

Appendix 8C: Landscape Receptor Assessment

Table 8C.1: Landscape Assessment for LCA 4a Frodsham, Helsby & Lordship Marshes

Figures: 8.2, 8.3, 8.29, Viewpoints RSH1 (Figure 8.63), RSH2 (Figure 8.64) and RSH4 (Figure 8.66)		
LCA hierarchy:	National Character Area	NCA 60: Mersey Valley and NCA 61: Shropshire, Cheshire and Staffordshire Plain
Landscape Designations:	None	
Administrative area:	Cheshire West and Cheshire	
Character description:	The Proposed Development passes through the southern end of the Frodsham, Helsby & Lordship Marshes LCA and is one of four LCAs within the Drained Marsh LCT. The key landscape characteristics of the LCA are detailed below taken from <i>A Landscape Strategy for Cheshire West and Chester Borough</i>¹. <u>Key characteristics:</u> • “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	

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 June 2022)

- *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]

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 Borough¹ 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 Proposed Development, 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	Overall sensitivity: Low Sensitivity of the 'Frodsham recreational fringe': Medium	Overall landscape value: Landscape value of the 'Frodsham recreational fringe':	Low
		Overall landscape susceptibility: Landscape susceptibility of the 'Frodsham recreational fringe':	Medium to High Low to Medium Medium

Magnitude of change

Pipeline (West Corridor high pressure pipeline and including Options WP1 and WP2)	Construction phase: Figures 8.2 and 8.3, Volume 3 shows the West Corridor of the pipeline within the LVIA study area and 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. The temporary 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. Lighting would be required during the house of darkness for operational activity typically in winter and may be required for security. Lighting design would minimise light spill outside the compound. The compounds are remote from public receptors apart from the M56 motorway ~150m to the south. Fleeting views from both the motorway and railway are intermittently filtered by tree cover along the routes. The access to the northern trenchless crossing compound would be off Hapsford Lane (see below for temporary construction access assessment) and the southern trenchless crossing compound would be accessed along the West Corridor of the pipeline route, connecting to the A5117. The pipeline corridor would comprise site fencing, open cut pipeline trench with adjacent material storage area, associated construction machinery, internal haul road, and soil storage as indicated in Chapter 2,

Volume 2. North-east of the trenchless crossing compounds the pipeline corridor follows a route for ~5.5km to the RSH1 HAGI across open arable and pasture fields. The pipeline corridor lies broadly parallel to the M56 motorway, with the Frodsham Wind Farm located between the pipeline and the Manchester Ship Canal that marks the north-western boundary of the LCA. At the Hover Force Outdoor Activity Centre there are two pipeline corridor options (WP1 and WP2), approximately 300m apart and both options would cross a similar landcover of mixed farmland divided by hedgerows.

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 ~500m) 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. Beyond ~500m from the construction activity, the works would appear similar to works associated with the dredging of the Manchester Ship Canal or periodic agricultural activity. Visibility would be partly limited in some places by roadside and field boundary vegetation as illustrated in Figures 8.65 and 8.66 comprising Viewpoint RSH3: PRow FP81 and Viewpoint RSH4: M56 overbridge.

The open cut sections comprising the majority of the pipeline corridor would cross a maximum of 45 No. drains / field boundaries within the LCA that are typically defined by post and wire fencing and/or occasional scrub, however at 16 No. locations the field boundaries are defined by hedgerows with occasional trees (comprising five boundaries in the vicinity of the Ellesmere Port to Warrington railway; four boundaries north of Rake Lane, three boundaries within Option WP2 near the Hover Force Outdoor Activity Centre, one field boundary at Brook Furlong and three boundaries north of Weaver Lane). The localised removal of trees and shrubs at each of these 16 No. 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. The potential loss of localised trees and hedgerows in this LCA would be partially mitigated by replacement of planting in-situ, following the construction phase as recorded in the Year 1 assessment below.

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:	Pipeline and trenchless crossing construction compounds – 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.
	Operation and maintenance (Year 1) phase: The pipeline corridor and associated trenchless crossing compounds would all be reinstated with no lasting effects on the arable and pasture fields. The loss of some limited sections of hedgerow and hedgerow trees within a ~10m wide easement at 16 No. locations would however be permanent although partly mitigated by replacement planting of hedgerow / shrubs within the remainder of the corridor, outside the easement. Consequently, there would be a Very Low to Zero magnitude of change on landscape character and key characteristics and a predicted Low magnitude of change on landscape elements until replacement planting is established.	
	Level of effect:	Pipeline corridor and trenchless crossing compounds – Negligible to Minor / Negligible and Not Significant
	Type of effect:	Permanent and neutral.
Temporary construction accesses (WL01, WH06, WH07, WH01, WL03, WL04, WL05, WL06)	Construction phase: <u>Temporary construction access options: Ash Road (WL01 and WH06), J14 M56 (WH07), Pool Lane (WH01):</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 to the site of the RSH1 HAGI under construction. Where required roads would need to be widened up to ~8m. Some limited tree removal and or coppicing / pruning may be required to allow for visibility splays, but this is unlikely to significantly affect the landscape character or elements (hedgerows and hedgerow trees) in these locations. Further details would be provided in the Environmental Statement where an arboricultural assessment to BS 5837 would be submitted. 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 road widening and visibility splays would potentially be up to a High magnitude affecting a small geographical area of landscape character in the local vicinity of the temporary construction access routes.	

	Level of effect:	Moderate and potentially locally Significant to be clarified in the Environmental Statement following provision of more detailed construction traffic information.
	Type of effect:	Short-term duration (temporary), direct and adverse.
RSH1 HAGI (ZTV – Figure 8.29)	Construction phase:	A temporary construction compound would be located between the HAGI site under construction and the M56 on open grassland and nearby tree cover would be retained and protected. Another temporary compound would be located to the northwest of the HAGI and would staddle tow open fields and would involve the loss of ~180m length of hedgerow (reinstated following construction). The RSH1 HAGI is also located in an open field and would be sited to minimise any loss of trees and hedgerows to the south and west. The construction period would be 6-12 months. Receptors in the locality where these changes in the landscape would be perceived include the M56 at a higher elevation ~20m to the south-east and the local PRoW network including the River Weaver PRoW ~15m to the north. Temporary earth bunds and/or solid hoarding to the perimeter of the compounds would minimise visibility of activity and structures within the compound. 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 between the M56 to the east, River Weaver PRoW to the north, Weaver Lane to the south and the landfill site to the west.
	Level of effect:	Moderate and Significant within the vicinity of the temporary construction compound and HAGI 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) for safety and to reduce visual impact. Illustrative examples of a layout, and photographic examples of operational schemes are contained in Chapter 2. 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, between the M56 to the east, River Weaver to the north, Weaver Lane to the south and the landfill to the west.
	Level of effect:	Minor and Not Significant
	Type of effect:	Permanent, direct and adverse.

Limitations / assumptions	1. Assessments related to landscape elements and in particular tree / vegetation loss are estimated pending the arboriculture survey and further design maturity that would be outlined in the Environmental Statement. 2. It has been assumed that hedgerows and trees lost to provide temporary construction access would be reinstated with new planting where possible post-construction i.e. where they do not lie in easements. 3. No account of any potential landscape mitigation near the perimeter of the HAGI sites has been accounted for and is pending further design maturity. A Year 15 assessment following construction would be included in the Environmental Statement.				
Overall assessment	Construction phase: Collectively the construction works involving the underground pipeline, RSH1 HAGI, temporary construction compounds and seven separate temporary construction access options routed through the LCA 4a: Frodsham, Helsby & Lordship Marshes LCA would lead to a moderate scale of development, continuing for the construction phase (6-12 months). 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 and the landfill to the northwest of the RSH1 HAGI 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 in close proximity to the HAGI, construction compounds and pipeline corridor. Some localised losses of hedgerows and hedgerow trees can be largely reinstated following completion of the construction phase. <table border="1"> <tr> <td>Level of effect:</td><td>Minor and Not Significant with localised areas of Moderate and Significant effects close to the pipeline corridor, construction compounds and RSH1 HAGI.</td></tr> <tr> <td>Type of effect:</td><td>Short-term duration (temporary), direct and adverse.</td></tr> </table> Operation and maintenance (Year 1) phase: The effect on the landscape character and key characteristics overall would be Negligible with one localised area in the vicinity of the RSH1 HAGI resulting in Minor effects that would be Not Significant.	Level of effect:	Minor and Not Significant with localised areas of Moderate and Significant effects close to the pipeline corridor, construction compounds and RSH1 HAGI.	Type of effect:	Short-term duration (temporary), direct and adverse.
Level of effect:	Minor and Not Significant with localised areas of Moderate and Significant effects close to the pipeline corridor, construction compounds and RSH1 HAGI.				
Type of effect:	Short-term duration (temporary), direct and adverse.				

Table 8C.2: Landscape Assessment for LCA 9a Dunham to Tarvin Plain

Figures: 8.2, 8.28 and 8.55 (Viewpoint E1)		
LCA hierarchy:	National Character Area	NCA 60: Mersey Valley and NCA 61: Shropshire, Cheshire and Staffordshire Plain
Landscape Designations:	None	
Administrative area:	Cheshire West and Cheshire	
Character description:	The Project passes through the northern end of the LCA 9a: Dunham to Tarvin Plain and is one of four LCAs within the Cheshire Plain West LCT. The key landscape characteristics of the LCA are detailed below taken from <i>A Landscape Strategy for Cheshire West and Chester Borough</i>¹. <u>Key characteristics:</u> • “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 farming and fodder crops • Limited woodland, confined to isolated coverts and copses, although hedgerow oaks are important elements of the landscape • 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*

Built Development Guidelines:

- “1. Maintain the low density, scattered settlement pattern of villages, hamlets, halls and farmsteads and isolated cottages, retaining the main villages as the main focus for development.*
- 2. Conserve the local vernacular built form –simple red-brown brick buildings with steeply pitching welsh slate roofs.*
- 3. 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 towards the Sandstone Ridge in the east.*
- 8. Maintain the rural setting to villages and farmsteads which are features of the landscape.*
- 9. Conserve the open undeveloped area between Tarvin and Oscroft that has been identified as a Candidate Key Settlement Gap where development would lead to coalescence and the loss of identity of the two communities.*
- 10. 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.*

	11. <i>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.</i> 12. <i>Ensure that the siting of Solar PV farms is not visually prominent from higher ground.”¹</i>
Assessment of sensitivity	<u>Landscape value:</u> 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 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. <u>Landscape susceptibility:</u> <i>A Landscape Strategy for Cheshire West and Chester Borough¹ 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 Proposed Development, predominantly of short-term and temporary duration, apart from the permanent above ground infrastructure of the Stanlow HAGI, the</i>

	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			
Pipeline (West Corridor high pressure pipeline)	Construction phase: Figure 8.2, Volume 3 shows the West Corridor of the pipeline within the LVIA study area and Dunham to Tarvin Plain LCA. The pipeline corridor would enter the LCA from the Stanlow HAGI. 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 intermittent hedgerows with infrequent trees, before reaching Cryers Road where there would be an open cut trench across the road and through a line of mature roadside trees. From here the pipeline corridor would continue through further arable fields, passing through field boundaries intermittent hedgerows trees before reaching the A5117 where temporary compounds would be constructed on both sides of the road located within an arable field to the west of the road and within the M56 service station to the east of the road. The pipeline corridor would then pass through some mature boundary tree planting to the north of the service station and continue across an arable field. The temporary 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. Lighting would be required during the house of darkness for operational activity typically in winter and may be required for security. Lighting design would minimise light spill outside the compound. There would be fleeting views of the western compound from the M56 off-slip and the Hapsford Interchange gyratory, although views from the A5117 are intermittently filtered by tree cover along the route. The compound to the east of the A5117 would be visible to users of the M56 services. The access to the western trenchless crossing compound would be off A5117 (see below for temporary construction access assessment) and the eastern trenchless crossing compound would be accessed from the M56 services.		

A temporary storage compound would be located in a large pastoral 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 would comprise site fencing, open cut pipeline trench with adjacent material storage area, associated construction machinery, internal haul road, and soil storage as indicated in **Chapter 2, Volume 2**. The pipeline corridor lies broadly parallel to the M56 motorway as it crosses the eastern edge of the LCA to the northwest 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 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 ~500m) 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 as illustrated in **Figure 8.55** comprising Viewpoint E1: South of Stanlow Refinery.

The open cut sections comprising the majority of the pipeline corridor would cross a maximum of 13 No. field boundaries within the LCA that are typically defined by hedgerows with occasional trees. The localised removal of trees and shrubs at each of these 13 No. locations would appear as a break in the pattern of field boundary vegetation. The potential loss of localised trees and hedgerows in this LCA would be partially mitigated by replacement of planting in-situ, following the construction phase as recorded in the Year 1 assessment below.

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:	Pipeline and trenchless crossing construction compounds – Major / Moderate and Significant to Minor 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 pipeline corridor and associated trenchless crossing compounds would all be reinstated with no lasting effects on the arable fields. The loss of some limited sections of hedgerow and hedgerow trees within a ~10m

	wide easement at 13 No. locations would however be permanent although partly mitigated by replacement planting of hedgerow / shrubs within the remainder of the corridor, outside the easement. Consequently, there would be a Very Low to Zero magnitude of change on landscape character and key characteristics and a predicted Low magnitude of change on landscape elements until replacement planting is established.				
	<table> <tr> <td>Level of effect:</td><td>Pipeline corridor and trenchless crossing compounds –Minor to Negligible and Not Significant to No Effect in the wider LCA</td></tr> <tr> <td>Type of effect:</td><td>Permanent and neutral.</td></tr> </table>	Level of effect:	Pipeline corridor and trenchless crossing compounds – Minor to Negligible and Not Significant to No Effect in the wider LCA	Type of effect:	Permanent and neutral.
Level of effect:	Pipeline corridor and trenchless crossing compounds – Minor to Negligible and Not Significant to No Effect in the wider LCA				
Type of effect:	Permanent and neutral.				
Temporary construction accesses(WH02, WH03, WH04, WH05, WH06, WH07, WL05)	Construction phase: <u>Temporary construction access options: Pool Lane (WH02), Cryers Lane (WH03 and WH04), New Dairy Farm (WH05), Ince Lane (WH06) and J14 M56 (WH07), Pool Lane (WH01):</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 to the site of the Stanlow HAGI under construction. Where required roads would need to be widened up to ~8m. Some limited tree removal and or coppicing / pruning may be required to allow for visibility splays, but this is unlikely to significantly affect the landscape character or elements (hedgerows and hedgerow trees) in these locations. Further details would be provided in the Environmental Statement where an arboricultural assessment to BS 5837 would be submitted. 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 road widening and visibility splays would potentially be up to a High magnitude affecting a small geographical area of landscape character in the local vicinity of the temporary construction access routes and Low elsewhere resulting in a Minor/Negligible effect that is Not Significant.				
	<table> <tr> <td>Level of effect:</td><td>Major/Moderate and locally Significant to Minor/Negligible and Not Significant across the wider LCA.</td></tr> <tr> <td>Type of effect:</td><td>Short-term duration (temporary), direct and adverse.</td></tr> </table>	Level of effect:	Major/Moderate and locally Significant to Minor/Negligible and Not Significant across the wider LCA.	Type of effect:	Short-term duration (temporary), direct and adverse.
Level of effect:	Major/Moderate and locally Significant to Minor/Negligible and Not Significant across the wider LCA.				
Type of effect:	Short-term duration (temporary), direct and adverse.				
HPP HAGI ZTV: Figure 8.28	Construction phase: Existing commercial warehouses, infrastructure and storage facilities would be removed to facilitate the works to the south of the large petrochemical site just beyond the northern boundary of the LCA. Mature trees line the A5117 and filter views from the road and the LCA. The construction period would be 6-12 months. Receptors in the locality where these changes in the landscape would be perceived include users of the A5117 and the local PRow network at Elton Green. Temporary earth bunds and/or solid hoarding to the				

	perimeter of the construction works would minimise visibility of activity and structures within the construction area. The HAGI would be located in an existing area of industrial infrastructure with similar structures located further north and therefore will not appear as an unfamiliar element to the area, although construction activity may be noticeable. 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 extending to approximately 500m from the works.				
	<table> <tr> <td>Level of effect:</td><td>Moderate and Not Significant within 500m of the HAGI and Not Significant elsewhere within the wider LCA.</td></tr> <tr> <td>Type of effect:</td><td>Short-term duration (temporary), direct and adverse.</td></tr> </table>	Level of effect:	Moderate and Not Significant within 500m of the HAGI and Not Significant elsewhere within the wider LCA.	Type of effect:	Short-term duration (temporary), direct and adverse.
Level of effect:	Moderate and Not Significant within 500m of the HAGI 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) for safety and to reduce visual impact. Illustrative examples of a layout, and photographic examples of operational schemes are contained in Chapter 2, Volume 2. The HAGI would appear to be part of the surrounding petrochemicals works and views would be filtered by existing roadside vegetation. 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.				
	<table> <tr> <td>Level of effect:</td><td>Negligible and Not Significant to No Effect in the wider LCA</td></tr> <tr> <td>Type of effect:</td><td>Permanent, direct and adverse.</td></tr> </table>	Level of effect:	Negligible and Not Significant to No Effect in the wider LCA	Type of effect:	Permanent, direct and adverse.
Level of effect:	Negligible and Not Significant to No Effect in the wider LCA				
Type of effect:	Permanent, direct and adverse.				
Limitations / assumptions	1. Assessments related to landscape elements and in particular tree / vegetation loss are estimated pending the arboriculture survey and further design maturity that would be outlined in the Environmental Statement. 2. It has been assumed that hedgerows and trees lost to provide temporary construction access would be reinstated with new planting where possible post-construction i.e. where they do not lie in easements. 3. No account of any potential landscape mitigation near the perimeter of the HAGI sites has been accounted for and is pending further design maturity. A Year 15 assessment following construction would be included in the Environmental Statement.				
Overall assessment	Construction phase:				

Collectively the construction works involving the underground pipeline, Stanlow HAGI, temporary construction and storage compounds and seven separate temporary construction access options routed through the 9a Dunham to Tarvin Plain LCA would lead to a moderate scale of development, continuing for the construction phase (6-12 months). 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 in close proximity to the HAGI, construction 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, construction compounds and Stanlow HAGI.
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 would be Not Significant , with Minor (Not Significant) effects relating to mitigation hedgerow replanting which at Year 1 are likely to be young plants of limited height and volume-this level of effect would reduce over time as the plants mature.	

Table 8C.3: Landscape Assessment for LCA 8a Aston

Figures: 8.3, 8.4, 8.30 and 8.31		
LCA hierarchy:	National Character Area	NCA 60: Mersey Valley and NCA 61: Shropshire, Cheshire and Staffordshire Plain
Landscape Designations:	Weaver Valley ASCV	
Administrative area:	Cheshire West and Cheshire	
Character description:	The Proposed Development passes through the centre of LCA 8a: Aston, this is the only LCA within the Heathy Farmland & Woodland LCT. The key landscape characteristics of the LCA are detailed below taken from <i>A Landscape Strategy for Cheshire West and Chester Borough</i>¹ <u>Key characteristics:</u> • “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 (Lower) Area of Special County Value (ASCV). The Special Qualities of are outlined in the *Local Landscape Designations: Areas of Special County Value in Cheshire West and Chester*² and are outlined below:

- *“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.*

² Bayou Bluenvironment and The Planning & Environment Studio on behalf of Cheshire West and Chester Council (2017). Local Landscape Designations: Areas of Special County Value in Cheshire West and Chester (Online). Available at: https://consult.cheshirewestandchester.gov.uk/portal/cwc_ldf/cw_lp_part_two/ev_base/ev_docs (Accessed 30 August 2022).

	• <i>Alluvium on the valley floor gives rise to waterlogged soils which generally support permanent pasture including seasonally wet species rich grassland.</i> • <i>Recreational opportunities are provided by public footpaths alongside the river/navigation, including Delamere Way and the Cheshire Ring Canal Walk long distance recreational footpaths.</i> • <i>The locks and ‘boat graveyard’ at Dutton are distinctive sites and popular visitor attractions.</i> • <i>Views are typically restricted to within the valley, for example there are views across the valley from either side, and from floodplains to the valley sides. The top of the valley sides form a skyline.</i> • <i>Generally a quiet, tranquil landscape with significant opportunity for quiet recreation.</i> • <i>The Trent and Mersey Canal (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.</i> • <i>Marker stones at the meadows at Frodsham are listed as are buildings to the northern valley side at Aston.</i> • <i>Scheduled Monuments are found at Bradley Promontory Fort and Middleton moated monastic grange.</i> • <i>Designed parkland surrounding the former Aston Hall (now demolished) contributes to the wooded character of the ridge and is a locally important historic site.</i> • <i>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.</i> • <i>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.</i> • <i>There is a minimal road network beyond the A49 crossing.”²</i>
Assessment of sensitivity	<u>Landscape value:</u> The southern part of the LCA area is overlapped by the Weaver Valley (Lower) ASCV, 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. <u>Landscape susceptibility:</u> <i>A Landscape Strategy for Cheshire West and Chester Borough¹ 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 pastoral 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.</i>		
Sensitivity	High-Medium	Landscape value:	High-Medium.
		Landscape susceptibility:	Medium.
Magnitude of change			
Pipeline (West Corridor WP1 and WP4 route option)	Construction phase: Figures 8.3 and 8.4, Volume 3 show the West Corridor of the pipeline within the LVIA study area and Aston LCA. The pipeline corridor would enter the LCA via a trenchless compound adjacent to Rose Cottage Vetinary Centre and the A56 and would pass through two pastoral fields before crossing the A56 and continuing through part of the golf course and 16 further arable and pastoral fields, passing through field boundaries. Option WP4 would enter the LCA via a trenchless compound to the south of the A56 and would pass and arable field and the golf course before joining WP1 to the north of the golf course. The route would be located to the north of Aston Lane and the designed garden landscape where it would be beyond the		

ridgeline setting of the Weaver Valley ASCV, although to the northwest and southeast of the LCA, the pipeline route would pass through the ASCV as it passes through the golf course to the west and crosses the rail line to the east. There would be an open cut crossing of Aston Lane and a trenchless crossing beneath the railway line facilitated by temporary compounds in agricultural fields to the west of the rail line and a pastoral field to the east.

A materials storage area would be located in a large arable field and within the golf course and is likely to contain materials stacked to a height of 4m for up to 6 months. The storage area would be in a location influenced by built development, adjacent to the golf club but would be noticeable in the landscape in this location.

The 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. 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. The compounds are likely to feature in the landscape adjacent to the A56 and rail line where man-made elements are already part of the character of the area.

The pipeline corridor would comprise site fencing, open cut pipeline trench with adjacent material storage area, associated construction machinery, internal haul road, and soil storage as indicated in **Chapter 2, Volume 2**. The pipeline corridor broadly follows the route of the overhead power line through the LCA.

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 ~500m) 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 24 No. field boundaries within the LCA that are typically defined by hedgerows with occasional trees. The localised removal of trees and shrubs at each of these 24 No. locations would appear as a break in the pattern of field boundary vegetation. The potential loss of localised trees and hedgerows in this LCA would be partially mitigated by replacement of planting in-situ, following the construction phase as recorded in the Year 1 assessment below.

	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:	Pipeline and trenchless crossing construction compounds – Major to Major/Moderate and Significant (within 500m of the works) to Minor 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 pipeline corridor and associated trenchless crossing compounds would all be reinstated with no lasting effects on the arable and pastoral fields or golf course. The loss of some limited sections of hedgerow and hedgerow trees within a ~10m wide easement at 24 No. locations would however be permanent although partly mitigated by replacement planting of hedgerow / shrubs within the remainder of the corridor, outside the easement. Consequently, there would be a Very Low to Zero magnitude of change on landscape character and key characteristics	
	Level of effect:	Pipeline corridor and trenchless crossing compounds – Minor/Negligible and Not Significant
	Type of effect:	Permanent and neutral.
Temporary construction accesses (WH14, WH15, Wh16, WH17, WH18, WH19, WH20, WH21)	<u>Temporary construction access options: A56 Chester Road (WH14, WH15), Aston Lane (WH16 – WH20), A533, Northwich Road (WH21):</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 required roads would need to be widened up to ~8m. Some limited tree removal and or coppicing / pruning may be required to allow for visibility splays, but this is unlikely to significantly affect the landscape character or elements (hedgerows and hedgerow trees) in these locations. Further details would be provided in the Environmental Statement where an arboricultural assessment to BS 5837 would be submitted. 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 road widening and visibility splays would potentially be up to a High magnitude affecting a small geographical area of landscape character in the local vicinity of the temporary construction access routes.	

	Level of effect:	Major to Major/Moderate and potentially locally Significant to be clarified in the Environmental Statement following provision of more detailed construction traffic information.
	Type of effect:	Short-term duration (temporary), direct and adverse.
HAGI (Rocksavage RSH2 and 3) (Figures 8.30 and 8.31)	Construction phase: There are two HAGIs that would be located beyond the LCA's boundary although whose study area coincides with this receptor unit: Rocksavage HAGIs (Options RSH2 and RSH3) would be located to the west of the LCA between the railway and the M56 and bounded to the River Weaver to the south with a minimum separation distance of 0.8km. This area is influenced by the M56 viaduct to the southeast and major transport corridors and other built development including light industrial development off Mill Lane in between the HAGIs and the LCA. Consequently the HAGI's would not therefore appear to be an unfamiliar element in the landscape. The high proportion of intervening built form and vegetation between the LCA and the HAGI and its associated construction compound means that views towards the HAGI 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: There would be No View of the HAGIs in Year 1 due to distance and intervening screening.	
	Level of effect:	No Effect
	Type of effect:	N/A
Limitations / assumptions	- Assessments related to landscape elements and in particular tree / vegetation loss are estimated pending the arboriculture survey and further design maturity that would be outlined in the Environmental Statement. - It has been assumed that hedgerows and trees lost to provide temporary construction access would be reinstated with new planting where possible post-construction i.e. where they do not lie in easements.	
Overall assessment	Construction phase:	

Collectively the construction works involving the underground pipeline, temporary construction and storage compounds and eight separate temporary construction access options routed through the 8a Aston LCA would lead to a moderate scale of development, continuing for the construction phase (6-12 months). 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 in close proximity to the construction 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 to 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 Minor/Negligible and Not Significant.	

Table 8C.4: Landscape Assessment for LCA 15c Lower Weaver Valley

Figures: 8.3, 8.4, 8.12, 8.29, 8.32 and, Viewpoints RC2 (Figure 8.62) and RSH3 (Figure 8.65)		
LCA hierarchy:	National Character Area	NCA 60: Mersey Valley, NCA 61: Shropshire, Cheshire and Staffordshire Plain, and NCA 62 Cheshire Sandstone Ridge
Landscape Designations:	Weaver Valley ASCV	
Administrative area:	Cheshire West and Cheshire	
Character description:	The Proposed Development passes through the northern end of the LCA 15c: Lower Weaver Valley and is one of nine LCAs within the River Valleys LCT. The key landscape characteristics of the LCA are detailed below taken from <i>A Landscape Strategy for Cheshire West and Chester Borough</i>¹.. <u>Key characteristics:</u> • “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”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 (Lower) ASCV. The Special Qualities of are outlined in the *Local Landscape Designations: Areas of Special County Value in Cheshire West And Chester*² and are outlined below:

- *“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 form a skyline.*
- *Generally a quiet, tranquil landscape with significant opportunity for quiet recreation.*
- *The Trent and Mersey Canal (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.*

	• <i>Marker stones at the meadows at Frodsham are listed as are buildings to the northern valley side at Aston.</i> • <i>Scheduled Monuments are found at Bradley Promontory Fort and Middleton moated monastic grange.</i> • <i>Designed parkland surrounding the former Aston Hall (now demolished) contributes to the wooded character of the ridge and is a locally important historic site.</i> • <i>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.</i> • <i>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.</i> • <i>There is a minimal road network beyond the A49 crossing.”²</i>
Assessment of sensitivity	<u>Landscape value:</u> With the exception of the northern tip of the LCA, the majority of the LCA area is overlapped by the Weaver Valley (Lower) ASCV, denoting its scenic landscape value at a local level. Within the study area, the LCA is predominantly rural but is influenced in the northwest 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 NCN 5 cycle route. The overall landscape value is assessed as High-Medium (within the ASCV) reducing to Medium at the northwest tip. <u>Landscape susceptibility:</u> <i>A Landscape Strategy for Cheshire West and Chester Borough¹ 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 landscapes¹. In terms of perceptual characteristics, the strategy notes “The presence of major river crossing points, infrastructure and industry,</i>

	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 northwest tip)
		Landscape susceptibility:	Medium
Magnitude of change			
Pipeline (West Corridor high pressure pipeline and including, the South Route, Rocksavage HAGI to Runcorn HAGI Spur Route, Options RSp1 and RSp2)	Construction phase: Figures 8.3, 8.4 and 8.12, Volume 3 show the West Corridor of the pipeline within the LVIA study area and 15c Lower Weaver Valley LCA. In addition to the Western Pipeline, the north-western part of this area would also be traversed by several spurs / additional route options. The western pipeline corridor would pass through the LCA in two locations: at the northwest end of the LCA (outside the ASCV designated area), and in the low-lying area between Dutton Park and the Trent and Mersey Canal. In addition, the South Corridor also crosses the LCA between Bartington and Acton Bridge / Weaverham. Where the western pipeline corridor passes to the northwest of the LCA, it would cross into the LCA from Rocksavage HAGI via a trenchless crossing beneath the River Weaver to the immediate northwest of the M56 (a view from the edge of the LCA looking towards Rocksavage HAGI is illustrated in Viewpoint RSH3: PRoW FP93 Figure 8.65). A trenchless crossing compound would be located in an area of mature scrub adjacent to the M56 viaduct. From there it would turn southeast and cross beneath the M56 viaduct and an area of scrub woodland using open cut and would continue southeast to a further trenchless crossing compound facilitating the crossing beneath a rail line. To the south of the rail line further construction compounds would be located in a pasture field to enable the western pipe corridor to turn northeast and cross beneath the Weaver Navigation where it would enter the adjoining 8a Aston LCT to the northwest of the A56. An additional spur (Rocksavage HAGI to Runcorn HAGI Route) would also cross into the area to the northwest of the LCA area and would be parallel to the western pipeline corridor as it crosses the River Weaver from the south on trenchless crossing. From here the spur would continue north roughly following the		

M56 to a further trenchless crossing compound facilitating the trenchless crossing of the Weaver Navigation where the spur would leave the LCA and turn east towards Runcorn HAGI (outside the LCA).

