LCA means that baseline levels of tranquillity are likely to be lower. Overall, the magnitude of change on the LCA would be Zero.		
	Level of effect:	**No Effect**	
	Type of effect:	N/A	

Table 8D.36 LCA SLV2 St Helens Retail Ring

Context	
Relevant figures:	**8.8**
LCA hierarchy – NCA:	NCA 56 Lancashire Coal Measures
Landscape Designations:	None but LCA adjacent to Conservation Area
Administrative area:	St Helens

Baseline character description:

The Project passes to the south of LCA SLV2 St Helens Retail Ring, which is one of three LCAs within the Settled Low-lying Valley LCT. The key landscape characteristics of the LCA are detailed below taken from the *Landscape Character Assessment for St Helens*[5].

Area Description (LCA)

- *"Character area occupies the flat broad valley floor wrapping round the historic core to the south. Although landform character is often difficult to determine as a result of the large number of large scale retail buildings and associated areas of car parking.*
- *For part of the area, the Sankey Canal cuts through the landscape, although this rarely forms the focus as it is difficult to visually and physically access due to the location of access roads and the railway at elevation.*
- *The area is characterised by a variety of buildings of various sizes and scales but they are predominantly built in the 20th century, large in scale, and of contemporary architecture and are sited in a poor physical relationship to each other. There is a partially open character form by the larger scale buildings and the open space voids between them. In addition the proximity to the open corridor of the A58 link road enables views further south. Many of the buildings incorporate signage and lighting to advertise their function which compete for attention and reinforce the visual clutter and chaotic character of the landscape.*
- *The character area lacks a cohesive street structure and identity, as the large scale modern development has inherited and subsequently dominated the historic street pattern. Railway line and embankments adds to fragmented character of landscape.*
- *As a result of the substantial areas of car parking, the area is predominantly hard landscape and heavily orientated towards the use of the car, with wide roads and a convoluted footpath network and a plethora of signage.*

- *There is limited soft landscape, which is largely constrained by the hard landscape and consists of narrow tree belts, minimal amenity planting, manicured grassed road verges and isolated lines of immature trees, the scale and character of which can often contrast with the surrounding urban landscape."*[5]

Judgement about Potential to Accommodate Development

"The area lacks any cohesion and or identity. It may be possible to reduce these impacts through the implementation of a strong landscape structure and infrastructure that integrates better with the adjacent areas. Further development may help to create a new identity and character for this area. The design and layout is important to ensure a positive contribution to the area."[5]

Assessment of sensitivity

Landscape value:

The LCA is not designated for its scenic landscape value at a national or local level that would denote a higher value. In terms of recreational value, there are no long-distance footpaths, national/regional cycle routes and the area is mainly experienced through the streetscape of predominantly large car parks and commercial buildings with reduced scenic value - although a local PRoW to the southeast of the LCA passes through a small park (Vera Page Park – named after a nominated local person) connects to St Helens Canal. A local memorial (the Workers Memorial) is located within the park slightly increasing the areas' local value. The overall landscape value is assessed as Medium-Low.

Landscape susceptibility:

There would be no direct (physical) changes to this LCA as a consequence of the Project. Considering the nature of the closest section of the Project, being of short-term and temporary duration, the landscape susceptibility to this type of development is reduced. The *Landscape Character Assessment for St Helens*[5] defines the overall landscape sensitivity of the LCA as '*Low'* due to fragmented layout and design of buildings, "*lack of cohesion between historic and contemporary landscape structure"*[5]*,* and "*functional character with limited quality of the urban landscape"* [5] The study also considers the visual characteristics of the LCA and notes that "*large scale buildings, limits intervisibility".* The overall susceptibility of the landscape to the Project is assessed as Low.

Sensitivity	Low	Landscape value:	Medium-Low
		Landscape susceptibility:	Low

Magnitude of change and level of effect		
Pipeline (St Helens Spurs)	**Construction phase:** **Figure 8.8, Volume 4** shows that the St Helens Spurs would be located beyond the LCA's boundary although its study area coincides with this receptor unit. As a consequence, landscape effects would be indirect. The St Helens Spurs would pass approximately 300m to the south-east of the LCA. The high levels of internal and intervening built form and highway infrastructure would restrict intervisibility although construction works may be perceptible along the A570 St Helens Linkway from the southern edge of the LCA and within an urban context. The magnitude of landscape change would be Very Low and commonly Zero.	
	Level of effect:	**Locally Negligible** and **Not Significant** to **No Effect**
	Type of effect:	Short-term duration (temporary), indirect and neutral
Temporary construction accesses	**Construction phase:** There would be no access requirements within this LCA. Any increase in traffic along the A570 St Helens Linkway, approximately 300m to the south, would not be discernible due to the high proportion of internal and intervening built form. Baseline levels of tranquillity are also likely to be low as a consequence of this LCA's proximity to the A570 St Helens Linkway and local road network within the LCA. The magnitude of change would be Zero.	
	Level of effect:	**No Effect**
	Type of effect:	N/A
Overall assessment		
Construction phase:	Collectively the construction works involving the underground pipeline (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 and roadside vegetation which restrict outward views. Overall, the magnitude of change on the LCA would be Very Low to Zero.	
	Level of effect:	Locally **Negligible** and **Not Significant** to **No Effect**
	Type of effect:	Short-term duration (temporary), indirect and neutral

Table 8D.37 LCA SLV3 St Helens Terraces

Context	
Relevant figures:	**8.8**
LCA hierarchy – NCA:	NCA 56 Lancashire Coal Measures
Landscape Designations:	None but adjacent to conservation area in adjoining LCA
Administrative area:	St Helens
Baseline character description:	

The Project passes to the south of LCA SLV3 St Helens Terraces, which one of three LCAs within the Settled Low-lying Valley LCT. The key landscape characteristics of the LCT are detailed below taken from the *Landscape Character Assessment for St Helens*[5].

Area Description (LCA)

- *"Character area occupies the gentle broad sloping topography west, north and east of the more historic 'bowl'.*
- *The street pattern forms a series of parallel bands of terraced housing in a dense grid pattern. The main access roads extend from the historic core radiating up to the terraces cutting across the contours. The terraces laid out running parallel to these roads orientated perpendicular to the contours, allowing the buildings to step down slope where gradient allows.*
- *Areas have a strong distinct character comprising small scale, but high density terraced housing in uniform bands constructed in deep red brick with slate roofs. The small scale of the terraced streetscape is heightened where experienced in close juxtaposition with large scale industry on the lower slopes. There is a repetition of fenestration, doors, and roof lines which give a highly consistent, distinct and recognisable character. Where the terraces front directly onto the narrow streets the experience of enclosure is emphasised and in places can feel oppressive and claustrophobic.*
- *The orientation of the main access roads towards the historic core, creates a strong visual relationship with often dramatic, framed vistas towards the historic/industrial centre and chimneys being common place.*
- *A number of churches are located within this terraced streetscape. The church spires punctuate the uniform roofscape of the terraces and create important landmarks and orientation features.*
- *Typically hard landscape prevails with little or no greenspace giving a dense streetscape character where typically there is a repetition of urban elements which can be confusing and give a lack of orientation.*

- *The area comprises a number of distinct blocks or areas of terraces which radiate out from the lower urban core of St Helens – including Hardshaw, North Road, Denton's Green, Newton, West Park, Toll Bar and Green Bank areas of terraces.*
- *Street structure can be degraded or fragmented where more contemporary development has impacted on this strong uniform character including, inappropriate cosmetic facades to the terraces, replacement of terraces with contemporary 'pastiche' terraces and demolition of terraces leaving gap sites.*
- *Where the terraces have small front gardens, there is a subtle change in the street proportions, which increase the openness of the road corridor with an increasing width of views to urban landscape and the introduction of garden vegetation and differing cartilage walls which adds variety into the streetscape and reduces the experience of uniformity."*[5]

Judgement about Potential to Accommodate Development

"Generally there is limited scope for further development given the relatively high sensitivity due to the strong and distinctive historic townscape character. Recent development has been detrimental to the character of the area and sought to weaken the strength of character. Any development would have to reflect the scale and size of the existing street structure and architecture, although a poorly conceived 'pastiche' of a terraced house can often prove just as detrimental. There are opportunities to enhance the area through the sympathetic improvements of the public realm and limited public space."[5]

Assessment of sensitivity

Landscape value:

The LCA is not designated for its scenic landscape value at a national or local level that would denote a higher value. In terms of recreational value, there are no long-distance footpaths, national/regional cycle routes and the area is mainly experienced through the streetscape and local PRoW. Recreational value is increased at Victoria Park to the north of the LCA and at St Helens Canal to the east of the LCA. Heritage value is gained from scattered churches and listed buildings as well as the historic structure of the streetscape. The overall landscape value is assessed as Medium.

Landscape susceptibility:

There would be no direct (physical) changes to this LCA as a consequence of the Project. Considering the nature of the closest section of the Project, being of short-term and temporary duration, the landscape susceptibility to this type of development is reduced. The Landscape Character Assessment for St Helens[5] defines the overall landscape sensitivity of the LCA as 'Medium to High' due to "*The scale, proportions and repetition of the historic street structure and architecture"*[5]. The study also considers the visual characteristics of

the LCA and notes "*Little intervisibility to other areas as a result of the dense residential fabric. Occasionally long views to the town centre buildings and landmarks"*[5]. The overall susceptibility of the landscape to the Project is assessed as Medium.

Sensitivity	Medium	Landscape value:	Medium
		Landscape susceptibility:	Medium
Magnitude of change and level of effect			
Pipeline (St Helens Spurs)	**Construction phase:** **Figure 8.8, Volume 4** shows that the St Helens Spurs would be located beyond the LCA's boundary although its study area coincides with the southern fringes this receptor unit. As a consequence, landscape effects would be indirect. The St Helens Spurs would pass approximately 700m to the south-east of the LCA at its closest point. The high levels of internal and intervening built form and highway infrastructure would restrict intervisibility and the magnitude of landscape change would be Zero.		
	Level of effect:	**No Effect**	
	Type of effect:	N/A	
Temporary construction accesses	**Construction phase:** There would be no access requirements within this LCA. Any increase in traffic along the A570 St Helens Linkway, approximately 700m to the south-east, would not be discernible due to the high proportion of intervening built form. The magnitude of change would be Zero.		
	Level of effect:	**No Effect**	
	Type of effect:	N/A	
Overall assessment			
Construction phase:	Collectively the construction works involving the underground pipeline (St Helens Spurs) and construction access routes would have no characterising effects on this LCA as high levels of internal and intervening built form restrict outward views. Overall, the magnitude of change on the LCA would be Zero.		
	Level of effect:	**No Effect**	
	Type of effect:	N/A	

Table 8D.38 LCA SS6 Rainhill

Context	
Relevant figures:	**8.8** and **8.34** (Clock Face HAGI ZTV)
LCA hierarchy – NCA:	NCA 56 Lancashire Coal Measures
Landscape Designations:	None
Administrative area:	St Helens
Baseline character description:	

The Project passes to the east of LCA SS6 Rainhill, which is the one of six LCAs within the Separate Settlement LCT. The key landscape characteristics of the LCA are detailed below taken from the *Landscape Character Assessment for St Helens*[5].

Area Description (LCA)

- *"Broad relatively narrow ridgeline, orientated northwest to southeast, ranging in height from approximately 60metres at the lower break of slope to the north, up to 85 metres along the upper ridge to the southeast (which reaches a peak at Blundell's Hill further south). The ridgeline has a more pronounced gradient with steeper slopes to the south as opposed to the north.*
- *This relatively subtle change in gradient has influenced the historical and more contemporary linear development reflecting the underlying landscape grain. The main historic core of Rainhill at Kendrick's Cross and a smaller adjacent core at Rainhill Stoops, both being located on the northern, more accommodating slopes. Subsequent development has extended along the lower slopes between and beyond these two hamlets, and up slope as far as the ridgeline access road. South of this road, for the most part, development has not extended creating a prominent elevated developed visual horizon in views from the south.*
- *The historic core comprises a small cluster of original sandstone buildings around a church located at crossroads. The intactness of the historic town centre is recognised in the Conservation Area status.*
- *Where views are not limited by adjacent buildings, they tend to be focused north and framed in character when looking along the grid of roads which run down slope perpendicular to the contour lines.*
- *Although a settled landscape there are prominent blocks of mature woodland and tree lines still present that were associated with the former significant properties of Rainhill House in the lower slopes (now Loyola Hall) and Manor House on the upper ridge*

summit (now the college) and along the roads. In addition, further mature trees located in garden create a distinct townscape character in a more regular grid pattern interspersed with tree crowns skylining on the horizon." [5]

Judgement about Potential to Accommodate Development

"There are limited opportunities for development given the importance of maintaining a distinct settlement character and the extent to which Rainhill has extended northwards onto the lower break of slope. Development could be accommodated on the lower slopes using the existing water courses and planting where it would contribute to a strong robust edge. However, due cognisance would have to be given to this Green Belt landscape and the importance of maintaining and reinforcing the adjacent rural landscape character as a setting to this settlement." [5]

Assessment of sensitivity

Landscape value:

The LCA area is not designated for its scenic landscape value at a national or local level that would denote a higher value. The area is predominantly an urban landscape with a strong historical centre recognised through its Conservation Area status. The scenic value of the area is experienced through the urban streetscape and by local PRoW and through road corridors. The overall landscape value is assessed as Medium.

Landscape susceptibility:

The *Landscape Character Assessment for St Helens*[5] defines the overall landscape sensitivity of the LCA as 'Medium to High' mostly due to the strong relationship of the settlement to landform and the wooded townscape character and describes the sensitivity of the area to coalescence with neighbouring settlement areas. The study also considers the visual characteristics of the LCA and notes the "*area is slightly elevated above adjacent open character areas to the west and therefore there is some intervisibility"* [5] In terms of perceptual characteristics, the urban character in reduces the degree of rural tranquillity and remoteness within the LCA. Considering the nature of the majority of the Project would be outside the LCA and would be predominantly of short-term and temporary duration, the landscape susceptibility to this type of development is reduced. The overall susceptibility of the landscape to the Project is assessed as Medium.

Sensitivity	Medium	Landscape value:	Medium
		Landscape susceptibility:	Medium

Magnitude of change and level of effect

Pipeline (St Helens Spurs)	**Construction phase:** **Figure 8.8, Volume 4** shows that the St Helens Spurs would be located beyond the LCA's boundary although its study area coincides with this receptor unit. As a consequence, landscape effects would be indirect. The St Helens Spurs would pass parallel to the eastern edge of the Rainhill LCA at distances of between ~250m and ~750m. There are some open views from the eastern edge of the LCA in this direction, although filtered by hedgerows, garden planting and occasional woodland and scrub planting. It is unlikely that the Project would influence the Rainhill LCA beyond its eastern edge due to extensive existing built elements which dominate the LCA. The magnitude of change would be Low and more commonly Zero.	
	Level of effect:	**Minor** and **Not Significant** to **No Effect**.
	Type of effect:	Short-term duration (temporary), indirect and adverse.
Temporary construction accesses	**Construction phase:** There would be no access requirements within this LCA. An increase in HGV movements along the A570 Saint Helens Linkway to the east of the LCA would not alter the character and key characteristics of this LCA. The magnitude of change would be Zero.	
	Level of effect:	**No Effect**
	Type of effect:	N/A
Clock Face HAGI	**Construction phase:** The Clock Face HAGI is sited in an open field adjacent to the M62 transport route. This would be located beyond the LCA's boundary although its study area coincides with this receptor unit. Intervening engineered road infrastructure and vegetation between the LCA and the HAGI and its associated construction compound, together with a minimum separation distance of ~600m means that south-easterly views would be severely restricted. The construction period would be 6-12 months. The magnitude of change would be Zero.	
	Level of effect:	**No Effect**
	Type of effect:	N/A
	Operation and maintenance (Year 1) phase:	

	The Clock Face HAGI would be enclosed by security fencing typically 2.4 to 3.6m high with gated access for maintenance. The above ground components would be at a low level (up to 5m) for safety and to reduce visual impact. The ZTV in **Figure 8.34** shows no areas of intervisibility within this LCA. The separation distance (a minimum of ~900m) and presence of intervening screening elements (including road infrastructure, field and roadside vegetation) means that the effect on the landscape character and key characteristics would be Zero.	
	Level of effect:	**No Effect**
	Type of effect:	N/A
	Operation and maintenance (Year 15) phase: The gradual maturation of woodland and woodland edge planting around the Clock Face HAGI would reinforce the screening role of intervening tree cover. The magnitude of change would continue to be Zero.	
	Level of effect:	**No Effect**
	Type of effect:	N/A
Overall assessment		
Construction phase:	There would be limited indirect effects from the proposed St Helens Spurs across the eastern edge of the LCA from where there may be partial and occasional views of construction activities crossing fields to the east. There would be no indirect effects associated with the construction of the Clock Face HAGI. The effects on the character and key characteristics of the majority of the Rainhill LCA would be Zero due to increasing distance and intervening built environment.	
	Level of effect:	**Minor** and **Not Significant** to **No Effect.**
	Type of effect:	Short-term duration (temporary), indirect and adverse.
Operation and maintenance (Year 1) phase:	There would be **No Effect** on the landscape character and key characteristics of LCA SS6 Rainhill at Operation Year 1 of the Clock Face HAGI.	
Operation and maintenance (Year 15) phase:	There would be **No Effect** on the landscape character and key characteristics of LCA SS6 Rainhill at Operation Year 15 of the Clock Face HAGI.	

Table 8D.39 LCA UG2 Sherdley Park

Context	
Relevant figures:	**8.8**
LCA hierarchy – NCA:	NCA 56 Lancashire Coal Measures
Landscape Designations:	None
Administrative area:	St Helens
Baseline character description:	

The Project passes to the west and north of LCA UG2 Sherdley Park, one of three LCAs within the Urban Greenspace LCT. The key landscape characteristics of the LCA are detailed below taken from the *Landscape Character Assessment for St Helens*[5].

Area Description (LCA)

- *"Area of gently undulating landform broadly comprising two localised ridgelines interlocking to create two small valley depressions, ranging in elevation between 30 to 60 metres AOD across the landscape grain orientation north to south.*
- *Historic former designed landscape dating from the 17th century with formal and informal gardens, woodland and parkland laid out around Sherdley Hall and Sherdley House which are located on the south facing slopes in a slight valley.*
- *Much of the estate structure of woodland, tree belts, tree lines and parkland specimen trees is still present (Sherdley Park) and reflects historical layouts, such as the roundel copses to the south of Sherdley Hall, although the former small scale field pattern has been lost; and the woodland of Pingot Plantation which forms the western belt to the golf driving range.*
- *In places the structure has become fragmented from more contemporaneous development. In particular the link roads to the west and north which delineate the park but have also contributed to a partial loss of the some of the estate woodland. To the east the dualled road has been upgraded from the historical road layout which formed a main road bounding the estate to the east, and as such the mature tree line along the eastern boundary has been retained and creates a grand arrival to the park from this direction.*
- *The historic path and formal estate road network is still present today and used as part of vehicular/pedestrian access throughout the park.*
- *Some former 'estate' buildings and structures are still present and in use such as the farm, cottages and walls.*
- *Range of views available to due elevated location with strong intervisibility to the west and north where the landform drops in height. The presence of woodland structure alternately opens, encloses and frames views. The contemporary feature vehicular bridge across the A570, which replaces the historical link that was severed, provides the opportunity for wide open panoramic views to the adjacent settled and park landscapes.*

- *To the south of the park beyond the wooded boundaries, the open, predominantly grassed landscape of the college playing fields is in stark contrast to the historic character and grandeur of the main park. The modern 'block' architecture of the college and the landscape interrupted by numerous street and pitch lighting emphasises this contrast."*[5]

Judgement about Potential to Accommodate Development

"The area is important public parkland and recreation landscape with a strong and distinctive historic landscape character. This landscape contributes to the physical and visual setting between industrial and residential areas. Due to the sensitivity of the landscape this poses major constraints to further development and inappropriate landscape change which would impact on the integrity of the historic landscape. Ideally a management plan which considered the historic and more contemporary landscape character and use should be produced within which any development proposed should be considered. The robustness of the existing character areas is considered to be strong, and as such should pose a constraint to further development encroaching into the park."[5]

Assessment of sensitivity

Landscape value:

The LCA area is not designated for its scenic landscape value at a national or local level, although it was historically a designed landscape and retains many of the designed features, denoting a higher value. The area is valued locally as a park area and festival venue which increases its value. The scenic value of the area is experienced through a network of footpaths, local PRoW and by recreational users of the golf course within the northern part of the LCA. The overall landscape value is assessed as High-Medium.

Landscape susceptibility:

The *Landscape Character Assessment for St Helens*[5] defines the overall landscape sensitivity of the LCA as 'High' mostly due to the historic designed landscape and woodland structure and describes the sensitivity of the area to development that would affect the historical structure and woodlands. The study also considers the visual characteristics of the LCA and notes a "*range of views available to due elevated location with strong intervisibility to the west and north where the landform drops in height. The presence of woodland structure alternately opens, encloses and frames views"5.* In terms of perceptual characteristics, the "*structured woodland"* provides a degree of tranquillity within the LCA, but the presence of dualled roads along the boundaries and views to the surrounding urban landscape present baseline characteristics which reduce levels of remoteness. Considering the predominantly of short-term and temporary duration nature of the Project beyond the LCA's boundary, the landscape susceptibility to this type of development is reduced. The overall susceptibility of the landscape to the Project is assessed as Medium.

Sensitivity	Medium	Landscape value:	High-Medium
		Landscape susceptibility:	Medium

Magnitude of change and level of effect

Pipeline (St Helens Spurs)	**Construction phase:** As illustrated in **Figure 8.8, Volume 4,** the St Helens Spurs would not pass through this LCA and effects would be indirect. The St Helens Spurs would follow Sherdley Road to the west of the LCA at a minimum separation distance of approximately 50m. The pipeline corridor would be located beyond the A570 and behind roadside trees and light industrial land uses where construction activities along the pipeline corridor may be perceived in heavily filtered winter views. There may be increased visibility as the pipeline corridor passes the end of The Score and as the route turns west along Sutton Heath Road. There may also be partial winter views of the St Helens Spur as it follows the A570 Saint Helens Linkway to the north of the LCA. The St Helens Spurs would have very limited characterising influence on the character and key characteristics of the UG2 Sherdley Park LCA due to extensive screening from mature trees along the boundaries of and within the LCA. The magnitude of change would be Very Low and commonly Zero.	
	Level of effect:	Locally **Minor/Negligible** and **Not Significant** to **No Effect**.
	Type of effect:	Short-term duration (temporary), indirect and neutral.
Temporary construction accesses	**Construction phase:** There would be no access requirements within this LCA. The A570 Saint Helens Linkway which follows the western boundary of the LCA is identified as a HGV access route for the Project. Any visual or audible disturbance associated with construction traffic would be incremental to existing traffic movements along this route giving rise to limited indirect effects. The magnitude of change would be Very Low close to the temporary access route and commonly Zero from elsewhere within the LCA.	
	Level of effect:	Locally **Minor/Negligible** and **Not Significant** to **No Effect**.
	Type of effect:	Short-term duration (temporary), indirect and neutral.
Overall assessment		
Construction phase:	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.	
	Level of effect:	Locally **Minor/Negligible** and **Not Significant** to **No Effect**.
	Type of effect:	Short-term duration (temporary), indirect and neutral.

Table 8D.40 LCA UG3 Rainhill Golf Course

Context	
Relevant figures:	**8.8**
LCA hierarchy – NCA:	NCA 56 Lancashire Coal Measures
Landscape Designations:	None
Administrative area:	St Helens

Baseline character description:

The Project passes to the south-east of LCA UG3 Rainhill Golf Course, which is one of three LCAs within the Urban Greenspace LCT. The key landscape characteristics of the LCA are detailed below taken from the *Landscape Character Assessment for St Helens*.

Area Description (LCA)

- *"Generally flat gently undulating topography which forms the lower plateau base to an open 'bowl' partially enclosed by the surrounding settled more elevated landscape.*
- *Large area of greenspace comprising a large golf course with an open character to the south, and a more enclosed area of amenity open space and woodland to the north. Open character of golf course incorporating fairways and tees contrasts with enclosed wooded character to the north.*
- *There are remnants of a former designed landscape, (traced to post 1850s and the advent of the railway) in the form of mature woodland avenues, including unique rows of pollarded trees and the oval path access layout as well as stone walls and former grass terrace.*
- *The mature woodland belts and avenues compartmentalise space and create a variety of different environments and provide structure to the area to the north of the golf course.*
- *There is a diverse mix of woodland species between natives and exotic species which adds a distinct character and variety to the landscape.*
- *The area is enclosed on all sides by new housing developments which form a hard developed edge surrounding the area. Urban characteristics are further introduced by the railway line which segregates a triangle of open land to the north and the pylon line which is routed through the open space.*

- *There is encroachment of modern housing development within the character area which fragments and weakens the landscape character."*[5]

Judgement about Potential to Accommodate Development

"The area is important public parkland and recreation land contributing to separation and setting of urban areas. There is scope to enforce the former designed landscape character through the restoration and management of the landscape structure including woodland management and the restoration of prominent tree avenues. The existing urban edges should provide a constraint to further development encroaching into the area, which would seek to fragment the amenity function and remnant aesthetic character."[5]

Assessment of sensitivity

Landscape value:

The LCA area is not designated for its scenic landscape value at a national or local level which would denote a higher value. The area has local recreational value as a golf course and sports pitches. The scenic value of the area is experienced by recreational users of the golf course, woodlands, and playing fields. The overall landscape value is assessed as Medium.