In addition, two smaller route options would also cross this area on trenchless crossings, one adjacent to the lagoon to the northwest of Frodsham Substation (RSp2) and the second (RSp1) from Frodsham HAGI, crossing the Weaver Navigation from the north and turning southeast across the M56, roughly following the western pipeline route beneath the rail line and northeast across the Weaver Navigation, leaving the LCA to the southeast of the A56 at a golf Course.

This area to the northwest 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.

Where the Western pipeline corridor crosses into the LCA near Dutton Park, it would enter the LCA via a trenchless crossing beneath the rail line and would continue, open cut across two farm access tracks and several arable and pastoral fields in low-lying, flat topography, before passing beneath the Trent and Mersey Canal on a trenchless crossing and continuing towards the Central Hub HAGI (outside the LCA).

The South Pipeline Corridor would enter the LCA at a trenchless crossing compound to the south of the Trent and Mersey Canal and would pass through a pastoral 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 route would be open cut and would roughly follow the A49, Warrington Road to the west of the road where it would pass through 13 pastoral and arable fields and cross Acton Lane.

The 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. 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. The compounds are likely to feature in the landscape adjacent to the A56 and rail line where man-made elements are already part of the character of the area.

The pipeline corridor would comprise site fencing, open cut pipeline trench with adjacent material storage area, associated construction machinery, internal haul road, and soil storage as indicated in **Chapter 2, Volume 2**. The pipeline corridor broadly follows the route of the overhead power line through the LCA.

A temporary materials storage area would be located to the west of the A49, Warrington Road. The storage area would be in a location influenced by built development, adjacent to residential property but would be noticeable in the landscape in this location.

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 ~500m) 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 21 No. field boundaries within the LCA that are typically defined by hedgerows with occasional trees, post and wire fence and ditches. The localised removal of trees and shrubs at these 21 No. locations would appear as a break in the pattern of field boundary vegetation. The potential loss of localised trees and hedgerows in this LCA would be partially mitigated by replacement of planting in-situ, following the construction phase as recorded in the Year 1 assessment below. 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:	Pipeline and trenchless crossing construction compounds – Major to Major/Moderate and Significant (within 500m of the works) 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.
Operation and maintenance (Year 1) phase: The pipeline corridor and associated trenchless crossing compounds would all be reinstated with no lasting effects on the arable and pastoral fields. The loss of some limited sections of hedgerow and hedgerow trees within a ~10m wide easement at 21 No. locations would however be permanent although partly mitigated by replacement planting of hedgerow / shrubs within the remainder of the corridor, outside the easement. Consequently, there would be a Very Low to Zero magnitude of change on landscape character and key characteristics.	
Level of effect:	Pipeline corridor and trenchless crossing compounds – Minor/Negligible and Not Significant
Type of effect:	Permanent and neutral.

Temporary construction accesses(WL06, WH12, WH21, SH02, SH03, SH04, SH05, SH06, SH07)	Construction phase: Temporary construction access options: A56 Sutton Causeway (WH12), A533, Northwich Road (WH21, SH02), Ship Street / Waterside Drive (WL06), A49, Warrington Road (SH03, SH04), Acton Lane (SH06, SH07): 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 SH03 and SH04 which would cross up to seven agricultural fields mostly using existing field access points and reducing breaks in hedgerows. Where required, existing roads would need to be widened up to ~8m. Some limited tree removal and or coppicing / pruning may be required to allow for visibility splays, but this is unlikely to significantly affect the landscape character or elements (hedgerows and hedgerow trees) in these locations. Further details would be provided in the Environmental Statement where an arboricultural assessment to BS 5837 would be submitted. 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 road widening and visibility splays would potentially be up to a High magnitude affecting a small geographical area of landscape character in the local vicinity of the temporary construction access routes. <table border="1"> <tr> <td>Level of effect:</td><td>Major to Major/Moderate and potentially locally Significant to be clarified in the Environmental Statement following provision of more detailed construction traffic information.</td></tr> <tr> <td>Type of effect:</td><td>Short-term duration (temporary), direct and adverse.</td></tr> </table>	Level of effect:	Major to Major/Moderate and potentially locally Significant to be clarified in the Environmental Statement following provision of more detailed construction traffic information.	Type of effect:	Short-term duration (temporary), direct and adverse.
Level of effect:	Major to Major/Moderate and potentially locally Significant to be clarified in the Environmental Statement following provision of more detailed construction traffic information.				
Type of effect:	Short-term duration (temporary), direct and adverse.				
Rocksavage RSH1 HAGI and Runcorn HAGI (Figures 8.29 and 8.32)	Construction phase: Although these would not be located within the LCA, they would be located within 100m of the LCA boundary and there would be potential indirect effects on landscape character. The HAGI would be located in an existing area of industrial infrastructure with similar structures located further north and therefore will not appear as an unfamiliar element to the area, although construction activity may be noticeable. The magnitude of change would be Medium to 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. Rocksavage HAGI would be located to the south of the LCA in an open arable field to the immediate southwest of the River Weaver. This area is influenced by the M56 viaduct to the southeast and overhead lines and pylons crossing the north-western edge of the field and from the Frodsham electricity substation. Similarly Runcorn HAGI would be located to the north of the LCA across the Weaver Navigation, in an area influenced by overhead power lines, pylons and industrial buildings. The HAGIs would not therefore appear				

	to be unfamiliar elements in the landscape. The construction period would be 6-12 months. Temporary earth bunds and/or solid hoarding to the perimeter of the construction works would minimise visibility of activity and structures within the construction area. The magnitude of change would be Low.	
	Level of effect:	Moderate to Minor and Not Significant
	Type of effect:	Permanent, indirect and adverse.
	Operation and maintenance (Year 1) phase: Each 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. Illustrative examples of a layout, and photographic examples of operational schemes are contained in Chapter 2 in Chapter 2. The HAGI would appear to be part of the surrounding industrial landscape elements. 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
	Type of effect:	Permanent, indirect and adverse.
Limitations / assumptions	- Assessments related to landscape elements and in particular tree / vegetation loss are estimated pending the arboriculture survey and further design maturity that would be outlined in the Environmental Statement. - It has been assumed that hedgerows and trees lost to provide temporary construction access would be reinstated with new planting where possible post-construction i.e. where they do not lie in easements. - No account of any potential landscape mitigation near the perimeter of the HAGI sites has been accounted for and is pending further design maturity. A Year 15 assessment following construction would be included in the Environmental Statement.	
Overall assessment	Construction phase: Collectively the construction works involving underground pipelines, temporary construction and storage compounds and nine separate temporary construction access options routed through the 15c Lower Weaver Valley LCA would affect limited areas of the LCA to the northwest where the west corridor pipeline, spur and alternative route options cross the River Weaver / Weaver Navigation in an area already influenced by industrial elements, near Dutton Park where the west corridor pipeline crosses a small part of the area across agricultural fields for ~1km, and adjacent to the A49 where the south corridor pipeline follows the valley for	

~2km. The works would lead to a moderate scale of development, continuing for the construction phase (6-12 months). 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 and pipeline corridor. There would be limited indirect effects on the landscape character from construction of two adjacent HAGIs. Some localised losses of hedgerows and hedgerow trees can be largely 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 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 Minor/Negligible and Not Significant .	

Table 8C.5: Landscape Assessment for LCA 5b Frodsham to Northwich

Figures: 8.3, 8.4, 8.12, 8.13, 8.42-8.45		
LCA hierarchy:	National Character Area	NCA 60: Mersey Valley and NCA 62 Cheshire Sandstone Ridge
Landscape Designations:	None	
Administrative area:	Cheshire West and Cheshire	
Character description:	The Proposed Development passes through the northern end of the LCA 5b Frodsham to Northwich and is one of seven LCAs within the Undulating Enclosed Farmland LCT. The key landscape characteristics of the LCA are detailed below taken from <i>A Landscape Strategy for Cheshire West and Chester Borough</i>¹. <u>Key characteristics:</u> • “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*

Built Development Guidelines:

- “1. Maintain the low density, scattered settlement pattern of villages/hamlets and farmsteads.*
- 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 or white washed farmsteads and buildings. 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. Seek to integrate garden boundaries with the rural landscape through use of native hedgerows.*
- 5. Retain the red brick dairy barns and their rural settings as features of the landscape.*
- 6. Local distinctiveness: maintain the rural setting to villages and sandstone farmsteads which are features of the landscape.*

	7. <i>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.</i> 8. <i>Soften built edges by introducing small scale planting schemes using native broadleaved species.</i> 9. <i>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.</i> 10. <i>Consider views from Delamere Way, Eddisbury Way and North Cheshire Way long distance footpaths in any new development proposals.</i> 11. <i>Ensure signage is appropriate to its setting.</i> 12. <i>Conserve the open setting of Weaverham Church on the skyline.</i> 13. <i>Refer to local Village Design Statement (VDS) and Neighbourhood Plans when considering change.”¹</i>
Assessment of sensitivity	<u>Landscape value:</u> 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 to the north, potentially increasing the value along this boundary). Within the study area to the east of the LCA, the LCA features many of the key characteristics and 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 Medium. <u>Landscape susceptibility:</u> <i>A Landscape Strategy for Cheshire West and Chester Borough¹ 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</i>

	<i>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 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 afforded by the gently undulating landscape. The overall susceptibility of the landscape to the Project is assessed as Medium.</i>		
Sensitivity	Medium	Landscape value:	Medium
		Landscape susceptibility:	Medium

Magnitude of change

Pipeline (South Corridor including Option SP1 and SP4)	Construction phase: Figures 8.3 and 8.4, Volume 3 shows the South Corridor of the pipeline within the LVIA study area and 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 pastoral fields and would cross Station Road before entering trenchless compounds to facilitate the trenchless crossing of a rail line. The pipeline corridor would then continue south in open cut across seven pastoral fields and Grange Brook with field boundaries including hedgerows and mature trees as well as riparian scrub along Grange Brook and an area of scrub woodland to the northwest of Cuddington Manor Farm. At Cuddington Manor Farm, the route would head southeast, Crossing the A49 on trenchless crossing and emerging north of Millington Lane. Trenchless crossing compounds would be located at either side of the A49. Exiting the compound the pipeline corridor would continue as open cut heading southeast and crossing Grange Lane, Millington Lane and Weaverham Road and seven fields comprising both arable and pasture usage. Field boundaries would include hedgerow, hedgerow trees and timber fencing. 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, before returning into the LCA and passing to the east of the quarry through four pastoral fields as it skirts woodland. A further trenchless crossing of the A556, Chester Road is facilitated by construction compounds to the north and south of the road. The south pipeline corridor would leave the construction compound in a pastoral field to the east of Sandiway Golf Club. At this point, the main south corridor option (SP3) and would continue across a further two pastoral fields before leaving the LCA, turning east and re-entering the LCA, crossing two arable fields at the southern tip of the LCA (an alternative option

(SP4) splits way from SP3 the southern edge of the LCA as it crosses an arable field). A further pipeline option (SP1) would travel roughly east across three pastoral fields, Whitegate Lane and four arable fields before crossing beneath The Riddings / Hey's Wood clough woodland using a trenchless crossing and passing through a pasture field before leaving the LCA.

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 be noticeable in the landscape in this location.

The 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. Lighting would be required during the house of darkness for operational activity typically in winter and may be required for security. Lighting design would minimise light spill outside the compound. The compounds are likely to feature in the landscape adjacent road corridors or rail lines where man-made elements are already part of the character of the area.

The pipeline corridor would comprise site fencing, open cut pipeline trench with adjacent material storage area, associated construction machinery, internal haul road, and soil storage as indicated in **Chapter 2, Volume 2**.

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 ~500m) 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 26 No. field boundaries within the LCA (30 No field boundaries if the SP1 option is used) that are typically defined by hedgerows with occasional trees. The localised removal of trees and shrubs at each of these 26 No. locations would appear as a break in the pattern of field boundary vegetation. The potential loss of localised trees and hedgerows in this LCA would be partially mitigated by replacement of planting in-situ, following the construction phase as recorded in the Year 1 assessment below.

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:	Pipeline and trenchless crossing construction compounds – Major/Moderate and Significant (within 500m of the works) 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.
	Operation and maintenance (Year 1) phase: The pipeline corridor and associated trenchless crossing compounds would all be reinstated with no lasting effects on the arable and pastoral fields. The loss of some limited sections of hedgerow and hedgerow trees within a ~10m wide easement at 26 No. locations would however be permanent although partly mitigated by replacement planting of hedgerow / shrubs within the remainder of the corridor, outside the easement. Consequently, there would be a Very Low to Zero magnitude of change on landscape character and key characteristics. and a predicted Low magnitude of change on landscape elements until replacement planting is established.	
	Level of effect:	Pipeline corridor and trenchless crossing compounds – Negligible and Not Significant (Minor and Not Significant where replanted hedgerows are establishing)
	Type of effect:	Permanent and neutral.
Temporary construction accesses (SH07, SH08, SH09, SH10, SH11, SH12, SH13, SH14, SH15, SH16, SH17, SH18, SH19)	Construction phase: <u>Temporary construction access options: B5153 Station Road (SH07, SH08), Grange Lane (SH09, SH10), Millington Lane (SH11, SH12), Weaverham Road (SH13, SH14) A556, Chester Road (SH15, SH18, SH19), Whitegate Lane (SH16, SH17):</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 required, existing roads would need to be widened up to ~8m. Some limited tree removal and or coppicing / pruning may be required to allow for visibility splays, but this is unlikely to significantly affect the landscape character or elements (hedgerows and hedgerow trees) in these locations. Further details would be provided in the Environmental Statement where an arboricultural assessment to BS 5837 would be submitted. 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 road widening and visibility splays would potentially be up to a High 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 potentially locally Significant to be clarified in the Environmental Statement following provision of more detailed construction traffic information.
	Type of effect:	Short-term duration (temporary), direct and adverse.
South Corridor Block Valve: Options SBV1-4 (Figures 8.42-8.45)	Construction phase: Option SBV1 and SBV2 are located in fields to the north and south of the A556 (Chester Road) respectively. SBV3 is located in a field to the east of Whitegate Lane; note that this option would only be possible on Option SP1. SBV4 is located within an agricultural field west of Whitegate Lane, note that this option would only be possible on Option SP3. A temporary construction compound would be located in the vicinity of the SBV1 or SBV2 block valve sites under construction. There would be some loss of scrub and young trees, but it is likely the majority of the nearby mature tree cover would be retained and protected. The construction period would be 6-12 months. Receptors in the locality where these changes in the landscape would be perceived include the A556 at a Lower elevation to the south and the local PRow network including the residential receptors ~40m – 150m to the east. Temporary earth bunds and/or solid hoarding to the perimeter of the compound would further minimise visibility of activity and structures within the compound. Construction traffic may be similar to commercial vehicles accessing the quarry to the west of the site. 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 block valve under construction between the A556 to the south, residential property to the east and Forest Hill Quarry access road to the west.	
	Level of effect:	Major/Moderate and Significant within the vicinity of the temporary construction compound and Block Valve compound 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: All the Block Valve Options 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 (up to 1.5m) for safety and to reduce visual impact. The effect on the landscape character and key characteristics for each option would be Low and localised, affecting a small geographical area in the local vicinity of the Block Valve, 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, direct and adverse.
Limitations / assumptions	1. Assessments related to landscape elements and in particular tree / vegetation loss are estimated pending the arboriculture survey and further design maturity that would be outlined in the Environmental Statement. 2. It has been assumed that hedgerows and trees lost to provide temporary construction access would be reinstated with new planting where possible post-construction i.e. where they do not lie in easements. 3. No account of any potential landscape mitigation near the perimeter of the HAGI sites has been accounted for and is pending further design maturity. A Year 15 assessment following construction would be included in the Environmental Statement.	
Overall assessment	Construction phase: Collectively the construction works involving the underground pipeline, South Corridor Block Valve, temporary construction and storage compounds and thirteen separate temporary construction access options routed through the 5b Frodsham to Northwich LCA would lead to a moderate scale of development, continuing for the construction phase (6-12 months). 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 Block Valve compound, 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 overall would be Negligible and Not Significant. , with Minor (Not Significant) effects relating to mitigation hedgerow replanting which at Year 1 would be young plants, and Minor (Not Significant) effects relating to the Block Valve compound (within close proximity).	

Table 8C.6: Landscape Assessment for LCA 5a Norley

Figures: 8.13		
LCA hierarchy:	National Character Area	NCA 62 Cheshire Sandstone Ridge
Landscape Designations:	None	
Administrative area:	Cheshire West and Cheshire	
Character description:	The Proposed Development passes through the eastern end of the LCA 5a Norley and is one of seven LCAs within the Undulating Enclosed Farmland LCT. The key landscape characteristics of the LCA are detailed below taken from <i>A Landscape Strategy for Cheshire West and Chester Borough</i>¹ <u>Key characteristics:</u> • <i>“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</i> • <i>Steep, wooded valleys incise the hills, containing small brooks that drain towards the River Weaver. Gorse occupies steep slopes</i> • <i>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</i> • <i>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</i> • <i>The sheltered valleys and steeper slopes support woodland – for example along Small Brook and the upper reaches of Crowton Brook</i> • <i>Remnant historic orchards e.g. to the south-west of Kingsley (previously designated as Areas of Significant Local Environmental Value (ASLEV)</i> • <i>Glacio-fluvial deposits have been quarried in the past</i> • <i>Areas of former parkland at Norley Hall, Norley Bank, around Royalty Covert and at Delamere Park</i> • <i>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</i>	

- *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	<u>Landscape value:</u> 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 to the northeast, potentially increasing the value along this boundary). The eastern tip of this LCA is located within the study area. Although this 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. <u>Landscape susceptibility:</u> A <i>Landscape Strategy for Cheshire West and Chester Borough</i>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 “<i>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</i>”¹. In terms of perceptual characteristics, the strategy notes “<i>Generally a quiet, rural landscape but with features that detract from the overall sense of tranquillity</i>”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			
Pipeline (South Corridor high pressure pipeline)	Construction phase: The proposed South Corridor will not pass through this LCA and effects would be indirect. At its nearest point, the South Corridor would pass approximately 650m to the northeast of the LCA as it passes to the northeast of the settlement of Bryn. There would be a construction compound at this location to facilitate the trenchless crossing of the A49. There would be no effect on the key characteristics of the LCA with the		

	exception of views to the northeast and from the PRow network. Views from within the study area are likely to be limited to filtered winter views due to intervening woodland and tree belts. The magnitude of change would be Very Low.	
	Level of effect:	Pipeline and trenchless crossing construction compounds – Negligible and Not Significant to Zero.
	Type of effect:	Short-term duration (temporary with some permanent effects), direct and adverse.
	Operation and maintenance (Year 1) phase: The pipeline corridor and associated trenchless crossing compounds would all be reinstated with no lasting effects on the landscape features in views. The loss of some limited sections of hedgerow and hedgerow trees within a ~10m wide easement may be visible in filtered winter views. Consequently, there would be a Very Low to Zero magnitude of change on landscape character and key characteristics.	
	Level of effect:	Pipeline and trenchless crossing construction compounds – Negligible and Not Significant to No Effect.
	Type of effect:	Permanent duration (temporary with some permanent effects), direct and adverse.
Temporary construction accesses	Construction phase: There would be no temporary construction or operational access routes located within the LCA. The nearest would be SH10 located at Millington road to the east of the LCA at a minimum distance of 720m. Intervening layers of vegetation, landform and built development together with the low-lying nature of the construction works would severely restrict views. The magnitude of change would be Zero.	
	Level of effect:	No Effect
	Type of effect:	N/A
Limitations / assumptions	- Assessments related to landscape elements and in particular tree / vegetation loss are estimated pending the arboriculture survey and further design maturity that would be outlined in the Environmental Statement. - It has been assumed that hedgerows and trees lost to provide temporary construction access would be reinstated with new planting where possible post-construction i.e where they do not lie in easements.	
Overall assessment	Construction phase:	

There would be very limited indirect effects from the proposed South Pipeline and associated construction compounds due to distance and intervening woodland and tree belts.	
Level of effect:	Pipeline and trenchless crossing construction compounds – Negligible and Not Significant to No Effect.
Type of effect:	Short-term duration (temporary with some permanent effects), 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.	

Table 8C.7: Landscape Assessment for LCA 1a Delamere

Figures: 8.13, 8.42-8.45.		
LCA hierarchy:	National Character Area	NCA 62 Cheshire Sandstone Ridge
Landscape Designations:	None	
Administrative area:	Cheshire West and Cheshire	
Character description:	The Proposed Development passes through the eastern end of the LCA 1a Delamere and 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 <i>A Landscape Strategy for Cheshire West and Chester Borough</i>¹. <u>Key characteristics:</u> • <i>“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</i> • <i>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</i> • <i>A dynamic landscape with many areas showing different stages of peatland/ mossland development and vegetation succession</i> • <i>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</i> • <i>Peatland features include quaking bogs or ‘schwing moor’, where Sphagnum moss has formed over the water surface e.g. at Abbots Moss</i> • <i>Large areas of plantation woodland on former heath and peatland, dominated by conifers, at Delamere Forest</i> • <i>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</i>	

- *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	<u>Landscape value:</u> Within the 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 - although the northwest of the LCA (approximately 4km from the pipeline corridor) is overlapped by the Delamere/Utkinton ASCV, denoting its scenic landscape value at a local level in this part of the LCA.. The eastern tip of this LCA is located within the 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 Sandiway and Whitegate where the LCA is partially transitioning from the elevated ridge to lower lying landform to the east. There are undulating features with some opportunity to view across the wider landscape from elevated area. 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 to the northeast tip of this LCA which detracts from its scenic value in this area. Man-made golf courses also influence the area in this part of the LCA. The Delamere Way long distance route is located in the wider landscape to the west of the study area. The overall landscape value within the study area is assessed as Medium. <u>Landscape susceptibility:</u> A <i>Landscape Strategy for Cheshire West and Chester Borough</i>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 “<i>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</i>”¹. In terms of perceptual characteristics, the strategy notes “<i>The low settlement density and sense of tranquillity of this well-visited landscape</i>”¹. 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	Medium	Landscape value:	Medium
		Landscape susceptibility:	Medium
Magnitude of change			

**Pipeline
(South Corridor
high pressure
pipeline)**

Construction phase:

Figure 8.13, Volume 3 shows the South Corridor of the pipeline within the LVIA study area and 1a Delamere LCA. The pipeline corridor would enter the LCA briefly at a trenchless crossing compound to the south of the rail line and north of the Forest Hill Quarry where it would cross through two pastoral fields and one hedgerow before crossing into the adjoining LCA to the east. The pipeline corridor would again cross into the LCA on open cut passing through a hedgerow and arable field between Sandiway Golf Course and Whitegate Lane. The corridor would cross Whitegate Lane on open cut and continue through two arable fields before leaving the LCA.

A further construction compound and temporary storage compound would be located adjacent to Forest Hill Quarry, partially within the LCA boundary. The storage areas would be partially screened by vegetation to the south, but would be noticeable in the landscape in this location. The 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. 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. The compounds are likely to feature in the landscape adjacent road corridors or rail lines where man-made elements are already part of the character of the area.

The pipeline corridor would comprise site fencing, open cut pipeline trench with adjacent material storage area, associated construction machinery, internal haul road, and soil storage as indicated in **Chapter 2, Volume 2**.

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 ~500m) 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 5 No. field boundaries within the LCA that are typically defined by hedgerows with occasional trees. The localised removal of trees and shrubs at each of these 5 No. locations would appear as a break in the pattern of field boundary vegetation. The potential loss of localised trees and hedgerows in this LCA would be partially mitigated by replacement of planting in-situ, following the construction phase as recorded in the Year 1 assessment below.

	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:	Pipeline and trenchless crossing construction compounds – Major/Moderate and Significant (within 500m of the works) 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.
	Operation and maintenance (Year 1) phase: The pipeline corridor and associated trenchless crossing compounds would all be reinstated with no lasting effects on the arable and pastoral fields. The loss of some limited sections of hedgerow and hedgerow trees within a ~10m wide easement at 5 No. locations would however be permanent although partly mitigated by replacement planting of hedgerow / shrubs within the remainder of the corridor, outside the easement. Consequently, there would be a Very Low to Zero magnitude of change on landscape character and key characteristics. and a predicted Low magnitude of change on landscape elements until replacement planting is established.	
	Level of effect:	Pipeline corridor and trenchless crossing compounds – Negligible and Not Significant. (Minor and Not Significant where replanted hedgerows are establishing)
	Type of effect:	Permanent and neutral.
Temporary construction accesses (SH15, SH22, SH23)	Construction phase: Temporary construction access options: A556, Chester Road (SH15), Whitegate Lane (SH22, SH23): 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 required, existing roads would need to be widened up to ~8m. Some limited tree removal and or coppicing / pruning may be required to allow for visibility splays, but this is unlikely to significantly affect the landscape character or elements (hedgerows and hedgerow trees) in these locations. Further details would be provided in the Environmental Statement where an arboricultural assessment to BS 5837 would be submitted. 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 road widening and visibility splays would potentially be up to a High magnitude affecting a small geographical area of landscape character in the local vicinity of the temporary construction access routes.	

South Corridor Block Valve – Option 1-4 (Figures 8.42-8.45)	Level of effect:	Major/Moderate and potentially locally Significant to be clarified in the Environmental Statement following provision of more detailed construction traffic information.
	Type of effect:	Short-term duration (temporary), direct and adverse.
	Construction phase: There would be direct effects on the landscape character due to the construction of SBV4. A temporary construction compound would be located partially within the LCA to the north of the SBV1 site under construction on scrubland, screened by tall hedgerows to the south and east and by mature woodland to the north. There would be some loss of scrub and young trees, but nearby mature tree cover would be retained and protected. There would be indirect effects on landscape character from SBV1 and SBV2 block valve sites of ~0.5ha which would be located in open scrubland in the adjacent 5b Frodsham to Northwich LCA. The construction period would be 6-12 months. Receptors within the 1a Delamere LCA in the locality where these changes in the landscape would be perceived include the A556 at a lower elevation to the south, workers at the quarry using the share access road to the west. Temporary earth bunds and/or solid hoarding to the perimeter of the compound would further minimise visibility of activity and structures within the compound. Construction traffic may be similar to commercial vehicles accessing the quarry to the west of the site. 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 block valve under construction at Forest Hill Quarry access road.	
	Level of effect:	Major/Moderate and Significant within the vicinity of the temporary construction compound and Block Valve 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: There would be direct effects on the landscape character due to the introduction of SBV4. The Block Valves 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. Illustrative examples of a layout, and photographic examples of operational schemes are contained in Chapter 2. 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 Block Valve, at Forest Hill Quarry access road.	
	Level of effect:	Moderate and Not Significant

	Type of effect:	Permanent, direct and adverse.
Limitations / assumptions	1. Assessments related to landscape elements and in particular tree / vegetation loss are estimated pending the arboriculture survey and further design maturity that would be outlined in the Environmental Statement. 2. It has been assumed that hedgerows and trees lost to provide temporary construction access would be reinstated with new planting where possible post-construction i.e. where they do not lie in easements. 3. No account of any potential landscape mitigation near the perimeter of the Block Valve sites has been accounted for and is pending further design maturity. A Year 15 assessment following construction would be included in the Environmental Statement.	
Overall assessment	Construction phase: Collectively the construction works involving the underground pipeline, South Corridor Block Valve, temporary construction and storage compounds and five separate temporary construction access options routed through the 1a Delamere LCA would lead to a moderate scale of development, continuing for the construction phase (6-12 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 magnitude of change in close proximity to the Block Valve compound, 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 overall would be Negligible and Not Significant , with Minor (Not Significant) effects relating to mitigation hedgerow replanting which at Year 1 would be young planting, and Minor (Not Significant) effects relating to the Block Valve compound Option 4 (within close proximity).	

Table 8C.8: Landscape Assessment for LCA 15b Mid Weaver Valley

Figures: 8.13, 8.14, 8.42-8.45.		
LCA hierarchy:	National Character Area	NCA 61 Shropshire, Cheshire and Staffordshire Plain
Landscape Designations:	None	
Administrative area:	Cheshire West and Cheshire	
Character description:	The Proposed Development passes through the centre of LCA 15b Mid Weaver Valley, this is one of nine LCAs within the River Valleys LCT. The key landscape characteristics of the LCA are detailed below taken from <i>A Landscape Strategy for Cheshire West and Chester Borough</i>¹. <u>Key characteristics:</u> • <i>“Distinct valley with a relatively narrow, flat floodplain and steep, wooded, valley sides</i> • <i>Containing the course of the Weaver Navigation with many artificial channels (‘cuts’), locks and bridges, including Vale Royal Locks</i> • <i>The steep valley sides and series of steep sided tributary valleys support distinctive clough woodland, much of which is ancient</i> • <i>Alluvium on the valley floor gives rise to waterlogged soils which generally support permanent pasture including unimproved seasonally wet species rich grassland</i> • <i>Recreational opportunities are provided by public footpaths alongside the river/navigation, and the river itself which supports boat traffic</i> • <i>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</i> • <i>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</i> • <i>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</i> • <i>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</i>	

- *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 (Mid) ASCV. The Special Qualities of are outlined in the *Local Landscape Designations: Areas of Special County Value In Cheshire West and Chester*² and are outlined below:

- *“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 Vale Royal Cut) with many artificial channels, 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 seasonally wet species rich grassland.*
- *This ecological value is recognised by local wildlife site designation over much of the ASCV.*

	• <i>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.</i> • <i>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.</i> • <i>A quiet, tranquil and distinctly enclosed landscape with an absence of settlement despite proximity to larger towns.</i> • <i>Industrial and heritage landmarks have a visual influence on parts of the valley – particularly close to Winsford.</i> • <i>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.”²</i>
Assessment of sensitivity	<u>Landscape value:</u> The majority of the LCA area is overlapped by the Weaver Valley (Mid) ASCV, denoting its scenic landscape value at a local level. 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, local PRoW, including the Weaver Navigation canal path, and users of NCR 5. The overall landscape value is assessed as High-Medium. <u>Landscape susceptibility:</u> <i>A Landscape Strategy for Cheshire West and Chester Borough¹</i> 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 “<i>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</i>”¹. In terms of perceptual characteristics the strategy notes “<i>Low settlement density results in a quiet, tranquil landscape along much of its length</i>”¹. The Weaver Valley ASCV notes Special Landscape Qualities relating to the area. Key qualities within the study area include those relating to 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			
Pipeline (South Corridor high pressure pipeline and including Options SP1, SP2, SP3 and SP4)	Construction phase: Figures 8.13 and 8.14, Volume 3 show the South Corridor of the pipeline within the LVIA study area and 15b Mid Weaver Valley LCA. There are four locations where the proposed South Corridor would potentially cross the area dependant on the route option chosen: <u>SP 3</u> (preferred option) would enter the LCA from the west in an open arable field to the west of Vale Royal Locks. The pipeline would pass beneath the River Weaver, the adjacent Weaver Navigation and the woodland at either side of the waters on a trenchless crossing facilitated by trenchless crossing compounds located in the adjacent arable fields to the west and east of the waters and would continue on open cut through the arable field to the east. <u>SP1</u> (alternative option) would enter the LCA from the west in an open pastoral field to the south of Hartford / A556 and southeast of an electricity sub-station. The pipeline would pass beneath the rail line and the woodland at either side of the rail line on a trenchless crossing facilitated by trenchless crossing compounds located in the adjacent pastoral fields to the west and east and would join with SP2. <u>SP2</u> (alternative option) would travel southeast for a short distance through a hedgerow, following the rail line and would enter a second trenchless crossing facilitating the trenchless crossing beneath the River Weaver and the woodland at either side of the river. SP2 would exit the LCA via the southeast trenchless crossing compound. <u>SP4</u> (alternative option) would enter the LCA at the same location as SP3 above, but would turn southeast and would follow open fields to the west of the River Weaver, passing through a mature clough woodland belt, the edge of Vale Royal Abbey Golf Course, a further clough woodland belt and into a large arable field. At this point the corridor would split. A spur would continue southeast, crossing a field boundary into an adjacent arable field where it would turn northeast and cross the River Weaver, woodlands, (two pastoral fields and the rail line, both outside the LCA) before emerging to the north of the rail line. A second spur would continue to follow the River Weaver, turning southwest and exiting the LCA (where it would pass through 8 mostly arable fields, and a further cough woodland with indirect effects). The pipeline would re-enter the LCA to the northwest of Meadowbank where it would pass beneath Bradford Road, the River Weaver and scrub / riparian trees, exiting the LCA on a construction compound located in an open pastoral field and continuing northeast.		

The 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. 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. The compounds are likely to feature in the landscape adjacent road corridors or rail lines where man-made elements are already part of the character of the area.

The pipeline corridor would comprise site fencing, open cut pipeline trench with adjacent material storage area, associated construction machinery, internal haul road, and soil storage as indicated in **Chapter 2, Volume 2**.

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 ~500m) 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 2 to 15 field boundaries within the LCA (dependant on route option) that are typically defined by hedgerows with occasional trees (as well as clough woodland edges for Option SP4). The localised removal of trees and shrubs at each of these locations would appear as a break in the pattern of field boundary vegetation. The potential loss of localised trees and hedgerows in this LCA would be partially mitigated by replacement of planting in-situ, following the construction phase as recorded in the Year 1 assessment below.

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:	Pipeline and trenchless crossing construction compounds – Major/Moderate and Significant (where construction compounds or the pipeline are visible) and Moderate 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:

	<u>SP1, SP2, SP3</u>: The pipeline corridor and associated trenchless crossing compounds would all be reinstated with no lasting effects on the arable or pastoral fields. The loss of some limited sections of hedgerow and hedgerow trees within a ~10m wide easement at field boundaries adjacent to construction compounds would however be permanent although partly mitigated by replacement planting of hedgerow / shrubs within the remainder of the corridor, outside the easement. Consequently, there would be a Very Low to Zero magnitude of change on landscape character and key characteristics. and a predicted Low magnitude of change on landscape elements until replacement planting is established. <u>SP4</u>: The pipeline corridor and associated trenchless crossing compounds would all be reinstated with no lasting effects on the arable or pastoral fields. The loss of some limited sections of hedgerow and hedgerow trees within a ~10m wide easement at ~15 No. locations (some just outside the LCA boundary) would however be permanent although partly mitigated by replacement planting of hedgerow / shrubs within the remainder of the corridor, outside the easement. Mature trees within clough woodlands would not be able to be replaced with mitigation tree planting in the same location resulting in gaps in the woodlands. Consequently, there would be a High to Medium magnitude of change on local areas of key characteristics (clough woodlands) and a predicted Low magnitude of change on other landscape elements until replacement planting is established. <table border="1"> <tr> <td>Level of effect:</td><td>Pipeline corridor and trenchless crossing compounds –Minor to Minor/Negligible and Not Significant (Moderate to Minor and Not Significant where replanted hedgerows are establishing). (Major/Moderate and Significant within clough woodlands for SP4).</td></tr> <tr> <td>Type of effect:</td><td>Permanent and neutral.</td></tr> </table>	Level of effect:	Pipeline corridor and trenchless crossing compounds – Minor to Minor/Negligible and Not Significant (Moderate to Minor and Not Significant where replanted hedgerows are establishing). (Major/Moderate and Significant within clough woodlands for SP4).	Type of effect:	Permanent and neutral.
Level of effect:	Pipeline corridor and trenchless crossing compounds – Minor to Minor/Negligible and Not Significant (Moderate to Minor and Not Significant where replanted hedgerows are establishing). (Major/Moderate and Significant within clough woodlands for SP4).				
Type of effect:	Permanent and neutral.				
Temporary construction accesses (SH16, SH17, SH18, SH19, SH20, SH24, SH25, SH26, SH27, SH28, SH29)	Construction phase: <u>Temporary construction access options: Whitegate Lane (SH16, SH17), A556 (SH18, SH19, SH20), Eaton Lane (SH21), Bradford Road (SH24, SH25, SH26, SH27), Shaws Lane (SH29), Jack Lane (SH29)</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 required, existing roads would need to be widened up to ~8m. Some limited tree removal and or coppicing / pruning may be required to allow for visibility splays, but this is unlikely to significantly affect the landscape character or elements (hedgerows and hedgerow trees) in these locations. Further details would be provided in the Environmental Statement where an arboricultural assessment to BS 5837 would be submitted. 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				

	road widening and visibility splays would potentially be up to a High magnitude affecting a small geographical area of landscape character in the local vicinity of the temporary construction access routes.								
	<table> <tr> <td>Level of effect:</td><td>Major to Major/Moderate and potentially locally Significant to be clarified in the Environmental Statement following provision of more detailed construction traffic information.</td></tr> <tr> <td>Type of effect:</td><td>Short-term duration (temporary), direct and adverse.</td></tr> </table>	Level of effect:	Major to Major/Moderate and potentially locally Significant to be clarified in the Environmental Statement following provision of more detailed construction traffic information.	Type of effect:	Short-term duration (temporary), direct and adverse.				
Level of effect:	Major to Major/Moderate and potentially locally Significant to be clarified in the Environmental Statement following provision of more detailed construction traffic information.								
Type of effect:	Short-term duration (temporary), direct and adverse.								
South Corridor Block Valve (Options 1-4) (Figures 8.42-8.45)	Construction phase: The South Corridor Block Valves would be located in adjoining LCA. Intervening layers of vegetation, landform and built development together with the low-lying nature of the construction works would severely restrict views. The magnitude of change would be Zero. <table> <tr> <td>Level of effect:</td><td>No Effect</td></tr> <tr> <td>Type of effect:</td><td>N/A</td></tr> </table> Operation and maintenance (Year 1) phase: There would be no visibility of the Southern Block Valves from this LCA. The effect on the landscape character and key characteristics would be No Effect <table> <tr> <td>Level of effect:</td><td>No Effect</td></tr> <tr> <td>Type of effect:</td><td>N/A</td></tr> </table>	Level of effect:	No Effect	Type of effect:	N/A	Level of effect:	No Effect	Type of effect:	N/A
Level of effect:	No Effect								
Type of effect:	N/A								
Level of effect:	No Effect								
Type of effect:	N/A								
Limitations / assumptions	- Assessments related to landscape elements and in particular tree / vegetation loss are estimated pending the arboriculture survey and further design maturity that would be outlined in the Environmental Statement. - It has been assumed that hedgerows and trees lost to provide temporary construction access would be reinstated with new planting where possible post-construction i.e. where they do not lie in easements.								
Overall assessment	Construction phase: Collectively the construction works involving the underground pipeline, South Corridor Block Valve, temporary construction and storage compounds and five separate temporary construction access options routed through the 1a Delamere LCA would lead to a moderate scale of development, continuing for the construction phase (6-12 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 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:	Moderate to Minor and Not Significant with localised areas of Major to 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 Minor to Minor/ Negligible and Not Significant , with Moderate to Minor (Not Significant) effects relating to mitigation hedgerow replanting which at Year 1 would be young planting.	

Table 8C.10: Landscape Assessment for LCA 5e East Winsford

Figures: 8.14, 8.46		
LCA hierarchy:	National Character Area	NCA 61 Shropshire, Cheshire and Staffordshire Plain
Landscape Designations:	None	
Administrative area:	Cheshire West and Cheshire	
Character description:	The Proposed Development passes through the centre of LCA 5e East Winsford, this is one of seven LCAs within the Undulating Enclosed Farmland LCT. The key landscape characteristics of the LCA are detailed below taken from <i>A Landscape Strategy for Cheshire West and Chester Borough</i>¹. <u>Key characteristics:</u> • <i>“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</i> • <i>Small, mostly wooded brooks in narrow valleys that drain westwards towards the River Weaver and eastwards to the River Dane.</i> • <i>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</i> • <i>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</i> • <i>Isolated pockets of glacio-fluvial sands and gravels with potential to support acid grassland or heathland</i> • <i>Low lying areas support wetland habitats such as willow beds that are important features of a landscape with generally relatively low woodland cover</i> • <i>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</i>	

- 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

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 local vernacular built form - red brick and sandstone, with timber framed buildings, large red brick dairy barns (with characteristic round windows) 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 outside the main settlements.*
5. *Seek to integrate garden boundaries with the rural landscape through use of native hedgerows.*
6. *Conserve the settings of Davenham Hall (Grade II*) and Bostock Hall (Grade II*) (including Bostock Green estate village) that are designated Conservation Areas.*
7. *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.*
8. *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.*
9. *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.*
10. *Conserve the open setting of the church spire at Davenham that forms a landmark on the skyline when considering the location for new built development.*
11. *Consider views from Sustrans NCR 5 and the canal towpath when considering the location of new built development.*
12. *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 (Mid) ASCV. The Special Qualities of are outlined in the <i>Local Landscape Designations: Areas of Special County Value in Cheshire West And Chester</i>² and are outlined below: • <i>“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 Vale Royal Cut) with many artificial channels, locks and bridges, including Vale Royal Locks.</i> • <i>The steep valley sides and series of steep sided tributary valleys support distinctive clough woodland, much of which is ancient.</i> • <i>Alluvium on the valley floor gives rise to waterlogged soils which generally support seasonally wet species rich grassland.</i> • <i>This ecological value is recognised by local wildlife site designation over much of the ASCV.</i> • <i>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.</i> • <i>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.</i> • <i>A quiet, tranquil and distinctly enclosed landscape with an absence of settlement despite proximity to larger towns.</i> • <i>Industrial and heritage landmarks have a visual influence on parts of the valley – particularly close to Winsford.</i> • <i>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.”²</i>
Assessment of sensitivity	<u>Landscape value:</u> The majority of the LCA area 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 rail line (west of Moulton) which is overlapped by the Weaver Valley ASCV 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).

	<u>Landscape susceptibility:</u> <i>A Landscape Strategy for Cheshire West and Chester Borough¹ 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 notes Special Landscape Qualities relating to the area. Key qualities within the study area include those relating to the Valeroyal 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, and comprising elements trenchless crossing of the area, the landscape susceptibility to this type of development is reduced. Susceptibility, however is increased due to the location of the works in the slightly more sensitive areas around Bostock and Bostock Green. The overall susceptibility of the landscape to the Project is assessed as Medium (High-Medium at Bostock / Bostock Green).</i>		
Sensitivity	High-Medium	Landscape value:	Medium (High-Medium west of Moulton)
		Landscape susceptibility:	Medium (High-Medium at Bostock / Bostock Green)
Magnitude of change			
Pipeline	Construction phase:		

**South Corridor
with Options
SP2, SP3 and
SP4**

Figure 8.14, Volume 3 shows the South Corridor of the pipeline within the LVIA study area and 5e East Winsford LCA. SP3 would enter the LCA on a trenchless crossing beneath Vale Royal Locks, continue east on open cut for a short distance (~100m) before entering a further trenchless crossing compound and passing beneath the rail line into an open arable field where it would turn southeast parallel to the rail line through eight open fields and Niddries Lane (twice) on open cut trench. The corridor would then turn east and northeast through a further four fields and Jack Lane on open cut to the A533 which would be crossed using a trenchless crossing facilitated by trenchless crossing compounds in open fields at either side of the road. Storage compounds would be located adjacent to the trenchless crossing compounds in open fields, with the compound to the west of the road spanning two fields and ~160m of hedgerow. A further six open fields and London Road would be crossed on open cut before SP3 pipeline corridor leaves the LCA. SP3 would cross up to 24 field boundaries including hedgerow with hedgerow trees and post and wire fencing. The route would also pass-through mature roadside trees where it crosses London Road and Jack Lane.

SP2 would enter the LCA on a trenchless crossing beneath River Weaver and woodlands to the northeast of the rail line overbridge and would continue southeast, parallel to the rail line through two open fields and a farm access track before joining SP3. Two hedgerows would be crossed.

SP4 – a spur of SP4 would enter the LCA on a trenchless crossing facilitated by a compound in an open field to the northwest of Moulton where it would join SP3. A second SP4 spur would enter the LCA at a trenchless crossing compound after crossing the River Weaver at Meadow Bank. The trenchless crossing compound would incorporate scrubland to the east of the river bank and would continue across a pastoral field to facilitate the trenchless crossing of the rail line. A further trenchless crossing compound would be located in an open arable field to the northeast of the rail line. From here SP4 would cross a further three arable fields before joining SP3. SP4 would pass through four hedgerows with mature trees on open cut trench.

Large storage compounds would span six open fields to the south and east of the Southern Block Valve (Option 5). The storage areas would be partially screened by roadside vegetation but would be noticeable in the landscape in this location.

The 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 (up to 6m in height). Lighting would be required during the house of darkness for operational activity typically in winter and may be required for security. Lighting design would minimise light spill outside the compound. The compounds are likely to feature in the landscape adjacent road corridors or rail lines where man-made elements are already part of the character of the area.

The pipeline corridor would comprise site fencing, open cut pipeline trench with adjacent material storage area, associated construction machinery, internal haul road, and soil storage as indicated in **Chapter 2, Volume 2**.

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 ~500m) 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 approximately 37 field boundaries within the LCA that are typically 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. The potential loss of localised trees and hedgerows in this LCA would be partially mitigated by replacement of planting in-situ, following the construction phase as recorded in the Year 1 assessment below.

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:	Pipeline, trenchless crossing construction compounds and – Major/Moderate and Significant (where construction compounds or the pipeline are visible) (Major to Major/ Moderate at the more sensitive Vale Royal Locks) 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.

Operation and maintenance (Year 1) phase:

The pipeline corridor and associated trenchless crossing compounds would all be reinstated with no lasting effects on the arable and pastoral fields. The loss of some limited sections of hedgerow and hedgerow trees within a ~10m wide easement at up to 30 No. locations would however be permanent although partly mitigated by replacement planting of hedgerow / shrubs within the remainder of the corridor, outside the easement. Roadside trees would be replanted with lower growing hedgerow species. Consequently, there would be a Very Low to Zero magnitude of change on landscape character and key characteristics. and a predicted Low magnitude of change on landscape elements until replacement planting is established.

	Level of effect:	Pipeline corridor and trenchless crossing compounds – Negligible and Not Significant (Minor and Not Significant where replanted hedgerows are establishing)
	Type of effect:	Permanent and neutral.
Temporary construction accesses (SH21, SH28, SH29, SH30, SH31, SH32, SH33, SH34)	Construction phase:	Temporary construction access options: Eaton Lane (SH21), Shaws Lane (SH28), Jack Lane (SH29, SH30), A533 (SH31, SH32) London Road (SH33, SH34): 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 required, existing roads would need to be widened up to ~8m. Some limited tree removal and or coppicing / pruning may be required to allow for visibility splays, but this is unlikely to significantly affect the landscape character or elements (hedgerows and hedgerow trees) in these locations. Further details would be provided in the Environmental Statement where an arboricultural assessment to BS 5837 would be submitted. 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 road widening and visibility splays would potentially be up to a High 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 potentially locally Significant to be clarified in the Environmental Statement following provision of more detailed construction traffic information.
	Type of effect:	Short-term duration (temporary), direct and adverse.
Option 5 of Southern Block Valve (Figure 8.46)	Construction phase:	The Southern Block Valve (Option 5) is sited in an open field with extensive tree-lined boundaries to the east along Jack Lane. The magnitude of change would be Medium to High locally.
	Level of effect:	Major/Moderate and Significant
	Type of effect:	Short-term duration (temporary), direct and adverse.
	Operation and maintenance (Year 1) phase:	The Southern Block Valve (Option 5) would be approximately 0.5ha in area, enclosed by security fencing typically 2.4m 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 modest scale means that the localised magnitude of change would be Low with a Moderate effect that is Not Significant.	
	Level of effect:	Moderate and Not Significant
	Type of effect:	Permanent and adverse to neutral.
Limitations / assumptions	1. Assessments related to landscape elements and in particular tree / vegetation loss are estimated pending the arboriculture survey and further design maturity that would be outlined in the Environmental Statement. 2. It has been assumed that hedgerows and trees lost to provide temporary construction access would be reinstated with new planting where possible post-construction i.e. where they do not lie in easements. 3. No account of any potential landscape mitigation near the perimeter of the SBV site has been accounted for and is pending further design maturity. A Year 15 assessment following construction would be included in the Environmental Statement.	
Overall assessment	Construction phase: Collectively the construction works involving the underground pipelines, temporary construction and storage compounds, plus 8 temporary construction access routes within the 5e East Winsford LCA would lead to a moderate scale of development, continuing for the construction phase (6-12 months). 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, pipeline corridor and SBV (Option 5). Some localised losses of hedgerows and hedgerow trees can be largely reinstated following completion of the construction phase. Although SP3 and SP4 would pass through the more sensitive ASCV area, they would be using a trenchless crossing technique to minimise effects on the landscape features in this area (including Vale Royal Cut and Lochs and wooded cloughs).	
	Level of effect:	Minor and Not Significant with localised areas of Major/Moderate and Significant effects close to the pipeline corridor, Southern Block Valve 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 relating to mitigation hedgerow replanting which at Year 1 are likely to be young plants of limited height and volume. **Moderate** and **Potentially Significant** localised effects associated with the Southern Block Valve (Option 5).

Table 8C.11: Landscape Assessment for LCA 13b Arley West

Figures: 8.9		
LCA hierarchy:	National Character Area	NCA 61 Shropshire, Cheshire and Staffordshire Plain
Landscape Designations:	None	
Administrative area:	Cheshire West and Cheshire	
Character description:	The Proposed Development passes through the centre of LCA 13b Arley West, this is one of two LCAs within the Lowland Farmland & Mosses LCT. The key landscape characteristics of the LCA are detailed below taken from <i>A Landscape Strategy for Cheshire West and Chester Borough</i>¹. <u>Key characteristics:</u> • <i>“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</i> • <i>Ditches and brooks drain the area. Field ponds are also a feature of this seasonally waterlogged landscape</i> • <i>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</i> • <i>The influence of the Arley Estate is evident in the large areas of reorganised fields, which replaced the earlier small irregular/semi regular assarts</i> • <i>A landscape of colonisation by successive generations of sizable areas of common/waste (i.e Whitley Reed)</i> • <i>Dispersed settlement pattern is characterised by low density, scattered farmsteads linked by a network of narrow, rural lanes</i> • <i>Built materials include red brick and white wash finishes. Red brick barns are a feature of the landscape</i> • <i>A sense of openness results from the flat topography, large fields, low cut hedgerows and low woodland cover</i>	

	• <i>However, the skyline appears to be wooded, formed by hedgerow trees and birch woodland at Park Moss</i> • <i>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</i> • <i>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."</i>¹ <u>Built Development Guidelines:</u> <i>"1. Maintain the low density, scattered settlement pattern of farmsteads.</i> <i>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.</i> <i>3. 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.</i> <i>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.</i> <i>5. Maintain red brick barns as features of the landscape. Ensure conversion of farm buildings is sensitive to the rural landscape - pay particular attention to the features which accompany the conversion such as driveways, gateways and gardens, ensuring that these features do not 'suburbanise' the landscape."</i>¹
Assessment of sensitivity	<u>Landscape value:</u> 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 majority of the LCA, and therefore most of the key features of the LCA. Within the 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. <u>Landscape susceptibility:</u> <i>A Landscape Strategy for Cheshire West and Chester Borough¹ 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</i>

	<i>adverse effect on the character of the landscape”¹. In terms of perceptual characteristics, the landscape is described as “The 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.</i>		
Sensitivity	Medium	Landscape value:	Medium
		Landscape susceptibility:	Medium
Magnitude of change			
Pipeline (East Corridor)	Construction phase: Figure 8.9, Volume 3 shows the South Corridor of the pipeline within the LVIA study area and 13b Arley West LCA. The East Corridor would pass through the northern part of the LCA and would enter on open cut in an open field and would cross a further 12 open pastoral and arable fields before leaving the LCA. The pipeline corridor would cross four minor roads on 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 17 field boundaries would be crossed including hedgerows with hedgerow trees, riparian brook-side trees, and post and wire fencing. The pipeline corridor would comprise site fencing, open cut pipeline trench with adjacent material storage area, associated construction machinery, internal haul road, and soil storage as indicated in Chapter 2, Volume 2. 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 ~500m) 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 approximately 17 field boundaries within the LCA that are typically 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. The potential loss of localised trees and hedgerows in this LCA would be partially		

	mitigated by replacement of planting in-situ, following the construction phase as recorded in the Year 1 assessment below. 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 <table border="1"> <tr> <td>Level of effect:</td><td>Pipeline, trenchless crossing construction compounds and – Major/Moderate and Significant (where construction compounds or the pipeline are visible) and Minor and Not Significant to No Effect elsewhere within the wider LCA.</td></tr> <tr> <td>Type of effect:</td><td>Short-term duration (temporary with some permanent effects), direct and adverse.</td></tr> </table> Operation and maintenance (Year 1) phase: The pipeline corridor and associated trenchless crossing compounds would all be reinstated with no lasting effects on the arable and pastoral fields. The loss of some limited sections of hedgerow and hedgerow trees within a ~10m wide easement at up to 30 No. locations would however be permanent although partly mitigated by replacement planting of hedgerow / shrubs within the remainder of the corridor, outside the easement. Roadside trees would be replanted with lower growing hedgerow species. Consequently, there would be a Very Low to Zero magnitude of change on landscape character and key characteristics. and a predicted Low magnitude of change on landscape elements until replacement planting is established. <table border="1"> <tr> <td>Level of effect:</td><td>Pipeline corridor and trenchless crossing compounds – Negligible and Not Significant (Minor and Not Significant where replanted hedgerows are establishing)</td></tr> <tr> <td>Type of effect:</td><td>Permanent and neutral.</td></tr> </table>	Level of effect:	Pipeline, trenchless crossing construction compounds and – Major/Moderate and Significant (where construction compounds or the pipeline are visible) 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.	Level of effect:	Pipeline corridor and trenchless crossing compounds – Negligible and Not Significant (Minor and Not Significant where replanted hedgerows are establishing)	Type of effect:	Permanent and neutral.
Level of effect:	Pipeline, trenchless crossing construction compounds and – Major/Moderate and Significant (where construction compounds or the pipeline are visible) 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.								
Level of effect:	Pipeline corridor and trenchless crossing compounds – Negligible and Not Significant (Minor and Not Significant where replanted hedgerows are establishing)								
Type of effect:	Permanent and neutral.								
Temporary construction accesses (EH13, EH14, EH15, EH16, EH17, EH18, EH19)	Construction phase: <u>Temporary construction access options: Barber's Lane (EH13, EH14), Pools Platt Lane (EH15, EH16), Arley Road (EH17, EH18), Caldwell's Gate Lane (EH19):</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 required, existing roads would need to be widened up to ~8m. Some limited tree removal and or coppicing / pruning may be required to allow for visibility splays, but this is unlikely to significantly affect the landscape character or elements (hedgerows and hedgerow trees) in these locations. Further details would be provided in the Environmental Statement where an arboricultural assessment to BS 5837 would be submitted. 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 road widening and visibility splays would potentially be up to a High 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 potentially locally Significant to be clarified in the Environmental Statement following provision of more detailed construction traffic information.
	Type of effect:	Short-term duration (temporary), direct and adverse.
Limitations / assumptions	- Assessments related to landscape elements and in particular tree / vegetation loss are estimated pending the arboriculture survey and further design maturity that would be outlined in the Environmental Statement. - It has been assumed that hedgerows and trees lost to provide temporary construction access would be reinstated with new planting where possible post-construction i.e. where they do not lie in easements.	
Overall assessment	Construction phase: Collectively the construction works involving the underground pipelines and seven temporary construction access routes within the 13b Arley West LCA would lead to a moderate scale of development, continuing for the construction phase (6-12 months). 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 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 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 overall would be Negligible and Not Significant. , with Minor (Not Significant) effects relating to mitigation hedgerow replanting which at Year 1 are likely to be young plants of limited height and volume.	

Table 8C.12: Landscape Assessment for LCA 5d Whitley and Comberbach

Figures: 8.4, 8.9, 8.12, 8.33, 8.34 , Viewpoints CH1 (Figure 8.49), CH2 (Figure 8.50) and CH3 (Figure 8.51)		
LCA hierarchy:	National Character Area	NCA 61 Shropshire, Cheshire and Staffordshire Plain and NCA 62 Cheshire Sandstone Ridge
Landscape Designations:	None	
Administrative area:	Cheshire West and Cheshire	
Character description:	The Proposed Development passes through the centre of LCA 5d Whitley and Comberbach, this is one of seven LCAs within the Undulating Enclosed Farmland LCT. The key landscape characteristics of the LCA are detailed below taken from <i>A Landscape Strategy for Cheshire West and Chester Borough</i>¹ <u>Key characteristics:</u> • “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*

Built Development Guidelines:

“1. Maintain the low density, scattered settlement pattern of picturesque villages/hamlets, farmsteads and cottages.