Landscape susceptibility:

The *Landscape Character Assessment for St Helens*[5] defines the overall landscape sensitivity of the LCA as 'Low to Medium' due to the encroachment of the golf course and residential developments on the historical structure and landscape design thus indicating susceptibility to future development that would further affect historical elements. The study also considers the visual characteristics of the LCA and notes that the area is "*partially set within broad 'subtle depression, so only visible by immediate adjacent character areas…with intervisibility to immediate residential areas"*[5]*.* In terms of perceptual characteristics, the study also notes the "*Variety of open and enclosed spaces and experiences defined by extent of tree cover, which contrasts markedly with adjacent settled landscapes"*[5] within and adjacent to the LCA which present baseline characteristics which reduce levels of tranquillity and remoteness. Considering the nature of the majority of the Project would be outside the LCA and would be predominantly of short-term and temporary duration, the landscape susceptibility to this type of development is reduced. The overall susceptibility of the landscape to the Project is assessed as Medium-Low.

Sensitivity	Medium	Landscape value:	Medium
		Landscape susceptibility:	Medium-Low

Magnitude of change and level of effect		
Pipeline (St Helens Spurs)	**Construction phase:** **Figure 8.8, Volume 4** shows that the St Helens Spurs would be located beyond the LCA's boundary although its study area coincides with this receptor unit. As a consequence, landscape effects would be indirect. At its closest point, the St Helens Spurs would be located at a distance of approximately 600m to the east of the LCA beyond B5413 Rainhill Road and mature trees and built elements. The magnitude of change would be Very Low and more commonly Zero.	
	Level of effect:	**Minor/Negligible** and **Not Significant** to **No Effect**.
	Type of effect:	Short-term duration (temporary), indirect and neutral.
Overall assessment		
Construction phase:	There would be highly limited indirect effects from the proposed St Helens Spurs as a consequence of intervening woodland and built form.	
	Level of effect:	**Minor/Negligible** and **Not Significant** to **No Effect**.
	Type of effect:	Short-term duration (temporary), indirect and neutral.

Table 8D.41 LCA UIV2 Sutton Brook

Context	
Relevant figures:	**8.8**
LCA hierarchy – NCA:	NCA 56 Lancashire Coal Measures
Landscape Designations:	None
Administrative area:	St Helens
Baseline character description:	

The Project passes through the western fringes of LCA UIV2 Sutton Brook, one of three LCAs within the Urban Industrial Valley LCT. The key landscape characteristics of the LCA are detailed below taken from the *Landscape Character Assessment for St Helens*[5].

Area Description (LCA)

- *"Broad low valley basin ranging between 25 and 30 metres AOD, gives a predominantly flat composition. Landform includes the meanders of the Sutton Brook, which has a limited visual presence given the flatness of the landform.*
- *Sutton Brook meanders through the valley and is often channelled through artificial large drainage ditches which imposes an unnatural hard landscape form.*
- *Complex mixture and contrast of built form from large scale industrial use (included industrial estates), pockets of residential (including historic terraces) and large scale retail development. In particular areas including Pocket Nook, Peasley Cross and St Helens Junction provide small isolated historic cores with some pre-industrial feature buildings and churches, and later industrial brick terraces. These densely development small scale residential areas contrast markedly with the open and large scale fabric of the industrial landscape and creates a changeable perception of enclosure and openness when travelling through the area.*
- *Whilst the industrial landscape is ringed by the larger scale dualled roads and railway, secondary access to the different areas is provided by a largely intact historical road network with remnants from the medieval farming landscape. In particular Peasley Cross provides a distinctive crossroads emphasised by a subtle change in elevation and the nearby churches and vertical spires, which is unexpected within the wider industrial landscape.*
- *Pockets of recently constructed residential development with strong association with adjacent spoil heaps such as south of Sutton Moss, area also included in this character area which reflects the diverse changing townscape character of this area.*

- *Large areas of 'empty' open space often contain remnants of past historical use i.e. derelict buildings, fragmented street structure and disused railways which can impose a neglected character.*
- *Pockets of scrub / pioneer woodland are often located in the older industrial landscapes, which contrast with the more recent simplicity of the landscape associated with the new retail parks. This immature landscape comprises primarily maintained amenity grassland and lines of specimen trees, which have yet to create a strong framework."*[5]

Judgement about Potential to Accommodate Development

"Past and present industrial development has had a significant influence on the character of the area. The townscape and landscape has suffered as a consequence of haphazard development. Opportunities for large scale development within the area. The area would benefit from the introduction of an overall masterplan for redevelopment and the creation of a new landscape / townscape character through the introduction of a strong landscape structure, the design and layout of which should ensure a positive and integrated approach.

This landscape masterplan should sympathetically and sensitively incorporate the existing historic structures and residential landscapes. In addition, opportunities exist to incorporate the Sutton Brook into the landscape scheme and to utilise it as a dynamic landscape feature."[5]

Assessment of sensitivity

Landscape value:

The LCA area is not designated for its scenic landscape value at a national or local level that would denote a higher value. Local recreational value is experienced through the urban streetscape and minor connecting roads, local PRoW to the south-east of the LCA and scattered urban green spaces including Sutton Park and large recreational fields around Sutton Brook. The overall landscape value within the study area is assessed as Medium-Low.

Landscape susceptibility:

The *Landscape Character Assessment for St Helens*[5] defines the overall landscape sensitivity of the LCA as '*Low'* due to its "*Highly fragmented"*[5] character and the "*Sense of degradation and dereliction throughout the area"*[5]. The study also considers the visual characteristics of the LCA and notes that *"As the area is generally located within a wide valley there is little intervisibility with the surrounding area"*[5]*.* Considering the nature of the majority of the Project would be predominantly of short-term and temporary duration the landscape susceptibility to change from this type of development is reduced. The overall susceptibility of the landscape to the Project is assessed as Low.

Sensitivity	Medium-Low	Landscape value:	Medium-Low
		Landscape susceptibility:	Low
Magnitude of change and level of effect			
Pipeline (St Helens Spurs)	**Construction phase:** **Figure 8.8, Volume 4** shows the St Helens Spurs entering UIV2 Sutton Brook LCA and following Langtree Way to terminate at the Glass Futures site to the north of Sherdley Road Industrial Estate. An approximately 300m section of the St Helens Spurs would also skirt the western boundary of the LCA as it passes along the A570 St Helens Linkway. The pipeline construction would be an open cut within and along the boundary of the LCA with the construction works appearing similar to utilities roadworks which periodically occur within the urban area. The Draft Order Limits extend across areas of highway verge and incidental open space along the boundary of the LCA and construction activity may necessitate to loss of vegetation and street trees within this area. Trees would be replaced post construction in line with the Commitments made in **Section 8.6** of **Chapter 8: Landscape and visual** and the AIA in **Appendix 8C.** Construction activity along the North Corridor associated with the installation of the pipeline would be transient and of short duration with progressive backfill and reinstatement as works are completed along the route. The scale and geographical extent of these construction activities would appear similar to utilities works along urban roads in the area and would be Medium when experienced locally to the construction works (within the same road) reducing to Very or less from the wider LCA, where the pipeline corridor would be less visible due to distance and high levels of screening by the intervening built environment. The magnitude of change likely to affect the landscape character, key characteristics and elements would range from High to Medium (in respect of landscape elements and LCA within and adjacent to the pipeline corridor) to Very Low to Zero elsewhere within the LCA.		
	Level of effect:	**Major/Moderate to Moderate** and locally **Significant** (where trees are removed) and **Minor/Negligible** to **Negligible** and **Not Significant** to **No Effect** elsewhere within the wider LCA.	
	Type of effect:	Short-term duration (temporary with some permanent effects), direct and adverse.	
	Construction phase:		

Temporary construction accesses (NH-61)	<u>Temporary construction access routes and designated access points: A570 St Helens Linkway and Langtree Way (NH-61).</u> All construction access for the pipeline would utilise the existing road network. The A570 St Helens Linkway and Langtree Way along the boundary of and within the LCA are identified as access route for HGVs. The traffic generation quantities prepared as part of **Chapter 11: Traffic and transport** predict a 0.8% (peak) increase in traffic and a 4.4% increase in HGVs along the A570 between Sherdley Road and Linkway East. The additional movement of construction vehicles would potentially be up to a Low magnitude within this urban context, affecting a small geographical area of landscape character in the local vicinity of the temporary construction access routes.	
	Level of effect:	**Minor** and **Not Significant** to **No Effect**
	Type of effect:	Short-term duration (temporary), direct and neutral.
Overall assessment		
Construction phase:	Collectively the construction works involving the underground pipeline and construction access routes through and adjacent to the boundary of the UIV2 Sutton Brook LCA would lead to a moderate scale of development, continuing for the construction phase. The built form within the LCA would limit the extent of visible influence of the construction works on the landscape character and key characteristics. Overall the magnitude of change on the LCA would be Very Low to Zero with localised areas experiencing up to a High or Medium magnitude of change in close proximity to the pipeline corridor and particularly where street trees or vegetation is removed. Trees would be replaced post construction in line with the Commitments made in **Section 8.6** of **Chapter 8: Landscape and visual** and the AIA in **Appendix 8C.**	
	Level of effect:	**Minor/Negligible** and **Not Significant** to **No Effect** with localised areas of **Moderate** and **Significant** effects close to the pipeline corridor and where trees/vegetation is removed.
	Type of effect:	Short-term duration (temporary), direct and adverse.

Table 8D.42 LCA UIV3 Ravenhead

Context	
Relevant figures:	**8.8**
LCA hierarchy – NCA:	NCA 56 Lancashire Coal Measures
Landscape Designations:	None
Administrative area:	St Helens
Baseline character description:	

The Project passes through the centre of LCA UIV3 Ravenhead, one of three LCAs within the Urban Industrial Valley LCT. The key landscape characteristics of the LCA are detailed below taken from the *Landscape Character Assessment for St Helens*[5].

Area Description (LCA)

- *"The area lies on the south edge of a low lying broad valley basin which rises gently south-westwards over 40 metres towards a small ridge. To facilitate the construction of the large scale buildings extensive ground modelling has been undertaken which has create a series of unnatural straight and steep slopes which reinforce the form of the building.*
- *Predominantly the major land use is industrial with a large scale glassworks complex occupying the gentle slopes above the valley basin.*
- *Strong industrial heritage landscape, with a range of buildings from various periods.*
- *Whilst not of industrial use, this character area also incorporates the newly developed retail park to the northeast. The retail park, whilst it has a different form of architecture to the main Ravenhead works, has a similar scale of building form and adjacent open space, and is strongly contained within the wider industrial landscape by the dualled A570 link road which runs to the east.*
- *A major feature of this area is the number of large scale vertical chimneys which create a unique urban skyline and have become important landmarks in the Borough. In addition with the proximity to the historic core of St Helens, the chimneys define the urban centre and aid in orientation. Lighting of large scale buildings and chimneys provide a dramatic night time urban horizon.*

- *Large reclaimed spoil heaps and water lagoon have been restored and newly planted and the resultant informal 'greenspace' contrasts greatly with the industrial built form. In places on-going regeneration of area has provided opportunities for prominent artworks, the scale and form of which reflect industrial heritage. In particular the impressive scale and location of the Anderton Shearer Mining Monument on the A570/A58 roundabout creates a prominent landmark and gateway feature to St Helens core and Ravenhead.*
- *The remaining open space between buildings form areas of large scale parking, wide roads and servicing for the buildings. Grassed verges and derelict land are also found throughout the area often associated with pioneer tree and woodland species.*
- *The boundaries to the area are defined by dramatic change in built form from large scale industrial to small scale residential landscapes in particular the dense urban form of the historic brick terraces, and the corridor of the dualled link road. Within the character area there are a few isolated pockets of terraced streets, which appear fragmented from the main grids of terraces to the west."*[5]

Judgement about Potential to Accommodate Development

"The significant past and present changes to this industrial townscape has had a significant visual influence on the surrounding areas. There is on-going changes and redevelopment of the industrial landscape, with a reduction in the inherent distinct urban character of Ravenhead and increasing areas of amorphous and indistinct retail provision. Exciting opportunities exist for both the on-going enhancement of the industrial landscape whilst the creation of a landscape framework that does not appear inappropriate to the overriding industrial character of the landscape. With the on-going redevelopment of any site some opportunities exist for accommodation of development. Potential exists for some innovative night time lighting effects to highlight the landmarks feature where possible."[5]

Assessment of sensitivity

Landscape value:

The LCA area is not designated for its scenic landscape value at a national or local level that would denote a higher value. Local recreational value is experienced through the urban residential and industrial streetscape and minor connecting roads, rail lines, and local PRoW to the south and east of the LCA within the Thatto Heath Meadows Nature Reserve. The LCA is characterised by a mix of residential housing elements to the north and large industrial and retail areas in the centre which combine to reduce scenic value. To the south however, a sense of tranquillity is experienced within parklands which slightly increase scenic value. The overall landscape value within the study area is assessed as Medium-Low.

Landscape susceptibility:

The *Landscape Character Assessment for St Helens*[5] defines the overall landscape sensitivity of the LCA as '*Low to Medium'* due to "*fragmentation of industrial character"*[5]. The study also considers the visual characteristics of the LCA and notes that "*whilst the landform is dipped in a broad valley, the large scale of buildings and vertical chimneys are highly visible"*[5]. In terms of perceptual characteristics, the "*large scale"* of the industrial buildings and chimneys are present across the LCA, although less so in the parklands to the south of the LCA. Considering the nature of the majority of the Project would be predominantly of short-term and temporary duration the landscape susceptibility to change from this type of development is reduced. The overall susceptibility of the landscape to the Project is assessed as Low.

Sensitivity	Medium-Low	Landscape value:	Medium-Low
		Landscape susceptibility:	Low
Magnitude of change and level of effect			
Pipeline (St Helens Spurs)	**Construction phase:** **Figure 8.8, Volume 4** shows approximately 1.9km of the St Helens Spurs of the pipeline within the passing through the UIV3 Ravenhead LCA. As it enters the LCA, the pipeline corridor would follow Sutton Heath Road before turning and following a north-easterly direction, along which the Draft Order Limits form a corridor which includes groups of Category B and C trees on the north-western fringes of the Ravenhead Nature Park. **Figures 8C.111** and **8C.112** in **Appendix 8C: Arboricultural Impact Assessment** indicate that a proportion of these trees would be removed to accommodate the pipeline corridor. At the end of this section, the route would turn and continue south-east along Burtonhead Road and then the A570 Saint Helens Linkway. The Draft Order Limits extend across areas of highway verge and incidental open space along the boundary of the LCA and construction activity may necessitate to loss of vegetation and street trees within this area as indicated in **Figure 8C.112.** The pipeline construction would be in open cut along the roads and through the trees at Sutton Heath Road. Away from the green spaces, the works would appear similar to utilities roadworks in the urban area. A materials storage area would also be sited on an area of brownfield land to the south of Burtonhead Road. Construction activity along the St Helens Spurs associated with the installation of the pipeline would be transient and of short duration with progressive backfill and reinstatement as works are completed along the route. The scale and geographical extent of these construction activities would appear similar to utilities works along urban roads in the area and would be Medium when experienced locally to the construction works (within the same		

	road), increasing to High-Medium within areas of green space and reducing to Very Low to Zero from the wider LCA, where high levels of built form would screen views of the construction activities. Trees would be replaced post construction in line with the Commitments made in **Section 8.6** of **Chapter 8: Landscape and visual** and the AIA in **Appendix 8C.** The magnitude of change likely to affect the landscape character, key characteristics and elements would range from High-Medium to Medium (in respect of landscape elements and LCA within and adjacent to the pipeline corridor) to Very Low or more commonly Zero elsewhere within the LCA.	
	Level of effect:	Locally **Major/Moderate** to **Moderate** and **Significant** (where the St Helens Spurs coincide with areas of trees) to **Moderate** to **Minor** and **Not Significant** within road corridors. Commonly **Minor/Negligible** to **Negligible** and **Not Significant** to **No Effect** elsewhere within the wider LCA.
	Type of effect:	Short-term duration (temporary), direct and adverse.
Temporary construction accesses	**Construction phase:** <u>Temporary construction access routes: Sutton Heath Road, Burtonhead Road, A570 St Helens Linkway.</u> All construction access for the pipeline would utilise the existing road network. The traffic generation quantities prepared as part of **Chapter 11: Traffic and transport** predict a 1.2% (peak) increase in traffic and a 6.2% increase in HGVs along the A570 between Burtonhead Road and the B5204. High levels of traffic movement are not uncommon in an urban environment where levels of tranquillity would be lower. As a consequence, the magnitude of change resulting from any potential temporary partial road closure and movement of construction vehicles would be Low, affecting a small geographical area of landscape character in the local vicinity of the temporary construction access routes.	
	Level of effect:	**Minor** to **Minor/Negligible** and **Not Significant** to **No Effect**
	Type of effect:	Short-term duration (temporary), direct and adverse.

Overall assessment		
Construction phase:	Collectively the construction works involving the underground pipeline and construction access routes within the UIV3 Ravenhead LCA would lead to a moderate scale of development, continuing for the construction phase. Whilst each corridor is expected to take 12-18 months to complete, the laying of approximately 1.9km of pipeline through this LCA would be of shorter duration. The surrounding built form would substantially to limit the extent of visible influence of the construction works on the landscape character and key characteristics. Overall, the magnitude of change on the LCA would be Very Low with localised areas experiencing up to a High-Medium magnitude of change where tree removal is necessary. Trees would be replaced post construction in line with the Commitments made in **Section 8.6** of **Chapter 8: Landscape and visual** and the AIA in **Appendix 8C.**	
	Level of effect:	Locally **Major/Moderate** to **Moderate** and **Significant** (where the St Helens Spurs coincide with areas of trees) to **Moderate** to **Minor** and **Not Significant** within road corridors. Commonly **Minor/Negligible** to **Negligible** and **Not Significant** to **No Effect** elsewhere within the wider LCA.
	Type of effect:	Short-term duration (temporary), direct and adverse.

Table 8D.43 LCA WFE4 Bold Hall

Context	
Relevant figures:	**8.7**
LCA hierarchy – NCA:	NCA 60: Mersey Valley
Landscape Designations:	None
Administrative area:	St Helens
Baseline character description:	

The Project passes south of LCA WFE4 Bold Hall, one of four LCAs within the Wooded Former Estate LCT. The key landscape characteristics of the LCA are detailed below taken from the *Landscape Character Assessment for St Helens*[5].

Area Description (LCA)

- *"Unlike the rolling elevated topography of the estate landscape to the north, Bold Hall character area is located on the flat expansive floodplain landscape to the extreme south of the Borough, at an average elevation of 25metres AOD.*
- *This rural landscape has an open, strongly horizontal composition which is interrupted by a number of mature woodland plantations and shelterbelts that break up the large scale field patterns.*
- *Whilst many of the hedgerow field boundaries are still intact the large scale of the fields still retain a dominating open character.*
- *Within this open landscape and wider woodland structure, a series of small field ponds are located in the field system, denoted by the associated small woodland groups which punctuate the horizontal landform.*
- *Located on the floodplain which subtly slopes south down to the River Mersey, views are typically focused southwards reinforced by the prominent vertical towers of Fiddlers Ferry Power Station which are focal point in many views although the woodland blocks help to screen views at many locations. Views northwards are limited by the pronounced small scale hill features of the spoil heaps which seek to physically and visually separate this character area from the urban landscape to the north.*
- *The character area is further separated from the settled landscape to the north by the M62 road corridor which borders the area to the north. Running at partial grade on subtle embankments the route corridor reinforces the experience of separation by the spoil heaps from the wider Borough to the north.*

- *The character area is relatively uninhabited with a prominent cluster of vernacular buildings at Old Bold Hall Farm, access from the surrounding road network by track. Small settlement at cross roads of bold heath where the vernacular settlement of dark red brick buildings have been extended by more recent development.*
- *Reinforcing the historical landscape character are remnant features of past estate use such as ornamental gates and stone walls, although the former estate does not have a strongly defined edge within which the woodland landscape sits."*[5]

Judgement about Potential to Accommodate Development

"Whilst the character area has a large scale landscape character with a number of prominent woodland blocks which offer screening, the horizontal landform is inherently sensitive to development and change which could interrupt the horizontal composition. Development could encroach upon the interplay of open to enclosed space and create a visually and physically 'cluttered' landscape fragmenting the large scale. However, where carefully sited with the appropriate scale and form of development, there may be potential for small scale landscape change taking due cognisance of the existing landscape patterns."[5]

Assessment of sensitivity

Landscape value:

The LCA area is not designated for its scenic landscape value at a national or local level that would denote a higher value. The southern edge of this LCA is located within the study area incorporating the golf course and adjacent fields to the west and east. The scenic value of the area is experienced through a local PRoW and by recreational users of the Mersey Valley Golf Club. The overall landscape value is assessed as Medium.

Landscape susceptibility:

The *Landscape Character Assessment for St Helens*[5] defines the overall landscape sensitivity of the LCA as '*Medium to High'* and describes an "*open expansive horizontal landform with series of wooded plantations"*[5] and notes "*some degrading of landscape pattern"*[5]. The study also considers the visual characteristics of the LCA and notes the "*intervisibility south east and west, the views are partially restricted by large woodland blocks"*[5]*'.* In terms of perceptual characteristics, the rural tranquillity is slightly reduced by the golf course. Considering the nature of the majority of the Project would be predominantly of short-term and temporary duration, the landscape susceptibility to this type of development is reduced. The overall susceptibility of the landscape to the Project is assessed as Medium.

Sensitivity	Medium	Landscape value:	Medium
		Landscape susceptibility:	Medium

Magnitude of change and level of effect		
Pipeline (North Corridor)	**Construction phase:** **Figure 8.7, Volume 4** shows the North Corridor of the pipeline passing to the south of the WFE4 Bold Hall LCA. and landscape effects would therefore be indirect. At its nearest point, the North Corridor would pass approximately 350m to the south of the LCA as it crosses fields to the north of mineral extraction workings, broadly following the overhead transmission line in the adjacent LCA. The wooded and treed southern boundary of the LCA as it coincides with the LVIA Study Area would limit intervisibility between the LCA and the construction activities as reflected in the description set out in the *Landscape Character Assessment for St Helens*[5]. The magnitude of change would be Very Low to Zero.	
	Level of effect:	**Minor/Negligible** and **Not Significant** to **No Effect**.
	Type of effect:	Short-term duration (temporary), indirect and adverse.
Temporary construction accesses	**Construction phase:** There would be no access requirements within this LCA although the A57 Warrington Road which follows the southern boundary of the LCA is identified as a HGV access route. Any short-term increase in traffic along the A57 Warrington Road would give rise to a Low magnitude of change within the southern fringes of the LCA, where levels of tranquillity would already be locally disrupted by traffic on the A57 Warrington Road under baseline conditions.	
	Level of effect:	**Minor and Not Significant** to **No Effect**
	Type of effect:	Short-term duration (temporary), indirect and adverse
Overall assessment		
Construction phase:	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 are likely to visually and audibly disrupt local levels of tranquillity.	
	Level of effect:	**Minor** to **Minor/Negligible** and **Not Significant** to **No Effect**
	Type of effect:	Short-term duration (temporary), indirect and adverse.

2.10. Trafford

Table 8D.44 LCT Mossland

Context	
Relevant figures:	**8.11, 8.36** Partington HAGI (PH1) and **8.37** Partington HAGI (PH2) Viewpoint P4 (**Figure 8.61**), Viewpoint P5 (**Figure 8.62**), Viewpoint P6 (**Figure 8.63**)
LCA hierarchy – NCA:	NCA 55 Manchester Conurbation and NCA 60 Mersey Valley
Landscape Designations:	None
Administrative area:	Trafford
Baseline character description:	

Character description:

The Project passes through the western half of LCT Mossland. The key landscape characteristics of the LCT are detailed below taken from a *Trafford Metropolitan Borough Landscape Strategy*[6, 7].

[6] Trafford Metropolitan Borough Council (2004), Supplementary Planning Guidance Landscape Strategy (Online). Available at: https://www.trafford.gov.uk/planning/strategic-planning/docs/spg-2004-landscape-strategy.pdf (Accessed 10 July 2024).

[7] It is noted that the *Greater Manchester Landscape Character and Sensitivity Assessment* (LUC, 2018 (Online). Available at: https://www.greatermanchester-ca.gov.uk/media/1727/greater-manchester-landscape-character-and-sensitivity-report.pdf) 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 Strategy* (Trafford Council, 2012 (Online). Available at: https://www.trafford.gov.uk/planning/strategic-planning/docs/core-strategy-adopted-final.pdf), and the emerging Policy NE1 – The Natural environment in *Trafford Local Plan Regulation 18 Consultation Draft* (Trafford Council, 2021 (Online). Available at: https://www.trafford.gov.uk/planning/strategic-planning/local-plan/Trafford-Local-Plan-Consultations.aspx references the Landscape Character Types as defined in the *Supplementary Planning Guidance Landscape Strategy.* Accordingly, the LVIA has used these defined LCTs as the landscape receptor units within Trafford.

Key characteristics (LCT):

- *"Flat topography associated with relic mossland;*
- *Dominant arable agricultural land use within a planned enclosure system and conspicuous drainage ditches around field areas;*
- *A rectilinear network of tracks around large scale fields, usually without fences and often emphasised by scrub-like vegetation and trees;*
- *A lack of built development; and*
- *A large scale landscape, with open views, especially to rural areas to the south."*[6]

Strategy Statement

"This landscape masterplan should sympathetically and sensitively incorporate the existing historic structures and residential landscapes. In addition, opportunities exist to incorporate the Sutton Brook into the landscape scheme and to utilise it as a dynamic landscape feature.

The characterising features include: the flat topography; agricultural land use; planned layout of rectilinear fields and tracks; the shrub-like vegetation and trees which define the 'Rides'; and visual links to adjacent rural areas. These unique characteristics would be conserved, enhanced and strengthened as far as possible when considering any development proposals."[6]

Assessment of sensitivity

Landscape value:

The LCT is not designated for its scenic landscape value at a national or local level that would denote a higher value. A local wildlife site covers part of the LCT although there are no heritage designations. Within the LVIA study area there are a number of local PRoWs and a Transport for Greater Manchester cycle route whilst the Trans Pennine Trail national cycle route passes through the LCT to the east of the LVIA Study Area. Many of the characterising features and distinctive 'rides' are intact, with a management strategy to conserve and enhance. Detracting features include the pylons and associated overhead line which cross the LCT and which are locally prominent, and brownfield land associated with the chemical works to the north and Partington Gas Works and Gas Works sidings (which also extend into the LCT). The overall landscape value is assessed as Medium to Low.

Landscape susceptibility:

The *Trafford Metropolitan Borough Landscape Strategy*[6] describes the characterising natural features of the LCT. These include the rectilinear field pattern, relic mossland and distinctive north-south aligned 'Rides' which would be of higher susceptibility to physical change. The low-lying topography and limited built form mean that views are generally open although the trees, shrubs and scrub

associated with the 'Rides' foreshortens the more distant views and focuses views in a linear direction. In terms of perceptual characteristics, the perception of naturalness within the mossland is a recognised contributors to tranquillity whilst the pylons and chemical works to the north represent a detractor. The general absence of roads and settlements within the LCT also contributes to higher perceptions of remoteness. Considering the nature of the majority of the Project, predominantly of short-term and temporary duration, (apart from the permanent above ground infrastructure of the Partington HAGI), the landscape susceptibility to this type of development is reduced. The overall susceptibility of the landscape to the Project is assessed as High to Medium.

Sensitivity	Medium	Landscape value:	Medium to Low
		Landscape susceptibility:	High to Medium
Magnitude of change and level of effect			
Pipeline (East Corridor)	**Construction phase:** **Figure 8.11, Volume 4** shows approximately 0.8km of the East Corridor of the pipeline crossing this LCT. The pipeline corridor would pass through an open agricultural field before continuing northwards along the edge of an existing track or 'Ride' and whilst some localised loss of Category B trees may occur (as indicated in **Figure 8C.141** of **Appendix 8C: Arboricultural Impact Assessment),** the 'Ride' would continue to appear intact. Once beyond the former railway line, the route would head north-west across brownfield land towards the Partington HAGI (Option PH1). Alternatively, a short branch of pipeline would lead to Option PH2 of the Partington HAGI, located within a field to the east of the pipeline corridor before continuing north along the western edge of the field and turning north-west towards a Pigging Compound located on the northern side of Common Lane. Construction activity along the East Corridor associated with the installation of the pipeline would be transient and of short duration with progressive backfilling and reinstatement as works are completed along the route. The scale and geographical extent of these construction activities would give rise to a Medium-High magnitude of change when experienced locally to the construction works (within or adjacent to the pipeline corridor), reducing to Low or less from the wider LCT, where the pipeline corridor would be contained by field boundary and 'Ride' vegetation and tree cover. The visual and audible disturbance associated with the construction activities would locally disrupt perceptions of remoteness and tranquillity. The magnitude of change likely to affect the landscape character, key characteristics and elements would range from High (in respect of landscape elements and LCT within and adjacent to the pipeline corridor) to Low to Zero elsewhere within the LCT.		

	Level of effect:	Locally **Major/Moderate** and **Significant** (within and adjacent to the pipeline corridor) and **Minor** and **Not Significant** to **No Effect** elsewhere within the wider LCT.
	Type of effect:	Short-term duration (temporary), direct and adverse.
Temporary construction accesses	**Construction phase:** There would be no access requirements within this LCT with the exception of the temporary on-site access tracks which are considered as part of the pipeline corridor assessment. The magnitude of change would be Zero.	
	Level of effect:	**No Effect**
	Type of effect:	N/A
Partington HAGI (PH1)	**Construction phase:** Option PH1 of the Partington HAGI would be located outside of this LCT and effects would therefore be indirect. A temporary construction compound would be located to the immediate east of the Partington HAGI (PH1) site on brownfield land south of Common Lane, and at a separation distance of approximately 50m. The HAGI is also located on brownfield land. The vegetation along the north-south aligned 'Rides' to the east of the HAGI location and tree cover along the former railway line to the immediate south, would visually contain the Project and limit intervisibility from the remaining area of the Mossland LCT. The construction period would be 6-12 months. Given the brownfield context, limited loss of landscape elements, and screening provided by 'Ride' vegetation, the magnitude of change would be Medium affecting a small geographical area of landscape character in the local vicinity of the temporary construction compound and HAGI under construction. The magnitude of change would reduce to Very Low/Zero with increasing separation distance.	
	Level of effect:	**Moderate** and **Not Significant** within the vicinity of the temporary construction compound and HAGI and **Minor/Negligible/ No Effect** and **Not Significant** elsewhere within the wider LCT.
	Type of effect:	Short-term duration (temporary), indirect and adverse.
	Operation and maintenance (Year 1) phase: The Partington HAGI (Option PH1) would be enclosed by security fencing typically 2.4 to 3.6m high with gated access for maintenance and the above ground components would be at a low level (up to 5m for lighting columns). The effect on the landscape character and key characteristics of this LCT would be Low and localised,	

	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 magnitude of change across the majority of the LCT would be Very Low/Zero.	
	Level of effect:	**Minor** to **Minor/Negligible** or **No Effect** and **Not Significant**
	Type of effect:	Permanent, indirect and neutral.
	Operation and maintenance (Year 15) phase: The limited planting opportunities means that the effects at Year 15 remain that same as those concluded for Year 1.	
	Level of effect:	**Minor** to **Minor/Negligible** or **No Effect** and **Not Significant**
	Type of effect:	Permanent, indirect and neutral.
Partington HAGI (PH2)	**Construction phase:** A construction compound for Option PH2 of the Partington HAGI would be sited within a pastoral field to the south of Ashton Road and east of Sinderland Road whilst PH2 would be located in the field to the north of Ashton Road. The siting of both the compound and HAGI under construction in pastoral fields means that limited vegetation loss would occur. The presence of Ride vegetation to the east and west and tree belts to the north and south would limit intervisibility from the surrounding area of LCT. The construction period would be 6-12 months. The scale and geographical extent of these construction activities would give rise to a Medium-High magnitude of change when experienced locally to the construction works, reducing to Very Low or less from the wider LCT, where construction activities would be contained by field boundary and 'Ride' vegetation and tree cover. The visual and audible disturbance associated with the construction activities would locally disrupt perceptions of remoteness and tranquillity.	
	Level of effect:	Locally **Major/Moderate** and **Significant** (within and adjacent to the pipeline corridor) and **Minor/Negligible** and **Not Significant** to **No Effect** elsewhere within the wider LCT.
	Type of effect:	Short-term duration (temporary), direct and adverse.
	Operation and maintenance (Year 1) phase:	

	The Partington HAGI (Option PH2) would be enclosed by security fencing typically 2.4 to 3.6m high with gated access for maintenance and the above ground components would be at a low level (up to 5m for lighting columns). The proposed planting would play a very minor role at Year 1. The effect on the landscape character and key characteristics of this LCT would be Medium and localised, affecting a small geographical area in the local vicinity (the host field only) of the HAGI. The magnitude of change across the majority of the LCT would be Very Low and more commonly Zero.	
	Level of effect:	Locally **Moderate** and **Significant** to **Minor/Negligible** or **No Effect** and **Not Significant**
	Type of effect:	Permanent, direct and adverse
	Operation and maintenance (Year 15) phase: 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 magnitude of change on the landscape character and key characteristics of this LCT would reduce to Low and localised and would more commonly be Zero across the majority of the LCT.	
	Level of effect:	**Minor** and **Not Significant** to **No Effect**
	Type of effect:	Permanent, direct and neutral
Overall assessment		
Construction phase:	Collectively the construction works involving the underground pipeline (East Corridor) within the LCT, and the presence of the HAGI construction compound would represent a moderate scale development within the western fringes of this LCT continuing for the duration of the construction phase. Whilst each corridor is expected to take 12-18 months to complete, the laying of approximately 0.8km of pipeline through this LCT would be of shorter duration with the HAGI construction lasting 6-12 months. Overall, the magnitude of change on the LCT would be Low to Very Low or No Effect as a consequence of the 'Ride' tree cover, with localised areas experiencing up to a High-Medium magnitude of change in close proximity to the pipeline corridor and PH2 HAGI and associated compound. The loss of some limited sections of tree and shrub vegetation from along the north-south aligned 'Ride' would be permanent although partly mitigated by replacement planting of shrubs/small trees within the remainder of the corridor, outside of the easement following completion of the construction phase.	

	Level of effect:	**Minor** to **Minor Negligible** and **Not Significant** with localised areas of **Major**/**Moderate** and **Significant** effects close to the pipeline corridor and Partington HAGI (Option PH2).
	Type of effect:	Short-term duration (temporary), direct and adverse.
Operation and maintenance (Year 1) phase:	The presence of the Partington (PH2) HAGI would give rise to a localised **Moderate** and **Significant** effect with a **Minor/Negligible** and **Not Significant** or **No Effect** occurring elsewhere within the wider LCT.	
Operation and maintenance (Year 15) phase:	Landscape effects would be locally **Minor** and **Not Significant** to **No Effect** occurring elsewhere within the wider LCT**.**	

Table 8D.45 LCT Settled Sandlands

Context	
Relevant figures:	**8.11, 8.35** (Warburton HAGI ZTV), **8.36** Partington HAGI (PH1) and **8.37** Partington HAGI (PH2) Viewpoint W1 (**Figure 8.52**), Viewpoint W2 (**Figure 8.53**), Viewpoint W3 (**Figure 8.54**), Viewpoint W4 (**Figure 8.55**), Viewpoint W5 (**Figure 8.56**), Viewpoint W6 (**Figure 8.57**),
LCA hierarchy – NCA:	NCA 55 Manchester Conurbation and NCA 60 Mersey Valley
Landscape Designations:	None but conservation area at Dunham Woodhouses
Administrative area:	Trafford

Baseline character description:

The Project passes through the centre of LCT Settled Sandlands. The key landscape characteristics of the LCT are detailed below, taken from *Trafford Metropolitan Borough Landscape Strategy*[6].

Key characteristics (LCT):

- *"Dominant agricultural land use, arable with some pasture.*
- *Medium to large sized fields, generally defined by hedgerows and prominent hedgerow trees.*
- *Generally low-lying, gently rolling topography, particularly down to the River Bollin floodplain.*
- *Dispersed farmsteads throughout, linked by meandering country lanes with two main cluster settlements at Dunham Woodhouses and Warburton.*
- *The vernacular style, particularly in farm buildings, with their traditional use of materials, is a distinguishing visual feature.*
- *Small, isolated blocks of woodland.*
- *The presence of several watercourses and ponds."*[6]

Strategy Statement

"The characterising features include: the agricultural land use; the pattern of hedgerows and hedgerow trees; the Ancient Woodlands and ponds; the vernacular style and settlement pattern; and the low lying, gently rolling topography with distant and extensive views. This visual unity and landscape character should be conserved, restored and enhanced."[6]

Assessment of sensitivity

Landscape value:

The LCT is not designated for its scenic landscape value at a national or local level that would denote a higher value although it is likely to be valued as "*one of the largest remaining high quality rural areas within Trafford's Borough*"[6]. A number of local wildlife sites cover part of the LCT within the LVIA Study Area (to the south of Sinderland Brook and to the north of the River Bollin) with heritage designations comprising a number of listed buildings and a conservation area at Dunham Woodhouses. Long distance footpaths which pass through the LCT include the Trans Pennine Trail and Bollin Valley Way whilst the Trans Pennine Trail and E8 also form part of a national cycle route. A number of local PRoWs also provide opportunities for recreational users to access and view the landscape. Detracting features include the pylons and associated overhead line which cross the LCT in a number of locations and are locally prominent. The overall landscape value is assessed as Medium.

Landscape susceptibility:

The *Trafford Metropolitan Borough Landscape Strategy*[6] describes the characterising natural features of the LCT including the historic landscape patterns and hedgerows which would be of higher susceptibility to physical change. The rolling topography and high proportion of hedgerow teres and occasional small woodlands means that there are moderate levels of intervisibility. In terms of perceptual characteristics, the perception of naturalness and presence of watercourses are recognised contributors to tranquillity whilst the pylons represent a detractor. The general absence of settlements within the LCT also contributes to higher perceptions of remoteness. This is a landscape that has experienced "*relatively few changes*"[6] and the historic field patterns contribute to a sense of time depth. Considering the nature of the majority of the Project, predominantly of short-term and temporary duration, (apart from the permanent above ground infrastructure of the Warburton HAGI), the landscape susceptibility to this type of development is reduced. The overall susceptibility of the landscape to the Project is assessed as Medium.

Sensitivity	Medium	Landscape value:	Medium
		Landscape susceptibility:	Medium

Magnitude of change and level of effect		
Pipeline (East Corridor and Warburton Spur)	**Construction phase:** **Figure 8.11** shows approximately 3.5km of the East Corridor of the pipeline crossing the Settled Sandlands LCT. At its southern extent, the East Corridor enters the LCT to the north of the River Bollin and west of Dunham Woodhouses from where it crosses three arable and pasture fields and a minor watercourse in open cut before reaching the Trans Pennine Trail and associated linear group of Category B trees which would also be crossed using an open cut technique. This would require the loss of a narrow section of this group, the extent of tree removal is shown in **Figure 8C.143** of **Appendix 8C: Arboricultural Impact Assessment**. Continuing north from the Warburton HAGI, the corridor would pass through a further 15 fields (crossing four ditch and seven hedgerow field boundaries) as well as crossing Sawpit Street, Sinderland Lane and Sinderland Brook in open cut. The localised removal of trees, shrubs and hedgerow at each of these locations would appear as a break in the field pattern which is "*defined by hedgerows and prominent hedgerow trees"*[6] which "*contribute to the appearance of the rural area"*[6]. The hedgerow loss would be reinstated following the construction phase. Two temporary pipe stores up to 4m in height and for a maximum duration of 6 months, would be sited on arable fields to the north and west of the Warburton HAGI with perimeter trees retained and protected. Construction activity would be transient and of short duration with progressive backfill and reinstatement as works are completed along the route. The scale and geographical extent of these construction activities would be Medium-High when experienced locally to the construction works (within the same field unit or ~300m) including from the local lanes and PRoW network, reducing to Medium-Low or less from the wider LCT, where the pipeline corridor would begin to become partially screened by retained hedgerow field boundaries. The magnitude of change likely to affect the landscape character, key characteristics and elements would range from High (in respect of landscape elements and LCT within and adjacent to the pipeline corridor and temporary pipe storage compounds) to Low or less elsewhere within the LCA.	
	Level of effect:	**Major/Moderate** and **locally Significant** to **Minor** or less and **Not Significant** elsewhere within the wider LCT.
	Type of effect:	Short-term duration (temporary with some permanent effects), direct and adverse.

<table>
<tr><td rowspan="3">Temporary construction accesses (EH-42, EH-43, EH-44, EH-45, EH-46, EH-47, EH-48, EH-49 and EH-50)</td><td colspan="2">Construction phase:
<u>Temporary construction routes and designated access points: Woodhouse Lane, Station Road, Moss Lane/Sinderland Road (EH-49 and EH-50), Sawpit Street (EH-47 and EH-48), B5160 Dunham Road (EH-45 and EH-46), Carrgreen Lane (EH-42, EH-43 and EH-44), A6144 Warburton Lane</u>.
All construction access for the pipeline and HAGI would utilise the existing road and track network to join the temporary haul routes within the pipeline corridor and to the site of the Warburton HAGI under construction and associated compounds and temporary pipe stores. Some localised sections of hedgerow are likely to be removed to accommodate access points from the highway whilst traffic management and control measures would be used to facilitate the safe movement of vehicles into and out of the accesses instead of removing or pruning additional vegetation to create visibility splays. The traffic generation quantities prepared as part of Chapter 11: Traffic and transport predict a 1.9% (peak) increase in traffic and a 0% increase in HGVs along Woodhouse Lane at Dunham Woodhouses. They also predict a 2.8% peak increase in traffic using the A6144 Warburton Lane to the south of Partington and an 82.9% in HGVs. The magnitude of change resulting from the increased traffic movements and localised removal of hedgerow would potentially be up to a Medium magnitude affecting a small geographical area of landscape character in the local vicinity of the temporary construction access routes and for a short duration. The magnitude of change elsewhere within the LCA would be Very Low to Zero.</td></tr>
<tr><td>Level of effect:</td><td>Moderate and locally Significant close to the A6114 and Minor to Minor/Negligible or No Effect and Not Significant across the majority of the LCT.</td></tr>
<tr><td>Type of effect:</td><td>Short-term duration (temporary), direct and adverse.</td></tr>
<tr><td>Warburton HAGI</td><td colspan="2">Construction phase:
A temporary construction compound would be located within the same field as the proposed Warburton HAGI, extending to the south and east between the HAGI and surrounding tree groups which would be retained and protected (with the exception of the localised removal of trees required for the pipeline corridor). The HAGI would be sited on an agricultural field between the Trans Pennine Way to the south, B5160 to the east and north and Carrgreen Lane to the west, close to the Warburton National Grid AGI Facility. The construction period would be 6-12 months. Solid hoarding to the perimeter of the compound would minimise visibility of activity and structures within it. The DCO connection with the Warburton National Grid AGI Facility to the west would have limited characterising influence on this LCT. The magnitude of change would be High affecting a small geographical area of landscape character in the local vicinity of the temporary construction compound and HAGI under construction due to the high levels of activity, noise and disturbance.</td></tr>
</table>

Level of effect:	**Major/Moderate** and **Significant** within the vicinity of the temporary construction compound and HAGI and **Minor** to **No Effect** and **Not Significant** elsewhere within the wider LCT.
Type of effect:	Short-term duration (temporary), direct and adverse.
Operation and maintenance (Year 1) phase: The ZTV for the Warburton HAGI is presented in **Figure 8.35**. The HAGI would be enclosed by security fencing typically 2.4 to 3.6m high with gated access for maintenance. The above ground components would be at a low level (up to 3m for lighting columns). 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 with limited intervisibility from the south and east due to vegetative screening (not accounted for in the ZTV calculation). The proposed planting would play a very minor landscape role at Year 1. The effect on the landscape character and key characteristics would be Medium and localised, affecting a small geographical area in the local vicinity of the HAGI (up to ~500m to the north and west). 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 HAGI.	
Level of effect:	**Moderate** and **Significant** within the local vicinity of the HAGI and **Minor** to **No Effect** and **Not Significant** elsewhere within the wider LCT.
Type of effect:	Permanent, direct and adverse
Operation and maintenance (Year 15) phase: 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 to the south and east. The magnitude of change locally would be Low, reducing to Very Low or Zero elsewhere within the LCT.	
Level of effect:	Locally **Minor** and **Not Significant** to **Minor/Negligible** or **No Effect** and **Not Significant** elsewhere within the wider LCT.
Type of effect:	Permanent, direct and adverse

Partington HAGI (PH1)	**Construction phase:** The Settled Sandlands LCT lies within the 1km LVIA Study Area for Option PH1 of the Partington HAGI. There would be no indirect effects as a consequence of the construction activities associated with the HAGI, with tree belts lining the former railway prohibiting views. As a consequence, the magnitude of landscape change would be Zero.	
	Level of effect:	**No Effect**
	Type of effect:	N/A
	Operation and maintenance (Year 1) phase: The ZTV in **Figure 8.36** shows no areas of potential intervisibility between the operational Partington HAGI (Option PH1) and this LCT. As a consequence, the magnitude of landscape change would be Zero.	
	Level of effect:	**No Effect**
	Type of effect:	N/A
	Operation and maintenance (Year 15) phase: There would be no change to the assessment of effects at Operation Year 1.	
	Level of effect:	**No Effect**
	Type of effect:	N/A
Partington HAGI (PH2)	**Construction phase:** The Settled Sandlands LCT lies within the 1km LVIA Study Area for Option PH2 of the Partington HAGI. There would be no indirect effects as a consequence of the construction activities associated with the HAGI, with tree belts lining the former railway prohibiting views. As a consequence, the magnitude of landscape change would be Zero.	
	Level of effect:	**No Effect**
	Type of effect:	N/A
	Operation and maintenance (Year 1) phase:	

	The ZTV in **Figure 8.37** shows no areas of potential intervisibility between the operational Partington HAGI (Option PH2) and this LCT. As a consequence, the magnitude of landscape change would be Zero.	
	Level of effect:	**No Effect**
	Type of effect:	N/A
	Operation and maintenance (Year 15) phase: There would be no change to the assessment of effects at Operation Year 1.	
	Level of effect:	**No Effect**
	Type of effect:	N/A
Overall assessment		
Construction phase:	Collectively the construction works involving the underground pipeline (East Corridor) and the presence of construction access routes, HAGI construction compound and materials storage areas within the LCT would represent a moderate scale development continuing for the duration of the construction phase. Whilst each corridor is expected to take 12-18 months to complete, the laying of approximately 3.5km of pipeline through this LCT would be of shorter duration, with the HAGI construction lasting 6-12 months. The audible influence of construction activities would locally disrupt perceptions of remoteness and tranquillity from within this rural landscape whilst the loss of short sections of hedgerow from within the working construction corridor would partially weaken the historic field patterns which characterise this LCT. Overall, the magnitude of change on the LCA would be Low with localised areas experiencing up to a High magnitude of change, particular those areas in close proximity to the pipeline corridor and Warburton HAGI. The landscape elements within the construction compounds and along the pipeline corridor would be reinstated upon completion of the construction phase.	
	Level of effect:	**Minor or less** and **Not Significant** with localised areas of **Major/Moderate** or **Moderate** and **Significant** effects close to the pipeline corridor, construction compounds, Warburton HAGI and construction accesses.
	Type of effect:	Short-term duration (temporary), direct and adverse.

Operation and maintenance (Year 1) phase:	The presence of the Warburton HAGI would give rise to a localised **Moderate** and **Significant** effect with a **Minor** to **Minor/Negligible** and **Not Significant** or **No Effect** occurring elsewhere within the wider LCT. There would be **No Effect** as a consequence of the Partington HAGI (Options PH1 and PH2).
Operation and maintenance (Year 15) phase:	The gradual maturation of roadside hedgerows and pockets of woodland and scrub planting would partially screen the Warburton HAGI. Landscape effects would be locally **Minor** and **Not Significant** to **Minor/Negligible** and **Not Significant** or **No Effect** occurring elsewhere within the wider LCT**.** There would be **No Effect** as a consequence of the Partington HAGI (Options PH1 and PH2).

Table 8D.46 LCT Urban River Valley

Context	
Relevant figures:	**8.11, 8.36** Partington HAGI (PH1) and **8.37** Partington HAGI (PH2)
LCA hierarchy – NCA:	NCA 60 Mersey Valley
Landscape Designations:	None
Administrative area:	Trafford

Baseline character description:

The Project passes through a very small proportion of LCT Urban River Valley. The key landscape characteristics of the LCT are detailed below taken from a *Trafford Metropolitan Borough Landscape Strategy*[6].