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. Maintain a distinction between urban and rural areas.

	3. 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 outside the main settlements. 4. Seek to integrate garden boundaries with the rural landscape through use of native hedgerows. 5. Retain the red brick dairy barns, including their round windows which are a characteristic feature, and their rural settings as features of the landscape. 6. Conserve the black and white estate railings known as ‘Cheshire Railings’. 7. Maintain the rural setting to villages and sandstone farmsteads which are features of the landscape. 8. 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. 9. 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. 10. 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. 11. Conserve the rural settings of villages and views to landmark features. 12. Preserve the distinctive characteristic of Great Budworth. 13. Resist expansion of Lower Whitley to preserve its distinctive rural character. 14. Conserve the open settings of the medieval church tower at Great Budworth and church spire at Little Leigh that form landmarks on the skyline when considering the location for new built development. 15. Consider views from Delamere Way when considering locations for new built development. 16. Ensure signage is appropriate to its setting. 17. Refer to the Whitley Village Plan when considering change in and around Whitley.”¹
Assessment of sensitivity	<u>Landscape value:</u> 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 Great Budworth, 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. <u>Landscape susceptibility:</u> <i>A Landscape Strategy for Cheshire West and Chester Borough¹ 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.</i>		
Sensitivity	Medium	Landscape value:	Medium
		Landscape susceptibility:	Medium
Magnitude of change			
Pipeline (Central Hub, West Corridor, North Corridor, East Corridor, South Corridor and Northwich Spur)	Construction phase:		
	Figures 8.4, 8.9 and 8.12, Volume 3 show the South Corridor of the pipeline within the LVIA study area and 5d Whitley and Comberbach LCA. The ‘Central Hub’ of the proposed pipeline is located within this LCA, with the West, North, East and South pipeline corridors, and the Northwich Spur spreading out from this central location across the LCA. For ease of assessment, these are considered separately below: <u>West Corridor</u> The West Corridor enters the LCA on a trenchless crossing beneath the Trent and Mersey facilitated by trenchless crossing compounds to the south of Dutton Hall Farm. From here it would continue northwest across a farm track and two arable fields towards a further trenchless crossing compound facilitating the crossing of the A533, and continuing northwest across five mainly pastoral fields before reaching the CHH2 central Hub HAGI. The route would cross approximately seven field boundaries comprising mostly hedgerow with occasional hedgerow trees. <u>North Corridor</u>		

The North Corridor enters the LCA on open cut across a pastoral field near Pear Tree Farm to the northwest of the LCA. The corridor travels southeast across Higher Lane and seven mostly pastoral fields before turning southwest to cross Marsh Lane and continuing southeast across a further seven mostly pastoral fields before reaching the CHH2 central Hub HAGI. The route would cross up to seventeen field boundaries comprising mostly hedgerow with occasional hedgerow trees.

East Corridor

The East Corridor enters the LCA on open cut in a large pastoral field to the northeast of the LCA between East Lane and Barber's Lane. From here it continues southwest across a farm access track and five mostly pastoral fields before crossing Knutsford Road and continuing across a further two pastoral fields. The corridor would then cross the A559 on a trenchless crossing facilitated by construction compounds in open pastoral fields and continue west and then southwest on open cut across Old Mill Lane and Normans Lane and fourteen pastoral and arable fields, crossing Red Lane and a further arable field before crossing the A49 on a trenchless crossing facilitated by trenchless crossing compounds. A storage compound would be located in an adjacent open field to the north of the (western) construction compound. Continuing southwest, the corridor would pass through a further five mostly arable fields and Marsh Lane on open cut before reaching the CHH2 central Hub HAGI. The route would cross up to thirty field boundaries comprising mostly hedgerow with occasional hedgerow trees.

South Corridor

The South Corridor enters the LCA at a trenchless crossing beneath the Trent and Mersey Canal to the southwest of the LCA and to the west of Bartington. After the trenchless crossing compound located in a pastoral field, the corridor crosses a farm access track and turns north to cross a further twelve mostly pastoral fields and the A533, Northwich Road on open cut before reaching the CHH2 central Hub HAGI. The route would cross up to fifteen field boundaries comprising mostly hedgerow with occasional hedgerow trees.

Northwich Spur

The Northwich Spur enters the LCA on an open cut trench in an arable field to the southeast of the LCA to the west of Anderton Marina. From here it travels northwest across four arable and pastoral fields before reaching Cogshall Lane. Crossing Cogshall Lane on open cut trench, it continues northwest across a further three fields and a brook and briefly turns southwest, crossing Hough Lane and a further four pastoral fields, turning northwest again to cross a further pastoral field and Stone Heyes Lane. After crossing a further seven fields, the pipeline corridor crosses Shutley Lane, a further four pastoral fields, Ash House Lane, and a further three arable and pastoral fields before reaching the A533, Runcorn Road at its junction with A49, Warrington Road. These are both crossed on a trenchless crossing with trenchless crossing compounds

located in a pastoral field to the east of Runcorn road and a further pastoral field to the west of Warrington Road. The construction compound also serves a further crossing of the A533 to the west of Dones View Farm. The corridor travels northwest across a pastoral and an arable field, turns north through a further two pastoral fields and then turns west to CHH2 Central Hub HAGI. The route would cross up to 37 field boundaries comprising mostly hedgerow with occasional hedgerow trees.

Large storage compounds would span six open fields to the south and west of the HAGI. The storage areas would be partially screened by roadside vegetation, but would be noticeable in the landscape in this location. The 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. 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. The compounds are likely to feature in the landscape adjacent road corridors or rail lines where man-made elements are already part of the character of the area.

The pipeline corridor would comprise site fencing, open cut pipeline trench with adjacent material storage area, associated construction machinery, internal haul road, and soil storage as indicated in **Chapter 2, Volume 2**.

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 ~500m) 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 approximately 37 field boundaries within the LCA that are typically 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. The potential loss of localised trees and hedgerows in this LCA would be partially mitigated by replacement of planting in-situ, following the construction phase as recorded in the Year 1 assessment below.

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:	Pipeline and trenchless crossing construction compounds – Major/Moderate and Significant (where construction compounds or the pipeline are visible) 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.
	Operation and maintenance (Year 1) phase: The pipeline corridor and associated trenchless crossing compounds would all be reinstated with no lasting effects on the arable and pastoral fields. The loss of some limited sections of hedgerow and hedgerow trees within a ~10m wide easement at ~37 No. locations would however be permanent although partly mitigated by replacement planting of hedgerow / shrubs within the remainder of the corridor, outside the easement. Consequently, there would be a Very Low to Zero magnitude of change on landscape character and key characteristics and a predicted Low magnitude of change on landscape elements until replacement planting is established.	
	Level of effect:	Pipeline corridor and trenchless crossing compounds – Negligible and Not Significant (Minor and Not Significant where replanted hedgerows are establishing)
	Type of effect:	Permanent and neutral.
Temporary construction accesses (SH01, SH02, SH03, SH16, SH17, SH39, SH40, SH41, SH42, SH43, SH44, SH45, SH46, SH47, SH48, SH49, SH50, EH01, EH02, EH03, EH04, EH05, EH06, EH07,	Construction phase: <u>Temporary construction access options: A533, Northwich Road (WH21, WH22, WH23, SH01, SH02, SH40), A49, Warrington / Tarporley Road (SH03, SH39, EH03, EH04), Stone Heyes Lane (SH45, SH46), Hough Lane (SH47, SH48) A556, Cogshall Lane (SH49, SH50), Whitegate Lane (SH16, SH17), Shutley Lane (SH43, SH44), Ash House Lane (SH41, SH42), Marsh Lane (EH01, EH02, NH01, NH02), Norman's Lane (EH05, EH06), Old Mill Lane (EH07, EH08), A559, Northwich Road (EH09, EH10), Higher Lane (NH03, NH04):</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 required, existing roads would need to be widened up to ~8m. Some limited tree removal and or coppicing / pruning may be required to allow for visibility splays, but this is unlikely to significantly affect the landscape character or elements (hedgerows and hedgerow trees) in these locations. Further details would be provided in the Environmental Statement where an arboricultural assessment to BS 5837 would be submitted. 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 road widening and visibility splays would potentially be up to a High magnitude affecting a	

EH08, EH09, EH10, NH01, NH02, NH03, NH04, WH21, WH22, WH23)	small geographical area of landscape character in the local vicinity of the temporary construction access routes.	
	Level of effect:	Major/Moderate and potentially locally Significant
	Type of effect:	Short-term duration (temporary), direct and adverse.
Central Hub HAGI Options CHH1 and CHH2 (Figures 8.33 and 8.34)	Construction phase: Temporary construction compounds would be located on agricultural fields adjacent to both HAGI options. A pipe storage compound would be located between the HAGI options and would straddle two open fields potentially involving the loss of ~180m length of hedgerow (reinstated following construction). Both HAGI options are located in an open field and would be sited to minimise any loss of trees and hedgerows. The construction period would be 6-12 months. Receptors in the locality where these changes in the landscape would be perceived include users of the A533 to the south, Marsh Lane to the north and farm workers from surrounding farms. Temporary earth bunds and/or solid hoarding to the perimeter of the compounds would minimise visibility of activity and structures within the compound. 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: Both HAGI options 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. Illustrative examples of a layout, and photographic examples of operational schemes are contained in Chapter 2. 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 Not Significant
	Type of effect:	Permanent, direct and adverse.

Limitations / assumptions	1. Assessments related to landscape elements and in particular tree / vegetation loss are estimated pending the arboriculture survey and further design maturity that would be outlined in the Environmental Statement. 2. It has been assumed that hedgerows and trees lost to provide temporary construction access would be reinstated with new planting where possible post-construction i.e. where they do not lie in easements. 3. No account of any potential landscape mitigation near the perimeter of the HAGI sites has been accounted for and is pending further design maturity. A Year 15 assessment following construction would be included in the Environmental Statement.
Overall assessment	Construction phase: Collectively the construction works involving the underground pipelines, Central Hub HAGI options, 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 (6-12 months). 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 options, 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, 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 overall would be Negligible and Not Significant, with Minor (Not Significant) effects relating to mitigation hedgerow replanting which at Year 1 would be young plant, and Moderate (Not Significant) effects relating to the Central Hub HAGI compound (within close proximity).

Table 8C.13: Landscape Assessment for LCA 2a Frodsham Sandstone Ridge

Figures: 8.3		
LCA hierarchy:	National Character Area	NCA 60 Mersey Valley and NCA 62 Cheshire Sandstone Ridge
Landscape Designations:	Helsby and Frodsham Hills Area of Special County Value (ASCV)	
Administrative area:	Cheshire West and Cheshire	
Character description:	The Proposed Development 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 <i>A Landscape Strategy for Cheshire West and Chester Borough</i>¹. <u>Key characteristics:</u> • <i>“Outcrops of Triassic sandstone form a prominent ridge reaching over 150m with hills forming features at Beacon Hill, Harrol Edge and Birch Hill;</i> • <i>Steep sandstone cliffs to the north and west of the ridge support dense woodland, including ancient oak woodland, for example at Alvanley Cliff Wood</i> • <i>Dry gorges, created by glacial meltwater, are features of the northern and western edges of the ridge;</i> • <i>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;</i> • <i>Groups of Scots pines form distinctive skyline elements;</i> • <i>Quarries are features, particularly along the west-facing cliff;</i> • <i>Less steep slopes support arable farmland;</i> • <i>Regular geometric fields, resulting from late eighteenth and early nineteenth century enclosure by private agreement and Parliamentary Act, dominate the ridge;</i> • <i>New Pale is a 17th century deer park with a distinctive boundary which is a feature in the landscape;</i> • <i>Low density of dispersed farms and hamlets – many farm buildings are constructed from sandstone (quarried from the ridge) with welsh slate roofs;</i> • <i>Sunken lanes provide access over the ridge, responding to landform – there are no main roads;</i>	

- *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 of are outlined in the *Local Landscape Designations: Areas of Special County Value in Cheshire West and Chester*² and are outlined below:

- *“Outcrops of Triassic sandstone form a prominent ridge reaching over 150m with summit features at Beacon Hill, Harrol Edge and Birch Hill.*
- *Helsby Hill at 141m elevation stands as a prominent free-standing outcrop with distinctive, steep sided profile, including the ‘Old Man of Helsby’.*
- *Pronounced sandstone scarps to the north and west of the ASCV support dense woodland, including ancient oak woodland, for example at Alvanley Cliff Wood.*
- *Dry gorges, created by glacial meltwater, are features of the northern and western edges of the ridge.*
- *A strong mosaic land cover of grassland, arable farmland and woodland.*
- *Groups of Scots pines form distinctive skyline elements.*
- *Regular geometric fields, resulting from late eighteenth and early nineteenth century enclosure by private agreement and Parliamentary Act, characterise the ridge.*
- *17th century deer park to the south of the ASCV at New Pale with distinctive circular boundary is a feature in the landscape.*
- *Low density of dispersed farms and hamlets – many farm buildings are constructed from sandstone (quarried from the ridge) with welsh slate roofs.*

	• <i>Sunken lanes network provides access over the ridge, responding to landform whilst there is an absence of main roads.</i> • <i>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).</i> • <i>Historic buildings range from seventeenth century manor houses and farmsteads, nineteenth century follies and the buildings of Crossley East Sanatorium (Listed Buildings).</i> • <i>The War Memorial on Frodsham Hill is a landmark feature, from where there are panoramic views over the Mersey Estuary.</i> • <i>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.”²</i>
Assessment of sensitivity	<u>Landscape value:</u> 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. <i>A Landscape Strategy for Cheshire West and Chester Borough¹</i> cites an overall management strategy for this landscape to “<i>conserve the strong, prominent and simple skyline and panoramic views from the ridge.</i>”¹ The overall landscape value is assessed as High. <u>Landscape susceptibility:</u> There would be no physical change to this LCA as a result of the Project. <i>A Landscape Strategy for Cheshire West and Chester Borough¹</i> states that the “<i>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</i>”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 “<i>sense of peace and quiet away from the popular areas</i>”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	Landscape value:	High
		Landscape susceptibility:	Medium

Magnitude of change

Pipeline West Corridor including Options WP1 and WP2	Construction phase: Figure 8.3, Volume 3 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 comprise site fencing, open cut pipeline trench with adjacent material storage area, associated construction machinery, internal haul road, and soil storage as indicated in Chapter 2, Volume 2 . The 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 which comprises 19 wind turbines 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 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:	Pipeline corridor– Minor and Not Significant to No Effect .
	Type of effect:	Short-term duration (temporary with some permanent effects), indirect and adverse.
	Operation and maintenance (Year 1) phase: The pipeline corridor would all be reinstated with no lasting effects on the arable and pastoral fields through which it passes in the panoramic views which are available from within this LCA. The loss of some limited sections of hedgerow and hedgerow trees from within narrow easements above the pipeline would not be discernible as a consequence of the separation distance. The magnitude of change would be Zero.	
	Level of effect:	Pipeline corridor – No Effect
	Type of effect:	N/A

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 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 and Not Significant to No Effect to be clarified in the Environmental Statement following provision of more detailed construction traffic information.
	Type of effect:	Short-term duration (temporary), indirect and adverse.
Limitations / assumptions	- Assessments related to landscape elements and in particular tree / vegetation loss are estimated pending the arboriculture survey and further design maturity that would be outlined in the Environmental Statement. - It has been assumed that hedgerows and trees lost to provide temporary construction access would be reinstated with new planting where possible post-construction i.e. where they do not lie in easements.	
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 north and south 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 Windfarm. Overall, the magnitude of change on the LCA would be Very Low.	
	Level of effect:	Minor and Not Significant
	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 at Operation Year 1.	

Table 8C.14: Landscape Assessment for LCA 2b Helsby Hill

Figures: 8.2		
LCA hierarchy:	National Character Area	NCA 60 Mersey Valley
Landscape Designations:	Helsby and Frodsham Hills ASCV	
Administrative area:	Cheshire West and Cheshire	
Character description:	The Proposed Development 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 <i>Landscape Strategy for Cheshire West and Chester Borough</i>¹. <u>Key characteristics:</u> • “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 ASCV. The Special Qualities of are outlined in the *Local Landscape Designations: Areas of Special County Value in Cheshire West and Chester*² and are outlined below:

- *“Outcrops of Triassic sandstone form a prominent ridge reaching over 150m with summit features at Beacon Hill, Harrol Edge and Birch Hill.*
- *Helsby Hill at 141m elevation stands as a prominent free-standing outcrop with distinctive, steep sided profile, including the ‘Old Man of Helsby’.*
- *Pronounced sandstone scarps to the north and west of the ASCV support dense woodland, including ancient oak woodland, for example at Alvanley Cliff Wood.*
- *Dry gorges, created by glacial meltwater, are features of the northern and western edges of the ridge.*
- *A strong mosaic land cover of grassland, arable farmland and woodland.*
- *Groups of Scots pines form distinctive skyline elements.*
- *Regular geometric fields, resulting from late eighteenth and early nineteenth century enclosure by private agreement and Parliamentary Act, characterise the ridge.*
- *17th century deer park to the south of the ASCV at New Pale with distinctive circular boundary is a feature in the landscape.*
- *Low density of dispersed farms and hamlets – many farm buildings are constructed from sandstone (quarried from the ridge) with welsh slate roofs.*
- *Sunken lanes network provides access over the ridge, responding to landform whilst there is an absence of main roads.*
- *The promontory forts at Helsby Hill and Woodhouses Hill (Scheduled Monuments) occupy prominent positions along the ridge. Other archaeological sites include the remains of the possible motte and*

	<i>bailey castle at Castle Cobb and the remains of the Maidens Cross wayside cross (Scheduled Monuments).</i> <i>Historic buildings range from seventeenth century manor houses and farmsteads, nineteenth century follies and the buildings of Crossley East Sanatorium (Listed Buildings).</i> <i>The War Memorial on Frodsham Hill is a landmark feature, from where there are panoramic views over the Mersey Estuary.</i> <i>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.”</i> ²	
Assessment of sensitivity	<u>Landscape value:</u> This LCA is designated as an AGLV for its special landscape character and scenic value. Within the 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. <i>A Landscape Strategy for Cheshire West and Chester Borough</i> cites an overall management strategy for this landscape to “<i>conserve the strong, prominent and simple skyline and panoramic views from the hill</i>” ¹. The overall landscape value is assessed as High. <u>Landscape susceptibility:</u> There would be no physical change to this LCA as a result of the Project. <i>A Landscape Strategy for Cheshire West and Chester Borough</i>¹ states that the “<i>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”</i>” 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 “<i>sense of peace and quiet away from the popular areas</i>”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	Landscape value: High
		Landscape susceptibility: Medium
Magnitude of change		

Pipeline West Corridor including Options WP1 and WP2	Construction phase: Figure 8.2, Volume 3 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 comprise site fencing, open cut pipeline trench with adjacent material storage area, associated construction machinery, internal haul road, and soil storage as indicated in Chapter 2, Volume 2 . The 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 which comprises 19 wind turbines 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 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 and Not Significant to No Effect.
	Type of effect:	Short-term duration (temporary with some permanent effects), indirect and adverse.
	Operation and maintenance (Year 1) phase: The pipeline corridor would all be reinstated with no lasting effects on the arable and pastoral fields through which it passes in the panoramic views which are available from within this LCA. The loss of some limited sections of hedgerow and hedgerow trees from within narrow easements above the pipeline would not be discernible as a consequence of the separation distance. The magnitude of change would be Zero.	
	Level of effect:	Pipeline corridor – No Effect
	Type of effect:	N/A
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 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 and Not Significant to No Effect to be clarified in the Environmental Statement following provision of more detailed construction traffic information.
	Type of effect:	Short-term duration (temporary), indirect and adverse.
Limitations / assumptions	1. Assessments related to landscape elements and in particular tree / vegetation loss are estimated pending the arboriculture survey and further design maturity that would be outlined in the Environmental Statement. 2. It has been assumed that hedgerows and trees lost to provide temporary construction access would be reinstated with new planting where possible post-construction i.e. where they do not lie in easements.	
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 Proposed Works north and south 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 Windfarm. Overall, the magnitude of change on the LCA would be Very Low.	
	Level of effect:	Minor and Not Significant to Zero
	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 at Operation Year 1.	

Table 8C.15: Landscape Assessment for LCA 5f Helsby to Frodsham

Figures: 8.2 and 8.3.		
LCA hierarchy:	National Character Area	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 Cheshire	
Character description:	The Proposed Development passes to the north of LCA 5f Helsby to Frodsham, one of seven LCAs within the Undulating Enclosed Farmland LCT. The key landscape characteristics of the LCA are detailed below taken from <i>A Landscape Strategy for Cheshire West and Chester Borough</i>¹. <u>Key characteristics:</u> • “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 of are outlined in the *Local Landscape Designations: Areas of Special County Value in Cheshire West and Chester*² and are outlined below:

- *“Outcrops of Triassic sandstone form a prominent ridge reaching over 150m with summit features at Beacon Hill, Harrol Edge and Birch Hill.*
- *Helsby Hill at 141m elevation stands as a prominent free-standing outcrop with distinctive, steep sided profile, including the ‘Old Man of Helsby’.*
- *Pronounced sandstone scarps to the north and west of the ASCV support dense woodland, including ancient oak woodland, for example at Alvanley Cliff Wood.*
- *Dry gorges, created by glacial meltwater, are features of the northern and western edges of the ridge.*
- *A strong mosaic land cover of grassland, arable farmland and woodland.*
- *Groups of Scots pines form distinctive skyline elements.*
- *Regular geometric fields, resulting from late eighteenth and early nineteenth century enclosure by private agreement and Parliamentary Act, characterise the ridge.*
- *17th century deer park to the south of the ASCV at New Pale with distinctive circular boundary is a feature in the landscape.*
- *Low density of dispersed farms and hamlets – many farm buildings are constructed from sandstone (quarried from the ridge) with welsh slate roofs.*
- *Sunken lanes network provides access over the ridge, responding to landform whilst there is an absence of main roads.*
- *The promontory forts at Helsby Hill and Woodhouses Hill (Scheduled Monuments) occupy prominent positions along the ridge. Other archaeological sites include the remains of the possible motte and bailey castle at Castle Cobb and the remains of the Maidens Cross wayside cross (Scheduled Monuments).*
- *Historic buildings range from seventeenth century manor houses and farmsteads, nineteenth century follies and the buildings of Crossley East Sanatorium (Listed*
- *Buildings).*
- *The War Memorial on Frodsham Hill is a landmark feature, from where there are panoramic views over the Mersey Estuary.*

	<i>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.”²</i>		
Assessment of sensitivity	<u>Landscape value:</u> 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 just beyond the character area to the north 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 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 Medium to High. <u>Landscape susceptibility:</u> The 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 indicating 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 indicating 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	Landscape value:	Medium to High
		Landscape susceptibility:	Medium

Magnitude of change

Pipeline (West Corridor high pressure pipeline and including Options WP1 and WP2)	Construction phase: Figures 8.2 and 8.3, Volume 3 shows the West Corridor of the pipeline passing to the north of this LCA. The pipeline corridor would comprise site fencing, open cut pipeline trench with adjacent material storage area, associated construction machinery, internal haul road, and soil storage as indicated in Chapter 2, Volume 2. The 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 backfill 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.		
	<table border="1"> <tr> <td>Level of effect:</td><td>Pipeline corridor– Minor and Not Significant to No Effect.</td></tr> </table>	Level of effect:	Pipeline corridor– Minor and Not Significant to No Effect.
Level of effect:	Pipeline corridor– Minor and Not Significant to No Effect.		
	<table border="1"> <tr> <td>Type of effect:</td><td>Short-term duration (temporary with some permanent effects), indirect and adverse.</td></tr> </table>	Type of effect:	Short-term duration (temporary with some permanent effects), indirect and adverse.
Type of effect:	Short-term duration (temporary with some permanent effects), indirect and adverse.		
	Operation and maintenance (Year 1) phase: The pipeline corridor would all be reinstated with no lasting effects on the arable and pastoral fields through which it passes in the panoramic views which are available from within this LCA. The loss of some limited sections of hedgerow and hedgerow trees from within narrow easements above the pipeline would not be discernible as a consequence of the separation distance. The magnitude of change would be Zero.		
	<table border="1"> <tr> <td>Level of effect:</td><td>Pipeline corridor – No Effect</td></tr> </table>	Level of effect:	Pipeline corridor – No Effect
Level of effect:	Pipeline corridor – No Effect		
	<table border="1"> <tr> <td>Type of effect:</td><td>N/A</td></tr> </table>	Type of effect:	N/A
Type of effect:	N/A		
Temporary construction accesses	Construction phase: <u>Temporary construction access options: 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 is unlikely to require widening and Matty's Lane/Hatley Lane would be used for light vehicles only to access WL-03 and Straight Length beyond the LCAs boundary. Further details would be provided in the Environmental Statement where		

	an arboricultural assessment to BS 5837 would be submitted. 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 Low 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.
Limitations / assumptions	1. Assessments related to landscape elements and in particular tree / vegetation loss are estimated pending the arboriculture survey and further design maturity that would be outlined in the Environmental Statement. 2. It has been assumed that hedgerows and trees lost to provide temporary construction access would be reinstated with new planting, where possible post-construction i.e. where they do not lie in easements.	
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 and Not Significant with localised areas of Moderate and Not Significant effects close to the construction access routes.
	Type of effect:	Short-term duration (temporary), direct 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.	

Table 8C.16: Landscape Assessment for LCA 14a Northwich

Figures: 8.12		
LCA hierarchy:	National Character Area	NCA 61 Shropshire, Cheshire and Staffordshire Plain
Landscape Designations:	None	
Administrative area:	Cheshire West and Cheshire	
Character description:	The Proposed Development passes through the west of LCA 14a Northwich, this is only LCA within the Salt Heritage Landscape LCT. The key landscape characteristics of the LCA are detailed below taken from A <i>Landscape Strategy for Cheshire West and Chester Borough</i>¹. <u>Key characteristics:</u> • <i>“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</i> • <i>Naturally flat low-lying topography, but with man-made mounds in areas of reclamation</i> • <i>Underlying geology containing rock salt</i> • <i>A post-industrial landscape of subsidence flashes surrounded by a mosaic of grassland, marsh, scrub and woodland forming the heart of the Northwich Woodlands</i> • <i>Brooks in mostly steep-sided valleys, including Wincham Brook, Wade Brook, Witton Brook and Marbury Brook</i> • <i>Lime beds, containing the waste products from the production of soda ash, support calcareous grassland within prominent bunds</i> • <i>Inland salt marsh is also present, due to natural brine springs and spillage from the salt industry</i> • <i>Former salt works and industrial archaeology characterise the area e.g. standing remains of the Lion Salt Works preserved at the Lion Salt Works Museum and remnants of the Adelaide works beneath the Adelaide Flash</i> • <i>Current industry influences the area - including the prominent E.ON steam pipeline and the Brunner Mond works in the adjacent Lower Weaver Valley</i>	

- *To the north-east of Marston is an area of post medieval enclosure, recognisable as irregular, straight-sided fields*
- *Part of the Trent and Mersey Canal (a Conservation Area) passes through this area with its associated artefacts of industrial archaeology including wharves, bridges, canal loading bays, waterside pubs*
- *Anderton Boat Lift, a Scheduled Monument and major visitor attraction, lifts boats from the River Weaver up to the Trent and Mersey Canal*
- *Unique diverse range of habitats and landscapes and extensive recreational opportunities within Northwich Woodlands comprising Carey Park, Ashton's Flash, Neumann's Flash, Dairy House Meadows, Witton Mill Meadow, Marbury Country Park, Anderton Nature Park and Furey Wood. Marbury Country Park includes the formal designed landscape and estate grounds of Marbury Hall (demolished)*
- *Settlement is defined by the 19th century village of Marston (a Conservation Area), scattered farmsteads, and 20th century development at Higher Marston and Higher Wincham*
- *The village of Marston and the Trent and Mersey Canal have strong connections with the salt industry*
- *Beyond Northwich Woodlands, typical built materials are red Cheshire brick and Welsh slate roofs, although industrial buildings include cast iron and timber*
- *The skyline is not prominent – horizon views are formed by new tree planting and industrial buildings both inside and outside the character area*
- *There are panoramic views from artificially created high points within the Northwich Woodlands e.g. Carey Park – these are typically long views across the River Weaver to a backdrop of woodland, industry and Northwich town centre.”¹*

Built Development Guidelines:

- “1. Preserve the structure and setting of the village of Marston that has strong connections with the salt industry and a unique character.*
- 2. Seek to restore the original architectural detail of the brick terraces in Marston village.*
- 3. Use of built materials such as red Cheshire brick and welsh slate roofs in residential buildings, and cast iron, Cheshire red brick and timber in industrial buildings, will maintain a continuity in use of materials and create a stronger sense of place.*
- 4. Enhance boundaries within the area by promoting repair of traditional brick wall boundaries and creating new boundaries that may enhance the apparent condition of the landscape.”¹*

Assessment of sensitivity	<u>Landscape value:</u> 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 western third of the LCA, however most of the key features of the LCA apply to the area. There is a strong cultural heritage to the area from its historic use for salt extraction with an associated landmark chimney designated as a Scheduled monument. The Trent and Mersey Canal is also designated as a Conservation Area. Within the study area, the scenic value of the LCA is experienced through a variety of recreational amenities including recreational users of local PRoW, the Trent and Mersey Canal, Cheshire Ring Canal Walk, and North Cheshire Way long distance routes and a viewing point identified on OS maps west of Witton Mill Bridge, Carey Park, Marbury Park, and Anderton Nature Park. The overall landscape value is assessed as Medium.		
	<u>Landscape susceptibility:</u> <i>A Landscape Strategy for Cheshire West and Chester Borough¹ describes the susceptibility of the restored landscape and industrial archaeology to change. With regard to the visual character of the LCA, strategy notes that “The area now contains a large amount of woodland planting and is mostly well screened from adjacent landscapes. This reduces its visual sensitivity. Furthermore the presence of woodland means there is some potential for mitigating visual impact of low lying features without the mitigation measures in themselves having an adverse effect on the character of the landscape”¹, although it is also noted that “There are panoramic views from artificially created high points”¹. In terms of perceptual characteristics, “Despite the presence of industry within the area this landscape feels ‘remote’ from its context”¹, although “Views and proximity to large scale industry (at Winnington and East Northwich) outside the character area have been retained”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. The overall susceptibility of the landscape to the Project is assessed as Medium.</i>		
Sensitivity	Medium	Landscape value:	Medium
		Landscape susceptibility:	Medium
Magnitude of change			
Pipeline (Northwich Spur high pressure pipeline)	Construction phase: Figure 8.12, Volume 3 shows the South Corridor of the pipeline within the LVIA study area and 14a Northwich LCA. The Northwich Spur would pass through the western edge of the LCA entering in a trenchless crossing compound in an open field to the south of Anderton Marina before continuing southeast through young woodland planting on open cut to an open field where it would turn southwest and cross a		

further area of young woodland planting, an open field and further mature trees before entering a trenchless compound in a narrow open area within Anderton Nature Park and leaving the LCA on a trenchless crossing beneath the Waver River towards the industrial area to the north of Winnington.