Key characteristics (LCT):

- *"The presence of the Manchester Ship Canal and the canalised part of the River Mersey, views of these watercourses are limited. Both these stretches of water are operational and working waterways.*
- *Generally low lying areas associated with the floodplain.*
- *Mixed land use, with a significant amount used for recreation in the Mersey.*
- *A fairly dense communication network with motorways, roads and railways producing a number of bridged crossings.*
- *Scrub vegetation and natural regeneration often adjacent to the watercourse, otherwise few trees or woodland.*
- *Lack of field pattern or boundaries.*
- *Few distinguishing built features, a secluded character in parts."*[6]

Strategy Statement

"The characterising features include the floodplain; notable built features; areas of ecological regeneration; remnant features and the mixed land use. These should be conserved and enhanced. The disparate land use pattern in this area should be visually unified."[6]

Assessment of sensitivity			
Landscape value: The LCT is not designated for its scenic landscape value at a national or local level that would denote a higher value. The central part of this long narrow LCT coincides with the study area for the Eastern Pipeline whilst a smaller proportion of the LCT coincides with the study area for the Partington HAGI. The landscape is not rare and whist the Manchester Ship Canal and remnant woodland and occasional pastural land are likely to offer some visual variation to the large-scale infrastructure complexes and overhead lines, scenic value is low. A small proportion of the Partington Nature Reserve lies within the LCT although there are no heritage designations. A small number of local PRoWs are present, including the locally promoted Partington Nature Reserve Trail[8] but no long-distance footpaths or national/regional cycle routes. The overall landscape value is assessed as Low. Landscape susceptibility: The visual susceptibility is assessed in the context of existing extensive industrial development immediately adjacent to the LCT (the SAICA Paper Mill and Carrington Power Station) as well as the numerous overhead lines and smaller scale light industry land uses which adjoin the LCT and the visual enclosure provided by pockets of woodland within the LCT. The proximity to industrial infrastructures as well as the A6144 where high levels of movement and audible disturbance are already baseline characteristics for those areas of LCT which coincide with the study area, would reduce levels of tranquillity and sense of remoteness. The overall susceptibility of the landscape to the Project is assessed as Low.			
Sensitivity	Low	Landscape value:	Low
		Landscape susceptibility:	Low
Magnitude of change and level of effect			
Pipeline (East Corridor and Partington Spurs)	**Construction phase:** **Figure 8.11, Volume 4** shows the LVIA study area for the East Corridor of the pipeline coinciding with the Urban River Valley LCT. The pipeline corridors of the eastern pipeline, Partington National Grid AGI spurline and Bassel Polyfins spurline cross brownfield land to the east of the LCT boundary. Construction activity associated with the installation of the pipeline would be transient and of short duration with progressive backfill and reinstatement as		

[8] Greater Manchester Walking (2022). Partington Walk 1: Nature Reserve Trail (online) Available at: https://gmwalking.co.uk/walking-routes/partington-walk-1-nature-reserve-trail/ (Accessed 30 August 2022).

	works are completed along the route. The screening provided by the adjoining large-scale built form and smaller scale but denser domestic built form within Partington and the internal woodland within the LCT means that the construction activities would have very limited visual or perceptual characterising influence on the key characteristics and character of this LCT. The magnitude of change likely to affect the landscape character, key characteristics and elements would be Very Low to Zero elsewhere within the LCT.	
	Level of effect:	**Negligible to No Effect and Not Significant.**
	Type of effect:	Short-term duration (temporary), indirect and adverse
Temporary construction accesses	**Construction phase:** Access to the pipeline corridor and Partington HAGI would be via the A6144 which borders part of the LCT with light vehicle and HGV accesses provided at EH-51 EH-52 and EH-54 close to the eastern boundary of the LCT. The traffic generation quantities prepared as part of **Chapter 11: Traffic and transport** predict a 2.1% (peak) increase in traffic and a 67.3% increase in HGVs along the A6114 in Partington, where baseline levels of tranquillity are already likely to be low. The magnitude of change would be Low to Zero.	
	Level of effect:	**Minor/Negligible** to **No Effect** and **Not Significant**.
	Type of effect:	Short-term duration (temporary), indirect and adverse
Partington HAGI (PH1)	**Construction phase:** The Partington HAGI (Option PH1) is sited on an existing disused brownfield site. This would be located beyond the LCT's boundary although its study area coincides with this receptor unit. The construction period would be 6-12 months during which the construction would include the presence of welfare facilities up to two storeys (6m high); vehicle and plant storage and movement; and the storage for pipes in stacks (up to 4m in height), equipment and materials. Construction traffic would be similar to the existing high levels of road traffic using the intervening road network which includes the A6144. The high proportion of intervening built form between the LCT and the HAGI and its associated construction compound, allied with the high prevalence of internal woodland within the part of the LCT which coincides with the study area for the HAGI and a minimum separation distance of 500m means that easterly views towards the construction activities would be severely restricted. The magnitude of change would be Zero.	

	Level of effect:	**No Effect**
	Type of effect:	N/A
	Operation and maintenance (Year 1) phase: The ZTV in **Figure 8.36** indicates minimal areas of intervisibility between the HAGI and this LCT. The magnitude of change would be Zero.	
	Level of effect:	**No Effect**
	Type of effect:	N/A
	Operation and maintenance (Year 15) phase: There would be no change to the assessment of effects at Operation Year 1.	
	Level of effect:	**No Effect**
	Type of effect:	N/A
Partington HAGI (PH2)	**Construction phase:** The Partington HAGI (Option PH2) is sited in a pastoral field. This would be located beyond the LCT's boundary although its study area coincides with this receptor unit. The construction period would be 6-12 months during which the construction would include the presence of welfare facilities up to two storeys (6m high); vehicle and plant storage and movement; and the storage for pipes in stacks (up to 4m in height), equipment and materials. Construction traffic would be similar to the existing high levels of road traffic using the intervening road network which includes the A6144. The high proportion of intervening built form between the LCT and the HAGI and its associated construction compound, allied with the high prevalence of internal woodland within the part of the LCT which coincides with the study area for the HAGI means that easterly views towards the construction activities would be severely restricted. The magnitude of change would be Zero.	
	Level of effect:	**No Effect**
	Type of effect:	N/A
	Operation and maintenance (Year 1) phase:	

	The ZTV in **Figure 8.37** indicates no areas of intervisibility between the HAGI and this LCT. The magnitude of change would be Zero	
	Level of effect:	**No Effect**
	Type of effect:	N/A
	Operation and maintenance (Year 15) phase: There would be no change to the assessment of effects at Operation Year 1.	
	Level of effect:	**No Effect**
	Type of effect:	N/A
Overall assessment		
Construction phase:	Collectively the construction works involving the presence of construction access routes, HAGI construction compound and pipeline corridors beyond the LCT's boundary would represent a small-scale development within this LCT which is dominated by large-scale industrial complexes and pockets of woodland within the area of LCT which coincides with the LVIA study areas. Overall, the magnitude of change on the LCT would be Very Low with localised areas of a Low magnitude and commonly Zero.	
	Level of effect:	**Minor/Negligible** and **Not Significant** to **No Effect**
	Type of effect:	Short-term duration (temporary), indirect and adverse.
Operation and maintenance (Year 1) phase:	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 Year 1.	
Operation and maintenance (Year 15) phase:	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 Year 15.	

Table 8D.47 LCT River Meadowlands

Context	
Relevant figures:	**8.10** and **8.35** (Warburton HAGI ZTV)
LCA hierarchy – NCA:	NCA 60 Mersey Valley
Landscape Designations:	None
Administrative area:	Trafford
Baseline character description:	

The Project passes through the centre of LCT River Meadowlands. The key landscape characteristics of the LCT are detailed below taken from *Trafford Metropolitan Borough Landscape Strategy*[6].

Key characteristics (LCT):

- *"Low-lying topography associated with a flat alluvial floodplain.*
- *Meandering watercourse, not visually prominent due to the slightly sunken position within the flat topography.*
- *Medium scale pastoral landscape with patches of wet grassland.*
- *Semi-regular enclosure pattern marked by thorn hedgerows and post and wire fences.*
- *Open often distant views along the floodplain, views north and south controlled by the rising ground beyond the floodplain.*
- *Secluded character with the occasional building.*
- *Marginal aquatic vegetation with occasional fringing trees and scrub."*[6]

Strategy Statement

"The characterising features include: the naturally meandering river courses; the semi-regular landscape pattern of the floodplains; hedgerows and hedgerow trees; and views within the valley corridors. These should be conserved and enhanced."[6]

Assessment of sensitivity			
Landscape value: The LCT is not designated for its scenic landscape value at a national or local level that would denote a higher value. A local wildlife site covers part of the LCT although there are no heritage designations. Long distance footpaths which pass through the narrow LCT include the Trans Pennine Trail, Bollin Valley Way and Cheshire Ring Canal Walk whilst the Trans Pennine Trail also forms part of the national cycle route. A number of local PRoW also provide opportunities for recreational users to access and view the landscape. Detracting features include the pylons and associated overhead line which cross the LCT in a number of locations and are locally prominent. The overall landscape value is assessed as Medium. Landscape susceptibility: The *Trafford Metropolitan Borough Landscape Strategy*[6] describes the characterising natural features of the LCT including the naturally meandering and intact course of the River Bollin which would be of higher susceptibility to physical change. The low-lying topography and limited tree cover and built form means that views are generally open along the floodplain with moderate levels of intervisibility with surrounding landscapes. In terms of perceptual characteristics, the perception of naturalness and presence of the river are recognised contributors to tranquillity whilst the pylons represent a detractor. The general absence of roads and settlements within the LCT also contributes to higher perceptions of remoteness. Considering the nature of the majority of the Project, predominantly of short-term and temporary duration, (apart from the permanent above ground infrastructure of the Warburton HAGI located beyond the LCTs boundary), the landscape susceptibility to this type of development is reduced. The overall susceptibility of the landscape to the Project is assessed as High to Medium.			
Sensitivity	Medium	Landscape value:	Medium
		Landscape susceptibility:	High to Medium
Magnitude of change and level of effect			
Pipeline (East Corridor)	**Construction phase:** **Figure 8.10, Volume 4** shows approximately 300m of the East Corridor of the pipeline crossing this narrow LCT The River Bollin would be crossed using a trenchless crossing technique with a compound sited within a field on the northern bank of the River Bollin (within the LCT) thereby ensuring that the banks and course of the river remain undisturbed. The pipeline corridor would then continue in a north-easterly direction across an open pasture field. Construction activity along the East Corridor associated with the installation of the pipeline would be		

	transient and of short duration with progressive backfilling and reinstatement as works are completed along the route. Beyond the LCT's boundary, a materials storage area would be located to the west of the Warburton National Grid AGI Facility, approximately 300m to the north of the LCT at the closest point. The tree clover along the southern edge of the field allocated for the material storage area and along the intervening former railway line (which now hosts the Trans Pennine Trail) would provide partial filtering of views of materials from within this LCT. The scale and geographical extent of these construction activities would give rise to a High magnitude of change when experienced locally to the construction works (within the same field unit or ~300m), reducing to Low or less from the wider LCT. Visibility would be partly limited in some places by field boundary and occasional watercourse vegetation and tree cover whilst the disturbance and increased levels of noise and movement associated with the construction activities would locally disrupt the higher perception of remoteness and tranquillity found present within the LCT. The magnitude of change likely to affect the landscape character, key characteristics and elements would range from High (in respect of landscape elements and LCT within and adjacent to the pipeline corridor) to Low or less elsewhere within the LCT.	
	Level of effect:	**Major/Moderate** and **locally Significant** to **Minor** or less and **Not Significant** elsewhere within the wider LCT
	Type of effect:	Short-term duration (temporary), direct and adverse.
Temporary construction accesses	**Construction phase:** There would be no access requirements within this LCT. The increase in light vehicle traffic movements along the B5160 which is located approximately 60m to the north of the LCT at its closest point, and corresponding disruption to the higher levels of tranquillity and remoteness within the LCT, may be perceived locally from within the closest areas of this landscape. The magnitude of change would be Low to Zero.	
	Level of effect:	**Minor** and **Not Significant** to **No Effect**
	Type of effect:	Short-term duration (temporary), indirect and adverse
Warburton HAGI	**Construction phase:** A temporary construction compound would be located within the same field as the proposed Warburton HAGI, extending to the south and east between the HAGI and surrounding tree groups. This would be sited beyond the LCT's boundary although its study area coincides with the central part of this receptor unit. The construction	

	period would be 6-12 months. Solid hoarding to the perimeter of the associated construction compound would minimise visibility of activity and structures within the compound whilst a narrow belt of existing deciduous tree cover to the south would be retained and protected (with the exception of the localised removal of trees required for the pipeline corridor). The DCO connection with the Warburton National Grid AGI Facility to the west would have no characterising influence on this LCT. The presence of vegetation and tree cover between the LCT and the HAGI and its associated construction compound including along the former railway corridor which now hosts the Trans Pennine Trail, together with a minimum separation distance of 470m means that views would be partially restricted. The magnitude of change would be Low to Zero.	
	Level of effect:	**Minor** and **Not Significant** to **No Effect**
	Type of effect:	Short-term duration (temporary), indirect and adverse
	Operation and maintenance (Year 1) phase: The ZTV in **Figure 8.35** indicates some localised intervisibility between this LCT and the Warburton HAGI. The HAGI would be enclosed by security fencing typically 2.4 to 3.6m high with gated access for maintenance. Whilst the above ground components would be at a low level, the woodland and scrub planting proposed would play a very minor role at Year 1. The separation distance (a minimum of 490m), moderate levels of intervening vegetative screening elements, and presence of the existing and similarly fenced Warburton National Grid AGI Facility, means that the effect on the landscape character and key characteristics would be Very Low to Zero.	
	Level of effect:	**Minor/Negligible** and **Not Significant** to **No Effect**
	Type of effect:	Permanent, indirect and neutral
	Operation and maintenance (Year 15) phase: 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 trees along the former railway corridor. The effect on the landscape character and key characteristics of this LCT would be Zero.	
	Level of effect:	**No Effect**
	Type of effect:	N/A

Overall assessment		
Construction phase:	Collectively the construction works involving the underground pipeline (East Corridor) within the LCT and associated trenchless crossing compound, and the presence of construction access routes, HAGI construction compound and material storage area to the north, beyond the LCT's boundary, would represent a moderate scale development continuing for the duration of the construction phase. Whilst each corridor is expected to take 12-18 months to complete, the laying of approximately 300m of pipeline through this LCT would be of shorter duration, with the HAGI construction lasting 6-12 months. The low-lying topography and general low levels of vegetation in the vicinity of the pipeline corridor may increase levels of intervisibility whilst the audible influence of construction activities would locally disrupt perceptions of remoteness and tranquillity. Overall, the magnitude of change on the LCT would be Low with localised areas experiencing up to a High magnitude of change in close proximity to the pipeline corridor, particularly where it crosses the River Bollin via a trenchless crossing compound.	
	Level of effect:	**Minor** and **Not Significant** with localised areas of **Major/Moderate** and **Significant** effects close to the pipeline corridor and trenchless crossing compound.
	Type of effect:	Short-term duration (temporary), direct and adverse.
Operation and maintenance (Year 1) phase:	The effect on the landscape character and key characteristics as a consequence of the Warburton HAGI at Year 1 would be **Minor/Negligible** and **Not Significant** to **No Effect.**	
Operation and maintenance (Year 15) phase:	The effect on the landscape character and key characteristics as a consequence of the Warburton HAGI at Year 15 would be **No Effect.**	

Table 8D.48 LCT Wooded Estatelands

Context	
Relevant figures:	**8.10**
LCA hierarchy – NCA:	NCA 60 Mersey Valley
Landscape Designations:	None
Administrative area:	Trafford

Baseline character description:

The Project passes to the west of LCT Wooded Estatelands. The key landscape characteristics of the LCT are detailed below taken from *Trafford Metropolitan Borough Landscape Strategy*[6].

Key characteristics (LCT):

- *"Trees create a wooded planned appearance and are visually prominent, particularly within the grounds of Dunham Hall and as scattered coverts throughout the area;*
- *A rolling landform of agricultural fields associated with Dunham Hall, with rising ground to the east;*
- *A medium to large scale landscape, views open and extensive from the rising ground and more restricted where tree groups occur;*
- *Unsettled except the small cluster development of Dunham Town, otherwise the area is dominated by Dunham Hall and associated estate lands; and*
- *Fairly straight, albeit sometimes winding country lanes, often demarcated with hedgerows and associated with the planned structure of the original Estate lands. Marginal aquatic vegetation with occasional fringing trees and scrub."*[6]

Strategy Statement

"The characterising features include: the planned woodlands and trees which create the framed views of the medium-large scale landscape; the historic parkland and estate land; the agricultural pattern; and the settlement at Dunham Town. These should be conserved."[6]

Assessment of sensitivity

Landscape value:

The LCA is not designated at a national or local level although many of its characterising features are identified as being suitable for conservation. A large proportion of the landscape beyond the study area boundary is designated as a Grade II* Registered Park and Garden (Dunham Massey) which also coincides with the Dunham Park SSSI. A number of listed buildings are present within the boundary of Dunham Massey and conservation areas are present within the LCT at Dunham Town and Devisdale. Landscape quality, condition and intactness are high where areas have retained a notably historic character e.g., within the Dunham Massey estate, with its well-maintained parkland landscape set around a Georgian mansion. Recreational assets include the National Trust site of Dunham Massey and the adjoining Dunham Forest Golf and Country Club as well as a number of promoted long distance walking routes (the Bridgewater Way, Cheshire Ring Canal Walk and Altrincham Circular) and Transport for Greater Manchester cycle routes. The designed landscape of Dunham Massey extends to the north and falls within the LVIA study area where there is an avenue terminating at a listed obelisk situated in Whiteoaks Wood. The overall landscape value of the LCT is assessed as High, reducing to Medium within the LVIA Study Area**.**

Landscape susceptibility:

There would be no direct (physical) changes to the landscape elements within this LCT as a consequence of the Project. A very small (2 ha) peripheral part of the LCT coincides within the study area for the Warburton HAGI with a small part (8.5 ha) also coinciding with the study area for the eastern pipeline, both of which are located towards the western edge of the LCT. The susceptibility is assessed in the context of the LCT's visual characteristics, where a high proportion of mature tree cover within the receptor unit limits intervisibility with surrounding landscapes. In terms of perceptual characteristics, the LCT displays high levels of naturalness and a strong sense of time depth, although perceptions of remoteness and tranquillity along the boundaries of the LCT are likely to be locally weakened by the audible and visual presence of traffic along the adjoining A56 and the B5160 which passes through the LCT. Considering the nature of the closest section of the Project, being of short-term and temporary duration (with the exception of the Warburton HAGI), the landscape susceptibility to this type of development is reduced. The overall susceptibility of the landscape to the Project is assessed as Medium to Low.

Sensitivity	Medium	Landscape value:	Medium
		Landscape susceptibility:	Medium to Low

Magnitude of change and level of effect		
Pipeline (East Corridor pipeline)	**Construction phase:** **Figure 8.10, Volume 4** shows the LVIA study area for the East Corridor of the pipeline coinciding with a small proportion of the LCT, concentrated within its western fringes. The pipeline corridor crosses several fields to the west of the B5160 and the settlement of Dunham Woodhouses at a minimum separation distance of approximately 940m. The mature tree cover within the closest part of the LCT (Whiteoaks Wood) and intervening landscape together with the separation distance would limit intervisibility between the LCT and the Project and there would be no change to the key characteristics of this LCT. The construction activities could give rise to an occasional Very Low magnitude of landscape change from within any open areas of landscape. Elsewhere within the LCT the magnitude of landscape change would commonly be Zero.	
	Level of effect:	**Minor/Negligible** and **Not Significant** to **No Effect**
	Type of effect:	Short-term duration (temporary), indirect and adverse
Temporary construction accesses	**Construction phase:** Temporary construction routes: A56, B5160. Access requirements within this LCT include the use of the A56 and B5160 as light vehicle access routes to the Warburton HAGI. Any increase in traffic along these routes may give rise to an incremental effect on baseline levels of tranquillity from within areas of LCT in close proximity to the B5160 as it crosses the LCT, due to the audible and visual increase in traffic movements but is unlikely to be readily perceived from within the wider landscape of the LCT. The traffic generation quantities prepared as part of **Chapter 11: Traffic and transport** predict a 0.4% (peak) increase in traffic and a 0% increase in HGVs along the A56 between Junction 7 of the M56 and Bow Green Lane. The magnitude of change would commonly be Zero, potentially increasing to Low from localised areas of LCT adjacent to the construction access corridors.	
	Level of effect:	**Minor** and **Not Significant** to **No Effect**
	Type of effect:	Short-term duration (temporary), direct and adverse
Overall assessment		
	Collectively the construction works involving the access routes which follow existing highways through or adjacent to the LCT and the presence of pipeline corridor beyond the LCT's boundary would represent a small-scale	

Construction phase:	development from within this LCT. Overall, the magnitude of change on the LCT would be Very Low to Zero with localised areas in close proximity to the construction access routes experiencing up to a Low magnitude of change for a duration of 6-12 months.	
	Level of effect:	**Minor/Negligible** and **Not Significant** to **No Effect** with localised areas of **Minor** and **Not Significant** effects close to the construction access routes.
	Type of effect:	Short-term duration (temporary), direct/indirect and adverse.

2.11. Warrington

Table 8D.49 LCA 3c Lymm

Context	
Relevant figures:	**8.10**
LCA hierarchy – NCA:	NCA 60 Mersey Valley
Landscape Designations:	None
Administrative area:	Warrington
Baseline character description:	
The Project passes through the eastern fringes of LCA 3c Lymm, one of three LCAs within the Red Sandstone Escarpment LCT. The key landscape characteristics of the LCA are detailed below taken from the *Warrington A Landscape Character Assessment*[9] Key characteristics • *"Smaller scale, more intimate rural landscape.* • *Luxuriant hedgerow trees with diverse range of species.* • *Rolling landscape.* • *Restricted views.* • *Strong feeling of high landscape quality"*[9]*.*	

[9] Agathoclis Beckmann Landscape Architects (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 10 July 2024).

Assessment of sensitivity			
Landscape value: The LCT is not designated for its scenic landscape value at a national or local level that would denote a higher value. There are no nature conservation designations although a number of listed buildings are present within the part of the LCA which coincides with the LVIA study area. Recreational assets which provide opportunities for recreational users to access and view the landscape are concentrated on the moderate number of local PRoWs. There are very few detracting features with the extant assessment citing this LCA as possessing a '*high quality landscape'*[9]*.* The overall landscape value is assessed as Medium. Landscape susceptibility: In terms of physical characteristics, the simple pattern of medium to large-scale arable and pasture fields are of lower susceptibility to physical change although the hedgerows and hedgerow trees which define the field pattern have a higher susceptibility to physical change. The extant Character Assessment notes the "*luxuriance of hedgerows and hedgerow trees and more intimate landform"*[9] which results in views from the area being "*less extensive*"[9] with lower levels of intervisibility. In terms of perceptual characteristics, a sense of tranquillity and naturalness are likely to be moderately high within this rural landscape although the proximity to the small settlement of Broomedge, the B5159 and A56 may locally dilute these perceptions and a sense of remoteness. Considering the nature of the Project, being of short-term and temporary duration, the landscape susceptibility to this type of development is reduced. The overall susceptibility of the landscape to the Project is assessed as Medium.			
Sensitivity	Medium	Landscape value:	Medium
		Landscape susceptibility:	Medium
Magnitude of change and level of effect			
Pipeline (East Corridor)	**Construction phase:** **Figure 8.10, Volume 4** shows the LVIA study area for the East Corridor of the pipeline coinciding with this LCA, concentrated along its eastern edge. The pipeline corridor crosses several fields to the east of but beyond the boundary of the LCA. However, this section of East Corridor also includes a materials storage area and trenchless crossing compound to the west of the A56/south of the Bridgewater Canal. This is sited within an agricultural field which partially lies within the LCA to the east of Agden Lane and as such, there would be some limited direct landscape effects. Materials would be stored up to 4m in height and for a maximum duration of 6 months within the temporary store and the perimeter field boundary vegetation would be retained and protected.		

	The scale and geographical extent of these construction activities would be High-Medium when experienced locally to the construction works (within the same field unit or ~300m), reducing to Medium-Low or less from the wider LCA, where the temporary trenchless crossings, materials storage area and pipeline corridor to the east would begin to become partially screened by hedgerow field boundaries and a greater prevalence of built form and tree cover within and around the settlement of Broomedge. The characterising influence associated with increased levels of activity and noise within the temporary trenchless crossing compound, would be partially mitigated by its location next to busy A56 highway corridor. The magnitude of change likely to affect the landscape character, key characteristics and elements would range from High (in respect of landscape elements and LCA within the temporary compounds) to Low or less elsewhere within the LCA.	
	Level of effect:	**Major/Moderate** and locally **Significant** within the trenchless crossing compounds and materials storage area to **Minor or less** and **Not Significant** elsewhere within the wider LCA.
	Type of effect:	Short-term duration (temporary), direct and adverse.
Temporary construction accesses	**Construction phase:** There would be no access requirements within this LCA. The Access Strategy identifies the A56 Lymm Road to the east of the LCA as an access road for HGVs and, from its junction with Warrington Lane as a Light Construction Access Route at Agden Brow where a reduced number of HGV vehicles are expected. The increase in vehicle movements is likely to give rise to a Very Low to Zero magnitude of change.	
	Level of effect:	**Minor/Negligible** to **No Effect** and **Not Significant.**
	Type of effect:	Short-term duration (temporary), indirect and adverse.
Overall assessment		
Construction phase:	Collectively the construction works involving the presence of temporary trenchless crossing compounds and materials storage areas would represent a small to moderate-scale development continuing for the duration of the construction phase. The audible influence of construction activities would locally disrupt perceptions of remoteness and tranquillity from within the areas of rural landscape within the eastern fringes of the LCA. Overall, the magnitude of change on the LCA would be Low with localised areas experiencing up to a High magnitude of	

	change, particular those areas within and in close proximity to the temporary compounds. The landscape elements within the construction compound would be reinstated upon completion of the construction phase.	
	Level of effect:	**Minor or less** and **Not Significant** with localised areas of **Major/Moderate** and **Significant** effects within and close to the temporary trenchless crossing compounds and materials storage areas.
	Type of effect:	Short-term duration (temporary), direct and adverse.

Table 8D.50 LCA 5a River Mersey/Bollin

Context	
Relevant figures:	**8.5, 8.6, 8.7, 8.10, 8.32** (Higher Walton HAGI (HWH2) ZTV), **8.33** (Higher Walton HAGI (HWH8) ZTV)**, 8.35** (Warburton HAGI ZTV) Viewpoint HW1 **(Figure 8.64),** Viewpoint HW2 **(Figure 8.65)**
LCA hierarchy – NCA:	NCA 60 Mersey Valley
Landscape Designations:	None
Administrative area:	Warrington

Baseline character description:

This LCA covers four separate floodplain areas within the LVIA study area; one which extends to the east of Warrington towards the administrative boundaries of Cheshire East and Trafford (LCA 5a River Mersey/Bollin (East)), and three areas which cover land to the north and south of the River Mersey to the west of Warrington, separated by LCA 6a Victoria Park to Fiddlers Ferry (LCA 5a River Mersey/Bollin (West)). The Project passes through three of the four areas within the LCA, which is one of three LCAs within the Flood Plain LCT. The key landscape characteristics of the LCA are detailed below taken from *Warrington: A Landscape Character Assessment*[9].

Key characteristics

- *"The River Mersey and River Bollin.*
- *The Manchester Ship Canal.*
- *Mounded landfill sites.*
- *Slurry and dredging lagoons.*
- *Importance for nature conservation.*
- *Dominance of floodplain crossings (road and rail bridges).*
- *Residual floodplain meadows.*
- *Widespread residential and industrial development on the floodplain.*

- *Artificial levee and channel constraints to the river.*
- *Lack of visual importance of the river (normally screened from views).*
- *The Mersey Way recreational footpath."*[9]

Assessment of sensitivity

Landscape value:

The LCA is not designated for its scenic landscape value at a national or local level that would denote a higher value. Where LCA 5a River Mersey/Bollin (East) coincides with the LVIA study area for the Warrington Spur at its western end, the landscape is of high nature conservation value featuring the Woolston Eyes SSSI/nature reserve and the Paddington Meadows local nature reserve along the banks of the River Mersey although there are no heritage designations. Long distance promoted footpaths which pass through or along the boundary of this part of the LCA (although to the north of the study area) include the Palatine Plod and Mersey Way whilst a number of informal routes cross the Woolston Eyes nature reserve which also provide opportunities for recreational users to access and view the landscape. A number of other local wildlife sites cover a high proportion of the landscape to the north and south of the River Mersey within LCA 5a River Mersey/Bollin (West), including Lapwing Lake and Lapwing Wood which lie within the Moore Nature Reserve with its informal and circular routes, hides and picnic tables, facilitating public access to this low-lying landscape. Promoted recreational routes within this part of the LCA include the Bridgewater Way and Cheshire Ring Canal Walk and the Trans Pennine Trail (walking and cycling). Detracting features include the pylons and associated overhead line which cross the LCA and are locally prominent as well as the proximity to industrial land uses and the M6 motorway which is carried over the River Mersey on the Thelwall Viaduct. The extant Assessment notes how "*Much of its character is now heavily influenced by industry and communication links*."[9.] Perceptions of remoteness and tranquillity are likely to vary and would be higher at the far eastern end of LCA 5a River Mersey/Bollin (East) close to the southern banks of the River Bollin. The overall landscape value is assessed as Medium.

Landscape susceptibility:

The *Warrington: A Landscape Character Assessment*[9] recognises that areas of wildlife and habitat are sensitive to disturbance and vandalism and that the low, flat floodplain is sensitive to high mounded landform. Perceptual and visual susceptivity to change would be lower in some area of the LCA where the landscape is influenced by the proximity to industrial land uses and large-scale infrastructure (pylons and Thelwall Viaduct) and the enclosure provide by neighbouring built form although this is countered by the natural influences of the floodplain habitats. The low-lying topography and limited tree cover and built form towards the eastern end of LCA 5a River Mersey/Bollin (East), means that views are generally open along the floodplain with moderate levels of intervisibility with surrounding landscapes. In terms of perceptual characteristics, the perception of naturalness and presence of the river are recognised contributors to tranquillity whilst the pylons represent a detractor. Considering the nature of the majority of the Project, predominantly of short-term

and temporary duration, the landscape susceptibility to this type of development is reduced. The overall susceptibility of the landscape to the Project is assessed as Medium to Low.

Sensitivity	Medium	Landscape value:	Medium
		Landscape susceptibility:	Medium to Low
Magnitude of change and level of effect			
Pipeline (North Corridor, Warrington Spur and East Corridor)	**Construction phase:** LCA 5a River Mersey/Bollin (East) Within the western part of LCA 5a River Mersey/Bollin (East), where the LVIA study area for the Warrington Spur coincides with the LCA, there would be no physical changes and landscape effects would be indirect. The routing of this section of pipeline along existing highways along the southern edge of Westy, north of the Manchester Ship Canal would heavily restrict views of the construction corridor. Any noise generated by the construction activity would also be incremental to the baseline levels of traffic on the local road network from within the LCA and would not dilute the existing levels of tranquillity found within the Woolston Eyes SSSI/nature reserve. There would be a Zero magnitude of change within this part of the LCA. **Figure 8.10, Volume 4** shows approximately 1km of East Corridor of the pipeline crossing three open agricultural fields and Spring Lane within a small proportion of LCA 5a River Mersey/Bollin (East) close to its eastern edge. The open cut corridor would cross through field boundaries comprising hedgerows at three locations. The localised removal of hedgerow at each of these locations would appear as a break in the field pattern although replacement planting in-situ would be completed post construction. The River Bollin and Agden Brook close to the boundary of the LCA would be crossed via a trenchless crossing compound sited on the southern bank of the watercourses and thereby ensuring that their channels and banks remain intact. Construction activity along the East Corridor associated with the installation of the pipeline would be transient and of short duration with progressive backfill and reinstatement as works are completed along the route. Beyond the LCA's boundary, a materials storage area would be located close to the Warburton HAGI temporary construction compound approximately 500m to the north of the LCA at the closest point. The tree clover along the southern edge of the field allocated for the storage area and along the intervening former railway line would provide partial filtering of materials stacked to a height of 4m for up to 6 months from within this LCA. LCA 5a River Mersey/Bollin (West)		

	Within LCA 5a River Mersey/Bollin (West) shown on **Figures 8.5, 8.6 and 8.7**, a materials storage area would be sited within a field to the north of Birchwood Lane and west of the River Mersey. From the trenchless crossing compound to the east of the Higher Walton (HWH2) HAGI, the North Corridor would cross Birchwood Lane and continue in a north-westerly direction across the Moore Nature Reserve. This section of the 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. The extent of tree removal is shown in **Figures 8C.128, 8C.129** and **8C.130** of **Appendix 8C: Arboricultural Impact Assessment**. The corridor would cross Lapwing Lane and six arable and pastoral fields to meet a trenchless crossing compound sited with an arable field on the southern bank of the River Mersey. This section of North Corridor would cross five ditches, three hedgerows and a line of Category C trees. Approximately 2.7km of North Corridor would cross LCA 5a River Mersey/Bollin (West). The Warrington Spur would also cross this LCA to the east of the Higher Walton (HWH2) HAGI, where the laying of approximately 1.1km of pipeline 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**. There would be no direct landscape effects on the part of LCA 5a River Mersey/Bollin (West) to the north of the River Mersey with the trenchless crossing compound sited within a field to the north of Riverside Park, beyond the LCA's boundary. The scale and geographical extent of construction activities would give rise to a Medium-High magnitude of change when experienced locally to the construction works (within the same field unit or ~300m), reducing to Medium-Low or less from the wider LCA. Visibility would be partly limited in some places by field boundary vegetation and tree cover whilst the disturbance and increased levels of noise and movement associated with the construction activities would locally disrupt baseline perceptions of remoteness and tranquillity found within the LCA. The magnitude of change likely to affect the landscape character, key characteristics and elements would range from High (in respect of landscape elements and LCA within and adjacent to the pipeline corridor) to Low elsewhere within the LCA.	
	Level of effect:	**Major/Moderate** and **locally Significant** to **Minor or less** and **Not Significant** elsewhere within the wider LCA.
	Type of effect:	Short-term duration (temporary), direct and adverse.
	Construction phase: <u>Temporary construction access routes and designated access points (LCA 5a River Mersey/Bollin (East)):</u>	

Temporary construction accesses (EH-39, EH-40, EH-41 and NH-34)	Bradshaw Lane/Spring Lane (EH-39, EH-40 and EH-41). All construction access for the East Corridor of the pipeline which pass through the LCA would utilise the existing road and track network to join the temporary haul routes within the pipeline corridor. The Access Strategy identifies Bradshaw Lane and Spring Lane as a Light Construction Access Route where a reduced number of HGV vehicles are expected. Short sections of hedgerow would need to be removed to form access points EH-39, EH-40 and EH-41 from the highway whilst traffic management and control measures would be used to facilitate the safe movement of vehicles into and out of the accesses instead of removing or pruning additional vegetation to create visibility splays. The increase in light vehicle traffic and associated additional movement and audible influence on sections of the local road network (Bradshaw Lane and Spring Lane) may locally disrupt levels of tranquillity. The magnitude of change resulting from the increased traffic movements and localised hedgerow removal would potentially be up to a Medium magnitude affecting a small geographical area of landscape character in the local vicinity of the temporary construction access routes and for a short duration. Temporary construction access routes and designated access points (LCA 5a River Mersey/Bollin (West)): Forrest Way (NH-34). Two on-site access routes which lie outside of the pipeline corridor would cross this LCA utilising existing tracks from access point NH-34 on Forrest Way and Birchwood Lane. The magnitude of change resulting from the increased traffic movements through the LCA would potentially be up to a Medium magnitude affecting a small geographical area of landscape character in the local vicinity of the temporary construction access routes.	
	Level of effect:	**Moderate** and locally **Significant** to **Minor or less** and **Not Significant** elsewhere within the wider LCA.
	Type of effect:	Short-term duration (temporary), direct and adverse.
Higher Walton HAGI (HWH2)	**Construction phase:** The Higher Walton HAGI (Option HWH2) is sited on the northern banks of the Manchester Ship Canal. Temporary construction compounds would be sited on a small field to the west of the West Coast Main Line, whilst the other compound would be sited to the west of the HAGI and east of an existing warehouse within LCA 5a River Mersey/Bollin (West). The construction period would be 6-12 months and the DNO connection, located between two warehouses would have no characterising influence. The high proportion of woodland and tree cover to the north of the HAGI and its associated construction compound means that intervisibility with the construction activities from across the majority of the LCA would be severely restricted. The magnitude of change would be Medium-High affecting a very small geographical area of landscape character in the local vicinity of the temporary	

	construction compound and HAGI under construction reducing to Low to Very Low or Zero across the remainder of the LCA.	
	Level of effect:	**Major/Moderate** and **Significant** within the vicinity of the temporary construction compound and HAGI and **Minor or less** and **Not Significant** elsewhere within the wider LCA.
	Type of effect:	Short-term duration (temporary), direct and adverse
	Operation and maintenance (Year 1) phase: The HAGI would be enclosed by security fencing typically 2.4 to 3.6m high with gated access for maintenance. The above ground components would be at a low level (up to 5m) whilst landscape planting proposed around the HAGI would play a very minor role at Year 1. The effect on the landscape character and key characteristics would be Low for HWH2 given its immediate context to the east of existing warehousing, affecting a small geographical area in the local vicinity of the HAGI. The high proportion of woodland and tree cover to the north of the HAGI means that intervisibility with the HAGI would be restricted leading to a Very Low or Zero magnitude of change across the remainder of the LCA.	
	Level of effect:	**Minor to Minor/Negligible** and **Not Significant** to **No Effect**
	Type of effect:	Permanent, direct and neutral
	Operation and maintenance (Year 15) phase: The gradual maturation of woodland and scrub planting proposed to the east and west of the HAGI would reinforce the role of the woodland within with Moore Nature Reserve to the north and would reduce the characterising role of the operational 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 to Zero.	
	Level of effect:	**Minor/Negligible** and **Not Significant** to **No Effect**
	Type of effect:	Permanent, direct and beneficial
	Construction phase:	

Higher Walton HAGI (HWH8)	Option HWH8 of the Higher Walton HAGI would be sited within LCA 3a and beyond the boundary of LCA 5a River Mersey/Bollin (West). As such, any effects would be indirect. A construction compound would be sited in an agricultural field to the east of the HAGI under construction with minimal vegetation loss. The construction period would be 6-12 months. A minimum separation distance of approximately 300m allied with the layers of intervening tree cover along the banks of the Manchester Ship Canal, railway lines and along Birchwood Lane on the eastern boundary of the closest part of this LCA, and the movement and audible influence of trains on the railway, means that the magnitude of change would not exceed Very Low from the closest part of the LCA and would more commonly be Zero from within the majority of LCA 5a River Mersey/Bollin (West).	
	Level of effect:	**Minor/Negligible** and **Not Significant** to **No Effect**
	Type of effect:	Short-term duration (temporary), indirect and neutral
	Operation and maintenance (Year 1) phase: The operational HAGI would have a characterising influence on this LCA due to the low height of the infrastructure (maximum 5m high lighting columns) and the layers of intervening tree cover which would minimise intervisibility, as confirmed in the ZTV in **Figure 8.33**. The magnitude of change would be Zero.	
	Level of effect:	**No Effect**
	Type of effect:	N/A
	Operation and maintenance (Year 15) phase: There would be no change to the assessment of effects at Year 1.	
	Level of effect:	**No Effect**
	Type of effect:	N/A
Warburton HAGI	**Construction phase:** A temporary construction compound for the Warburton HAGI would be located close to the National Grid AGI facility at Carrgreen Lane. This would be sited beyond the boundary of LCA 5a River Mersey/Bollin (East) although its LVIA Study Area coincides a small area within the north-eastern edge of this receptor unit. The construction period would be 6-12 months during which the construction compound would include the presence of welfare facilities up to two storeys (6m high); vehicle and plant storage and movement; and the storage for pipes in stacks (up to 4m in height), equipment and materials. Temporary solid hoarding to the perimeter of the	

	associated construction compound would minimise visibility of activity and structures within the compound whilst a narrow belt of existing deciduous tree cover to the south would be retained. The presence of vegetation and tree cover between LCA 5a River Mersey/Bollin (East) and the HAGI and its associated construction compound including along the former railway corridor, together with a minimum separation distance of 640m means that views would be partially restricted. The magnitude of change would be Very Low to Zero.	
	Level of effect:	**Minor/Negligible** to **No Effect** and **Not Significant**
	Type of effect:	Short-term duration (temporary), indirect and adverse
	Operation and maintenance (Year 1) phase: The Warburton HAGI would be approximately 1.5ha in area, enclosed by security fencing typically 2.4 to 3.6m high with gated access for maintenance. The ZTV in **Figure 8.35** shows intervisibility from within the area of LCA which coincides with the LVIA Study Area although the ZTV doesn't account for the intervening individual and groups of trees which would provide partial screening. Whilst the proposed planting would play a very minor landscape role at Year 1, the separation distance (a minimum of 710m) and moderate levels of intervening vegetative screening elements means that the effect on the landscape character and key characteristics would be Very Low to Zero.	
	Level of effect:	**Minor/Negligible** to **No Effect** and **Not Significant**
	Type of effect:	Permanent, indirect and neutral
	Operation and maintenance (Year 15) phase: 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 trees along the former railway corridor. The effect on the landscape character and key characteristics of this LCT would be Zero.	
	Level of effect:	**No Effect**
	Type of effect:	N/A

Overall assessment		
Construction phase:	Collectively the construction works involving the underground pipeline (East and North Corridor), temporary construction compounds and the presence of construction access routes within the LCA would represent a moderate scale development continuing for the duration of the construction phase. Whilst each corridor is expected to take 12-18 months to complete, the laying of approximately 2.7km of North Corridor through this LCA and a further 1km of East Corridor would be of shorter duration, with the construction of each of the HAGIs lasting 6-12 months. The audible influence of construction activities would locally disrupt perceptions of remoteness and tranquillity from within the areas of rural and floodplain landscape, whilst the loss of short sections of hedgerow and tree cover from within the working construction corridor would partially weaken the field patterns. Overall, the magnitude of change on the LCA would be Low with localised areas experiencing up to a High magnitude of change. The landscape elements within the construction compounds and along the pipeline corridor would be reinstated upon completion of the construction phase. Towards the western end of the LCA, which coincides with the LVIA study area for the Warrington Spur, the magnitude of change would be Zero.	
	Level of effect:	**Minor or less** and **Not Significant** with localised areas of **Major**/**Moderate** and **Significant** effects within and close to the pipeline corridor, trenchless construction compounds and along construction access routes.
	Type of effect:	Short-term duration (temporary), direct and adverse.
Operation and maintenance (Year 1) phase:	The effect on the landscape character and key characteristics at Operation Year 1 would be **Minor** to **Minor/Negligible** and **Not Significant** as a result of the Higher Walton (HWH2) HAGI. There would be no operational effects associated with the Higher Walton (HWH8) HAGI and a **Minor/Negligible** and **Not Significant** to **No Effect** as a consequence of the Warburton HAGI**.**	
Operation and maintenance (Year 15) phase:	The effect on the landscape character and key characteristics at Operation Year 15 would be **Minor/Negligible** and **Not Significant** to **No Effect** as a result of the Higher Walton (HWH2) HAGI. There would be no operational effects associated with the Higher Walton (HWH8) or Warburton HAGI.	

Table 8D.51 LCA 1f Penketh & Cuerdley

Context	
Relevant figures:	**8.7**
LCA hierarchy – NCA:	NCA 60 Mersey Valley
Landscape Designations:	None
Administrative area:	Warrington
Baseline character description:	
The Project passes through the centre of LCA 1f Penketh & Cuerdley, which is one of six LCAs within the Undulating Enclosed Farmland LCT. The key landscape characteristics of the LCA are detailed below taken from the *Warrington A Landscape Character Assessment*[9]. Key characteristics • *"Forms a buffer of agricultural open-space between surrounding urban, suburban and industrial development.* • *Visually dominant effect of Fiddlers Ferry Power Station.* • *Expansive views across the Mersey Valley to the south.* • *Predominantly arable land with a medium to large-scale field pattern.* • *Absence of cohesive hedgerows and hedgerow trees.* • *Golf facilities and horse grazing paddocks to the south of A562.* • *Penketh Brook and associated tree lined banks."*[9]	
Assessment of sensitivity	
Landscape value: The LCT is not designated for its scenic landscape value at a national or local level that would denote a higher value. There are no nature conservation or heritage designations and in terms of landscape condition, the hedgerows and associated hedgerow trees are cited as being "*neglected and at worst missing altogether, exposing views to both industrial and suburban areas*" [9]. Recreational assets which provide opportunities for recreational users to access and view the landscape are concentrated on the low number of local	

PRoWs and the True Fit Golf centre and Golf Course. Large-scale detracting features include the Fiddlers Ferry Power Station with the extant assessment noting that "*The farmland is visually dominated by the scale of the power station and this is exacerbated by the lack of substantial field boundary divisions and tree cover*"[9]. Several overhead lines also traverse the LCA. The overall landscape value is assessed as Low.

Landscape susceptibility:

In terms of physical characteristics, the simple pattern of medium to large-scale arable and pasture fields are of lower susceptibility to physical change. Views across the LCA are generally open given the low-lying landform and low levels of tree cover (with the exception of those close to and associated with the Golf Course) and features large-scale industrial development. In terms of perceptual characteristics, the A5080, A562 and main Manchester to Liverpool railway line cross the area introducing noise and movement and reducing perceptions of tranquillity and a sense of remoteness. Considering the nature of the Project, being of short-term and temporary duration, the landscape susceptibility to this type of development is reduced. The overall susceptibility of the landscape to the Project is assessed as Medium to Low.

Sensitivity	Low	Landscape value:	Low
		Landscape susceptibility:	Medium to Low
Magnitude of change and level of effect			
Pipeline (North Corridor including Options NP6 and NP7)	**Construction phase:** **Figure 8.7, Volume 4** shows the North Corridor of the pipeline crossing this LCA. The North Corridor would enter the LCA in a trenchless crossing compound in a field to the north of Riverside Park with the potential loss of part of a group of Category C trees. From here, two options are presented as follows: Option NP6 (approximately 2.2km in length) would continue across eight pastoral fields, with open cut sections crossing through field boundaries comprising Category C trees at up to four locations before crossing the A562 Widnes Road via a trenchless crossing compound. The NP6 compound on the southern side of the A562 would require the removal of a proportion of Category B trees whilst the trenchless crossing compound on the northern side of the A562 would require minimal vegetation loss as shown in **Figure 8C.122** of **Appendix 8C: Arboricultural Impact Assessment**. The pipeline would continue across two further fields and crossing a single hedgerow to enter a trenchless crossing compound on the southern side of the A5080. Option NP7 (approximately 2.5km in length) would head west from the trenchless crossing compound the north of Riverside Park, cross a single field and then enter a trenchless crossing compound sited to the east of an area of		

	Category B plantation woodland and exiting within a compound to the west of three linear stands of Category C trees thereby ensuring that the woodland and trees remain intact. NP7 would continue in a north-westerly directing through the True Fit Golf Course with the removal of Category B trees forming a protective screen for the driving range and Category C and further Category B trees to the east and west of Marsh Lane respectively. The extent of tree removal in this area is shown in **Figure 8C.122** of **Appendix 8C: Arboricultural Impact Assessment**. The pipeline would then enter a trenchless crossing compound on the southern side of the A562 Widnes Road, sited on an area of Category B shelterbelt. On the northern side of the A562, the pipeline would exit a trenchless crossing compound sited within a large agricultural field (minimal vegetation loss), continuing across the field and Mowcroft Lane in open cut and two further fields to meet the trenchless crossing compound on the southern side of the A5080. The Northern Corridor would continue to the north of the A5080 via a trenchless crossing compound, short section of open cut across an arable field before crossing the Manchester and Allerton Junction Line via trenchless crossing compounds within arable fields to the north and south of the railway with minimal vegetation loss. A materials storage area to the east of the A5080 trenchless crossing compound may result in the loss of a number of Category B and C trees and section of hedgerow. A further large materials storage area would be sited to the north of Mowcroft Lane to the south of NP6 (crossed by NP7) with no loss of trees or hedgerow identified. A final materials storage area would be sited between South Lane and the railway, again with no loss of trees or hedgerow. The localised removal of trees, shrubs and hedgerow at each of the locations described would appear as a break in the already weakened field pattern that remains within the LCA or as a break in the intact shelterbelt or screen planting within the golf course and around Marsh Lane (Option NP7). The potential loss of localised trees and hedgerows in this LCA would be partially mitigated by replacement of planting in-situ. All compounds would be sited on existing agricultural fields (arable and pasture) where the perimeter field boundary vegetation would be retained and protected. The exception is the trenchless crossing compound to the south of the A562 (Option NP7) which partially lies within the area of deciduous shelterbelt. The scale and geographical extent of these construction activities would be High-Medium when experienced locally to the construction works (within the same field unit or ~300m), reducing to Medium-Low or less from the wider LCA, where the pipeline corridor and temporary compounds would be perceived in the context of transport corridors, pylons, and former large-scale energy generation. The characterising influence associated with

	increased levels of activity and noise within the temporary trenchless crossing compounds, would be partially mitigated by their location next to busy highway networks. The magnitude of change likely to affect the landscape character, key characteristics and elements would range from High (in respect of landscape elements and LCA within and adjacent to the pipeline corridor and temporary compounds) to Low or less elsewhere within the LCA.	
	Level of effect:	**Moderate** and **Significant** to **Minor/Negligible** and **Not Significant** elsewhere within the wider LCA.
	Type of effect:	Short-term duration (temporary with some permanent effects), direct and adverse.
Temporary construction accesses (NH-36, NH-37, NH-41, NH-42 and NL-02)	**Construction phase:** <u>Temporary construction access routes and designated access points: A562 (NH-37), Mowcroft Lane (NH-36, NL-02) and A5080 (NH-41 and NH-42).</u> All construction access for the North Corridor of the pipeline which passes through the LCA would utilise the existing road and track network to join the temporary haul routes within the pipeline corridor. Some limited hedgerow removal would be required to facilitate the designated access points NH-36, NH-41 and NH-42 with tree loss likely at NH-47. Traffic management and control measures would be used to facilitate the safe movement of vehicles into and out of the accesses instead of removing or pruning additional vegetation to create visibility splays. The increase in light vehicle traffic and associated additional movement and audible influence on sections of the local road network (Bradshaw Lane and Spring Lane) may locally disrupt levels of tranquillity. The magnitude of change resulting from the increased traffic movements and localised hedgerow removal would potentially be up to a Medium magnitude affecting a small geographical area of landscape character in the local vicinity of the temporary construction access routes and for a short duration. The magnitude of change resulting from the increased traffic movements (including HGVs) along the two A classified roads (A562 and A5080) would be Low with the traffic generation quantities prepared as part of **Chapter 11: Traffic and transport** predict a 2.3% (peak) increase in traffic and a 11.4% increase in HGVs along the A562 between the A5080 and Mowcroft Lane. This would potentially increase to Medium along Mowcroft Lane (for light construction access where a reduced number of HGV vehicles are expected) or where tree removal would be required at NH-47, affecting a small geographical area of landscape character in the local vicinity of the temporary construction access routes or designated access point.	