The pipeline corridor would comprise site fencing, open cut pipeline trench with adjacent material storage area, associated construction machinery, internal haul road, and soil storage as indicated in **Chapter 2, Volume 2**.

Construction activity along the Northwich 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 ~500m) 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 two open fields and would pass through two areas of young woodland restoration plantation. The localised removal of trees and shrubs at these locations would appear as a break in the pattern of woodland vegetation. The potential loss of localised trees in this LCA would be partially mitigated by replacement of planting, however large tree species would not be located along the corridor. Mitigation planting is likely to occur following the construction phase as recorded in the Year 1 assessment below.

The magnitude of change likely to affect the landscape character, key characteristics and elements would range from High (in respect of landscape elements within and adjacent to the pipeline corridor and trenchless crossing construction compounds) to Low to Zero elsewhere within the LCA

Level of effect:	Pipeline, trenchless crossing construction compounds and – Major/Moderate and Significant (where construction compounds or the pipeline are visible) 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.

Operation and maintenance (Year 1) phase:

The pipeline corridor and associated trenchless crossing compounds would all be reinstated with no lasting effects on the arable and pastoral fields. The loss of young trees within a ~10m wide easement at two locations would however be permanent although partly mitigated by replacement planting of trees and shrubs within the remainder of the corridor, outside the easement. Trees would be replanted with lower growing

	hedgerow species. Consequently, there would be a Medium - Low to Zero magnitude of change on landscape character and key characteristics until replacement planting is established.	
	Level of effect:	Pipeline corridor and trenchless crossing compounds – Moderate and Not Significant
	Type of effect:	Permanent and neutral.
Temporary construction accesses (SH52, SH53)	Construction phase: <u>Temporary construction access options: Uplands Road (SH52, SH53):</u> Construction access for the pipeline would partly utilise the existing track network to join the temporary haul routes within the pipeline corridor, with a short (~75m) section of access track crossing young woodland within the Anderton Nature Park to access the trenchless crossing compound. Where required, existing roads would need to be widened up to ~8m. Some limited tree removal and or coppicing / pruning may be required to allow for visibility splays, but this is unlikely to significantly affect the landscape character or elements in these locations. Further details would be provided in the Environmental Statement where an arboricultural assessment to BS 5837 would be submitted. 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 road widening and visibility splays would potentially be up to a High 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 potentially locally Significant to be clarified in the Environmental Statement following provision of more detailed construction traffic information.
	Type of effect:	Short-term duration (temporary), direct and adverse.
Limitations / assumptions	1. Assessments related to landscape elements and in particular tree / vegetation loss are estimated pending the arboriculture survey and further design maturity that would be outlined in the Environmental Statement. 2. It has been assumed that hedgerows and trees lost to provide temporary construction access would be reinstated with new planting where possible post-construction i.e. where they do not lie in easements.	
Overall assessment	Construction phase:	

Collectively the construction works involving the underground pipelines and two temporary access tracks within the 14a Northwich LCA would lead to a moderate scale of development, continuing for the construction phase (6-12 months). Surrounding woodland vegetation 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 young trees can be partially 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 Moderate (Not Significant) effects relating to mitigation tree replacement which at Year 1 are likely to be young plants of limited height and volume.	

Table 8C.17: Landscape Assessment for LCA 10b Stublach Plain

Figures: 8.14, 8.41, Viewpoints WC1 (Figure 8.75), WC2 (Figure 8.76) and WC3 (Figure 8.77)		
LCA hierarchy:	National Character Area	NCA 61 Shropshire, Cheshire and Staffordshire Plain
Landscape Designations:	None	
Administrative area:	Cheshire West and Chester	
Character description:	The Proposed Development passes through the centre of LCA 10b Stublach Plain, this is 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. <u>Key characteristics:</u> • “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*

Built Development Guidelines:

“1 Conserve the low density, scattered settlement pattern of farmsteads.

2. Conserve the local vernacular built style - including red brick farmsteads and barns (containing round windows) with slate and white washed finishes. Ensure new built development is of high quality design and responds to local materials and styles.

3. Seek to ensure that new farm buildings do not threaten the settings of the older farmsteads.

4. Ensure conversion of farm buildings is sensitive to the vernacular 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.

5. Ensure riding schools, stables and equestrian development does not accumulate to detract from the rural character of the area – ensure sensitive integration of fencing, tracks, jumps and ancillary buildings.

6. 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.

	7. <i>Protect the character of Kings Street Roman Road, including the avenue of trees along its length.</i> 8. <i>Consider opportunities to screen development on the urban edge of Northwich using planting of broadleaved species.</i> 9. <i>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.</i> 10. <i>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.</i> 11. <i>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</i>
Assessment of sensitivity	<u>Landscape value:</u> 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 is located in the centre and to the east 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. <u>Landscape susceptibility:</u> <i>A Landscape Strategy for Cheshire West and Chester Borough¹ 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</i>

	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			
Pipeline (South Corridor high pressure pipeline)	Construction phase: Figure 8.14, Volume 3 shows the South Corridor of the pipeline within the LVIA study area and 10b Stublach Plain LCA. The pipeline corridor would enter the LCA on a trenchless crossing of the Trent and Mersey Canal and the trenchless crossing compound which 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 Puddinglake brook and entering a further arable field and a trenchless crossing compound. The west compound would span two fields and adjoining hedgerow trees. This would facilitate the trenchless crossing of the rail line. The pipeline would emerge to the east of the line in a smaller compound located across two open fields with hedgerow and hedgerow trees and would then cross a further three open fields on open cut before crossing the A530 on a trenchless crossing facilitated by trenchless crossing compounds in open fields. From here, the pipeline would cross a further three fields on open cut before reaching Hydrogen Storage Facility HAGI as illustrated in Viewpoints Whatcroft 1 and Whatcroft 2. A temporary storage compound would occupy three open fields between the A530 and the rail line and would connect the two trenchless crossing compounds. The storage areas would be partially screened by roadside vegetation, but would be noticeable in the landscape in this location. The 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. The compounds are likely to feature in the landscape adjacent road corridors or rail lines where man-made elements are already part of the character of the area.		

The pipeline corridor would comprise site fencing, open cut pipeline trench with adjacent material storage area, associated construction machinery, internal haul road, and soil storage as indicated in **Chapter 2, Volume 2**.

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 ~500m) 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 11 No. field boundaries within the that are typically defined by hedgerows with occasional trees. The localised removal of trees and shrubs at each of these 11 No. locations would appear as a break in the pattern of field boundary vegetation. The potential loss of localised trees and hedgerows in this LCA would be partially mitigated by replacement of planting in-situ, following the construction phase as recorded in the Year 1 assessment below.

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:	Pipeline and trenchless crossing construction compounds – Major/Moderate and Significant (within 500m of the works) and Minor and Not Significant to Zero 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 pipeline corridor and associated trenchless crossing compounds would all be reinstated with no lasting effects on the arable and pastoral fields. The loss of some limited sections of hedgerow and hedgerow trees within a ~10m wide easement at 11 No. locations would however be permanent although partly mitigated by replacement planting of hedgerow / shrubs within the remainder of the corridor, outside the easement. Consequently, there would be a Very Low to Zero magnitude of change on landscape character and key characteristics and a predicted Low magnitude of change on landscape elements until replacement planting is established.

	Level of effect:	Pipeline corridor and trenchless crossing compounds – Negligible and Not Significant (Minor and Not Significant where replanted hedgerows are establishing)
	Type of effect:	Permanent and neutral.
Temporary construction accesses (SH35, SH36, SH37, SH38)	Construction phase:	Temporary construction access options: Whatcroft Hall Lane (SH35, SH36), A530 (SH37, SH38): 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 required, existing roads would need to be widened up to ~8m. Some limited tree removal and or coppicing / pruning may be required to allow for visibility splays, but this is unlikely to significantly affect the landscape character or elements (hedgerows and hedgerow trees) in these locations. Further details would be provided in the Environmental Statement where an arboricultural assessment to BS 5837 would be submitted. 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 road widening and visibility splays would potentially be up to a High 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 potentially locally Significant to be clarified in the Environmental Statement following provision of more detailed construction traffic information.
	Type of effect:	Short-term duration (temporary), direct and adverse.
Hydrogen Storage Facility HAGI (Figure 8.41)	Construction phase:	The Hydrogen Storage Facility HAGI site would be located in an open pastoral field, bounded by hedgerow with mature hedgerow trees and Puddinglake Brook to the south, and would be sited to minimise any loss of mature trees and surrounding hedgerows. The construction period would be 6-12 months. Receptors in the locality where these changes in the landscape would be perceived include the A530 at distance and through vegetation to the west and the local residential receptors ~200m to the southeast. Temporary earth bunds and/or solid hoarding to the perimeter of the associated construction compounds would minimise visibility of activity and structures within the compound illustrated in Viewpoints Whatcroft 1, 2 and 3. 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 and filtered by field boundary trees.

	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 approximately 1ha in area, 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. Illustrative examples of a layout, and photographic examples of operational schemes are contained in Chapter 2, Volume 2 . The effect on the landscape character and key characteristics would be Low and localised, affecting a small geographical area in the local vicinity of HAGI and filtered by field boundary trees resulting in a Low-Medium localised magnitude	
	Level of effect:	Minor and Not Significant
	Type of effect:	Permanent, direct and adverse.
Limitations / assumptions	- Assessments related to landscape elements and in particular tree / vegetation loss are estimated pending the arboriculture survey and further design maturity that would be outlined in the Environmental Statement. - It has been assumed that hedgerows and trees lost to provide temporary construction access would be reinstated with new planting where possible post-construction i.e. where they do not lie in easements. - No account of any potential landscape mitigation near the perimeter of the HAGI sites has been accounted for and is pending further design maturity. A Year 15 assessment following construction would be included in the Environmental Statement.	
Overall assessment	Construction phase: Collectively the construction works involving the underground pipeline, Hydrogen Storage Facility HAGI, temporary construction and storage compounds and 4 separate temporary construction access options routed through the 10b Stublach Plain LCA would lead to a moderate scale of development, continuing for the construction phase (6-12 months). 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 HAGI compound, 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 overall would be Negligible and Not Significant , with Minor (Not Significant) effects relating to mitigation hedgerow replanting which at Year 1 are likely to be young plants of limited height and volume, and the HAGI compound (within close proximity).	

Table 8C.18: Landscape Assessment for LCA 15e Dane Valley

Figures: 8.14		
LCA hierarchy:	National Character Area	NCA 62 Mersey Valley
Landscape Designations:	None	
Administrative area:	Cheshire West and Chester	
Character description:	The Proposed Development passes through the centre of LCA 15e Dane Valley, this one of nine LCAs within the River Valley LCT. The key landscape characteristics of the LCA are detailed below taken from A <i>Landscape Strategy for Cheshire West and Chester Borough</i>¹. <u>Key characteristics:</u> • “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 <u>Built Development Guidelines:</u> <i>"1. Conserve the undeveloped character of the floodplain and maintain the low settlement density that results in a quiet, tranquil landscape.</i> <i>2. Protect the valley 'crests' from large scale built development that would detract from the 'intimate', hidden character of the valley.</i> <i>3. Conserve the sandstone bridges that are distinctive feature of the valley, reflect the local geology and mark historic crossing points of the river.</i> <i>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.</i> <i>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.</i> <i>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.</i> <i>7. Protect views to St Wilfred's Church spire in Davenham." ¹</i>
Assessment of sensitivity	<u>Landscape value:</u> 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. <u>Landscape susceptibility:</u>

	<i>A Landscape Strategy for Cheshire West and Chester Borough¹</i> describes the susceptibility of the rural, pastoral character and woodland to change. With regard to the visual character of the LCA, “ <i>Views are generally restricted within the valley</i> ” ¹ it is noted that “ <i>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</i> ” ¹ . In terms of perceptual characteristics, “ <i>The sense of perceived naturalness (due to the natural river course, presence of woodland, pasture and riverside vegetation), contributes to a highly tranquil landscape</i> ” 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			
Pipeline South Corridor	Construction phase: Figure 8.14, Volume 3 shows 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 on open cut in an open pastoral field to the east of Bostock Green and would cross 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. The pipeline corridor would enter a further trenchless crossing compound to the east of the River Dane, spanning two fields and adjoining hedgerow and facilitating the trenchless crossing of the Trent and Mersey Canal at the eastern boundary of the LCA. The pipeline corridor would comprise site fencing, open cut pipeline trench with adjacent material storage area, associated construction machinery, internal haul road, and soil storage as indicated in Chapter 2, Volume 2. 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 ~500m) 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 open cut sections comprising the majority of the pipeline corridor would cross approximately one field boundary within the LCA that is 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. The potential loss of localised trees and hedgerows in this LCA would be partially mitigated by replacement of planting in-situ, following the construction phase as recorded in the Year 1 assessment below. 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		
	<table border="1"> <tr> <td>Level of effect:</td><td>Pipeline, trenchless crossing construction compounds and – Major/Moderate and Significant (where construction compounds or the pipeline are visible) and Minor and Not Significant to No Effect elsewhere within the wider LCA.</td></tr> </table>	Level of effect:	Pipeline, trenchless crossing construction compounds and – Major/Moderate and Significant (where construction compounds or the pipeline are visible) and Minor and Not Significant to No Effect elsewhere within the wider LCA.
Level of effect:	Pipeline, trenchless crossing construction compounds and – Major/Moderate and Significant (where construction compounds or the pipeline are visible) and Minor and Not Significant to No Effect elsewhere within the wider LCA.		
	<table border="1"> <tr> <td>Type of effect:</td><td>Short-term duration (temporary with some permanent effects), direct and adverse.</td></tr> </table>	Type of effect:	Short-term duration (temporary with some permanent effects), direct and adverse.
Type of effect:	Short-term duration (temporary with some permanent effects), direct and adverse.		
	Operation and maintenance (Year 1) phase: The pipeline corridor and associated trenchless crossing compounds would all be reinstated with no lasting effects on the arable and pastoral fields. The loss of some limited sections of hedgerow and hedgerow trees within a ~10m wide easement at one field boundary would however be permanent although partly mitigated by replacement planting of hedgerow / shrubs within the remainder of the corridor, outside the easement. Consequently, there would be a Very Low to Zero magnitude of change on landscape character and key characteristics and a predicted Low magnitude of change on landscape elements until replacement planting is established.		
	<table border="1"> <tr> <td>Level of effect:</td><td>Pipeline corridor and trenchless crossing compounds – Negligible and Not Significant (Minor and Not Significant where replanted hedgerows are establishing)</td></tr> </table>	Level of effect:	Pipeline corridor and trenchless crossing compounds – Negligible and Not Significant (Minor and Not Significant where replanted hedgerows are establishing)
Level of effect:	Pipeline corridor and trenchless crossing compounds – Negligible and Not Significant (Minor and Not Significant where replanted hedgerows are establishing)		
	<table border="1"> <tr> <td>Type of effect:</td><td>Permanent and neutral.</td></tr> </table>	Type of effect:	Permanent and neutral.
Type of effect:	Permanent and neutral.		
Temporary construction accesses (SH34, SH35)	Construction phase: Temporary construction access options: London Road (SH34), Whatcroft Hall Lane (SH35): 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 required, existing roads would need to be widened up to ~8m. Some limited tree removal and or coppicing / pruning may be required to allow for visibility splays, but this is unlikely to significantly affect the landscape character or elements (hedgerows and hedgerow trees) in these locations. Further details would be provided in the Environmental Statement where an arboricultural		

	assessment to BS 5837 would be submitted. 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 road widening and visibility splays would potentially be up to a High 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 potentially locally Significant to be clarified in the Environmental Statement following provision of more detailed construction traffic information.
	Type of effect:	Short-term duration (temporary), direct and adverse.
Limitations / assumptions	- Assessments related to landscape elements and in particular tree / vegetation loss are estimated pending the arboriculture survey and further design maturity that would be outlined in the Environmental Statement. - It has been assumed that hedgerows and trees lost to provide temporary construction access would be reinstated with new planting where possible post-construction i.e. where they do not lie in easements.	
Overall assessment	Construction phase: Collectively the construction works involving the underground pipelines, temporary construction compounds and two separate temporary construction access options routed through the 15e Dane Valley LCA would lead to a moderate scale of development, continuing for the construction phase (6-12 months). 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 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 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 overall would be Negligible and Not Significant , with Minor (Not Significant) effects relating to mitigation hedgerow replanting which at Year 1 are likely to be young plants of limited height and volume.

Table 8C.19: Landscape Assessment for LCA 5c Eaton, Marton & Over

Figures: 8.13, 8.14 and 8.45		
LCA hierarchy:	National Character Area	NCA 61 Shropshire, Cheshire-Staffordshire plain; NCA 62 Cheshire Sandstone Ridge
Landscape Designations:	None	
Administrative area:	Cheshire West and Chester	
Character description:	The Proposed Development passes through the eastern edge 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 <i>A Landscape Strategy for Cheshire West and Chester Borough</i>¹. <u>Key characteristics:</u> • “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*

Built Development Guidelines:

- “1. Maintain the low density, scattered settlement pattern of villages/hamlets and farmsteads.*
- 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. Maintain a distinction between urban and rural areas.*
- 3. 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.*
- 4. Seek to integrate garden boundaries with the rural landscape through use of native hedgerows.*
- 5. Retain the red brick dairy barns, including their round windows which are a characteristic feature, and their rural settings as features of the landscape.*
- 6. Conserve the black and white estate railings known as ‘Cheshire Railings’.*
- 7. Maintain the rural setting to villages and sandstone farmsteads which are features of the landscape.*
- 8. 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.*
- 9. Soften built edges and views of infrastructure by introducing small scale planting schemes using native broadleaved species.*
- 10. 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.*
- 11. Conserve rural views from the Whitegate Way and from the main picnic site areas when considering the location for new built development.*
- 12. Ensure signage is appropriate to its setting.*
- 13. Refer to local Village Design Statement (VDS) when considering change.*
- 14. Maintain the close relationship between Winsford and its rural landscape, ensuring land on the edge of the urban area remains well managed.*
- 15. Conserve the settings of Tarporley, Eaton, Little Budworth, Whitegate and St Chad’s that are designated as Conservation Areas – refer to the Conservation Area Appraisals when considering change in these areas.*
- 16. Conserve the open undeveloped area between Tarporley and Tilstone Fearnall / Four Lanes End that has been identified as a Candidate Key Settlement Gap where development would lead to coalescence and the loss of identity of the two communities.”¹*

Assessment of sensitivityLandscape 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 the eastern boundary is partly overlapped by the Mid Weaver Valley ASC indicating increased value in this part of the LCA (around Vale Royal Cut). The eastern area of this LCA is located within the study area and although this area has many of the features and key characteristics of the wider LCA, it spans a limited area of the LCA to the east and southeast of Whitegate. 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 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, “*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, although potential for disturbance to hedgerows and 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			
Pipeline	Construction phase:		

**South Corridor
Option SP4**

Figures 8.13 and 8.14, Volume 3 shows the South Corridor of the pipeline within the LVIA study area and 5c Eaton, Marton & Over LCA. The South Corridor SP4 route option would pass through 9 open arable and pastoral fields on open cut as it passes to the west of the Vale Royal Cut and River Weaver. The pipeline route would be located to avoid wooded cloughs at Quesse Wood and Newbridge Wood, passing through fields to the west of these landscape features. The route would cross Bradford Road, a watercourse to the south of the road, and a small area of woodland on either side of the road on open cut. The pipeline corridor would exit the LCA at a trenchless crossing compound located within a large arable field to the west of the River Weaver. The pipeline corridor would pass through 9 field boundaries comprising mostly hedgerow with hedgerow trees.

The pipeline corridor would comprise site fencing, open cut pipeline trench with adjacent material storage area, associated construction machinery, internal haul road, and soil storage as indicated in **Chapter 2, Volume 2**.

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 ~500m) 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 open cut sections comprising the majority of the pipeline corridor would cross approximately 9 No. field boundaries within the LCA that 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. The localised removal of roadside trees at Bradford Road would also appear as a break in the tree cover along this part of the road. The potential loss of localised trees and hedgerows in this LCA would be partially mitigated by replacement of planting in-situ, following the construction phase as recorded in the Year 1 assessment below.

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:	Pipeline and trenchless crossing construction compounds – Major/Moderate and Significant (where construction compounds or the pipeline are visible) 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.

	Operation and maintenance (Year 1) phase: The pipeline corridor and associated trenchless crossing compounds would all be reinstated with no lasting effects on the arable and pastoral fields. The loss of some limited sections of roadside trees, hedgerow and hedgerow trees within a ~10m wide easement at one field boundary would however be permanent although partly mitigated by replacement planting of hedgerow / shrubs within the remainder of the corridor, outside the easement. Consequently, there would be a Very Low to Zero magnitude of change on landscape character and key characteristics and a predicted Low magnitude of change on landscape elements until replacement planting is established.	
	Level of effect:	Pipeline corridor and trenchless crossing compounds – Minor/Negligible and Not Significant (Minor and Not Significant where replanted hedgerows are establishing)
	Type of effect:	Permanent and neutral.
Temporary construction accesses (SH24, SH25, SH26)	Construction phase: <u>Temporary construction access options: Bradford Road (SH24, SH25, SH26):</u> All construction access for the pipeline would utilise the existing road network to join the temporary haul routes within the pipeline corridor. Where required, existing roads would need to be widened up to ~8m. Some limited tree removal and or coppicing / pruning may be required to allow for visibility splays, but this is unlikely to significantly affect the landscape character or elements (roadside trees, hedgerows and hedgerow trees) in these locations. Further details would be provided in the Environmental Statement where an arboricultural assessment to BS 5837 would be submitted. 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 road widening and visibility splays would potentially be up to a High 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 potentially locally Significant
	Type of effect:	Short-term duration (temporary), direct and adverse.
	Construction phase:	

Southern Block Valve (SBV4) (Figure 8.45)	The Southern Block Valve (SBV4) is located in adjoining LCA to the north-west and the magnitude of change would be Very Low to None, due to extensive intervening vegetation.	
	Level of effect:	Minor/Negligible and Not Significant to No Effect
	Type of effect:	N/A
	Operation and maintenance (Year 1) phase: No visibility of the southern block valves is predicted given the small-scale nature.	
	Level of effect:	No Effect
	Type of effect:	N/A
Limitations / assumptions	1. Assessments related to landscape elements and in particular tree / vegetation loss are estimated pending the arboriculture survey and further design maturity that would be outlined in the Environmental Statement. 2. It has been assumed that hedgerows and trees lost to provide temporary construction access would be reinstated with new planting where possible post-construction i.e. where they do not lie in easements. 3. It is assumed that no regrading works are required at Bradford Road construction access points.	
Overall assessment	Construction phase: Collectively the construction works involving the underground pipelines, a temporary construction compound and three separate temporary construction access options routed through the 5c Eaton, Marton & Over LCA would lead to a moderate scale of development, continuing for the construction phase (6-12 months). 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 can be largely reinstated following completion of the construction phase.	
	Level of effect:	Minor and Not Significant to No Effect with localised areas of Major/Moderate and Significant effects close to the pipeline corridor 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 overall would be Minor/Negligible and Not Significant , with Minor (Not Significant) effects relating to mitigation hedgerow replanting which at Year 1 are likely to be young plants of limited height and volume.

Table 8C.20: Landscape Assessment for LCA Runcorn Hill and Heath Parkland

Figures: 8.3, 8.32, Viewpoints RC1 (Figure 8.61) and RC2 (Figure 8.62)		
LCA hierarchy:	National Character Area	NCA 60 Mersey Valley
Landscape Designations:	None	
Administrative area:	Halton	
Character description:	The Proposed Development passes through the centre of LCA Runcorn Hill and Heath Parkland, which is the only LCA within the Sandstone Hill LCT. The key landscape characteristics of the LCA are detailed below taken from the <i>Halton Landscape Character Assessment</i>³. <u>Key characteristics:</u> • “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; • 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	

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](https://www3.halton.gov.uk/Documents/planning/planning%20policy/evidencebase/green/Halton_Landscape_Character_Assessment_(2009).pdf) (Accessed 30 August 2021).

	• <i>Industry and urban development along the fringes of the area are almost always visible.</i>”³ <u>Built Development Guidelines:</u> <i>“1. Conserve and enhance the small agricultural hamlet character of Clifton, in the farmland to the south of the area.</i> <i>2. Enhance the open space by ensuring built development does not marginalise or fragment the green corridor.</i> <i>3. Enhance the recreational buildings and facilities which are key features of the character of the area.”</i>³		
Assessment of sensitivity	<u>Landscape value:</u> 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. <u>Landscape susceptibility:</u> The <i>Halton Landscape Character Assessment</i>³ identifies landscape guidelines which seek to conserve the “<i>well wooded boundaries along the roads through the area</i>” and the “<i>well laid and stock proof hawthorn hedges in the south of the area</i>”³ indicating their potential susceptibility 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	Overall sensitivity: Medium	Landscape value:	Medium
		Landscape susceptibility:	Medium to Low
Magnitude of change			

Pipeline Runcorn Spur	Construction phase: Figure 8.3, Volume 3 shows the Runcorn Spur of the pipeline crossing this LCA. The working width of the pipeline corridor would be approximately 28m, comprising site fencing, open cut pipeline trench with adjacent material storage area, associated construction machinery, internal haul road, and soil storage as indicated in Chapter 2, Volume 2. Construction activity would be transient and of short duration with progressive backfill and reinstatement as works are completed along the route. The pipeline corridor crosses areas of woodland and grassland as well as the Runcorn Golf Course and would require the localised removal of trees, shrubs and hedgerow at a number of locations along the route. The potential loss of localised trees and hedgerows in this LCA would be partially mitigated by replacement of planting in-situ, following the construction phase as recorded in the Year 1 assessment below. In addition to the pipeline corridor, temporary trenchless crossing compounds would be constructed at three locations within this LCA to facilitate a trenchless crossing of major transport routes and the Weaver Navigation. These would be located (from south to north) on open grassland within a local wildlife site on the northern side of the Weaver Navigation, on open grassland to the south of the A557 and within the south-eastern corner of the Runcorn Golf Course to the north of the A557. At all three locations the perimeter field boundary vegetation would be retained and protected although there would be the loss of a small proportion of tree cover from within the Runcorn Golf Course. These temporary 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 (6m). Lighting would be required during the house of darkness for operational activity typically in winter and may be required for security with the lighting design seeking to minimise light spill outside of the compound. 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 ~500m), 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 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. <table border="1"> <tr> <td>Level of effect:</td><td>Pipeline and trenchless crossing construction compounds – Major/Moderate and locally Significant to a Minor and Not Significant elsewhere within the wider LCA.</td></tr> <tr> <td>Type of effect:</td><td>Short-term duration (temporary with some permanent effects), direct and adverse</td></tr> </table>	Level of effect:	Pipeline and trenchless crossing construction compounds – Major/Moderate and locally Significant to a Minor and Not Significant elsewhere within the wider LCA.	Type of effect:	Short-term duration (temporary with some permanent effects), direct and adverse
Level of effect:	Pipeline and trenchless crossing construction compounds – Major/Moderate and locally Significant to a Minor 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 pipeline corridor and associated trenchless construction compounds would all be reinstated with no lasting effects on the pasture fields. The loss of some limited sections of trees for within the pipeline easement at a number of dispersed locations throughout the LCA would however be permanent although partly mitigated by replacement planting of small trees and shrubs within the remainder of the corridor, outside the easement. Consequently, there would be a Low to Zero magnitude of change on landscape character and key characteristics and on landscape elements until replacement planting is established.	
	Level of effect:	Minor and Not Significant
	Type of effect:	Permanent and neutral
Temporary construction and operational accesses (WH-08, WH-09, WH-10 and WH-11)	Construction phase: <u>Temporary construction access: Rocksavage Way (WH-08 and WH-09), Weaver View (WH-10), Cholmondeley Road (WH-11).</u> All 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. Where required, local roads would need to be widened with some vegetation loss to facilitate this widening. Some limited tree removal and or coppicing / pruning may also be required to allow for visibility splays at the designated access locations. Further details would be provided in the Environmental Statement where an arboricultural assessment to BS 5837 would be submitted. The access strategy also 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 and localised removal of vegetation to accommodate road widening, access junctions and visibility splays would potentially be up to a High 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 to be clarified in the Environmental Statement following provision of more detailed construction traffic information.
	Type of effect:	Short-term duration (temporary), direct and adverse.
Runcorn HAGI (Figure 8.32)	Construction phase: Two temporary construction compounds would be located either side of the HAGI site under construction on a mosaic of grassland and scrub between Weaver View and the Weaver Navigation. The construction period would be 6-12 months during which the construction compounds 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 earth bunds to the south and east and dense retained tree cover between the HAGI and its construction compounds and Weaver View to the north means that its characterising influence 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 would be Medium affecting a small geographical area of landscape character in the local vicinity of the temporary construction compound and HAGI under construction.				
	<table> <tr> <td>Level of effect:</td><td>Moderate and Not Significant</td></tr> <tr> <td>Type of effect:</td><td>Short-term duration (temporary), direct and adverse.</td></tr> </table>	Level of effect:	Moderate and Not Significant	Type of effect:	Short-term duration (temporary), direct and adverse.
Level of effect:	Moderate and Not Significant				
Type of effect:	Short-term duration (temporary), 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 safety and to reduce visual impact. Illustrative examples of a layout, and photographic examples of operational schemes are contained in Chapter 2, Volume 2. 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 earth bunds and retained vegetation limiting its characterising role within a landscape where there are similar types of fenced compounds. The magnitude of change across the majority of the LCA would be Very Low/Zero.				
	<table> <tr> <td>Level of effect:</td><td>Minor/Negligible and Not Significant</td></tr> <tr> <td>Type of effect:</td><td>Permanent and neutral</td></tr> </table>	Level of effect:	Minor/Negligible and Not Significant	Type of effect:	Permanent and neutral
Level of effect:	Minor/Negligible and Not Significant				
Type of effect:	Permanent and neutral				
Limitations / assumptions	1. Assessments related to landscape elements and in particular tree / vegetation loss are estimated pending the arboriculture survey and further design maturity that would be outlined in the Environmental Statement. 2. It has been assumed that hedgerows and trees lost to provide temporary construction access would be reinstated with new planting where possible post-construction i.e. where they do not lie in easements. 3. No account of any potential landscape mitigation near the perimeter of the HAGI sites has been accounted for and is pending further design maturity. A Year 15 assessment following construction would be included in the Environmental Statement.				
	Construction phase:				

Overall assessment	Collectively the construction works involving the underground pipeline (Runcorn Spur), Runcorn HAGI, temporary trenchless crossing compounds and construction access routes would represent a moderate scale development continuing for the duration of the construction phase (6-12 months). The high levels of woodland and tree belts within the LCA would reduce intervisibility. 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 compounds. The pasture fields and golf course fairways and greens would be reinstated following completion of the construction phase and trees would be replanted with the exception of the pipeline easement.	
	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 some 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 overall would be Minor to Minor/Negligible and Not Significant with some Minor and Not Significant localised effects associated with the Runcorn HAGI	

Table 8C.21: Landscape Assessment for LCA North Widnes Farmland

Figures: 8.7 and 8.37		
LCA hierarchy:	National Character Area	NCA 60 Mersey Valley
Landscape Designations:	None	
Administrative area:	Halton	
Character description:	The Proposed Development passes through the north-eastern corner of LCA North Widnes Farmland, which is the only LCA within the Floodplain Farmland LCT. The key landscape characteristics of the LCA are detailed below taken from the <i>Halton Landscape Character Assessment</i>³. <u>Key characteristics:</u> • <i>“Flat agricultural landscape falling subtly to the built edge of Widnes;</i> • <i>Large scale agricultural landscape with fields enclosed by hedgerows and drainage ditches;</i> • <i>Hedgerows are fragmented and often replaced by timber fencing around horse paddocks but are in better condition along the roads;</i> • <i>Heathland was a characteristic feature of this area but it has now mostly been replaced by agricultural land;</i> • <i>Woodland is sparse and where present is predominantly linear, isolated hedgerow trees or in clumps around field ponds;</i> • <i>Open character to the landscape created by low woodland cover and large field size;</i> • <i>Infrastructure routes such as roads and overhead lines are prominent landscape features. Roads often cross the landscape in straight alignments;</i> • <i>Urban fringe elements always visible Frequent isolated farms, large properties and small commercial units; and</i> • <i>Fiddlers Ferry power station is a prominent feature on the horizon.”</i>³ <u>Built Development Guidelines:</u> <i>“1. Create a softer urban edge in new development through planting in gardens, along verges and roads.</i>	

	2. Ensure advanced planting of copses and trees along roads and urban fringes and within any new developments. 3. Ensure the use of muted red brick in any new development and ensure it is in keeping with the scale and form of existing buildings. 4. 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	<u>Landscape value:</u> The LCA 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 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 “<i>Although the rural character is consistent across the area, infrastructure and urban fringe interrupt and fragment this rural character.</i>”³. In terms of condition this is recognised as being moderate. The overall value is assessed as Medium -Low. <u>Landscape susceptibility:</u> The Halton Landscape Character Assessment¹ identifies landscape guidelines which seek to enhance the landscape through restoring field patterns indicating a lower susceptibility 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	Overall sensitivity: Medium	Landscape value:	Medium to Low
		Landscape susceptibility:	Medium to Low

Magnitude of change

Pipeline (North Corridor)	Construction phase: Figure 8.7, Volume 3 shows the North Corridor of the pipeline crossing this LCA between the A57 and the administrative boundary with St Helens. The pipeline corridor would comprise site fencing, open cut pipeline trench with adjacent material storage area, associated construction machinery, internal haul road, and soil storage as indicated in Chapter 2, Volume 2 . Construction activity would be transient and of short duration with progressive backfill and reinstatement as works are completed along the route. The pipeline corridor crosses several arable fields and would require the localised removal of trees, shrubs and hedgerow at three locations along the route. The potential loss of localised trees and hedgerows in this LCA would be partially mitigated by replacement of planting in-situ, following the construction phase as recorded in the Year 1 assessment below. In addition to the pipeline corridor, a pipe storage area would be sited within this LCA with pipes stores up to a height of 4m and for a duration of 6 months. This would span two arable fields to the south of the A57 and may require the removal of up to approximately 240m of hedgerow to accommodate the footprint of the store. 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 ~500m), reducing to Low or less from the wider LCA, where the pipeline corridor would be screened by north-west to south-east aligned 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 High (in respect of landscape elements and LCA within and adjacent to the pipeline corridor and temporary storage area) to Low or less elsewhere within the LCA.	
	Level of effect:	Pipeline and pipe storage area – Major/Moderate and locally Significant to a Minor 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 pipeline corridor and pipe storage area would all be reinstated with no lasting effects on the arable fields or the hedgerow within the pipe storage area. The loss of some limited sections of trees from within the pipeline easement at a number of dispersed locations throughout the LCA would however be permanent although partly mitigated by replacement planting of small trees and shrubs within the remainder of the corridor, outside the easement. Consequently, there would be a Low to Zero magnitude of change on landscape character and key characteristics and on landscape elements until replacement planting is established.	

	Level of effect:	Minor and Not Significant
	Type of effect:	Permanent and neutral
Temporary construction accesses (NH-47)	Construction phase: <u>Temporary construction access: A57 (NH-47), A557, Mill Lane and Twyford Lane.</u> 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. Where required, local roads (Mill Lane and Twyford Lane) would need to be widened with some vegetation loss to facilitate this widening for HGV access. Some limited hedgerow removal would also be required to allow for visibility splays and entry at the designated access location (NH-47). Further details would be provided in the Environmental Statement where an arboricultural assessment to BS 5837 would be submitted. The access strategy also identifies the A557 Watkinson Way as an HGV route, although additional traffic movements are unlikely to be readily distinguishable along this route. The magnitude of change resulting from the increased traffic movements and localised removal of vegetation to accommodate road widening, access junctions and visibility splays would potentially be up to a High 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 to be clarified in the Environmental Statement following provision of more detailed construction traffic information.
	Type of effect:	Short-term duration (temporary), direct and adverse.
Clock Face HAGI (Figure 8.37)	Construction phase: A temporary construction compound would surround the HAGI under construction in an open pastoral 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. Temporary earth bunds and/or solid hoarding to the perimeter of the associated construction compounds would minimise visibility of activity and structures within the compound. Construction traffic would access the HAGI site via the A57 along the northern edge of this LCA which is unlikely to be readily distinguishable within the volume of traffic that use this route in baseline conditions. The presence of hedgerows along the A57 between the LCA and the HAGI and its associated construction compound, a minimum separation distance of 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 to locally Moderate and Not Significant
	Type of effect:	Short-term duration (temporary), indirect 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) for safety and to reduce visual impact. Illustrative examples of a layout, and photographic examples of operational schemes are contained in Chapter 2, Volume 2 . The roadside hedgerows and landform within the LCA which slopes southwards away from the HAGI site results in limited intervisibility. 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:	Minor to Minor/Negligible and Not Significant
	Type of effect:	Permeant and neutral
Limitations / assumptions	1. Assessments related to landscape elements and in particular tree / vegetation loss are estimated pending the arboriculture survey and further design maturity that would be outlined in the Environmental Statement. 2. It has been assumed that hedgerows and trees lost to provide temporary construction access would be reinstated with new planting where possible post-construction i.e. where they do not lie in easements. 3. No account of any potential landscape mitigation near the perimeter of the HAGI sites has been accounted for and is pending further design maturity. A Year 15 assessment following construction would be included in the Environmental Statement.	
Overall assessment	Construction phase: Collectively the construction works involving the underground pipeline (North Corridor), pipe storage area and construction access routes would represent a moderate scale development continuing for the duration of the construction phase (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, pipe storage area and construction access routes. The arable fields would be reinstated following completion of the construction phase and hedgerow and trees would be replanted with the exception of the pipeline easement.	
Level of effect:	Minor and Not Significant with localised areas of Major/Moderate and Significant effects close to the pipeline corridor, pipe storage area and some 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 overall would be Minor to Minor/Negligible and Not Significant .	

Table 8C.22: Landscape Assessment for LCA Norton Wooded Parkland

Figures: 8.3		
LCA hierarchy:	National Character Area	NCA 60 Mersey Valley
Landscape Designations:	None	
Administrative area:	Halton	
Character description:	The Proposed Development passes to the south of LCA Norton Wooded Parkland, which is one of two LCAs within the Urban Fringe Parkland LCT. The key landscape characteristics of the LCA are detailed below taken from the <i>Halton Landscape Character Assessment</i>³. <u>Key characteristics:</u> • “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; and • Norton Water Tower is a feature on high ground”³ <u>Built Development Guidelines:</u> “1. Conserve and enhance the wooded setting of Norton Priory; ensure any new development close to the priory does not adversely affect its setting.	

	<i>2. Conserve and enhance the character of development set within woodland on rising ground on the fringes of the character area.</i> <i>3. Conserve and enhance the low key and infrequent dispersal of built form throughout the character area.”³</i>		
Assessment of sensitivity	<u>Landscape value:</u> The LCT is not designated for its scenic landscape value at a national or local level that would denote a higher value. A very 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. <u>Landscape susceptibility:</u> 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 to the Project is assessed as Low.		
Sensitivity	Overall sensitivity: Low	Landscape value:	Low
		Landscape susceptibility:	Low
Magnitude of change			
Pipeline (West Corridor pipeline)	Construction phase: Figure 8.3, Volume 3 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. The pipeline corridor would comprise site fencing, open cut pipeline trench with adjacent material storage area, associated construction machinery, internal haul road, and soil storage as indicated in Chapter 2, Volume 2 . 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
	Operation and maintenance (Year 1) phase: The West Corridor of the pipeline would be reinstated with no lasting effects on the landscape features. Any infrequent maintenance surveys which may be required on foot (line walking) over the route of the pipeline would have no characterising influence. The prevalence of woodland and a minimum separation distance of approximately 860m means that there would be a Zero magnitude of change on landscape character and key characteristics within this LCA.	
	Level of effect:	No Effect
	Type of effect:	N/A
Temporary construction accesses	Construction phase: <u>Temporary construction access: A533, A56.</u> 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
	Type of effect:	Short-term duration (temporary), indirect and adverse
Limitations / assumptions	None	
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 whilst the visual and audible influence of construction vehicles on the adjacent highways would be incremental to the baseline and unlikely to be readily distinguishable. Overall, the magnitude of change on the LCA would be Very Low to Zero.	
	Level of effect:	Negligible to No Effect and Not Significant.
	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 at Year 1.

Table 8C.23: Landscape Assessment for LCA Daresbury Sandstone Escarpment

Figures: 8.5, 8.35 and 8.36		
LCA hierarchy:	National Character Area	NCA 60 Mersey Valley
Landscape Designations:	None	
Administrative area:	Halton	
Character description:	The Proposed Development passes through the centre of LCA Daresbury Sandstone Escarpment, which is only LCA within the Red Sandstone Escarpment LCT. The key landscape characteristics of the LCA are detailed below taken from the <i>Halton Landscape Character Assessment</i>³. <u>Key characteristics:</u> • <i>“Distinctive escarpment landform with the east steeply sloping, western slopes are more gently undulating;</i> • <i>Rural character although views of industry in the north reduce this slightly;</i> • <i>Land use is predominantly pasture on steeper slopes and pockets of arable on gentler slopes;</i> • <i>Regular geometric field pattern with a high proportion of post medieval fields;</i> • <i>Farmland bordered by generally intact closely clipped low hedgerows and frequent hedgerow trees;</i> • <i>Pockets of parkland around Daresbury Hall;</i> • <i>Frequent isolated trees within fields;</i> • <i>Frequent clusters of wooded field ponds;</i> • <i>Long linear tree groups; most are prominent on high ground;</i> • <i>Small tracks and lanes often with walled boundaries;</i> • <i>Avenues of trees along tracks and lanes Small linear settlement and infrequent scattered farmsteads; and</i> • <i>Expansive views from high ground although landform creates a high level of enclosure on lower ground.”³</i>	

	<u>Built Development Guidelines:</u> <i>“1. Conserve and enhance the impression of development as individual farms, collections of 2 or 3 buildings or ribbon development.</i> <i>2. Conserve and encourage the use of red brick and sandstone in any infill/extensions.</i> <i>3. Conserve and enhance the local character of barns particularly in any diversification such as conversion to private residences.</i> <i>4. Conserve and encourage the use of red brick and sandstone in the construction of any new agricultural buildings.</i> <i>5. 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</i>
Assessment of sensitivity	<u>Landscape value:</u> 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. <u>Landscape susceptibility:</u> The Halton Landscape Character Assessment¹ 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 susceptibility to change. The visual susceptibility is assessed in the context of prevalent woodland cover which encloses views although extensive panoramas are available from highpoints. Within the LCA. 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

Pipeline (North Corridor options NP1, NP2 and NP3)	Construction phase: Figure 8.5, Volume 3 shows options NP1, NP2 and NP3 of the North Corridor of the pipeline crossing this LCA between the Newton Lane and the administrative boundary with Warrington. The working width of the pipeline corridor comprises site fencing, open cut pipeline trench with adjacent material storage area, associated construction machinery, internal haul road, and soil storage as indicated in Chapter 2, Volume 2 . Construction activity would be transient and of short duration with progressive backfill and reinstatement as works are completed along the route. Option NP1 of the pipeline corridor crosses ten arable and pasture fields and would require the localised removal of trees, shrubs and hedgerow at nine locations along the route. Option NP2 of the pipeline corridor crosses arable and pasture fields and would require the localised removal of trees, shrubs and hedgerow at locations along the route. A short (approximately 250m) section of option NP3 also passes through the fringes of the LCA within a pasture field and would require the localised removal of trees, shrubs and hedgerow at two locations. The potential loss of localised trees and hedgerows in this LCA would be partially mitigated by replacement of planting in-situ, following the construction phase as recorded in the Year 1 assessment below. The scale and geographical extent of these construction activities would be Medium when experienced locally to the construction works (within the same field unit or ~500m), reducing to Low or less from the wider LCA, where the pipeline corridor would be screened by the high incidence of trees and 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 storage area) to Low or less elsewhere within the LCA.	
	Level of effect:	Pipeline– Major/Moderate and locally Significant to a Minor 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 pipeline corridor would be reinstated with no lasting effects on the arable and pastoral fields. The loss of some limited sections of trees and hedgerow from within the pipeline easement at a number of dispersed locations throughout the LCA would however be permanent although partly mitigated by replacement planting	

	of small trees and shrubs within the remainder of the corridor, outside the easement. Consequently, there would be a Low to Zero magnitude of change on landscape character and key characteristics and on landscape elements until replacement planting is established.				
	<table> <tr> <td>Level of effect:</td><td>Minor and Not Significant</td></tr> <tr> <td>Type of effect:</td><td>Permanent and neutral</td></tr> </table>	Level of effect:	Minor and Not Significant	Type of effect:	Permanent and neutral
Level of effect:	Minor and Not Significant				
Type of effect:	Permanent and neutral				
Temporary construction accesses (NH-11, NH-12 and NH-13)	Construction phase: <u>Temporary construction access:</u> A558, A56 (NH-13), B5356 (NH-11 and NH-12) and Newton Lane. All construction access for the pipeline would utilise the existing road network to join the temporary haul routes within the pipeline corridor. Where required, local roads would need to be widened with some vegetation loss to facilitate this widening. Some limited hedgerow and potentially tree removal would also be required to allow for visibility splays and entry at the designated access locations (NH-11 and NH-12) on the B5356. Further details would be provided in the Environmental Statement where an arboricultural assessment to BS 5837 would be submitted. The access strategy also identifies the A558 and A56 as HGV routes, although additional traffic movements are unlikely to be readily distinguishable along this route. The magnitude of change resulting from the increased traffic movements and localised removal of vegetation to accommodate road widening, access junctions and visibility splays would potentially be up to a High magnitude affecting a small geographical area of landscape character in the local vicinity of the temporary construction access routes. <table> <tr> <td>Level of effect:</td><td>Major/Moderate and locally Significant to be clarified in the Environmental Statement following provision of more detailed construction traffic information.</td></tr> <tr> <td>Type of effect:</td><td>Short-term duration (temporary), direct and adverse.</td></tr> </table>	Level of effect:	Major/Moderate and locally Significant to be clarified in the Environmental Statement following provision of more detailed construction traffic information.	Type of effect:	Short-term duration (temporary), direct and adverse.
Level of effect:	Major/Moderate and locally Significant to be clarified in the Environmental Statement following provision of more detailed construction traffic information.				
Type of effect:	Short-term duration (temporary), direct and adverse.				
Higher Walton HAGI Options HWH1 and HWH2 (Figures 8.35 and 8.36)	Construction phase: A temporary construction compound would be sited to the west of option HWH1 of the Higher Walton HAGI on land which comprises a mosaic of grassland/scrub/trees within a local wildlife site. This would be sited beyond the LCA's boundary (approximately 850m to the northwest) although its study area coincides with a small proportion of this receptor unit within its northern end. 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 4m (up to 4m in height), equipment and materials. Temporary earth bunds and/or solid hoarding to the perimeter of the associated construction compounds would minimise visibility of activity and structures within the compound. Construction traffic would access the compound via an existing track (N39) from Moore Lane and is unlikely to have a				

	discernible characterising influence from within this LCA to the south. The presence of tree cover hedgerows and separation distance of the LCA from the temporary construction compound would result in very restricted views at the most. The magnitude of change would be Very Low and commonly Zero.	
	Level of effect:	Negligible and Not Significant to No Effect to be clarified in the Environmental Statement following provision of more detailed construction traffic information.
	Type of effect:	Short-term duration (temporary), indirect and adverse.
	Operation and maintenance (Year 1) phase: Options HWH1 and HWH2 of the High 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) for safety and to reduce visual impact. Illustrative examples of a layout, and photographic examples of operational schemes are contained in Chapter 2, Volume 2 . The presence of intervening vegetative screening elements between both options and the LCA 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:	Negligible and Not Significant to No Effect
	Type of effect:	Permanent, indirect and neutral
Limitations / assumptions	1. Assessments related to landscape elements and in particular tree / vegetation loss are estimated pending the arboriculture survey and further design maturity that would be outlined in the Environmental Statement. 2. It has been assumed that hedgerows and trees lost to provide temporary construction access would be reinstated with new planting where possible post-construction i.e. where they do not lie in easements.	
Overall assessment	Construction phase: Collectively the construction works involving the underground pipeline (North Corridor Options NP1, NP2 and NP3) and construction access routes would represent a moderate scale development continuing for the duration of the construction phase (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 construction access routes. The arable and pastoral fields would be reinstated following	

	completion of the construction phase and hedgerow and trees would be replanted with the exception of the pipeline easement.	
	Level of effect:	Minor and Not Significant with localised areas of Major/Moderate and Significant effects close to the pipeline corridor and some 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 overall would be Minor to Minor/Negligible and Not Significant .	

Table 8C.24: Landscape Assessment for LCA Moore Village and Keckwick Brook Valley

Figures: 8.5, 8.35 and 8.36		
LCA hierarchy:	National Character Area	NCA 60 Mersey Valley
Landscape Designations:	None	
Administrative area:	Halton	
Character description:	The Proposed Development passes through the 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 <i>Halton Landscape Character Assessment</i>³. <u>Key characteristics:</u> • <i>“Narrow shallow river valley;</i> • <i>Informal open space and isolated pockets of farmland;</i> • <i>Frequent infrastructure routes such as railways overhead lines and roads;</i> • <i>Long linear field pattern following watercourse; smaller fields closer to settlements;</i> • <i>Segmentation of the landscape through railways on embankments; watercourses and canals and roads which bisect the area;</i> • <i>Prominent wooded watercourse Two spurs of the Bridgewater Canal are features within the area;</i> • <i>Small pockets of woodland and clumps of trees;</i> • <i>Daresbury Firs is a prominent conifer woodland on high ground;</i> • <i>Large areas of informal open space and rough grassland on the fringes of Runcorn Frequent stone and brick bridges over canals;</i> • <i>Urban fringe and industrial development prominent within views; and</i> • <i>Commercial/industrial development prominent on ridgeline”.</i>³ <u>Built Development Guidelines:</u>	

	<i>“1. Provide woodland planting within and around development on high ground to reinforce the continuous wooded character of high ground.</i> <i>2. Create a wooded setting to any new development on the fringes of the character area.</i> <i>3. Conserve existing woodlands and trees where they lie within or immediately adjacent to land identified for future development Ensure integration of open spaces and any new development/expansion of development along the fringes of the character area.</i> <i>4. Enhance and maintain a wooded horizon; the number and scale of development punctuating the wooded skyline should be limited.”³</i>
Assessment of sensitivity	<u>Landscape value:</u> 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 “<i>poor to moderate</i>” 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 PRowWs and informal routes within nature conservation areas. The overall landscape value is assessed as Medium-Low. <u>Landscape susceptibility:</u> The <i>Halton Landscape Character Assessment</i>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	Overall sensitivity: Medium	Landscape value:	Medium to Low
		Landscape susceptibility:	Medium to Low
Magnitude of change			
Pipeline North Corridor options NP4 and NP1	Construction phase: Figure 8.5, Volume 3 shows Option NP4 of the North Corridor of the pipeline crossing the north-eastern corner of the LCA between the southern bank of the Manchester Ship Canal and the administrative boundary with Warrington. The pipeline corridor comprising site fencing, open cut pipeline trench with adjacent material storage area, associated construction machinery, internal haul road, and soil storage as indicated in Chapter 2, Volume 2. Construction activity would be transient and of short duration with progressive backfill and reinstatement as works are completed along the route. The pipeline corridor crosses several pasture fields, with open cut sections crossing through field boundaries comprising hedgerows at three locations. The localised removal of trees, shrubs and hedgerow at each of these locations would appear as a break in the field pattern. The potential loss of localised trees and hedgerows in this LCA would be partially mitigated by replacement of planting in-situ, following the construction phase as recorded in the Year 1 assessment below. In addition to the pipeline corridor, a temporary compound would be constructed within this LCA to facilitate a trenchless crossing of the Manchester Ship Canal. This would be located within a pasture field on the southern bank of the Manchester Ship Canal where the perimeter field boundary vegetation would be retained and protected. This temporary compound 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 (6m). Lighting would be required during the hours of darkness for operational activity typically in winter and may be required for security with the lighting design seeking to minimise light spill outside of the compound. The scale and geographical extent of these construction activities would be Medium when experienced locally to the construction works (within the same field unit or ~500m) including from the local lanes, local PRow network and isolated residential properties along Moss Lane, reducing to Low or less from the wider LCA, where the pipeline corridor would begin to become partially screened by retained hedgerow field		

boundaries and the high incidence of trees. Beyond ~500m from the construction activity, the works would appear similar to works associated with periodic agricultural activity. 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 and temporary compounds) to Low or less elsewhere within the LCA. The LCA lies beyond option NP1 of the North Corridor which crosses agricultural fields to the east of the A56, and coincides with its LVIA study area. The high prevalence of built form within the part of the LCA which coincides with the study area (i.e. at Daresbury Laboratory and Daresbury Park) as well as woodland within (at Daresbury Firs) and along the boundary road corridors (A56 and A558) and intervening field boundaries, together with a separation distance which extends from approximately 80m to 1km, means the construction activities associated with option NP1 would have limited characterising influence with a Low to Very Low magnitude of change.	
Level of effect:	Option NP4: Moderate and potentially locally Significant to Minor and Not Significant Option NP1: Minor to Minor/Negligible and Not Significant
Type of effect:	Option NP4: Short-term duration (temporary), direct and adverse Option NP1: Short-term duration (temporary), indirect and adverse
Operation and maintenance (Year 1) phase: The NP1 pipeline corridor and trenchless crossing compound would all be reinstated with no lasting effects on the pasture fields. The loss of some limited sections of hedgerow and hedgerow trees within a narrow easement directly above the pipeline route option would however be permanent, although partly mitigated by replacement planting of hedgerow / trees within the remainder of the corridor, outside of the easement. Consequently, there would be a Very Low to Zero magnitude of change on landscape character and key characteristics and a predicted Low magnitude of change on landscape elements until replacement planting is established. The NP1 corridor of the pipeline would be reinstated with no lasting effects on the landscape features. Any infrequent maintenance surveys which may be required on foot (line walking) over the route of the pipeline would have no characterising influence. The prevalence of woodland and built form means that there would be a Zero magnitude of change on landscape character and key characteristics within this LCA.	
Level of effect:	Option NP4: Minor / Negligible and Not Significant Option NP1: No Effect

	Type of effect:	Option NP4: Permanent and neutral Option NP1: N/A
Temporary construction accesses (NH-26 and NH27)	Construction phase:	The A56 and A558 which lie adjacent to or traverse this LCA form part of the HGV access routes for the Project and as a part of the strategic highway network, they are unlikely to require widening or junction modifications. Blackheath Lane and Eastgate Road are also defined as HGV access routes and are already used by HGVs accessing the adjoining distribution centres. Consequently, these two routes are also unlikely to require widening. The presence of high numbers of HGVs along these routes is already part of the baseline and additional traffic movements are unlikely to be readily distinguishable. In addition to the onsite access tracks which would run within the pipeline corridor and isolated onsite access track would be site through an area of grassland, scrub and woodland pockets to link Eastgate Road with a narrow track that extends west from Moss Lane. The route would then continue along Moss Lane to the trenchless crossing compound on the southern bank of the Manchester Ship Canal. Whilst this route seeks to avoid the main pockets of woodland, some tree and vegetation loss would be required. Two light and HGV access points (NH-26 and NH-27) would also be created on either side of Moore Lane with a corresponding removal of small trees and vegetation to facilitate the access. Further details would be provided in the Environmental Statement where an arboricultural assessment to BS 5837 would be submitted. 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 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 potentially locally Significant
	Type of effect:	Short-term duration (temporary), direct and adverse.
Higher Walton HAGI Options HWH1 and HWH2 (Figures 8.35 and 8.36)	Construction phase:	A temporary construction compound would be sited to the west of option HWH1 of the Higher Walton HAGI on land which comprises a mosaic of grassland/scrub/trees within a local wildlife site. This would be sited beyond the LCA's boundary (approximately 80m to the north) although its study area coincides with a small proportion of this receptor unit within its northern end. 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 4m (up to 4m in height), equipment and

	materials. Temporary earth bunds and/or solid hoarding to the perimeter of the associated construction compounds would minimise visibility of activity and structures within the compound. Construction traffic would access the compound via an existing track (N39) from Moore Lane and is unlikely to have a discernible characterising influence from within this LCA to the south. The presence of tree cover along Moss Lane which forms the northern boundary of the LCA and the local rising landform to the south means that northern views would be partially restricted. The magnitude of change would be Medium to Low and commonly Zero. The study area for option HWH2 of the Higher Walton HAGI also coincides with a small proportion of this LCA in its north-western corner. The temporary construction compound would be sited to the east of the HAGI location on a small field to the west of the West Coast Main Line. This would be located approximately 840m from the LCA at its closest point. 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. The magnitude of change would be Low to Very Low.				
	<table> <tr> <td>Level of effect:</td><td>HWH1: Moderate to Minor and Not Significant HWH2: Minor to Minor/Negligible and Not Significant</td></tr> <tr> <td>Type of effect:</td><td>Short-term duration (temporary), indirect and adverse</td></tr> </table>	Level of effect:	HWH1: Moderate to Minor and Not Significant HWH2: Minor to Minor/Negligible and Not Significant	Type of effect:	Short-term duration (temporary), indirect and adverse
Level of effect:	HWH1: Moderate to Minor and Not Significant HWH2: Minor to Minor/Negligible and Not Significant				
Type of effect:	Short-term duration (temporary), indirect and adverse				
	Operation and maintenance (Year 1) phase: Options HWH1 and HWH2 of the High Walton 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 above ground components would be at a low level (up to 5m) for safety and to reduce visual impact. Illustrative examples of a layout, and photographic examples of operational schemes are contained in Chapter 2. The presence of intervening vegetative screening elements between both options and the LCA means that the indirect effect on the landscape character and key characteristics of this LCA would be Very Low and commonly Zero.				
	<table> <tr> <td>Level of effect:</td><td>HWH1 and HWH2: Minor/Negligible and Not Significant</td></tr> <tr> <td>Type of effect:</td><td>Permanent and adverse (HWH1) and neutral (HWH2)</td></tr> </table>	Level of effect:	HWH1 and HWH2: Minor/Negligible and Not Significant	Type of effect:	Permanent and adverse (HWH1) and neutral (HWH2)
Level of effect:	HWH1 and HWH2: Minor/Negligible and Not Significant				
Type of effect:	Permanent and adverse (HWH1) and neutral (HWH2)				
Limitations / assumptions	1. Assessments related to landscape elements and in particular tree / vegetation loss are estimated pending the arboriculture survey and further design maturity that would be outlined in the Environmental Statement. 2. It has been assumed that hedgerows and trees lost to provide temporary construction access would be reinstated with new planting where possible post-construction i.e. where they do not lie in easements.				