	Level of effect:	**Minor** to **Minor/Negligible** and **Not Significant**
	Type of effect:	Short-term duration (temporary), direct and adverse.
Overall assessment		
Construction phase:	Collectively the construction works involving the underground pipeline (North Corridor including Options NP6 and NP7) and the presence of construction access routes, up to seven trenchless crossing compounds and three large materials storage areas within the LCA would represent a moderate scale development continuing for the duration of the construction phase. Whilst each corridor is expected to take 12-18 months to complete, the laying of approximately 2.5km of North Corridor (Option NP7) through this LCA would be of shorter duration The audible influence of construction activities would be incremental to the noise and movement of vehicles along rail and road corridors which pass through the LCA, whilst the loss of short sections of hedgerow and tree cover from within the working construction corridor would further weaken the field patterns. Overall, the magnitude of change on the LCA would be Low with localised areas experiencing up to a High magnitude of change within and in close proximity to the pipeline corridor. All of the Project within this LCA would be perceived in the context of transport corridors, pylons, and large-scale energy generation. The landscape elements within the construction compounds and along the pipeline corridor would be reinstated upon completion of the construction phase within the exception of narrow sections of tree cover which lie within the pipeline easement (i.e. directly above the pipeline).	
	Level of effect:	**Minor/Negligible or less** and **Not Significant** with localised areas of **Moderate** and **Significant** effects within and close to the pipeline corridor and construction compounds.
	Type of effect:	Short-term duration (temporary), direct and adverse.

Table 8D.52 LCA 1a Stretton & Hatton

Context	
Relevant figures:	**8.4** and **8.5**
LCA hierarchy – NCA:	NCA 60 Mersey Valley
Landscape Designations:	None
Administrative area:	Warrington
Baseline character description:	

The Project passes through the western fringes of LCA 1a Stretton & Hatton, which is the one of six LCAs within the Undulating Enclosed Farmland LCT. The key landscape characteristics of the LCA are detailed below taken from the *Warrington A Landscape Character Assessment*[9].

Key characteristics

- *"Gently undulating landscape containing small to medium-sized regular fields.*
- *Locally dominant visual and audible effect of M56.*
- *Mixed farming with 'gapped' hedgerows.*
- *Relatively few hedgerow trees, mainly stunted oaks limited to highway boundaries.*
- *Quiet rural character except where exposed to the M56.*
- *Red brick farms in Victorian vernacular style.*
- *19th century plantation woodland.*
- *Small orchards associated with farmhouses.*
- *Distant views of red sandstone ridge skyline outside the Borough, to the south-west.*
- *Small scale marl pits often characterised by surrounding willow and alder vegetation.*

- *Settlement pattern comprises of scattered farms and hamlets retaining much of their original character.*
- *Presence of narrow sunken lanes with hedgerows restricting views"*[9].

Assessment of sensitivity			
Landscape value: The LCA is not designated for its scenic landscape value at a national or local level that would denote a higher value although the extant assessment notes that "*The fundamental rural landscape character of the area still remains and is both attractive and relatively cohesive*"[9] citing a landscape objective to conserve and enhance. There are limited designated nature conservation or heritage assets and recreational value is restricted to a small number of local PRoWs which provide opportunity to experience and view the landscape. The distinctive small scale and rural / historic landscape of the area is cited as being rare within the Warrington Borough and the limited change to field patterns and the wider landscape creates a sense of time depth. The M56 motorway is one of the few detracting features in the LCA and creates some physical and audible intrusion The overall landscape value is assessed as Medium. Landscape susceptibility: The strong rural / historic agricultural character, narrow lanes, small scale field patterns and hedgerows and hedgerow trees are all cited as being sensitive to change in the *Warrington A Landscape Character Assessment*[9]. In terms of perceptual susceptibility, the Hatton area is cited as being "*comparatively quiet and rural in nature, apart from the physical and audible intrusion of the M56 motorway*."[9] Considering the nature of the Project, predominantly of short-term and temporary duration, the landscape susceptibility to this type of development is reduced. The overall susceptibility of the landscape to the Project is assessed as Medium.			
Sensitivity	Medium	Landscape value:	Medium
		Landscape susceptibility:	Medium
Magnitude of change and level of effect			
Pipeline (North Corridor)	**Construction phase:** **Figures 8.4 and 8.5, Volume 4** shows approximately 1.4km of the North Corridor of the pipeline crossing this LCA. The pipeline corridor crosses several arable and pasture fields, with open cut sections crossing through field boundaries comprising hedgerows at up to eight locations. The localised removal of hedgerow at each of the		

	locations would appear as a break in the intact field pattern that exists across the LCA which would be mitigated by replacement of planting in-situ, following the construction phase. In addition to the pipeline corridor, temporary trenchless crossing compounds would be sited on agricultural fields either side of the M56 motorway where the adjacent Category A woodland to the east of the southern compound would be retained and protected. The northern trenchless crossing compound may necessitate the removal of a section of hedgerow which would be reinstated post construction. The scale and geographical extent of these construction activities would be High-Medium when experienced locally to the construction works (within the same field unit or ~300m), reducing to Medium-Low or less from the wider LCA, where the pipeline corridor would be perceived in the context of a rural landscape. The characterising influence associated with increased levels of activity and noise within the temporary trenchless crossing compounds would be partially mitigated by their location next to the busy M56 corridor which exerts a "*Locally dominant visual and audible effect"*. The magnitude of change likely to affect the landscape character, key characteristics and elements would range from High (in respect of landscape elements and LCA within and adjacent to the pipeline corridor and temporary compounds) to Low or less elsewhere within the LCA.	
	Level of effect:	**Major/Moderate** and **locally Significant** to **Minor** and **Not Significant** elsewhere within the wider LCA.
	Type of effect:	Short-term duration (temporary), direct and adverse.
Temporary construction accesses (NH-07 and NH-09)	**Construction phase:** <u>Temporary construction access routes and designated access points: M56, A49 Tarporley Road/London Road, A559, Stretton Road, Summer Lane (NH-07), B5356 (NH-09</u>). All of the construction access for the pipeline would utilise the existing road network to join the temporary haul routes within the pipeline corridor and associated trenchless crossing compounds. Some hedgerow removal would be required at the two designated access locations within the LCA whilst traffic management and control measures would be used to facilitate the safe movement of vehicles into and out of the accesses instead of removing or pruning additional vegetation to create visibility splays. The traffic generation quantities prepared as part of **Chapter 11: Traffic and transport** predict a 2.5% (peak) increase in traffic and a 35.7% increase in HGVs using the A559 between Junction 10 of the M56 and Stockley Lane and a 3.3% increase in traffic and 13.4% increases in HGVs along the A559 between Junction 10 of the M56 and Limes Lane. The B5356 and Summer Lane would form light construction access routes where a reduced number of HGV vehicles are expected whilst	

	the A49, A559 and Stretton Road would be used for HGVs. The magnitude of change resulting from the increased traffic movements along the rural roads and lanes and localised removal of vegetation to accommodate designated access locations would potentially be up to a Medium magnitude affecting a small geographical area of landscape character in the local vicinity of the temporary construction access routes.	
	Level of effect:	**Moderate** and locally **Significant** to **Minor or less** and **Not Significant** elsewhere within the wider LCA.
	Type of effect:	Short-term duration (temporary), direct and adverse.
Overall assessment		
Construction phase:	Collectively the construction works involving the underground pipeline (North Corridor), and the presence of construction access routes, and trenchless crossing compounds, would represent a moderate scale development continuing for the duration of the construction phase. Whilst each corridor is expected to take 12-18 months to complete, the laying of approximately 1.4km of pipeline through this LCA would be of shorter duration. The audible influence of construction activities would locally disrupt perceptions of remoteness and tranquillity within the rural landscape away from the M56 corridor. Overall, 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. The landscape elements within the construction compounds and along the pipeline corridor would be reinstated upon completion of the construction phase.	
	Level of effect:	**Minor** and **Not Significant** with localised areas of **Major/Moderate** and **Significant** effects close to the pipeline corridor.
	Type of effect:	Short-term duration (temporary), direct and adverse.

Table 8D.53 LCA 3a Appleton Park & Grappenhall

Context	
Relevant figures:	**8.5, 8.32** (Higher Walton HAGI (HWH2) ZTV) and **8.33** (Higher Walton HAGI (HWH8) ZTV) Viewpoint HW3 **(Figure 8.66),** Viewpoint HW4 **(Figure 8.67),** Viewpoint HW3 **(Figure 8.68)**
LCA hierarchy – NCA:	NCA 60 Mersey Valley
Landscape Designations:	None
Administrative area:	Warrington
Baseline character description:	

The Project passes through the centre of LCA 3a Appleton Park & Grappenhall, which is one of three LCAs within the Red Sandstone Escarpment LCT. The key landscape characteristics of the LCA are detailed below taken from *Warrington A Landscape Character Assessment*[9].

Key characteristics

- *"Sweeping northerly views.*
- *Strongly sloping land to the north.*
- *Incised stream valleys running in a northerly direction.*
- *Exposed red sandstone in outcrops, walls and older buildings.*
- *Gorse in hedgerows and sandy banks.*
- *Numerous small ponds in the farmland.*
- *Linear woodlands, coverts and tree clumps.*
- *Raised knolls.*
- *Sparsity of hedgerow trees (mainly oak).*
- *Hedges running along contour lines or at right angles to them.*
- *'Advanced' landscaping and 'entrance' features relating to proposed housing development".*[9]

Assessment of sensitivity			

Landscape value:

The LCA is not designated for its scenic landscape value at a national or local level that would denote a higher value. Rows Wood and Outer Wood are areas of ancient woodland whilst a number of heritage assets are present including a conservation area at Walton Village. Recreational assets include the long-distance walking routes of the Cheshire Ring Canal Walk, the Bridgewater Way, the Timberland Trail and the Delamere Way. Walton Hall and Gardens are also a recreational destination within the LCA along with the adjoining Walton Hall Golf Course. The presence of overhead lines, the West Coast Main Line and the A56 are likely to locally disrupt levels of tranquillity. The overall landscape value is assessed as Medium.

Landscape susceptibility:

The extant assessment notes that in a borough-wide context, this LCA is "*reasonably well-wooded with a diversity of features in the landscape, including small ponds, ridges, knolls and incised stream valleys. The agricultural landscape including hedgerows appears generally well-maintained and the area presents an attractive rural quality*."[9] The area's hedgerows are also cited as still being reasonably intact and managed and would be sensitive to change. The high levels of tree cover would provide some moderate levels of visual enclosure although the crest line of the escarpment is recorded as being "*particularly important as this forms the main horizon to views south from the northern half of the Borough*" [9]. In terms of perceptual characteristics, the perception of naturalness is a recognised contributor to tranquillity countered by the proximity to major transport routes whilst a strong sense of time depth is present around Walton Hall and Walton Superior. the nature of the majority of the Project, predominantly of short-term and temporary duration, the landscape susceptibility to this type of development is reduced. The overall susceptibility of the landscape to the Project is assessed as Medium.

Sensitivity	Medium	Landscape value:	Medium
		Landscape susceptibility:	Medium
Magnitude of change and level of effect			
Pipeline (North Corridor)	**Construction phase:** **Figure 8.5, Volume 4** shows approximately 3.7km of the North Corridor routed through this LCA between Daresbury Lane and the Manchester Ship Canal. Construction activity would be transient and of short duration (12 months including reinstatement) with progressive backfill and reinstatement as works are completed along the route. Upon entering the LCA to the north of Daresbury Lane, the pipeline corridor would cross three fields, a farm		

access track, a further field and Warrington Road in open cut. It would then cross a further six fields and Warrington Road again in open cut, before entering a trenchless crossing compound on the eastern side of the A56 Chester Road. Between Daresbury Lane and the A56, the pipeline corridor would cross 11 hedgerows and a group of Category B trees.

The North Corridor would exit a trenchless crossing compound sited in a large arable field on the western side of the A56, where the adjacent group of Category B trees (protected by TPO) would be retained. The corridor would continue across two fields, Holly Hedge Lane and two hedgerows in open cut before trenchless crossing compounds sited in agricultural fields to the north and south of the Bridgewater Canal would facilitate the crossing of this watercourse and associated Category A (protected by TPO) and B trees. The pipeline would then cross Runcorn Road, two agricultural fields and three hedgerows in open cut.

Depending on the option selected for the Higher Walton HAGI (HWH2 or HWH8), the North Corridor would either;

- enter one of two trenchless crossing compounds on arable land to the south of the Manchester Ship Canal. A worst-case Microtunnel technique would require the pipeline corridor to cross an area of Category B shelterbelt although the compound itself would be screened by linear shelter belts; or
- the pipeline corridor would cross the area of Category B shelterbelt before turning east through further tree cover, an arable field and a treed field boundary to meet the HWH8 HAGI (assessed separately below). A trenchless crossing compound to the north of the HAGI would then facilitate the crossing of the Manchester Ship Canal.

The high incidence of trees protected by TPOs and ancient woodland within parts of the LCA would be retained and protected. The localised removal of trees, shrubs and hedgerow at each of the locations would appear as a break in the intact field pattern that exists across the LCA. The potential loss of localised trees and hedgerows in this LCA would be partially mitigated by replacement of planting in-situ.

The scale and geographical extent of these construction activities would be High-Medium when experienced locally to the construction works (within the same field unit or ~300m), reducing to Medium-Low or less from the wider LCA, where the pipeline corridor would be perceived in the context of a rural landscape and views would be interrupted by the high incidence of woodland.

The magnitude of change likely to affect the landscape character, key characteristics and elements would range from High (in respect of landscape elements and LCA within and adjacent to the pipeline corridor and temporary compounds) to Low or less elsewhere within the LCA.

	Level of effect:	**Major/Moderate** and **locally Significant** to **Minor** and **Not Significant** elsewhere within the wider LCA.
	Type of effect:	Short-term duration (temporary), direct and adverse.
Temporary construction accesses (NH-10, NH-15, NH-16, NH-17, NH-18, NH-19, NH-20, NH-20A, NH63 and NH-64)	**Construction phase:** Temporary construction access routes and designated access points: Daresbury Lane (NH-10), Warrington Road (NH-63, NH-64, NH-15 and NH-16), Park Lane, Holly Hedge Lane (NH-17 and NH-18), Runcorn Road (NH-19, NH-20 and NH-20A), Bellhouse Lane, A56 Chester Road. All of the construction access for the pipeline would utilise the existing road network to join the temporary haul routes within the pipeline corridor and associated trenchless crossing compounds. Some hedgerow removal would be required at the designated access locations within the LCA, whilst traffic management and control measures would be used to facilitate the safe movement of vehicles into and out of the accesses instead of removing or pruning additional vegetation to create visibility splays. The traffic generation quantities prepared as part of **Chapter 11: Traffic and transport** predict a 0.8% (peak) increase in traffic and a 20.1% increase in HGVs along the A56 between the A5060 and Mill Lane and 6.9% increase in traffic and a 15.7% increase in HGVs using Runcorn Road between the A56 and Moore Lane. Access would be required for the duration of the construction phase within the LCA with Daresbury Lane, Warrington Road and Park Lane allocated as light construction access routes (where a reduced number of HGV vehicles are expected) and Holly Hedge Lane, Runcorn Road and the A56 Chester Road for HGVs. Bellhouse Lane is identified as an on-site access track, with the section of track which extends north-east from Bellhouse Lane across agricultural fields to join the North Corridor, requiring the removal of a short section of hedgerow. The magnitude of change resulting from the increased traffic movements along the rural roads and lanes and localised removal of vegetation to accommodate designated access locations would potentially be up to a Medium magnitude affecting a small geographical area of landscape character in the local vicinity of the temporary construction access routes.	
	Level of effect:	**Moderate** and locally **Significant** to **Minor or less** and **Not Significant** elsewhere within the wider LCA.
	Type of effect:	Short-term duration (temporary), direct and adverse.
Higher Walton HAGI	**Construction phase:** The Higher Walton HAGI (Option HWH2) is sited on the northern banks of the Manchester Ship Canal and therefore beyond the LCA's boundary although its study area coincides with the northern fringes of this receptor	

Option HWH2	unit. The construction period would be 6-12 months during which the construction would include the presence of welfare facilities up to two storeys (6m high); vehicle and plant storage and movement within two small compounds either side of the HAGI. The high proportion of intervening woodland between the HAGI and its associated construction compound and the LCA, including that along the banks of the Manchester Ship Canal and West Coast Main Line, means that intervisibility with the construction activities would be restricted. The magnitude of change would be Low to Very Low.	
	Level of effect:	**Minor** to **Minor/Negligible** and **Not Significant**
	Type of effect:	Short-term duration (temporary), indirect and adverse.
	Operation and maintenance (Year 1) phase: The ZTV in **Figure 8.32** shows the geographical extent of the LCA from where the Higher Walton HAGI option HWH2 may be visible. The Higher Walton HAGI would be enclosed by security fencing typically 2.4 to 3.6m high with gated access for maintenance. The above ground components would be at a low level (up to 5m) whilst the planting proposed adjacent to the HAGI would play a very minor role at Year 1. Sited to the east of warehousing on the northern banks of the Manchester Ship Canal, the HAGI is unlikely to be readily perceived from within part of the LCA which coincides with the LVIA Study Area as the presence tree cover within the LCA would limit intervisibility. The magnitude of change across the LCA would be Very Low to Zero.	
	Level of effect:	**Minor/Negligible** to **No Effect** and **Not Significant**
	Type of effect:	Permanent, indirect and neutral.
	Operation and maintenance (Year 15) phase: The gradually maturing woodland and scrub planting to the east and west of the proposed HAGI would reinforce the screening provided by layers of intervening tree cover between this LCA and the HWH2 HAGI, further limiting intervisibility. The magnitude of change across the LCA would be Zero.	
	Level of effect:	**No Effect**
	Type of effect:	N/A
Higher Walton HAGI	**Construction phase:** The Higher Walton HAGI option HWH8 would be sited within large arable field between Mill Lane and the Manchester Ship Canal within the northern fringes of the LCA. A construction compound would be sited to the	

Option HWH8	east of the HAGI under construction and all field boundary vegetation would be retained and protected. The construction period would be 6-12 months and solid hoarding to the perimeter of the compound would minimise visibility of activity and structures. The magnitude of change would be High affecting a small geographical area of landscape character in the local vicinity of the temporary construction compound and HAGI under construction reducing to Low from within the surrounding LCA due to the high proportion of woodland.	
	Level of effect:	**Major/Moderate and Significant** within the vicinity of the temporary construction compound and HAGI and **Minor** and **Not Significant** elsewhere within the wider LCA.
	Type of effect:	Short-term duration (temporary), direct and adverse.
	Operation and maintenance (Year 1) phase: The ZTV in **Figure 8.33** shows the geographical extent of the LCA from where the Higher Walton HAGI option HWH8 may be visible. 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. The proposed planting would play a very minor role at Year 1. The effect on the landscape character and key characteristics would be Medium and localised, affecting a small geographical area in the local vicinity of the HAGI.	
	Level of effect:	**Moderate** and **locally Significant** within the vicinity of the HAGI and **Minor to No Effect** and **Not Significant** elsewhere within the wider LCA.
	Type of effect:	Permanent, direct and adverse.
	Operation and maintenance (Year 15) phase: 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 to "*Linear woodlands, coverts and tree clumps*"[9]. 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.	
	Level of effect:	Minor and Not Significant to No Effect.
	Type of effect:	Permanent, direct and beneficial.

Overall assessment		
Construction phase:	Collectively the construction works involving the underground pipeline (North Corridor) within the LCA, and the presence of construction access routes, trenchless crossing compounds and Option HWH8 of the Higher Walton HAGI, would represent a moderate scale development continuing for the duration of the construction phase. Whilst each corridor is expected to take 12-18 months to complete, the laying of approximately 3.7km of pipeline through this LCA would be of shorter duration. The audible influence of construction activities would locally disrupt perceptions of remoteness and tranquillity within the rural landscape away from the A56 and West Coast Main Line corridors. Overall, 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, trenchless crossing compounds and potential Higher Walton HAGI. The landscape elements within the construction compounds and along the pipeline corridor would be reinstated upon completion of the construction phase with the exception of narrow sections of tree cover to the south of the Manchester Ship Canal which lie within the pipeline easement (i.e. directly above the pipeline).	
	Level of effect:	**Minor** and **Not Significant** with localised areas of **Major**/**Moderate** and **Significant** effects close to the pipeline corridor, trenchless crossing compounds and Higher Walton HAGI option HWH8.
	Type of effect:	Short-term duration (temporary), direct and adverse.
Operation and maintenance (Year 1) phase:	The effect on the landscape character and key characteristics as a consequence of the operational Higher Walton HAGI option HWH8 at Operation Year 1 would be **Moderate** and **locally Significant.**	
Operation and maintenance (Year 15) phase:	The effect on the landscape character and key characteristics as a consequence of the operational Higher Walton HAGI option HWH8 at Operation Year 15 would be **Minor** and **Not Significant.**	

Table 8D.54 LCA 6a Victoria Park to Fiddlers Ferry

Context	
Relevant figures:	**8.6**, **8.7, 8.32** (Higher Walton HAGI (HWH2) ZTV) and **8.33** (Higher Walton HAGI (HWH8) ZTV)
LCA hierarchy - NCA:	NCA 60 Mersey Valley
Landscape Designations:	None
Administrative area:	Warrington

Baseline character description:

The Project passes through LCA 6a Victoria Park to Fiddlers Ferry, the only LCA within the Intertidal Areas & Mud Flats LCT. The key landscape characteristics of the LCA are detailed below taken from the *Warrington A Landscape Character Assessment*[9].

Key characteristics

- *"Wild, almost remote, expansive areas downstream.*
- *Restrictive river channel and inter-tidal margins upstream.*
- *Presence of large flocks of bird life on the wider estuary.*
- *Restrictive views and access to the river from inner town areas upstream.*
- *Dominance of surrounding industrial use and landfill downstream.*
- *Relatively undisturbed areas with important nature conservation value".* [9]

Assessment of sensitivity

Landscape value:

The LCA is not designated for its scenic landscape value at a national or local level that would denote a higher value. The landscape is however, of high nature conservation value with a local nature reserve covering a large proportion of the River Mersey and its banks. There are no recreational assets within the LCA and detracting features include the proximity of this landscape to industrial land uses. The value of this landscape lies in its wildness and being amongst the most natural landscape within the Borough of Warrington. The overall landscape value is assessed as Medium.

Landscape susceptibility:

There would be no physical changes within the LCA. The limited tree cover and built form means that views are generally open along the sinuous course of the river with moderate to high levels of intervisibility with surrounding landscapes. In terms of perceptual characteristics, the perception of naturalness and presence of the river are recognised contributors to tranquillity countered by the proximity to industrial land uses. The absence of roads and settlements within this area of the LCA also contributes to higher perceptions of remoteness and wildness. Considering the nature of the majority of the Project, predominantly of short-term and temporary duration, the landscape susceptibility to this type of development is reduced. The overall susceptibility of the landscape to the Project is assessed as Medium.

Sensitivity	Medium	Landscape value:	Medium
		Landscape susceptibility:	Medium
Magnitude of change and level of effect			
Pipeline (North Corridor and Warrington Spur)	**Construction phase:** Trenchless crossing compounds sited within fields beyond the boundary of this LCA would ensure that the course and banks of the River Mersey would remain intact. The presence of the trenchless crossing compound on the southern bank of the River Mersey, just beyond the boundary of the LCA, with additional trenchless crossing compounds sited within Morley Common and close to Chester Road/Gainsborough Road for the Warrington Spur, would however, have a temporary characterising role. The presence of the compound within a field to the south of the River Mersey (remote from the built development of Warrington) and the associated levels of noise and movement may dilute the '*Wild, almost remote'*[9] perception of the landscape from with a short section of this narrow LCA. The magnitude of change likely to affect the landscape character and key characteristics would range from Medium (in respect of the LCA adjacent to the trenchless crossing compound) to Low or less elsewhere within the LCA. The land use within the trenchless crossing compounds would be reinstated post construction.		
	Level of effect:	**Moderate** and **locally Significant** to **Minor** and **Minor/Negligible** and **Not Significant** elsewhere within the wider LCA.	
	Type of effect:	Short-term duration (temporary), indirect and adverse	

Temporary construction accesses	There would be no access requirements within this LCA with the exception of construction traffic passing overhead along the Forest Way Bridge. Traffic movement and noise would be incremental to that already crossing the bridge. The magnitude of change would be Very Low.	
	Level of effect:	**Minor/Negligible** and **Not Significant**
	Type of effect:	Short-term duration (temporary), indirect and adverse.
Higher Walton HAGI Option HWH2	**Construction phase:** The Higher Walton HAGI (Option HWH2) is sited on the northern banks of the Manchester Ship Canal This would be located beyond the LCA's boundary although its study area coincides with a small proportion of this receptor unit. The construction period would be 6-12 months during which the construction would include the presence of welfare facilities up to two storeys (6m high); vehicle and plant storage and movement within small compounds to the east and west of the HAGI. The high proportion of intervening woodland between the HAGI and its associated construction compound, and a minimum separation distance of 800m means that intervisibility with the construction activities would be severely restricted. The magnitude of change would be Zero.	
	Level of effect:	**No Effect**
	Type of effect:	N/A
	Operation and maintenance (Year 1) phase: The Higher Walton HAGI (Option HWH2) would be enclosed by security fencing typically 2.4 to 3.6m high with gated access for maintenance. The above ground components would be at a low level (up to 5m). Sited to the east of warehousing on the northern banks of the Manchester Ship Canal, the HAGI would not be perceived from within the small part of this LCA which coincides with the LVIA Study Area as the separation distance (a minimum of 800m) and presence of Birch Wood and further woodland to the north would severely limit intervisibility. This is evidenced in the ZTV in **Figure 8.32**. The magnitude of change across the LCA would be Zero.	
	Level of effect:	**No Effect**
	Type of effect:	N/A
	Operation and maintenance (Year 15) phase: There would be no change to the assessment of effects for Operation Year 1.	