	3. No account of any potential landscape mitigation near the perimeter of the HAGI sites has been accounted for and is pending further design maturity. A Year 15 assessment following construction would be included in the Environmental Statement.	
Overall assessment	Construction phase: Collectively the construction works involving the underground pipeline (North Corridor options NP4 and NP1) and the presence of construction access routes, a single trenchless crossing compound within the LCA and HAGI options HWH1 or HWH2 to the north, beyond the LCAs boundary, would represent a moderate scale development continuing for the duration of the construction phase (6-12 months). Overall, the magnitude of change on the LCA would be Low with localised areas experiencing up to a Medium magnitude of change, particular those areas in close proximity to the pipeline corridor of option NP4 and access routes. 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 hedgerow at a small number of locations which lie within the pipeline easement (i.e. directly above the pipeline).	
	Level of effect:	Minor or less and Not Significant with localised areas of Moderate and Significant effects close to the pipeline corridor, construction compounds and along some 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 overall would be Minor/Negligible and Not Significant .	

Table 8C.25: Landscape Assessment for LCA Preston on the Hill Undulating Enclosed Farmland

Figures: 8.4, 8.5		
LCA hierarchy:	National Character Area	NCA 60 Mersey Valley
Landscape Designations:	None	
Administrative area:	Halton	
Character description:	The Proposed Development 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 <i>Halton Landscape Character Assessment</i>.³ <u>Key characteristics:</u> • <i>“Gently undulating landform;</i> • <i>Regular gentle knolls and smaller valleys created by small steams and tributaries;</i> • <i>Mixture of dairy farming and arable with a small amount of horse paddocks close to farms;</i> • <i>Irregular field pattern of post-medieval origin with some pockets of ancient fieldscape;</i> • <i>Hedgerow trees often present in small groups;</i> • <i>Keckwick Brook is a prominent wooded stream;</i> • <i>Frequent clusters of wooded field ponds;</i> • <i>Frequent linear woodland and small copses at field margins and around farmsteads; and</i> • <i>Small linear settlement and individual properties and farmsteads.”</i>³ <u>Built Development Guidelines:</u> <i>“1. Conserve the linear settlement character of Preston on the Hill through ensuring any changes/infill development reflects this settlement pattern</i> <i>2. Conserve and encourage the use of sandstone boundaries around properties with evergreen/native hedgerow planting behind</i> <i>3. Encourage the use of red brick and sandstone within any new/infill development</i>	

	4. Conserve and enhance the dispersed character of built form within the area ensuring new properties are set within or adjacent to small copses 5. 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 6. Ensure any conversions of rural barns to private residences respects their distinctive character and features. Associated boundaries and gardens should respect the rural character of the landscape 7. 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	<u>Landscape value:</u> 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 “<i>The landscape has a distinctive character and strong sense of place</i>”³ and a landscape condition which is cited as good with the majority of the landscape being well maintained and “<i>evidence of replacement of landscape features such as new hedgerow and hedgerow tree planting</i>”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 PRowWs 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 “<i>localised effect on views from roads and fields closest to the motorway</i>”³ as well as effects on levels of tranquillity. The overall landscape value is assessed as Medium. <u>Landscape susceptibility:</u> 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 <i>Halton Landscape Character Assessment</i>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	Overall sensitivity: Medium	Landscape value:	Medium

		Landscape susceptibility:	Medium
Magnitude of change			
Pipeline (North Corridor)	Construction phase: Figures 8.4 and 8.5, Volume 3 show the North Corridor of the pipeline crossing the LCA between the M56 in the north and the administrative boundary with Cheshire West and Chester in the south. The working width of the pipeline corridor would be approximately 22m, comprising site fencing, open cut pipeline trench with adjacent material storage area, associated construction machinery, internal haul road, and soil storage as indicated in Chapter 2, Volume 2. Construction activity would be transient and of short duration with progressive backfill and reinstatement as works are completed along the route. The pipeline corridor crosses several arable and pasture fields, with open cut sections crossing through field boundaries comprising hedgerows with hedgerow trees at up to six locations. The localised removal of trees, shrubs and hedgerow at each of these locations would appear as a break in the generally intact field pattern. The potential loss of localised trees and hedgerows in this LCA would be partially mitigated by replacement of planting in-situ, following the construction phase as recorded in the Year 1 assessment below. In addition to the pipeline corridor, a temporary pipeline storage area would be constructed across three fields within the LCA 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. A trenchless crossing compound would be sited across two fields to the south of the M56 motorway and adjacent to the LCA's boundary. This temporary compound 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 (6m). Lighting would be required during the house of darkness for operational activity typically in winter and may be required for security with the lighting design seeking to minimise light spill outside of the compound. The presence of this compound would give rise to indirect landscape effects across a small proportion of this LCA although the area across which the greatest potential characterising influence would arise corresponds with that where visual and perceptual; character is already affected by the M56 corridor under baseline conditions. 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 ~500m) 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. Beyond ~500m from the construction activity, the works would appear similar to works associated with periodic agricultural activity.		

	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:	Pipeline and temporary compounds – 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.
	Operation and maintenance (Year 1) phase: The pipeline corridor and associated temporary compounds would all be reinstated with no lasting effects on the arable and pasture fields. The loss of some limited sections of hedgerow and hedgerow trees within a narrow easement directly above the pipeline route at up to six locations would however be permanent, although partly mitigated by replacement planting of hedgerow / trees within the remainder of the corridor, outside of the easement. Consequently, there would be a Very Low to Zero magnitude of change on landscape character and key characteristics and a predicted Low magnitude of change on landscape elements until replacement planting is established.	
	Level of effect:	Pipeline corridor and pipe storage area – Minor to Minor / Negligible and Not Significant
	Type of effect:	Permanent and neutral
Temporary construction accesses (NH-05 and NH-06)	Construction phase: <u>Temporary construction access: Newton Lane (NH-05 and NH-06).</u> All construction access for the pipeline would utilise a short (200m) section of the existing road network within this LCA to join the temporary haul routes within the pipeline corridor and associated trenchless crossing compound to the north and temporary pipe stores to the south. Where required the road would need to be widened with some vegetation loss to facilitate this widening. Some limited tree removal and/or coppicing / pruning would also be required to allow for visibility splays at the designated access locations, but this is unlikely to significantly affect the landscape character in these locations. Further details would be provided in the Environmental Statement where an arboricultural assessment to BS 5837 would be submitted. 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 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 potentially locally Significant
	Type of effect:	Short-term duration (temporary), direct and adverse
Limitations / assumptions	1. Assessments related to landscape elements and in particular tree / vegetation loss are estimated pending the arboriculture survey and further design maturity that would be outlined in the Environmental Statement. 2. It has been assumed that hedgerows and trees lost to provide temporary construction access would be reinstated with new planting where possible post-construction i.e. where they do not lie in easements.	
Overall assessment	Construction phase: Collectively the construction works involving the underground pipeline (North Corridor) and the presence of construction access routes, an extensive pipe storage area within the LCA and a single trenchless crossing compound to the north, adjacent to the LCAs boundary, would represent a moderate scale development continuing for the duration of the construction phase (6-12 months). 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 and trenchless crossing compound to the north. 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 hedgerow at a small number of locations which lie within the pipeline easement (i.e directly above the pipeline).	
	Level of effect:	Minor or less 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 overall would be Minor/Negligible and Not Significant .	

Table 8C.26: Landscape Assessment for LCA Cronton and Pex Hill

Figures: 8.7 and 8.37		
LCA hierarchy:	National Character Area	NCA 60 Mersey Valley and NCA 56 Lancashire Coal Measures
Landscape Designations:	None	
Administrative area:	Knowsley	
Character description:	The Proposed Development 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 <i>Landscape Character Assessment of Knowsley Metropolitan Borough</i>⁴ <u>Key characteristics:</u> • <i>“Topography: Rolling lowland.</i> • <i>Geology: Glacial drift overlying sandstone (Carboniferous and Triassic) and undivided cyclic sedimentary rocks (Carboniferous).</i> • <i>Soil Types: Sandy Clay – well drained.</i> • <i>Land Use: Mainly agricultural arable cropping with some pasture and buffer zones against the urban fringe.</i> • <i>Tree Cover: Generally deciduous woodland in clumps or as isolated trees following dwelling boundaries, urban fringes or tracks.</i> • <i>Settlement: Isolated farmsteads and residential dwelling with some in small clusters. Mainly red brick with pitched grey slate roofs.</i> • <i>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 -</i>	

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 30 August 2021).

	<i>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</i>		
	<u>Built Development Guidelines:</u> None specified for the LCA		
Assessment of sensitivity	<u>Landscape value:</u> 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 study areas 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 “ <i>generally well maintained</i> ” 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 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 PRowWs also cross the landscape beyond the study area. The overall landscape value is assessed as Medium-Low.		
	<u>Landscape susceptibility:</u> 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	Overall sensitivity: Low	Landscape value:	Medium-Low
		Landscape susceptibility:	Low
Magnitude of change			

Pipeline (North Corridor)	Construction phase: The proposed North Corridor would not pass through this LCA (as shown in Figure xx, Volume 3) and as a consequence, landscape effects would be indirect. At its nearest point, the North Corridor would pass approximately 820m 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. This 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. 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:	Pipeline and trenchless crossing construction compounds – Negligible and Not Significant to No Effect
	Type of effect:	Short-term duration (temporary with some permanent effects), indirect and adverse
	Operation and maintenance (Year 1) phase: The pipeline corridor and associated trenchless construction compounds would all be reinstated with no lasting effects on the landscape features in the partially filtered views from within the LCA. Any infrequent maintenance surveys which may be required on foot (line walking) over the route of the pipeline would have no characterising influence. Consequently, there would be a Zero magnitude of change on landscape character and key characteristics within this LCA.	
	Level of effect:	Pipeline and trenchless crossing construction compounds – No Effect
	Type of effect:	N/A
Temporary construction accesses A557	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 likely 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 .
	Type of effect:	Short-term duration (temporary), direct and indirect and adverse
Clock Face HAGI (Figure 8.37)	Construction phase: A temporary construction compound extending up to 3 ha would surround the HAGI under construction in an open pastoral 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. Temporary earth bunds and/or solid hoarding to the perimeter of the associated construction compounds would minimise visibility of activity and structures within the compound. 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
	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) for safety and to reduce visual impact. Illustrative examples of a layout, and photographic examples of operational schemes are contained in Chapter 2. The separation distance (a minimum of 750m) and presence of intervening screening elements means that the effect on the landscape character and key characteristics would be Very Low and highly localised.	
	Level of effect:	Negligible and Not Significant
	Type of effect:	Permanent, indirect and adverse

Limitations / assumptions	1. It has been assumed that hedgerows and trees lost to provide temporary construction access would be reinstated with new planting where possible post-construction i.e. where they do not lie in easements. 2. No account of any potential landscape mitigation near the perimeter of the HAGI site has been accounted for and is pending further design maturity. A Year 15 assessment following construction would be included in the Environmental Statement.
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 to No Effect and Not Significant
	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 Negligible resulting effects that would be Not Significant.

Table 8C.27: Landscape Assessment for LCA BRS5 Rainhill Slopes

Figures: 8.8 and 8.37		
LCA hierarchy:	National Character Area	NCA 56 Lancashire Coal Measures
Landscape Designations:	None	
Administrative area:	St Helens	
Character description:	The Proposed Development passes to the west of LCA BRS5 Rainhill Slopes and the LCA lies within the LVIA Study Area. This is the one of five LCAs within the Broad Rural Slopes LCT. The description of the LCA is detailed below taken from the <i>Landscape Character Assessment for St Helens</i>⁵. <u>Area Description (LCA)</u> • <i>“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;</i> • <i>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;</i> • <i>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;</i> • <i>‘Water pits’ are a distinctive landscape feature located within depressions in the fields and are generally associated with small blocks of mature deciduous woodland;</i> • <i>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;</i>	

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 June 2022)

- *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

“1. 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 study area and although this area has many of the features and key characteristics of the wider LCA, it spans a limited area of the LCA area between Tower College and Rainhill Stoops Interchange at the M62 where the LCA is increasingly influenced by built development and road infrastructure. There are no long distance walking routes or national cycle routes in the 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 ‘high’ visibility from 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			
Pipeline (North Corridor)	Construction phase: Figure 8.8, Volume 3 shows the North Corridor of the pipeline within the LVIA study area beyond BRS5 Rainhill Slopes LCA. The proposed North Corridor will not pass through this LCA and effects would be indirect. At its nearest point, the North Corridor would pass approximately 500m to the east of the LCA as it passes to the northeast of the Rainhill Stoops Interchange. There would be potential influence of the pipeline trench, a construction compounds to facilitate the trenchless crossing of the M62 and Clock Face HAGI. There would be no effect on the key characteristics of the LCA with the exception of heavily filtered winter views from the eastern edge of the LCA towards the works. The magnitude of change would be Very Low to Zero.		
	Level of effect:	Pipeline and trenchless crossing construction compounds – Minor/Negligible and Not Significant to No Effect.	
	Type of effect:	Short-term duration (temporary with some permanent effects), direct and adverse.	
	Operation and maintenance (Year 1) phase: The pipeline corridor and associated trenchless crossing compounds would all be reinstated with no lasting effects on the landscape features in views. The loss of some limited sections of hedgerow and hedgerow trees within a ~10m wide easement would not be discernible due to distance and intervening screening. It is likely that Clock Face HAGI would not be visible from the LCA due to intervening vegetation, road infrastructure and change in topographical level. Consequently, there would be a Zero magnitude of change on landscape character and key characteristics.		
	Level of effect:	No Effect	
	Type of effect:	N/A	
Clock Face HAGI (Figure 8.37)	Construction phase: The Clock Face HAGI is sited in an open field adjacent to the M62 transport route to the southeast 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 southeast 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 850m means that views towards the HAGI 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 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 separation distance (a minimum of 850m) and presence of intervening screening elements (vegetation and road infrastructure) means that the effect on the landscape character and key characteristics would be Zero	
	Level of effect:	No Effect
	Type of effect:	N/A
Limitations / assumptions	- Assessments related to landscape elements and in particular tree / vegetation loss are estimated pending the arboriculture survey and further design maturity that would be outlined in the Environmental Statement. - It has been assumed that hedgerows and trees lost to provide temporary construction access would be reinstated with new planting where possible post-construction i.e. where they do not lie in easements.	
Overall assessment	Construction phase: There would be very limited indirect effects from the proposed North Corridor and associated construction compounds due to distance and intervening woodland and tree belts.	
	Level of effect:	Pipeline and trenchless crossing construction compounds – Minor/Negligible and Not Significant to No Effect.
	Type of effect:	Short-term duration (temporary with some permanent effects), indirect and neutral.
	Operation and maintenance (Year 1) phase: There would be No Effect on the landscape character and key characteristics overall.	

Table 8C.28: Landscape Assessment for LCA FF2 Sutton Manor Fringe

Figures: 8.8 and 8.37		
LCA hierarchy:	National Character Area	NCA 56 Lancashire Coal Measures
Landscape Designations:	None	
Administrative area:	St Helens	
Character description:	The Proposed Development passes through the centre of LCA FF2 Sutton Manor Fringe, this is one of four LCAs within the Floodplain Farmland LCT. The key landscape characteristics of the LCT are detailed below taken from the <i>Landscape Character Assessment for St Helens</i>⁵. <u>Key characteristics (LCT):</u> • <i>“Predominantly flat open and expansive landform subtly falling in elevation southwards to the River Mersey floodplain;</i> • <i>Large scale agricultural arable landscape with large fields, partially enclosed by hedgerow remnant, but interspersed with drainage ditches which retain an open character to the landscape;</i> • <i>Open landscape allows wide views across the flat land although there is a foreshortening of distance in the view. Strong visual pull southwards to the industrial skyline along the Mersey and in particular the prominent vertical chimneys to Fiddlers Ferry Power Station;</i> • <i>Open landscape with a lack of woodland blocks. Some isolated trees in hedgerows and tree copses associated with field ponds;</i> • <i>Agricultural land shows signs of degradation i.e. loss of field boundaries and hedgerows, and derelict agriculture buildings;</i> • <i>Encroaching urban elements are evident such as new housing along the roads, lighting, and kerbs. Main road corridors cross the landscape in simple straight alignments reflects horizontal flat landscape;</i> • <i>Isolated farms as well as some industrial and commercial buildings often found intermittently throughout the landscape;</i>	

- *Pronounced small scale hills of former spoil heap areas situated immediately to the north form visual horizon and elevated backdrop to the flat landscape;*
- *Often prominent developed edge visible over wide distances.”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

“1. 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

	<i>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.</i>		
Sensitivity	Medium - Low	Landscape value:	Medium - Low
		Landscape susceptibility:	Medium - Low
Magnitude of change			
Pipeline North Corridor, and Clock Face Spur	Construction phase: Figure 8.8, Volume 3 shows the North Corridor and Clock Face Spur of the pipeline within the LVIA study area and FF2 Sutton Manor Fringe LCA. The North Corridor pipeline would enter the LCA at a trenchless crossing compound in an open arable field. The route would continue on open cut trench across a further three pastoral fields, a minor road (School Lane) and one arable field before crossing Chapel Lane on open cut and entering a trenchless compound, accommodating the trenchless crossing 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 northeast through scrub woodland and a pastoral field where it would pass into the adjoining IF1 Link Road LCA. Large storage compounds would occupy two open fields to the south of Chapel Lane, either side of School. The storage areas would be partially screened in places by roadside vegetation and would be noticeable in the landscape in this location. The pipeline corridor would comprise site fencing, open cut pipeline trench with adjacent material storage area, associated construction machinery, internal haul road, and soil storage as indicated in Chapter 2, Volume 2. Construction along Lea Green Road would involve roadside and road excavation. Construction activity along the North Corridor 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 ~500m)		

	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 open cut sections comprising the majority of the pipeline corridor would cross up to 10 No. field boundaries within the LCA that are defined by hedgerows with occasional trees, mature tree scrub or post and wire fencing. The localised removal of trees and shrubs in hedgerows 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 partially mitigated by replacement of planting in-situ, following the construction phase as recorded in the Year 1 assessment below. 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.				
	<table> <tr> <td>Level of effect:</td><td>Pipeline and trenchless crossing construction compounds – Major/Moderate to Moderate and Significant (where construction compounds or the pipeline are visible) and Minor to Minor/Negligible and Not Significant to No Effect elsewhere within the wider LCA.</td></tr> <tr> <td>Type of effect:</td><td>Short-term duration (temporary with some permanent effects), direct and adverse.</td></tr> </table>	Level of effect:	Pipeline and trenchless crossing construction compounds – Major/Moderate to Moderate and Significant (where construction compounds or the pipeline are visible) 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.
Level of effect:	Pipeline and trenchless crossing construction compounds – Major/Moderate to Moderate and Significant (where construction compounds or the pipeline are visible) 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.				
	Operation and maintenance (Year 1) phase: The pipeline corridor and associated trenchless crossing compounds would all be reinstated with no lasting effects on the arable and pastoral fields. The loss of some limited sections of roadside trees, hedgerow and hedgerow trees within a ~10m wide easement at five hedgerow field boundaries would however be permanent although partly mitigated by replacement planting of hedgerow / shrubs within the remainder of the corridor, outside the easement. Consequently, there would be a Very Low to Zero magnitude of change on landscape character and key characteristics and a predicted Low magnitude of change on landscape elements until replacement planting is established.				
	<table> <tr> <td>Level of effect:</td><td>Pipeline corridor and trenchless crossing compounds – Minor/Negligible and Not Significant (Minor and Not Significant where replanted hedgerows are establishing)</td></tr> <tr> <td>Type of effect:</td><td>Permanent and neutral.</td></tr> </table>	Level of effect:	Pipeline corridor and trenchless crossing compounds – Minor/Negligible and Not Significant (Minor and Not Significant where replanted hedgerows are establishing)	Type of effect:	Permanent and neutral.
Level of effect:	Pipeline corridor and trenchless crossing compounds – Minor/Negligible and Not Significant (Minor and Not Significant where replanted hedgerows are establishing)				
Type of effect:	Permanent and neutral.				
Temporary construction accesses (NH53,	<u>Temporary construction access options: School Lane (NH53, NH54), Chapel Lane (NH55, NH56):</u> All construction access for the pipeline would utilise the existing road network to join the temporary haul routes within the pipeline corridor. Where required, existing roads would need to be widened up to ~8m. Some				

NH54, NH55, NH56)	limited tree removal and or coppicing / pruning may be required to allow for visibility splays, but this is unlikely to significantly affect the landscape character or elements (roadside trees, hedgerows and hedgerow trees) in these locations. Further details would be provided in the Environmental Statement where an arboricultural assessment to BS 5837 would be submitted. 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 road widening and visibility splays would potentially be up to a High magnitude affecting a small geographical area of landscape character in the local vicinity of the temporary construction access routes. <table border="1"> <tr> <td>Level of effect:</td><td>Major/Moderate to Moderate and potentially locally Significant</td></tr> <tr> <td>Type of effect:</td><td>Short-term duration (temporary), direct and adverse.</td></tr> </table>	Level of effect:	Major/Moderate to Moderate and potentially locally Significant	Type of effect:	Short-term duration (temporary), direct and adverse.
Level of effect:	Major/Moderate to Moderate and potentially locally Significant				
Type of effect:	Short-term duration (temporary), direct and adverse.				
Clock Face HAGI (Figure 8.37)	Construction phase: The Clock Face HAGI is sited in an open field adjacent to the M62 transport route to the south. This would be located beyond the LCA's boundary although its study area coincides with this receptor unit. Although there is gently rising landform to the north of the busy M62 road corridor, which restricts views and influence from the centre and north of the LCA, the open nature of the field boundaries on either side of the M62, provides a degree of visible influence 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 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 4m (up to 4m in height), equipment and materials. Temporary solid hoarding to the perimeter of the associated construction compounds would minimise visibility of activity and structures within the compound. Construction traffic would be visible in the context of the existing high levels of road traffic on the intervening M62. The magnitude of change would be Low to Zero. <table border="1"> <tr> <td>Level of effect:</td><td>Minor to Minor/Negligible and Not Significant to No Effect</td></tr> <tr> <td>Type of effect:</td><td>Short-term duration (temporary) and neutral</td></tr> </table> 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 separation distance (a minimum of 75m) and presence of intervening M62 road infrastructure and fencing means that the effect on the landscape character and key characteristics 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) and neutral
Level of effect:	Minor to Minor/Negligible and Not Significant to No Effect				
Type of effect:	Short-term duration (temporary) and neutral				

	Level of effect:	Minor/Negligible to No Effect and Not Significant
	Type of effect:	Permanent and neutral
Limitations / assumptions	- Assessments related to landscape elements and in particular tree / vegetation loss are estimated pending the arboriculture survey and further design maturity that would be outlined in the Environmental Statement. - It has been assumed that hedgerows and trees lost to provide temporary construction access would be reinstated with new planting where possible post-construction i.e. where they do not lie in easements. - No account of any potential landscape mitigation near the perimeter of the HAGI sites has been accounted for and is pending further design maturity. A Year 15 assessment following construction would be included in the Environmental Statement.	
Overall assessment	Construction phase: Collectively the construction works involving the underground pipelines, temporary construction and storage compounds and four separate temporary construction access options routed through the FF2 Sutton Manor Fringe LCA would lead to a moderate scale of development, continuing for the construction phase (6-12 months). 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 can be largely reinstated following completion of the construction phase.	
	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 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 overall would be Minor/Negligible and Not Significant , with Minor to Negligible (Not Significant) effects relating to mitigation hedgerow and scrub replanting which at Year 1 are likely to be young plants of limited height and volume.	