	Level of effect:	**No Effect**
	Type of effect:	N/A
Higher Walton HAGI Option HWH8	**Construction phase:** The Higher Walton HAGI (Option HWH8) is sited on the southern banks of the Manchester Ship Canal This would be located beyond the LCA's boundary although its study area coincides with a small proportion of this receptor unit. The construction period would be 6-12 months during which the construction would include the presence of welfare facilities up to two storeys (6m high); vehicle and plant storage and movement within a small compound to the east of the HAGI. The high proportion of intervening woodland and industrial land uses along Baronet Road between the HAGI and its associated construction compound, and a minimum separation distance of approximately 750m means that intervisibility with the construction activities would be severely restricted. The magnitude of change would be Zero.	
	Level of effect:	**No Effect**
	Type of effect:	N/A
	Operation and maintenance (Year 1) phase: The Higher Walton HAGI (Option HWH8) would not be perceived from within the small part of this LCA which coincides with the LVIA Study Area as the separation distance (a minimum of 750m) and presence of intervening vegetation and built form would severely limit intervisibility. This is evidenced in the ZTV in **Figure 8.33**. The magnitude of change across the LCA would be Zero.	
	Level of effect:	**No Effect**
	Type of effect:	N/A
	Operation and maintenance (Year 15) phase: There would be no change to the assessment of effects for Operation Year 1.	
	Level of effect:	**No Effect**
	Type of effect:	N/A

Overall assessment		
Construction phase:	Collectively the construction works involving the presence of the trenchless crossing compound just beyond the boundary of the LCA and Higher Walton HAGIs would represent a small-scale development from within this LCA. Overall, the magnitude of change on the LCA would be Very Low to Low with localised areas experiencing up to a Medium magnitude of change in close proximity to the trenchless crossing compound.	
	Level of effect:	**Minor/Negligible** to **Negligible** and **Not Significant** with localised areas of **Moderate** and **Significant** effects close to the trenchless crossing compound on the southern bank of the River Mersey.
	Type of effect:	Short-term duration (temporary), indirect and adverse.
Operation and maintenance (Year 1) phase:	There would be **No Effect** on the landscape character and key characteristics of this LCA as a consequence of the operational Higher Walton HAGI options HWH2 and HWH8 at Operation Year 1.	
Operation and maintenance (Year 15) phase:	There would be **No Effect** on the landscape character and key characteristics of this LCA as a consequence of the operational Higher Walton HAGI options HWH2 and HWH8 at Operation Year 15.	

2.12. Cheshire East

Table 8D.55 LCA 7a Arley

Context	
Relevant figures:	**8.9, 8.10** and **8.40** (Sworton Heath BVI ZTV) Viewpoint SBV1 **(Figure 8.74),** Viewpoint SBV2 **(Figure 8.75),** Viewpoint SBV3 **(Figure 8.76)**
LCA hierarchy -NCA:	NCA 60 Mersey Valley and NCA 61 Shropshire, Cheshire and Staffordshire Plain
Landscape Designations:	None
Administrative area:	Cheshire East
Baseline character description:	

The Project passes through the centre of LCA 7a Arley, one of seven LCAs within Lower Wooded Farmland LCT. The description of the LCA is detailed below taken from *The Landscape Character of Cheshire East Borough*[10].

LCA Description

- *"Arley is a low rolling character area (c 40-70m AOD). It extends from the northern county boundary south to the gas storage fields at Holford Moss. To the east lies the Estate Woodland and Mere types of Tatton and Tabley and to the west is the East Lowland Plain.*
- *This is a medium to large scale landscape with obvious and strong contrasts in landscape character arising from a significant variation in the distribution of hedgerow trees. There is a very localised concentration of woodland, broad-leaved and mixed, including a small element of ancient woodland. Although in many parts the field system remains intact there are signs of hedgerow decline across large parts of this character area. Where more intensive arable farming is practiced there are conspicuous lines of isolated oaks and post and wire fences. Where woodland is present it can appear as a solid block within this expansive and open*

[10] LUC (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 10 July 2024).

landscape. Elsewhere there are sufficient hedgerow trees to filter views across the landscape. Big Wood near Arley Hall is typical of a number of large woodlands which have a significant local effect upon landscape character.

- *The M56 runs east-west along the area's northern boundary and the complex multi-level M6-M56 interchange in the west is especially intrusive. The close proximity of a number of urban areas including Knutsford and High Leigh has an important localised influence upon landscape character and land use. There are no obvious views to the west despite the many patches of open ground and significant landmarks are scarce. Views to the east extend to the very distant Pennine Hills*
- *Settlement includes the nucleated village of High Legh, small hamlets at Moss End and Bate Heath. It is mainly made up of dispersed farms and houses, with a medium density.*
- *Fields are largely post-medieval in date and reflect improvements at this time. They are small – medium (up to 8ha), with some large fields (over 8ha) in a regular and semi-regular pattern. There are a few medieval fields that have survived this reorganisation. Boundaries consist of a mix of patchy hawthorn hedges with standard trees and fences. Horsiculture has also made an impact on this area e.g. modern fenced horse paddocks.*
- *Fundamentally this is a rural character area, with a network of minor roads and settlement. However, the M6 bisects the centre of the type and the M56 cuts across the northern portion. The visual impact increases locally where the motorway is raised upon embankment or where over-bridges allow a number of minor roads to cross over the motorway."*[10]

Assessment of sensitivity

Landscape value:

The LCT is not designated for its scenic landscape value at a national or local level that would denote a higher value. Heritage designations include a scheduled monument at Swineyard Hall moated site and a number of listed buildings. There are no nature conservation designations within the LCA. Recreational assets which provide opportunities for recreational users to access and view the landscape include the long-distance footpaths of the Bridgewater Way and North Cheshire Way 3 whilst the Cheshire Cycleway is a promoted regional cycle route which passes through this LCA. A number of local PRoWs also provide recreational routes. Detracting features include the pylons and associated overhead line which cross the LCA and are locally prominent as well as the major transport corridors of the M6 and M56 and smaller corridors of the A50 and A56, where the visual and audible influences of high levels of traffic movements disrupt levels of tranquillity. The overall landscape value is assessed as Medium.

Landscape susceptibility:

In terms of physical characteristics, the simple pattern of medium to large-scale arable and pasture fields are of lower susceptibility to physical change although the hedgerows and hedgerow trees which define the field pattern have a higher susceptibility to physical change. The extant Character Assessment notes that "*there are sufficient hedgerow trees to filter views across the landscape"*[10] and this can be observed across some areas of the LCA within the LVIA Study Area. Elsewhere, views are more open and expansive. In terms of perceptual characteristics, the pylons and visual and audible influence of the major transport corridors represent a recognised detractor from tranquillity. Considering the nature of the majority of the Project, predominantly of short-term and temporary duration, the landscape susceptibility to this type of development is reduced. The overall susceptibility of the landscape to the Project is assessed as Medium to Low.

Sensitivity	Medium	Landscape value:	Medium
		Landscape susceptibility:	Medium to Low
Magnitude of change and level of effect			
Pipeline (East Corridor)	**Construction phase:** **Figure 8.9 and 8.10, Volume 4** shows approximately 7.7km of the East Corridor of the pipeline crossing the LCA between the administrative boundary with Cheshire West and Chester in the south and the boundary with Warrington in the north. The East Corridor would enter the LCA at Caldwell's Gate Lane from where it would cross arable and pasture fields and four No. field boundary hedgerows before entering a trenchless crossing compound on the western side of the M56, which is sited on an area defined as young trees on the National Forest Inventory. Reference to aerial photography indicates that these trees were planted in 2009/2010 which aligns with this definition and this plantation woodland is assessed as being of Category C in **Appendix 8C: Arboricultural Impact** Assessment. The extent of tree removal is shown in **Figure 8C.153** of **Appendix 8C**. The pipeline would exit within a field on the eastern side of the M56 with the potential loss of a small number of trees. From here, it would continue in a north-easterly direction in open cut, crossing Moss Lane (twice), arable and pastoral fields and 8 No. field boundary hedgerows to meet the trenchless crossing compound, which it sited within an agricultural field on the southern side on the A50. Two material storage areas are also sited within agricultural fields to the north and south of the A50. The East Corridor would re-emerge within a trenchless crossing compound on the northern side of the A50 and would continue across agricultural fields, seven No. field boundary hedgerows, Mowpen Brow and Beechtree Farm Close in open cut. Before reaching the M56, the East Corridor would turn east, crossing West Lane and associated Category B tree belts and three other field boundary tree belts before entering/exiting trenchless crossing compounds sited in large agricultural fields to the north and		

	south of the M56 (no tree loss anticipated). The East Corridor would then cross Froghall Lane, Agden Lane, agricultural fields and eight No. field boundary hedgerows before reaching a trenchless crossing compound on the eastern side of the A56 Lymm Road. Two trenchless crossing compounds between Warrington Lane and Lymm Road and on the northern side of the Bridgewater Canal would facilitate the crossing of the canal. A material storage area is also sited within an agricultural field to the west of the A56 Lymm Road. The East Corridor would cross Spring Lane (which marks the administrative boundary) via open cut, crossing two No. field boundary hedgerows. The pipeline corridor crosses several arable and pasture fields with open cut sections crossing through field boundaries comprising hedgerows (or very occasionally tree belts) at up to 31 locations. The localised removal of hedgerow at each of these locations would appear as a break in the field pattern with hedgerows replanted post construction. The trenchless crossing compound and material storage areas would all be site close to main transport corridors (M6, A50, M56 and A56) where high levels of traffic movement visually and aurally disrupt perceptions of tranquillity. As a consequence, the characterising influence associated with increased levels of activity and noise within the temporary trenchless crossing compounds, would be reduced. Construction activity would be transient and of short duration with progressive backfill and reinstatement as works are completed along the route. The scale and geographical extent of these construction activities would be Medium-High when experienced locally to the construction works (within the same field unit or ~300m) including from the local lanes, PRoW network (including the Bridgewater Way) and isolated residential properties, reducing to Medium-Low or less from the wider LCA, where the pipeline corridor would begin to become partially screened by hedgerow field boundaries. The magnitude of change likely to affect the landscape character, key characteristics and elements would range from High (in respect of landscape elements and LCA within and adjacent to the pipeline corridor and temporary compounds) to Low or less elsewhere within the LCA.	
	Level of effect:	**Major/Moderate** and **locally Significant** to **Minor** or less and **Not Significant** elsewhere within the wider LCA.
	Type of effect:	Short-term duration (temporary with some permanent effects), direct and adverse.
Sworton Heath BVI	**Construction phase:** The construction compound of the Sworton Heath BVI would be sited in a field to the north of the A50 and would coincide with the trenchless crossing compound in this location. The construction period would be 4 months. The magnitude of change would be Medium affecting a small geographical area of landscape character in the local	

vicinity of the temporary construction compound and BVI under construction. This is an area which is already subject to movement of traffic on the A50 and construction activities would therefore be incremental to the baseline levels of visual and audible disturbance.	
Level of effect:	**Moderate** and **locally Significant** within the vicinity of the temporary construction compound and BVI compound and **Minor** and **Not Significant** to **No Effect** elsewhere within the wider LCA.
Type of effect:	Short-term duration (temporary), direct and adverse.
Operation and maintenance (Year 1) phase: The Sworton Heath BVI would be enclosed by security fencing typically 2.4m high with gated access for maintenance. The above ground components would be at a low level and reference to the ZTV in **Figure 8.40**, indicates potential intervisibility from across a moderate proportion of the agricultural landscape to the north and south of the A50. The effect on the landscape character would be Medium, affecting a small geographical area in the local vicinity of the BVI, where the fencing would appear incongruous within the rural landscape. The proposed woodland and scrub planting would have a minimal landscape role at Year 1. The magnitude of change would be Low to Very Low with increasing separation distance and Zero across areas of landscape which lie outside of the ZTV.	
Level of effect:	**Moderate** and **locally Significant** within the vicinity of the BVI and **Minor** to **Minor/Negligible** and **Not Significant** to **No Effect** elsewhere within the wider LCA.
Type of effect:	Permanent, direct and adverse.
Operation and maintenance (Year 15) phase: 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 50m no planting zone) and 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 effect of the BVI on the landscape character and key characteristics would be locally Low in the vicinity of the BVI and more commonly Very Low or Zero elsewhere within the LCA.	
Level of effect:	**Minor** and **Not Significant** within the vicinity of the BVI to **Minor/Negligible** and **Not Significant** to **No Effect** elsewhere within the wider LCA

	Type of effect:	Permanent, direct and adverse.
Temporary construction accesses (EH-20 to EH-38)	**Construction phase:** Temporary construction access routes and designated access points: Caldwell's Gate Lane (EH-20), Moss Lane (EH-21, EH-22, EH-23 and EH-24), A50 (EH-25 and EH26), Mowpen Brow (EH-27 and EH-28), West Lane (EH-29 and EH-30), Froghall Lane (EH-31 and EH-32), Agden Lane (EH-33 and EH-34), A56 Lymm Road (EH-35 and EH-36), Warrington Lane (EH-37) Spring Lane (EH-38). All construction access for the pipeline would utilise the existing road and track network to join the temporary haul routes within the pipeline corridor and associated trenchless crossing compounds and temporary material stores. Short sections of hedgerow would need to be removed to form a proportion of the designated access points from the highway whilst traffic management and control measures would be used to facilitate the safe movement of vehicles into and out of the accesses instead of removing or pruning additional vegetation to create visibility splays. The traffic generation quantities prepared as part of **Chapter 11: Traffic and transport** predict a 2.5% (peak) increase in traffic and a 22.8% increase in HGVs using the A50 between West Lane and Crabtree Lane. Elsewhere, the predicted increase in traffic along the M56 between Junctions 8 and 9 of the M56 would be 0.2% increase in traffic and 1.1% increase in HGVs, along the M6 between Junctions 19 and 20 it would be 0.1% increase in traffic and 0.3% increase in HGVs and along the A556 between Chapel Lane and Junction 8 of the M56, increase are predicted to be 0.1% (traffic) and 0.6% (HGVs). Access would be required for the duration of the construction phase within the LCA with Calwell's Gate Lane, Moss Lane, Swineyard Lane, Mowpen Brow, Froghall Lane, Agden Lane, part of the A56 Lymm Road and Spring Lane allocated as light construction access routes (where a reduced number of HGV vehicles are expected) and the A50, B5159 West Lane and a separate section of the A56 Lymm Road allocated for HGVs. The magnitude of change resulting from the increased traffic movements and localised removal of vegetation to accommodate designated access points would potentially be up to a Medium magnitude affecting a small geographical area of landscape character in the local vicinity of the temporary construction access routes.	
	Level of effect:	**Moderate** and locally **Significant** to **Minor** and **Not Significant** elsewhere within the wider LCA.
	Type of effect:	Short-term duration (temporary), direct and adverse.

Overall assessment		
Construction phase:	Collectively the construction works involving the underground pipeline (East Corridor) and the presence of construction access routes, nine trenchless crossing compounds and three materials storage areas within the LCA would represent a moderate scale development continuing for the duration of the construction phase. Whilst each corridor is expected to take 12-18 months to complete, the laying of approximately 7.7km of pipeline through this LCA would be of shorter duration. The audible influence of construction activities would locally disrupt perceptions of remoteness and tranquillity from within the areas of rural landscape which are located away from the major transport routes which traverse the LCA, whilst the loss of short sections of hedgerow and tree cover from within the working construction corridor would partially weaken the field patterns. Overall, the magnitude of change on the LCA would be Low with localised areas experiencing up to a High magnitude of change, particularly those areas in close proximity to the pipeline corridor. The characterising influence associated with increased levels of activity and noise within the temporary trenchless crossing compounds, would be partially mitigated by their location next to busy highway networks. The landscape elements within the construction compounds and along the pipeline corridor would be reinstated upon completion of the construction phase.	
	Level of effect:	**Minor or less** and **Not Significant** with localised areas of **Major**/**Moderate** to **Moderate** and **Significant** effects close to the pipeline corridor and construction compounds.
	Type of effect:	Short-term duration (temporary), direct and adverse.
Operation and maintenance (Year 1) phase:	The effect on the landscape character and key characteristics at Operation Year 1 would be **Moderate** and **locally Significant** within the vicinity of the Sworton Heath BVI and **Minor** to **Minor/Negligible** and **Not Significant** to **No Effect** elsewhere within the wider LCA	
Operation and maintenance (Year 15) phase:	The effect on the landscape character and key characteristics at Operation Year 15 would be **Minor** and **Not Significant** within the vicinity of the BVI to **Minor/Negligible** and **Not Significant** to **No Effect** elsewhere within the wider LCA. This is a consequence of the gradual maturation of proposed woodland and scrub planting within the field within which the BVI is sited, which would partially screen the presence of the BVI in views from within the LCA.	

Table 8D.56 LCA 10a Lower Bollin

Context	
Relevant figures:	**8.10** and **8.35** (Warburton HAGI ZTV)
LCA hierarchy - NCA:	NCA 60 Mersey Valley and NCA 61 Shropshire, Cheshire and Staffordshire Plain
Landscape Designations:	Bollin Valley LLD
Administrative area:	Cheshire East

Baseline character description:

The Project passes through the far western fringes of LCA 10a Lower Bollin, one of seven LCAs within River Valleys LCT. The description of the LCA is detailed below taken from *The Landscape Character of Cheshire East Borough*[10].

LCA Description

- *"This character area extends from Wilmslow, north to the County boundary. The Bollin is a steep sided, incised river valley, the eastern end of which possesses a very urban character, with public facilities such as areas of well-maintained grassland, seats, play equipment and tennis courts, all served by a network of surfaced footpaths. Mature woodland occupies the steep valley slopes and this prevents the encroaching urban development from impinging upon this attractive amenity area. Views downstream follow the river as it meanders along the flat valley floor. The combination of picturesque watercourse and mature trees, including numerous free-standing specimens within open grassland, conveys a parkland atmosphere. Dense wooded slopes form a solid backdrop in all directions and the character is surprisingly rural for a location on the urban fringe.*
- *The width of the valley floor increases noticeably at the point where the Bollin and Dean watercourses converge. The steep banks of the River Dean are species rich with flushed areas. The north side of the valley is densely wooded, with semi-improved grassland to the east. The flat, poorly-drained ground in the Deane valley is used for pasture, divided by thin hedges and fences into a number of medium sized fields. This open landscape is viewed against a solid backdrop of steep, wooded slopes. In both valleys the tree-lined skyline is very dominant.*
- *Downstream beyond Twinnies Bridge the steep valley sides converge and the valley floor almost disappears. The character is much more enclosed, with dense woodland and steep slopes preventing all but the closest views along the river.*
- *There is no inter-visibility with the surrounding character areas and the valley feels insular and almost remote. Between this point and the A538 further west the character of the area is exclusively that of a small river flowing between high, steep, densely wooded*

side slopes. A number of footpaths follow the river and as they rise and fall over the steep ground there are short distance and restricted views along and down into the valley. The appearance of the woodland varies, with areas of ancient woodland contrasting with tall stands of exotic conifers. At a number of points along the footpaths there are outward views over areas of pasture which slope down towards the river. These fields offer relief from the constrained views of the narrow valley but the topography prevents any visual connection with the surrounding landscape type.

- *In contrast, the western end[11] of the character area has been highly influenced by massive man-made structures. The character area terminates where the river passes under the runway at Manchester airport, at a location dominated by a large tunnel portal with security fencing lining the skyline. Aircraft can be seen from the valley floor as they begin their ascent or taxi along the runway. Nearby the very busy A538 emerges in duel carriageway from a tunnel beneath the runway, before passing over the river near a large hotel on the south bank. Between these two points the valley remains densely vegetated and remarkably unaffected. This is due to a combination of very high steep slopes clothed with solid growth, and pronounced river meanders, closing down all views and providing effective screening even in close proximity to such massive engineering structures."*[10]

Special Landscape Qualities: Bollin Valley LLD

The area is partially covered by the Bollin Valley LLD. The Special Qualities, as outlined in the *Cheshire East Local Landscape Designation Review*[12], are set out in **Section 8.5** of **Chapter 8: Landscape and Visual**. An assessment of effects on the Bollin Valley LLD is included in **Section 3** of this Appendix.

Assessment of sensitivity

Landscape value:

The LCT is designated for its scenic landscape value at a local level that would denote a higher value. A local wildlife site (Woolstencroft Farm Meadow) covers part of the LCA although there are no heritage designations. Long distance footpaths which pass through the LCT include the Bollin Valley Way, Cheshire Ring Canal Walk and the Bridgewater Way whilst a small number of local PRoWs also provide opportunities for recreational users to access and view the landscape. Detracting features include the pylons and associated overhead line which cross the LCA and are locally prominent. The overall landscape value is assessed as High-Medium.

[11] This is a direct quote from source. However, Manchester Airport and the character as described in this paragraph represents the eastern end of the LCA where Manchester Airport is located and not the western end which is crossed by the Project.
[12] 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 September 2024)

Landscape susceptibility:

The naturally meandering and intact course of the River Bollin and that of the Agden Brook to the south would be of higher susceptibility to physical change. The low-lying topography and limited tree cover and built form means that views are generally open along the floodplain with moderate levels of intervisibility with surrounding landscapes. In terms of perceptual characteristics, the perception of naturalness and presence of the river are recognised contributors to tranquillity whilst the pylons represent a detractor. The general absence of roads and settlements within the LCT also contributes to higher perceptions of remoteness. Considering the nature of the majority of the Project, predominantly of short-term and temporary duration, the landscape susceptibility to this type of development is reduced. The overall susceptibility of the landscape to the Project is assessed as High-Medium.

Sensitivity	High-Medium	Landscape value:	High-Medium
		Landscape susceptibility:	High-Medium

Magnitude of change and level of effect		
Pipeline (East Corridor)	**Construction phase:** **Figure 8.10, Volume 4** shows the East Corridor of the pipeline crossing the River Bollin at the western tip of this LCA. Trenchless crossing compounds would be sited on the northern and southern banks of the river (beyond but close to the boundary of the LCA) thereby ensuring that the banks and course of the river remain undisturbed. The pipeline corridor and associated access track would cross large-scale fields to the north and south of the River Bollin, beyond the LCA's boundary and the audible and visual disturbance of construction activity along the route and within the trenchless crossing compounds may locally dilute perceptual qualities relating to tranquillity and remoteness present within the proportion of LCA which coincides with the LVIA Study Area. A materials storage area, which would be located within a field to the west of the National Grid AGI facility at Carrgreen Lane and approximately 600m to the north of the LCA, would have no landscape influence as a consequence of intervening vegetation. The magnitude of change likely to affect the character of this LCA would range from Medium (in respect of the LCA adjacent to the trenchless crossing compounds) to Very Low with increasing separation distance to the East Corridor and Zero for the majority of the LCA.	
	Level of effect:	**Major/Moderate to Moderate** and **Significant** within a small, localised area at the western tip to **Minor or No Effect and Not Significant** for the majority of the LLD.
	Type of effect:	Short-term duration (temporary), indirect and adverse/neutral.

Temporary construction accesses	**Construction phase:** Light vehicles accessing the HAGI would utilise the B5160 which passes approximately 200m to the north of the LCA at its closest point and where increases in traffic flow would be incremental to baseline levels of traffic movements. Any corresponding disruption to the higher levels of tranquillity and remoteness within the LCA, is unlikely to generate a magnitude of change which would exceed Very Low. HGVs utilising the M56 which pass through or adjacent to the boundary of the LCA would be subsumed within the high volumes of baseline traffic and the effects of these traffic movements would not alter the landscape character of this LCA. However, increases along the A56 Lymm Road which follows the southern boundary of the LCA may locally disrupt perceptual qualities relating to tranquillity with the traffic generation quantities prepared as part of **Chapter 11: Traffic and transport** predicting a 3.9% (peak) increase in traffic and a 56.9% increase in HGVs along the A56 between Junction 7 of the M56 and Reddy Lane. This may give rise to up to a Medium magnitude of change during the peak construction period.	
	Level of effect:	**Major/Moderate** to **Moderate** and **locally Significant** close to the A56 Lymm Road and **Minor** to **Minor/Negligible** and **Not Significant** to **No Effect** for the majority of the LCA.
	Type of effect:	Short-term duration (temporary), direct and adverse/neutral.
Warburton HAGI	**Construction phase:** A temporary construction compound for the Warburton HAGI would be located close to the National Grid AGI facility on Carrgreen Lane. This would be sited at a distance of approximately 650m to the north of the LCA although its study area coincides with a small part of the western tip of the LCA. The construction period would be 6-12 months during which the construction compound would include the presence of welfare facilities up to two storeys (6m high); vehicle and plant storage and movement; and the storage for pipes in stacks 4m (up to 4m in height), equipment and materials. Solid hoarding to the perimeter of the construction compound would minimise visual and audible disturbance whilst a narrow belt of existing deciduous tree cover (between 4m and 17m in height) to the south of the compound would be retained. The presence of vegetation and tree cover between the LCA and the HAGI and its associated construction compound, together with a minimum separation distance of 650m means that the potential characterising influence would be limited. The magnitude of change would be Very Low within the western tip of the LCA.	

	Level of effect:	**Minor** to **Minor/Negligible** and **Not Significant** within small, localised areas to **No Effect** for the majority of the LCA.
	Type of effect:	Short-term duration (temporary), direct and adverse/neutral.
	Operation and maintenance (Year 1) phase: A review of the ZTV in **Figure 8.35** indicates a very small area of potential intervisibility between the western tip of the LCA and the Warburton HAGI. In reality, the intervening trees (the screening role of which are not accounted for in the ZTV), would limit views and the presence of the operational HAGI and associated immature planting (proposed in **Figure 8** of the **Outline LEMP**), beyond an overhead line and associated pylons and adjacent to the National Grid AGI facility, would have no landscape influence on the character of this LCA.	
	Level of effect:	**No Effect**
	Type of effect:	N/A
	Operation and maintenance (Year 15) phase: The gradually maturing landscape proposals presented in **Figure 8** of the **Outline LEMP** for the Warburton HAGI would reinforce the screening role of intervening vegetation but not alter the conclusions of the assessment at Operation Year 1.	
	Level of effect:	**No Effect**
	Type of effect:	N/A
Overall assessment		
Construction phase:	With the exception of 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 (East Corridor), and the presence of the trenchless crossing compounds, construction access routes, HAGI construction compound and pipe storage areas to the north, which are all sited beyond but often close to the LCA's boundary, would represent a moderate scale development continuing for the duration of the construction phase (6-12 months). The visual and audible influence of construction activities would locally disrupt perceptions of tranquillity and of an intact rural landscape within the far western tip of the LCA, which coincides with the LVIA Study Area. Overall, the magnitude of change on the LCA would be Very Low to Zero, with localised areas	

	experiencing up to a Medium magnitude of change in close proximity to the temporary crossing compounds on the banks of the River Bollin.	
	Level of effect:	**Minor** to **Minor/Negligible** and **Not Significant** with localised areas of **Major**/**Moderate** to **Moderate** and **Significant** effects close to the pipeline corridor.
	Type of effect:	Short-term duration (temporary), indirect and adverse.
Operation and maintenance (Year 1) phase:	There would be **No Effect** on the character and key characteristics of LCA 10a at Operation Year 1 of the Warburton HAGI.	
Operation and maintenance (Year 15) phase:	There would be **No Effect** on the character and key characteristics of LCA 10a at Operation Year 15 of the Warburton HAGI.	

3. Assessment of effects on landscape designations

3.1. Cheshire West and Chester

Table 8D.57 Helsby and Frodsham Hills ASCV

Context	
Relevant figures:	**8.1**
Baseline description of Special Qualities:	
The West Corridor passes to the north of this local landscape designation. A description of the Special Qualities of the ASCV is detailed below as reported in the *Local Landscape Designations: Areas of Special County Value in Cheshire West And Chester*[13]*.* • *"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.*	

[13] 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 10 July 2024)

- *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."*[13].

Assessment of sensitivity

Landscape value: ASCVs are identified as areas that are demonstrably special in their landscape character and scenic value, protected through planning policy as a local landscape designation that would denote a higher value.

Landscape susceptibility:

There would be no physical change to this ASCV as a result of the Project. The Special Quality relating to "*panoramic views over the Mersey Estuary"* is an indicator of a higher susceptibility although this is countered by the presence of woodland on the north facing slopes which provide some visual enclosure, limiting intervisibility with the landscape to the north. Considering the nature of the majority of the Project, predominantly of short-term and temporary duration, the landscape susceptibility to this type of development beyond the ASCVs boundary is reduced. The overall susceptibility of the landscape to the Project is assessed as Medium.

Sensitivity	High-Medium	Landscape value:	High-Medium
		Landscape susceptibility:	Medium

Magnitude of change and level of effect		
Pipeline (West Corridor)	**Construction phase:** **Figure 8.1, Volume 4** shows the West Corridor of the pipeline passing to the north of this ASCV, with a very small proportion of the local landscape designation, concentrated along its northern fringes, coinciding with the LVIA study area. Landscape effects would therefore be indirect. The pipeline corridor would be visible in the wide, panoramic views which are available from localised areas of the ASCV, as it passes through fields to the north of the M56 corridor and parallel overhead line routes and to the south of the Frodsham Wind Farm and other industrial land uses within Ince Marshes. The existing presence of large-scale infrastructure and high levels of movement along the road and rail corridors within these panoramic views would reduce the level of contrast associated with the Project as it progresses across the landscape to the north. Construction activity along the West Corridor associated with the installation of the pipeline would be transient and of short duration, with progressive backfill and reinstatement as works are completed along the route. The magnitude of change likely to affect the Special Qualities and integrity of the ASCV would range from Very Low from open elevated parts of the designation to Zero across the majority of the ASCV.	
	Level of effect:	**Minor** to **Minor/Negligible** and **Not Significant** within small, localised areas to **No Effect** for the majority of the ASCV.
	Type of effect:	Short-term duration (temporary), indirect and adverse/neutral.
Temporary construction accesses	**Construction phase:** <u>Temporary construction access routes and designated access points: A56.</u> 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 would be Very Low affecting a small geographical area of landscape in the local vicinity of the temporary construction access routes. Elsewhere within the ASCV, the magnitude of change would be Zero.	
	Level of effect:	**Minor** to **Minor/Negligible** and **Not Significant** within a small, localised area to **No Effect** for the majority of the ASCV.
	Type of effect:	Short-term duration (temporary), indirect and adverse/neutral.

Overall assessment		
Construction phase:	Collectively the construction works involving the underground pipeline and temporary construction accesses to the north of the ASCV's boundary would give rise to indirect effects. The construction activity would be perceived in the context of heavy industry, major transport corridors and the Frodsham Windfarm. Overall, the magnitude of change on the ASCV would be Very Low to Zero.	
	Level of effect:	**Minor** to **Minor/Negligible** and **Not Significant** within a small, localised area to **No Effect** for the majority of the ASCV.
	Type of effect:	Short-term duration (temporary), indirect and adverse/neutral.

Table 8D.58 Weaver Valley ASCV - Lower Weaver

Context	
Relevant figures:	**8.1** and **8.29** (Rocksavage HAGI ZTV)

Baseline description of Special Qualities:

The Project passes through the Weaver Valley ASCV – Lower Weaver in two locations; the West Corridor at Sutton Weaver and again to the south of the Central Hub HAGI, and the South Corridor at Bartington. A number of the temporary construction access routes also pass through the local landscape designation and a small area close to its western boundary coincides with the LVIA Study Area for the Rocksavage HAGI. The description of the Special Qualities of the ASCV is detailed below taken from *Local Landscape Designations: Areas of Special County Value in Cheshire West And Chester*[13] .

- *"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.*
- *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 mixed habitat 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 forms 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"*[13]*.*

Assessment of sensitivity

Landscape value: ASCVs are identified as areas that are demonstrably special in their landscape character and scenic value, protected through planning policy as a local landscape designation that would denote a higher value.

Landscape susceptibility: The distinctive clough woodland is a physical characteristic which is of high susceptibility to change, countered by the simple land cover of arable and pastoral fields whilst the perceptual quality relating to this being a "*quiet, tranquil landscape with significant opportunity for quiet recreation"* is also an indicator of higher susceptibility. Views are partially restricted by the valley landform and therefore visual characteristics are of moderate susceptibility. Considering the nature of the majority of the Project, predominantly of short-term and temporary duration, the landscape susceptibility to this type of development is reduced. The overall susceptibility of the landscape to the Project is assessed as Medium.

Sensitivity	High-Medium	Landscape value:	High-Medium
		Landscape susceptibility:	Medium

Magnitude of change and level of effect

Pipeline (West Corridor and South	**Construction phase:** West corridor: two sections of West Corridor of the pipeline would pass through this ASCV. The first is an approximately 1.2km of Corridor at Sutton Weaver where the West Corridor would enter the ASCV via a

Corridor (Including Options SP5 and SP6))	trenchless crossing compound sited within agricultural land to the east of the A56 Chester Road. From here the West Corridor would pass through arable fields and northern corner of the Sutton Hall Golf Course where a material storage compound would be sited. Continuing eastwards, the West Corridor would cross an avenue of Category A and B trees lining the access drive to Sutton Hall with the removal of two Category B trees. A second avenue leading to the Club House would also be crossed with the loss of six small Category B trees. The extent of tree removal is shown in **Figure 8C.104** of **Appendix 8C: Arboricultural Impact Assessment**. After crossing further arable fields, the route would cross Aston Lane and exit the ASCV. The West Corridor would cross up to four hedgerows in open cut within this part of the ASCV. The West Corridor would re-enter the ASCV to the east of Aston, where it would cross two fields and a single hedgerow before trenchless crossing compounds sited within large arable and pastoral fields would facilitate the crossing of the railway line. From here, the pipeline would cross a further six fields, three hedgerows and a ditch in open cut before entering a trenchless crossing compound on the southern bank of the Trent and Mersey Canal within the ASCV. Approximately 2.2km of West Corridor would cross this part of the ASCV. <u>South Corridor</u>: **Figure 8.1 Volume 4** shows the South Corridor crossing the ASCV to the west of Bartington. The South Corridor (Options SP5 and SP6) would enter the ASCV at a trenchless crossing compound within an agricultural field to the south of the Trent and Mersey Canal and would pass through a pastural and arable field before entering a further trenchless compound to facilitate the trenchless crossing of the River Weaver. To the south of the river, the trenchless crossing compound would avoid the bankside thicket and Category A trees and the South Corridor route would be open cut passing through two pastural fields and a single hedgerow before existing the ASCV north of Acton Lane. Construction activity along the West and South Corridors associated with the installation of the pipeline would be transient and of short duration with progressive backfill and reinstatement as works are completed along the route. The localised removal of hedgerow to accommodate the pipeline corridors would appear as a break in the pattern of field boundary vegetation and would be reinstated post construction (with the exception of the trees at Sutton Hall). The scale and geographical extent of these construction activities would be Medium-High when experienced locally to the construction works (within the same field unit or ~300m), reducing to Medium-Low or less from the wider ASCV, where the pipeline corridor would be less visible due to distance and intervening layers of roadside and field boundary vegetation.

	Level of effect:	Locally **Major to Major/Moderate** and **Significant** (within and adjacent to the pipeline corridor and trenchless crossing construction compounds) and **Moderate** to **Minor** and **Not Significant** to **No Effect** elsewhere within the wider ASCV.
	Type of effect:	Short-term duration (temporary with some permanent effects), direct and adverse.
Temporary construction accesses (WH-14, WH-16, WH-25 and SH-04)	**Construction phase:** Temporary construction access routes and designated access points: A56 Chester Road (WH-14 and WH-25), Aston Lane (WH-16), Warrington Road (SH-04), Sandy Lane. All construction access for the pipeline would utilise the existing road and track network to join the temporary haul routes within the pipeline corridor. Access requirements within this ASCV during the construction phase would include HGVs using the A56 (accesses WH-14 and WH-25) as it passes through and close to the western tip of the ASCV, and the A49/Acton Lane at Bartington. HGV routes also pass close or adjacent to the boundary of the ASCV including the B5144 Sandy Lane at Weaverham, the A533 and Aston Lane at Sutton Weaver (WH-16) and Aston Heath. A number of the construction access points within the ASCV coincide with existing field access gates whilst a small proportion would require the removal of a section of field boundary hedgerow whilst traffic management and control measures would be used to facilitate the safe movement of vehicles into and out of the accesses instead of removing or pruning additional vegetation to create visibility splays. Increased traffic movements associated with the Project would have an influence on the "*quiet, tranquil landscape"* (a Special Quality of this ASCV) when associated with the B classified route or Aston Lane. Access would be required for the duration of the construction phase (6-12 months) although would be completed sooner in some areas. The magnitude of change resulting from the increased traffic movements and localised removal of vegetation would be Medium affecting a small geographical area of landscape in the local vicinity of the temporary construction access routes.	
	Level of effect:	**Major/Moderate to Moderate** and **locally Significant** to **Minor** and **Not Significant** or **No Effect** for the majority of the ASCV.
	Type of effect:	Short-term duration (temporary), direct and adverse/neutral.
Rocksavage HAGI	**Construction phase:** The Rocksavage HAGI would be located beyond the ASCV's boundary although its study area coincides with this receptor unit. The HAGI would be located to the west of the ASCV between the railway and the M56 at a minimum separation distance of 0.7km. This area is influenced by the M56 viaduct to the south-east and major	

	transport corridors and other built development including light industrial development to the west of the A557 Clifton Road and at Mill Lane between the HAGI and the ASCV. Consequently, the construction activities associated with the Rocksavage HAGI, including the removal of woodland would have no characterising influence on the Special Qualities of this ASCV. The magnitude of change would be **Zero**.	
	Level of effect:	**No Effect**
	Type of effect:	N/A
	Operation and maintenance (Year 1) phase: The Rocksavage HAGI in Year 1 would have no influence on the Special Qualities of this ASCV due to distance and intervening screening as evidenced in the ZTV in **Figure 8.29**.	
	Level of effect:	**No Effect**
	Type of effect:	N/A
	Operation and maintenance (Year 15) phase: There would be no change to the assessment of effects at Year 1.	
	Level of effect:	**No Effect**
	Type of effect:	N/A
Overall assessment		
Construction phase:	Collectively, the construction works involving the underground pipeline, eight separate temporary trenchless crossing compounds and materials storage areas and the temporary construction accesses within the ASCV would lead to a moderate scale of development, continuing for the construction phase. Successive layers of vegetation, particularly those close to Sutton Weaver at the western end of this local landscape designation, would combine to limit the extent of visible influence of the construction works on the Special Qualities of this ASCV. The Special Qualities most likely to be affected are those which relate to "*Valley sides also support small/medium scale arable and pastoral fields, bounded by low gappy hedgerows*" and "*Generally, a quiet, tranquil landscape with significant opportunity for quiet recreation*." Overall, the magnitude of change on the ASCV would be Low, with localised areas experiencing up to a High magnitude of change within and in close	

	proximity to the construction compounds and pipeline corridor. Some localised losses of hedgerow would be reinstated following completion of the construction phase.	
	Level of effect:	**Moderate** to **Minor** and **Not Significant** with localised areas of **Major** to **Major/Moderate** and **Significant** effects within and close to the pipeline corridor and construction and storage compounds.
	Type of effect:	Short-term duration (temporary with some permanent effects at Sutton Hall), direct and adverse.
Operation and maintenance (Year 1) phase:	There would be **No Effect** on the Special Qualities and integrity of the Weaver Valley ASCV – Lower Weaver at Operation Year 1 of the Rocksavage HAGI.	
Operation and maintenance (Year 15) phase:	There would be **No Effect** on the Special Qualities and integrity of the Weaver Valley ASCV – Lower Weaver at Operation Year 15 of the Rocksavage HAGI.	

Table 8D.59 Weaver Valley ASCV - Mid Weaver

Context	
Relevant figures:	**8.1**

Baseline description of Special Qualities:

The Project passes through the northern part of this ASCV. A description of the Special Qualities of the ASCV is detailed below taken from *Local Landscape Designations: Areas of Special County Value in Cheshire West And Chester*[13].

- *"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"*[13].

Assessment of sensitivity

Landscape value: ASCVs are identified as areas that are demonstrably special in their landscape character and scenic value, protected through planning policy as a local landscape designation that would denote a higher value.

Landscape susceptibility: The clough woodland is a physical characteristic which is of high susceptibility to change whilst the quiet and tranquil perceptual quality is also an indicator of higher susceptibility. This is countered by the heavily enclosed nature of the valley landscape and clough woodland which contains views with a corresponding limited visual relationship with surrounding landscapes. Considering the nature of the majority of the Project, predominantly of short-term and temporary duration, the landscape susceptibility to this type of development beyond the ASCVs boundary is reduced. The overall susceptibility of the landscape to the Project is assessed as Medium.

Sensitivity	High-Medium	Landscape value:	High-Medium
		Landscape susceptibility:	Medium

Magnitude of change and level of effect

Pipeline (South Corridor)	**Construction phase:** The South Corridor crosses the River Weaver within the northern half of this ASCV. Trenchless crossing compounds would be sited in large-scale agricultural fields on the eastern and western banks of the river (beyond but close to the boundary of the ASCV) thereby ensuring that the clough woodland, valley landform and course of the river with its associated recreational routes, all of which lie within the ASCV, remain undisturbed. The pipeline corridor and associated access track would cross fields to the east and west of the ASCV, and whilst there may be some the audible disturbance, the visual disturbance of construction activity along the route and within the trenchless crossing compounds would be reduced as a consequence of the heavily wooded and steeply sided valley landform meaning that "*Views are typically restricted to within the valley*". A length of the South Corridor as it passes between the eastern boundary of the ASCV and Moulton, would be perceived beyond the railway line (which marks the eastern boundary of the southern half of the ASCV) and from localised, open areas. Any visual and audible disturbance arising from the construction activities would be incremental to that which already exists due to the railway line, 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 South Corridor. The magnitude of change likely to affect the Special Qualities would range from Low (in respect of the ASCV adjacent to the trenchless crossing compounds and within the southern part of the ASCV) to Very Low with increasing separation distance from the South Corridor to Zero.	
	Level of effect:	**Moderate** to **Minor** and **Not Significant** within localised areas to **Minor** and **Not Significant** or **No Effect** for the majority of the ASCV.
	Type of effect:	Short-term duration (temporary), indirect and adverse/neutral.

Temporary construction accesses	**Construction phase:** There would be no access requirements within this ASCV. HGVs using the A556, which passes adjacent to the northern boundary of the ASCV, would be subsumed within the baseline volumes of traffic movements and the incremental visual and audible effects of the HGVs would not alter the Special Qualities of this ASCV.	
	Level of effect:	**No Effect**
	Type of effect:	N/A
Overall assessment		
Construction phase:	There would be no direct effects on this ASCV. Collectively, the construction works involving the underground pipeline (South Corridor), and the presence of the trenchless crossing compounds and construction access routes, which are all sited beyond but often close to the ASCV's boundary, would represent a moderate scale development continuing for the duration of the construction phase (6-12 months). The visual influence of construction activities would be reduced by the presence of the valley landform and clough woodland, whilst audible disturbance would be incremental to rail movements along the adjacent railway line. Overall, the magnitude of change on the ASCV would be Very Low to Zero, with localised areas experiencing up to a Low magnitude of change. This Low magnitude would typically occur in close proximity to the temporary crossing compounds or from within open areas across the eastern fringes of the mid and southern parts of the ASCV.	
	Level of effect:	**Moderate** to **Minor** and **Not Significant** within localised areas to **Minor** and **Not Significant** or **No Effect** for the majority of the ASCV
	Type of effect:	Short-term duration (temporary), indirect and adverse/neutral.

3.2. Cheshire East

Table 8D.60 Bollin Valley LLD

Context	
Relevant figures:	**8.1** and **8.35** (Warburton HAGI ZTV)
Baseline description of Special Qualities:	

The East Corridor passes through this LLD whilst temporary construction accesses are also routed through or adjacent to its boundary. A description of the Special Qualities of the LDD is detailed below taken from the *Cheshire East Local Landscape Designation Review*[14].

- *"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".*[14]

[14] 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 10 July 2024)

Assessment of sensitivity			
Landscape value: LLDs represent Cheshire East's "*highest quality and most valued landscapes"*[14] that would denote a higher value. Landscape susceptibility: The valley landscape with a strong sense of place, pattern of meadows, frequent mature tree specimens and tracts of woodland are all physical characteristics that would be of higher susceptibility to change. With regard to perceptual characteristics, the area's "*strong sense of time depth"*[14]*,* "*strong feelings of relative tranquillity*"[14] and "*strong naturalistic qualities*"[14] are also indicators of higher susceptibility. Considering the nature of the majority of the Project, being predominantly of short-term and temporary duration, the landscape susceptibility to this type of development is reduced. The overall susceptibility of the landscape to the Project is therefore assessed as Medium.			
Sensitivity	High-Medium	Landscape value:	High-Medium
		Landscape susceptibility:	High-Medium
Magnitude of change and level of effect			
Pipeline (East Corridor)	**Construction phase:** The East Corridor crosses the River Bollin at the western tip of this LLD. Trenchless crossing compounds would be sited on the northern and southern banks of the river (beyond but close to the boundary of the LLD) thereby ensuring that the banks and course of the river, which lie within the LLD, remain undisturbed. The pipeline corridor and associated access track would cross large-scale fields to the north and south of the River Bollin, beyond the LLD's boundary and the audible and visual disturbance of construction activity along the route and within the trenchless crossing compounds may locally dilute "*feelings of tranquillity*" and "***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. The pipe store, which would be located within a field to the west of the National Grid AGI facility at Carrgreen Lane and approximately 600m to the north of the LLD, would have no landscape influence as a consequence of intervening vegetation. The magnitude of change likely to affect the Special Qualities would range from Medium (in respect of the LLD adjacent to the trenchless crossing compounds) to Very Low with increasing separation distance to the East Corridor and Zero for the majority of the LLD.		
	Level of effect:	**Major/Moderate** to **Moderate** and **Significant** within a small, localised area at the western tip to **Minor** or **No Effect** and **Not Significant** for the majority of the LLD.	
	Type of effect:	Short-term duration (temporary), indirect and adverse/neutral.	

Temporary construction accesses	**Construction phase:** There would be no access requirements within this LLD. Light vehicles accessing the HAGI would utilise the B5160 which passes approximately 200m to the north of the LLD at its closest point and where increases in traffic flow would be incremental to baseline levels of traffic movements. Any corresponding disruption to the higher levels of tranquillity and remoteness within the LDD, is unlikely to generate a magnitude of change which would exceed Very Low. HGVs utilising the M56 and A56 which pass through or adjacent to the boundary of the Bollin Valley LDD would be subsumed within the high volumes of baseline traffic and the effects of these traffic movements would not alter the Special Qualities of this LLD.	
	Level of effect:	**Minor** and **Not Significant** within small, localised areas to **No Effect** for the majority of the LLD.
	Type of effect:	Short-term duration (temporary), indirect and adverse/neutral.
Warburton HAGI	**Construction phase:** A temporary construction compound for the Warburton HAGI would be located close to the National Grid AGI facility on Carrgreen Lane. This would be sited at a distance of approximately 650m to the north of the LLD although its study area coincides with a small part of the LLD. The construction period would be 6-12 months during which the construction compound would include the presence of welfare facilities up to two storeys (6m high); vehicle and plant storage and movement; and the storage for pipes in stacks 4m (up to 4m in height), equipment and materials. Solid hoarding to the perimeter of the construction compound would minimise visual and audible disturbance whilst a narrow belt of existing deciduous tree cover (between 4m and 17m in height) to the south of the compound would be retained. The presence of vegetation and tree cover between the LLD and the HAGI and its associated construction compound, together with a minimum separation distance of 650m means that the potential effects on the Special Quality relating to "*feelings of tranquillity*" would be limited. The magnitude of change would be Very Low within the western tip of the LLD.	
	Level of effect:	**Minor** and **Not Significant** within small, localised areas to **No Effect** for the majority of the LLD.
	Type of effect:	Short-term duration (temporary), indirect and adverse/neutral.

	Operation and maintenance (Year 1) phase: A review of the ZTV in **Figure 8.35** indicates a very small area of intervisibility between the western tip of the LLD and the Warburton HAGI. In reality, the intervening trees (the screening role of which are not accounted for in the ZTV) would limit views and the presence of the operational HAGI and associated immature planting (proposed in **Figure 8** of the **Outline LEMP**), at a distance of approximately 680m, would have no landscape influence on the Special Qualities of this LLD.	
	Level of effect:	**No Effect**
	Type of effect:	N/A
	Operation and maintenance (Year 15) phase: The gradually maturing landscape proposals presented in **Figure 3.x** for the Warburton HAGI would not alter the conclusions of the assessment at Operation Year 1.	
	Level of effect:	**No Effect**
	Type of effect:	N/A
Overall assessment		
Construction phase:	There would be no direct effects on this LLD. However, collectively, the construction works involving the underground pipeline (East Corridor), and the presence of the trenchless crossing compounds, construction access routes, HAGI construction compound and pipe storage areas to the north, which are all sited beyond but often close to the LLD's boundary, would represent a moderate scale development continuing for the duration of the construction phase (6-12 months). The visual and audible influence of construction activities would locally disrupt perceptions of tranquillity and of an intact rural landscape within the far western tip of the LLD, which coincides with the LVIA study area. Overall, the magnitude of change within the LLD would be Very Low to Zero, with localised areas experiencing up to a Medium magnitude of change in close proximity to the temporary crossing compounds on the banks of the River Bollin.	
	Level of effect:	**Minor** and **Not Significant** to **Zero** within the majority of the LLD with localised areas of **Major/Moderate to Moderate** and **Significant** effects close to the temporary crossing compounds.
	Type of effect:	Short-term duration (temporary), direct and adverse.

Operation and maintenance (Year 1) phase:	There would be **No Effect** on the Special Qualities and integrity of the Bollin Valley LLD at Operation Year 1 of the Warburton HAGI.
Operation and maintenance (Year 15) phase:	There would be **No Effect** on the Special Qualities and integrity of the Bollin Valley LLD at Operation Year 15 of the Warburton HAGI.

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