Table 8C.29: Landscape Assessment for LCA RSH1 Sutton Manor

Figures: 8.8 and 8.37		
LCA hierarchy:	National Character Area	NCA 56 Lancashire Coal Measures
Landscape Designations:	None	
Administrative area:	St Helens	
Character description:	The Proposed Development passes west of LCA RSH1 Sutton Manor, this is the one of five LCAs within the Raised Spoil Heap LCT. The key landscape characteristics of the LCT are detailed below taken from the <i>Landscape Character Assessment for St Helens</i>⁵. <u>Key characteristics (LCT):</u> • “Former spoil heaps with pronounced small scale ‘hillock’ character providing strong contrast of form with the adjacent flatter local landscape. In places the reprofiled landform has created a variety of elevated forms from gently sloping to a more unnatural straight line and upper summit profile; • Typically the spoil heaps are recently reclaimed with extensive woodland planting, which gives a raw immature character. The woodland design varies according to the context of the spoil heap from more formal planting adjacent to urban edges, to a more relaxed informal character closer to the rural landscapes; • Differential colour and texture of spoil material visible often unnaturally black and grey with a rough stony texture can give rough character which appears degraded and neglected reinforced by a lack of formal edges to paths and sections of erosion through misuse by motorbikes; • Often used for recreation with close proximity to existing residential areas and containing a network of footpaths which typically provide views from the side slope and summit tops, giving unique wide panoramic views to the surrounding landscapes; • The elevation and proximity of the spoil heaps contribute to a physical and visual setting to the southern edge of St Helens and create a varied visual horizon and series of orientation features between St Helens and the flatter landscape extending down to the Mersey River.”⁵	

	<u>Area Description (LCA)</u> • <i>“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;</i> • <i>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;</i> • <i>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;</i> • <i>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</i> <u>Judgement about Potential to Accommodate Development</u> <i>“1. 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</i>
Assessment of sensitivity	<u>Landscape value:</u> 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 High-Medium. <u>Landscape susceptibility:</u> The <i>Landscape Character Assessment for St Helens</i>⁵ defines the overall landscape sensitivity of the LCA as ‘Medium’ and describes the (at that time) <i>“immature woodland planting”</i>⁵ with susceptibility of the woodlands to change. The study also considers the visual characteristics of the LCA and notes <i>“The former spoil heap forms a small hill surrounded by relatively open landscape and as such is highly visible”</i>. 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 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	High-Medium	Landscape value:	High-Medium
		Landscape susceptibility:	Medium
Magnitude of change			
Pipeline (North Corridor)	Construction phase: Figure 8.8, Volume 3 shows the North Corridor of the pipeline within the LVIA study area and RSH1 Sutton Manor LCA. The proposed North Corridor will not pass through this LCA and effects would be indirect. At its nearest point, the North Corridor and trenchless crossing construction compound would pass approximately 300m to the west of the LCA as it emerges to the north of the M62. There would be potential influence of the pipeline trench and construction compound in heavily filtered winter views from the west of the LCA towards the works. The magnitude of change would be Very Low to Zero.		
	Level of effect:	HAGI, pipeline and trenchless crossing construction compounds – Minor to Minor/Negligible and Not Significant to No Effect .	
	Type of effect:	Short-term duration (temporary), indirect and adverse.	
	Operation and maintenance (Year 1) phase: The pipeline corridor and associated trenchless crossing compounds would all be reinstated with no lasting effects on the landscape features in views. The loss of some limited sections of hedgerow and hedgerow trees within a ~10m wide easement may would not be discernible due to intervening vegetation and distance. It is likely that Clock Face HAGI would not be visible from the LCA due to intervening vegetation, engineered road embankment and change in topographical level. Consequently, there would be a Zero magnitude of change on landscape character and key characteristics.		
	Level of effect:	Pipeline and trenchless crossing construction compounds – No Effect .	
	Type of effect:	Permanent duration (temporary), indirect and adverse.	
Temporary construction accesses (NH52)	Construction phase: <u>Temporary construction access options: B5419, Jubits Lane (NH52):</u> An existing access track would be used to the western edge of the LCA and to the west of Jubits Lane 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. Where required, existing roads would need to be widened up to ~8m. Some limited tree removal and or		

	coppicing / pruning may be required to allow for visibility splays, but this is unlikely to significantly affect the landscape character or elements (roadside trees, hedgerows and hedgerow trees) in these locations. Further details would be provided in the Environmental Statement where an arboricultural assessment to BS 5837 would be submitted. 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, albeit adjacent to the M62 and outside the LCA, and localised removal of vegetation to accommodate road widening and visibility splays on the western edge of the LCA would potentially be up to a Very Low magnitude 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
	Type of effect:	Short-term duration (temporary), indirect and adverse.
Clock Face HAGI (Figure 8.37)	Construction phase: The Clock Face HAGI is sited in an open field adjacent to the M62 transport route to the west-southwest 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 and roadside vegetation between the LCA and the HAGI and its associated construction compound, together with a minimum separation distance of 200m means that views towards the HAGI 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 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 separation distance (a minimum of 200m) and presence of intervening screening elements (landform, vegetation and road infrastructure) means that the effect on the landscape character and key characteristics would be Zero.	
	Level of effect:	No Effect
	Type of effect:	N/A

Limitations / assumptions	1. Assessments related to landscape elements and in particular tree / vegetation loss are estimated pending the arboriculture survey and further design maturity that would be outlined in the Environmental Statement. 2. It has been assumed that hedgerows and trees lost to provide temporary construction access would be reinstated with new planting where possible post-construction i.e. where they do not lie in easements.	
Overall assessment	Construction phase: There would be very limited indirect effects from the proposed North Corridor and associated construction compounds and access routes due to distance and intervening engineered road embankment, woodland and roadside vegetation.	
	Level of effect:	Pipeline and trenchless, construction compounds and access road – Minor / Negligible and Not Significant .
	Type of effect:	Short-term duration (temporary with some permanent effects), indirect and neutral.
	Operation and maintenance (Year 1) phase: There would be No Effect on the landscape character and key characteristics overall.	

Table 8C.30: Landscape Assessment for LCA FF4 Bold Heath

Figures: 8.7 and 8.37, Viewpoints CF1 (Figure 8.52), CF2 (Figure 8.53) and CF3 (Figure 8.54)		
LCA hierarchy:	National Character Area	NCA 60: Mersey Valley
Landscape Designations:	None	
Administrative area:	St Helens	
Character description:	The Proposed Development 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 LCT are detailed below taken from the <i>Landscape Character Assessment for St Helens</i>⁵. <u>Key characteristics (LCT):</u> • <i>“Predominantly flat open and expansive landform subtly falling in elevation southwards to the River Mersey floodplain;</i> • <i>Large scale agricultural arable landscape with large fields, partially enclosed by hedgerow remnant, but interspersed with drainage ditches which retain an open character to the landscape;</i> • <i>Open landscape allows wide views across the flat land although there is a foreshortening of distance in the view. Strong visual pull southwards to the industrial skyline along the Mersey and in particular the prominent vertical chimneys to Fiddlers Ferry Power Station;</i> • <i>Open landscape with a lack of woodland blocks. Some isolated trees in hedgerows and tree copses associated with field ponds;</i> • <i>Agricultural land shows signs of degradation i.e. loss of field boundaries and hedgerows, and derelict agriculture buildings;</i> • <i>Encroaching urban elements are evident such as new housing along the roads, lighting, and kerbs. Main road corridors cross the landscape in simple straight alignments reflects horizontal flat landscape;</i> • <i>Isolated farms as well as some industrial and commercial buildings often found intermittently throughout the landscape;</i>	

- *Pronounced small scale hills of former spoil heap areas situated immediately to the north form visual horizon and elevated backdrop to the flat landscape;*
- *Often prominent developed edge visible over wide distances.”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 road 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

	“1. 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	<u>Landscape value:</u> 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. <u>Landscape susceptibility:</u> The <i>Landscape Character Assessment for St Helens</i>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			
Pipeline (North Corridor)	Construction phase: Figure 8.7, Volume 3 shows the North Corridor of the pipeline within the LVIA study area and FF4 Bold Heath LCA. The North Corridor 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 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 8 open fields before entering the adjacent LCA. In this section, the corridor would pass through up to 10 field boundaries comprising mostly hedgerow and hedgerow trees and would cross two minor roads (Mill Lane and Twyford Lane) on open cut.		

The pipeline corridor would re-enter the LCA on open cut beneath Warrington Road and continue across two fields before entering trenchless crossing compounds in open fields at either side of the B5419 to facilitate the crossing of the M62) and a further 4 field boundaries would be crossed. At this point the pipeline would cross the B5419 Jubits Lane on open cut and connect to the Clock Face HAGI, continuing as a trenchless crossing beyond.

The 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. Lighting would be required during the house of darkness for operational activity typically in winter and may be required for security. Lighting design would minimise light spill outside the compound. The compounds are likely to feature in the landscape adjacent to the B5419 and M62 where man-made elements are already part of the character of the area as illustrated in Viewpoint CF2.

The pipeline corridor would comprise site fencing, open cut pipeline trench with adjacent material storage area, associated construction machinery, internal haul road, and soil storage as indicated in **Chapter 2, Volume 2**.

A temporary storage area would be located to the north of the A49, Warrington Road. The storage area would be in a location influenced by built development, adjacent to agricultural buildings but would be noticeable in the landscape in this location.

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 ~500m) 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 14 No. field boundaries within the LCA that are typically defined by hedgerows with occasional trees, post and wire fence and ditches. The localised removal of trees and shrubs at these 14 No. locations would appear as a break in the pattern of field boundary vegetation. The potential loss of localised trees and hedgerows in this LCA would be partially mitigated by replacement of planting in-situ, following the construction phase as recorded in the Year 1 assessment below.

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:	Pipeline and trenchless crossing construction compounds – Major/Moderate to Moderate and Significant (within 500m of the works) 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.
	Operation and maintenance (Year 1) phase: The pipeline corridor and associated trenchless crossing compounds and storage areas would all be reinstated with no lasting effects on the arable and pastoral fields. The loss of some limited sections of hedgerow and hedgerow trees within a ~10m wide easement at 21 No. locations would however be permanent although partly mitigated by replacement planting of hedgerow / shrubs within the remainder of the corridor, outside the easement. Consequently, there would be a Very Low to Zero magnitude of change on landscape character and key characteristics and a predicted Low magnitude of change on landscape elements until replacement planting is established.	
	Level of effect:	Pipeline corridor and trenchless crossing compounds – Minor and Not Significant where replanted hedgerows are establishing.
	Type of effect:	Permanent and neutral.
Temporary construction accesses (NH44, NH45, NH46, NH48, NH49, NH50, NH51)	Construction phase: <u>Temporary construction access options: Mill Lane (NH44, NH45), Twyford Lane (NH46), A49, Warrington Road (NH48, NH49), B5419, Jubits Lane (NH50, NH51):</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 required, existing roads would need to be widened up to ~8m. Some limited tree removal and or coppicing / pruning may be required to allow for visibility splays, but this is unlikely to significantly affect the landscape character or elements (hedgerows and hedgerow trees) in these locations. Further details would be provided in the Environmental Statement where an arboricultural assessment to BS 5837 would be submitted. 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 road widening and visibility splays would potentially be up to a High 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 potentially locally Significant to be clarified in the Environmental Statement following provision of more detailed construction traffic information.
	Type of effect:	Short-term duration (temporary), direct and adverse.
Clock Face HAGI (Figure 8.37)	Construction phase:	The Clock Face HAGI site is located in an open field and would be sited to minimise any loss of trees and hedgerows to the north and east. Receptors in the locality where these changes in the landscape would be perceived include the M62, and the B5419 which would pass to the east on an engineered slope to cross to an overbridge across the M62, with some roadside screening. 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. Temporary solid hoarding to the perimeter of the associated construction compounds would minimise visibility of activity and structures within the compound. Construction traffic would be visible in the context of the existing high levels of road traffic on the intervening M62. 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 between the M62 to the north, and the B5419 Jubits Lane to the east and south.
	Level of effect:	Major/Moderate to Moderate and potentially locally Significant to be clarified in the Environmental Statement following provision of more detailed construction traffic information.
	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) for safety and to reduce visual impact. Illustrative examples of a layout, and photographic examples of operational schemes are contained in Chapter 2, Volume 2 . The HAGI would influence a very limited part of the landscape in 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.
	Level of effect:	Moderate to Minor and Not Significant

	Type of effect:	Permanent, indirect and adverse.
Limitations / assumptions	1. Assessments related to landscape elements and in particular tree / vegetation loss are estimated pending the arboriculture survey and further design maturity that would be outlined in the Environmental Statement. 2. It has been assumed that hedgerows and trees lost to provide temporary construction access would be reinstated with new planting where possible post-construction i.e. where they do not lie in easements. 3. No account of any potential landscape mitigation near the perimeter of the HAGI sites has been accounted for and is pending further design maturity. A Year 15 assessment following construction would be included in the Environmental Statement.	
Overall assessment	Construction phase: Collectively the construction works involving underground pipelines, temporary construction and storage compounds, Clock Face HAGI and seven separate temporary construction access options routed through the FF4 Bold Heath LCA would lead to a moderate scale of development, continuing for the construction phase (6-12 months). 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 in close proximity to the HAGI, construction 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:	Moderate to Minor and Not Significant 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 effect on the landscape character and key characteristics overall would be Negligible with one localised area in the vicinity of the Clock Face HAGI resulting in Minor effects that would be Not Significant .	

Table 8C.31: Landscape Assessment for LCA WFE4 Bold Hall

Figures: 8.7		
LCA hierarchy:	National Character Area	NCA 60: Mersey Valley
Landscape Designations:	None	
Administrative area:	St Helens	
Character description:	The Proposed Development passes south of LCA WFE4 Bold Hall, this is the one of four LCAs within the Wooded Former Estate LCT. The key landscape characteristics of the LCT are detailed below taken from the <i>Landscape Character Assessment for St Helens</i>⁵. <u>Key characteristics (LCT):</u> • “Number of character areas of varying size across the Borough, where the frequency and size of mature woodland groups associated with former estate landscapes is a principal feature. The preponderance of mature woodland creates a partially enclosed landscape which is draped over the agricultural landscape; • The woodland appears in a variety of forms, typically of mature deciduous woodland belts enclosing areas of farmland, but in addition remnants of tree avenues, lines and belts and single mature specimen trees within field are present. The changing character of the mature woodland creates a sense of grandeur and maturity to the landscape; • The strength of the former estates are reinforced by the presence of landscape features including prominent estate houses and building of similar construction and often in blonde sandstone quarried locally, stone walls and decorative entrance pillars; • Landform varies over the character type but is typically of a rolling undulating landform where the experience changes from being enclosed by adjacent topography to open wide views over the surrounding landscape only partially interrupted by the presence of woodland; • In many instance the underlying larger agricultural landscape has medium to large scale fields and associated with mature blocks of woodland creates a large scale landscape; • Obvious aesthetic qualities to the landscapes, the place often form areas of interest for recreation.”⁵	

Area Description (LCA)

- *“Unlike the rolling elevated topography of the estate landscape to the north, Bold 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

“1. 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.

	<i>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</i>					
Assessment of sensitivity	<u>Landscape value:</u> 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. Although is area has many of the features and key characteristics of the wider LCA, it spans a limited area of the LCA 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. <u>Landscape susceptibility:</u> The <i>Landscape Character Assessment for St Helens</i> ⁵ defines the overall landscape sensitivity of the LCA as ‘ <i>Medium to High</i> ’ and describes an “ <i>open expansive horizontal landform with series of wooded plantations</i> ” ⁵ and notes “ <i>some degrading of landscape pattern</i> ” ⁵ . the susceptibility of the horizontal landform to change through development. The study also considers the visual characteristics of the LCA and notes the “ <i>intervisibility south east and west, the views are partially restricted by large woodland blocks</i> ” 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	<table><tr><td>Landscape value:</td><td>Medium</td></tr><tr><td>Landscape susceptibility:</td><td>Medium</td></tr></table>	Landscape value:	Medium	Landscape susceptibility:
Landscape value:	Medium					
Landscape susceptibility:	Medium					
Magnitude of change						
Pipeline (North Corridor)	Construction phase: Figure 8.7, Volume 3 shows the North Corridor of the pipeline within the LVIA study area and WFE4 Bold Hall LCA. The proposed North Corridor will not pass through this LCA and effects would be indirect. At its nearest point, the North Corridor would pass approximately 400m to the south of the LCA as it passes to the north of mineral extraction workings, roughly following the overhead transmission line in the adjacent LCA. This would result in the potential influence of the pipeline trench in heavily filtered winter views from the south of the LCA. The magnitude of change would be Very Low to Zero.					
	Level of effect:	Pipeline– Minor/Negligible and Not Significant to No Effect.				

	Type of effect:	Short-term duration (temporary), indirect and adverse.
	Operation and maintenance (Year 1) phase: The pipeline corridor would be reinstated with no lasting effects on the landscape features in views. The loss of some limited sections of hedgerow and hedgerow trees within a ~10m wide easement are unlikely to be perceptible due to intervening vegetation and distance. Consequently, there would be a Zero magnitude of change on landscape character and key characteristics.	
	Level of effect:	No Effect
	Type of effect:	N/A
Limitations / assumptions	- Assessments related to landscape elements and in particular tree / vegetation loss are estimated pending the arboriculture survey and further design maturity that would be outlined in the Environmental Statement. - It has been assumed that hedgerows and trees lost to provide temporary construction access would be reinstated with new planting where possible post-construction i.e. where they do not lie in easements.	
Overall assessment	Construction phase: There would be very limited indirect effects from the proposed North Corridor due to distance and intervening woodland, hedgerows and vegetation.	
	Level of effect:	Pipeline— Minor/Negligible and Not Significant .
	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.	

Table 8C.32: Landscape Assessment for LCA FF3 Clock Face Farming

Figures: 8.8		
LCA hierarchy:	National Character Area	NCA 56 Lancashire Coal Measures and NCA 60: Mersey Valley
Landscape Designations:	None	
Administrative area:	St Helens	
Character description:	The Proposed Development passes west of LCA FF3 Clock Face Farming, this is the one of four LCAs within the Floodplain Farmland LCT. The key landscape characteristics of the LCT are detailed below taken from the <i>Landscape Character Assessment for St Helens</i>⁵. <u>Key characteristics (LCT):</u> • <i>“Predominantly flat open and expansive landform subtly falling in elevation southwards to the River Mersey floodplain;</i> • <i>Large scale agricultural arable landscape with large fields, partially enclosed by hedgerow remnant, but interspersed with drainage ditches which retain an open character to the landscape;</i> • <i>Open landscape allows wide views across the flat land although there is a foreshortening of distance in the view. Strong visual pull southwards to the industrial skyline along the Mersey and in particular the prominent vertical chimneys to Fiddlers Ferry Power Station;</i> • <i>Open landscape with a lack of woodland blocks. Some isolated trees in hedgerows and tree copses associated with field ponds;</i> • <i>Agricultural land shows signs of degradation i.e. loss of field boundaries and hedgerows, and derelict agriculture buildings;</i> • <i>Encroaching urban elements are evident such as new housing along the roads, lighting, and kerbs. Main road corridors cross the landscape in simple straight alignments reflects horizontal flat landscape;</i> • <i>Isolated farms as well as some industrial and commercial buildings often found intermittently throughout the landscape;</i>	

- *Pronounced small scale hills of former spoil heap areas situated immediately to the north form visual horizon and elevated backdrop to the flat landscape;*
- *Often prominent developed edge visible over wide distances.”⁵*

Area Description (LCA)

- *“Larger character area, of predominantly 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 within views across the horizontal landscape composition. This is the case with pylon lines and especially Fiddlers Ferry Power Station to the south;*
- *Mature shelterbelts and hedgerows are present bounding the few large scale irregular fields, although the majority are degraded and do little to impose a strong landscape pattern. Small irregular belts and pockets of mature woodland are associated with small tributary streams which cross the landscape. In addition small woodland copses denoted the location of field ponds;*
- *The unnatural strong line of the M62 motorway forms a boundary to the area to the north, and despite the proximity, due to the flat landscape, and low angle of view the road corridor is only delineated by the frequent movement of traffic along the route and the line of roadside vegetation along the verge;*
- *There are sporadic isolated large farms within the landscape although there are a number of unsympathetic buildings present. These include highly visible petrol stations and office buildings;*
- *Pronounced hill features of the former spoil heaps are key focal points and form a physical setting to the flat landscape and often enclose or restrict views to the wider landscape”⁵*

Judgement about Potential to Accommodate Development

“1. Some limited opportunities exist for small scale development within the character area in tandem with the enhancement of an appropriate structure. Siting and scale if development should reflect the existing small farm clusters and seek to retain the balance of open to enclosed space.”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 western tip of this LCA is located within the study area. Although this area has many of the features and key characteristics of the wider LCA, it spans a limited area of the LCA to the west of the A569. This part of the LCA is influenced by residential housing, the M62 and engineered cutting to the A596 underpass. There are no long distance walking routes or national cycle routes in the study area and the

	scenic value of the area is experienced through local PRowWs and road corridors. The overall landscape value is assessed as Medium - Low. <u>Landscape susceptibility:</u> The <i>Landscape Character Assessment for St Helens</i> ⁵ defines the overall landscape sensitivity of the LCA as 'Medium' and describes an "open rural landscape character [with] landscape patterns degraded by loss of vegetated boundaries" ⁵ with some susceptibility to "the balance of open to enclosed space" ⁵ . The study also considers the visual characteristics of the LCA and notes the "intervisibility with adjacent flat landscapes" ⁵ and the "high number of viewers along M62" ⁵ . In terms of perceptual characteristics, the adjacent M62 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 of 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			
Pipeline North Corridor	Construction phase: Figure 8.8, Volume 3 shows the North Corridor of the pipeline within the LVIA study area and FF3 Clock Face Farming LCA. The proposed North Corridor will not pass through this LCA and effects would be indirect. At its nearest point, the North Corridor and trenchless crossing construction compound would pass approximately 800m to the southwest of the LCA as it passes to the north of Warrington Road in the adjacent FF4 Bold Heath LCA. This would result in the potential influence of the pipeline trench in heavily filtered winter views from the southwest of the LCA. The magnitude of change would be Very Low to Zero.		
	Level of effect:	HAGI, pipeline and trenchless crossing construction compounds – Minor/Negligible and Not Significant to No Effect.	
	Type of effect:	Short-term duration (temporary), indirect and adverse.	
	Operation and maintenance (Year 1) phase: The pipeline corridor would be reinstated with no lasting effects on the landscape features in views. The loss of some limited sections of hedgerow and hedgerow trees within a ~10m wide easement are unlikely to be		

	perceptible due to intervening vegetation and distance. Consequently, there would be a Zero magnitude of change on landscape character and key characteristics.	
	Level of effect:	No Effect
	Type of effect:	N/A
Limitations / assumptions	1. Assessments related to landscape elements and in particular tree / vegetation loss are estimated pending the arboriculture survey and further design maturity that would be outlined in the Environmental Statement. 2. It has been assumed that hedgerows and trees lost to provide temporary construction access would be reinstated with new planting where possible post-construction i.e where they do not lie in easements.	
Overall assessment	Construction phase: There would be very limited indirect effects from the proposed North Corridor due to distance and intervening hedgerows and vegetation.	
	Level of effect:	Pipeline— Negligible and Not Significant .
	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.	

Table 8C.33: Landscape Assessment for LCA RSF4 Sutton

Figures: 8.8 and 8.37		
LCA hierarchy:	National Character Area	NCA 56 Lancashire Coal Measures
Landscape Designations:	None	
Administrative area:	St Helens	
Character description:	The Proposed Development passes south-west of LCA RSF4 Sutton, this is the one of five LCAs within the Raised Fringe Settlement LCT. The key landscape characteristics of the LCT are detailed below taken from the <i>Landscape Character Assessment for St Helens</i>⁵. <u>Key characteristics (LCT):</u> • “Settled areas located on raised areas or broad ridgelines adjacent to the historic core of St Helens, ranging between approximately 30 and 80 metres AOD; • Geographically more amorphous forms of predominantly residential landscaper which have developed over a period of time and as such incorporate a number of successive residential layout and house styles. This imposes a more complex and less distinct residential character, which is primarily defined by the subtle elevation giving a more open urban character and the role these townscapes play in creating a sense of arrival into St Helens; • Areas usually associated with one of the main (historic) road arteries radiating from St Helens, but no defining road spine and as such have a varied road network; • Evidence of historic village centres such as original churches and historic buildings with the associated road layout. The elevated location of churches highlights their prominence locally, and they act as important local orientation features and landmarks; • Later residential development includes smaller pockets of industrial terraced housing in a grid and later pre and post war housing expansion defined by a curved crescent road layout and gardens; • Areas usually form suburbs of St Helens and an outer urban edge of varying prominence is created;	

- *Landscape incorporates areas of open space sometimes associated with constraining ground conditions such as a slope of hill and prominent mature woodland blocks remnant from former field layouts or river courses.”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

	<i>“1. 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.</i> <i>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</i>		
Assessment of sensitivity	<u>Landscape value:</u> 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. Although is area has many of the features and key characteristics of the wider LCA, it spans a limited area of the LCA roughly to the west of the A569, Clock Face Road. This part of the LCA is mostly influenced by residential housing, although there are some pastoral 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. <u>Landscape susceptibility:</u> The Landscape Character Assessment for St Helens⁵ defines the overall landscape sensitivity of the LCA as ‘Low-Medium’ and describes <i>”lack of identifiable historical core or distinct character”⁵</i> and notes an <i>“area fragmented by infrastructure”⁵</i>. The study also considers the visual characteristics of the LCA and notes the <i>”gently undulating landscape with some intervisibility to adjacent areas.”⁵</i> 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			

Pipeline (North Corridor and Clock Face Spur)	Construction phase: Figure 8.8, Volume 3 shows the North Corridor of the pipeline within the LVIA study area and RSF4 Sutton LCA. Neither the proposed North Corridor, nor the Clock Face Spur would pass through this LCA and effects would be indirect. At its nearest point, the North Corridor and trenchless crossing construction compound would pass approximately 400m to the southwest of the LCA as it passes to the north of Chapel Lane in the adjacent FF2 Sutton Manor Fringe LCA. The Clock Face Spur would be located approximately 150m to the west of the LCT at its termination in an industrial area off Lea Green Road in the adjoining IF1 Link Road LCA. It is unlikely that the pipeline trenches would be visible or would influence the LCA due to extensive existing built elements in the area, although there may be perceptible change through a slight increase in traffic in the area. The magnitude of change would be Very Low to Zero.	
	Level of effect:	HAGI, pipeline and trenchless crossing construction compounds – Minor/Negligible and Not Significant to No Effect.
	Type of effect:	Short-term duration (temporary), indirect and adverse.
	Operation and maintenance (Year 1) phase: The pipeline corridor would be reinstated with no lasting effects on the landscape features in views. Consequently, there would be a Zero magnitude of change on landscape character and key characteristics.	
	Level of effect:	No Effect
	Type of effect:	N/A
Clock Face HAGI (Figure 8.37)	Construction phase: The Clock Face HAGI is sited in an open field adjacent to the M62 transport route to the southwest. This would be located beyond the LCA's boundary although its study area coincides with this receptor unit. Rising landform to the north of the busy M62 road corridor 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 640m means that southerly views towards the HAGI would be restricted, although there is potential for visibility of construction vehicles and fencing beyond the motorway traffic from the southern edge of the LCA. 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. Temporary solid hoarding to the perimeter of the associated construction compounds would minimise visibility of activity	

	and structures within the compound. Construction traffic would be visible in the context of the existing high levels of road traffic on the intervening M62. The magnitude of change would be Very Low to 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 separation distance (a minimum of 640m) and presence of intervening screening elements (landform, vegetation and road infrastructure) means that the effect on the landscape character and key characteristics would be Zero	
	Level of effect:	No Effect
	Type of effect:	N/A
Limitations / assumptions	- Assessments related to landscape elements and in particular tree / vegetation loss are estimated pending the arboriculture survey and further design maturity that would be outlined in the Environmental Statement. - It has been assumed that hedgerows and trees lost to provide temporary construction access would be reinstated with new planting where possible post-construction i.e where they do not lie in easements.	
Overall assessment	Construction phase: There would be very limited indirect effects from the proposed North Corridor and Clock Face Spur due to distance and intervening built environment, hedgerows and vegetation.	
	Level of effect:	Pipeline— Minor/Negligible and Not Significant .
	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.	

Table 8C.34: Landscape Assessment for LCA RSH4 Lea Green

Figures: 8.8		
LCA hierarchy:	National Character Area	NCA 56 Lancashire Coal Measures
Landscape Designations:	None	
Administrative area:	St Helens	
Character description:	The Proposed Development passes south-west of LCA RSH4 Lea Green, this is the one of five LCAs within the Raised Spoil Heap LCT. The key landscape characteristics of the LCT are detailed below taken from the <i>Landscape Character Assessment for St Helens</i>⁵. <u>Key characteristics (LCT):</u> • “Former spoil heaps with pronounced small scale ‘hillock’ character providing strong contrast of form with the adjacent flatter local landscape. In places the reprofiled landform has created a variety of elevated forms from gently sloping to a more unnatural straight line and upper summit profile; • Typically the spoil heaps are recently reclaimed with extensive woodland planting, which gives a raw immature character. The woodland design varies according to the context of the spoil heap from more formal planting adjacent to urban edges, to a more relaxed informal character closer to the rural landscapes; • Differential colour and texture of spoil material visible often unnaturally black and grey with a rough stony texture can give rough character which appears degraded and neglected reinforced by a lack of formal edges to paths and sections of erosion through misuse by motorbikes; • Often used for recreation with close proximity to existing residential areas and containing a network of footpaths which typically provide views from the side slope and summit tops, giving unique wide panoramic views to the surrounding landscapes; • The elevation and proximity of the spoil heaps contribute to a physical and visual setting to the southern edge of St Helens and create a varied visual horizon and series of orientation features between St Helens and the flatter landscape extending down to the Mersey River.”⁵	

	<u>Area Description (LCA)</u> • <i>“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;</i> • <i>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;</i> • <i>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;</i> • <i>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</i> <u>Judgement about Potential to Accommodate Development</u> <i>“1. 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</i>
Assessment of sensitivity	<u>Landscape value:</u> 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. <u>Landscape susceptibility:</u> The <i>Landscape Character Assessment for St Helens</i>⁵ defines the overall landscape sensitivity of the LCA as ‘Low’ as a result of the “<i>degraded</i>”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 “<i>The former spoil heap forms a small hill surrounded by relatively open landscape and as such is highly visible.</i>”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			
Pipeline (North Corridor and Clock Face Spur)	Construction phase: Figure 8.8, Volume 3 shows the North Corridor and Clock Face Spur pipelines within the LVIA study area, and RSH4 Lea Green LCA. Neither the proposed North Corridor, nor the Clock Face Spur would pass through this LCA and effects would be indirect. At its nearest point, the North Corridor and trenchless crossing construction compound would pass approximately 750m to the northwest of the LCA as it turns into Sherdley Road in the adjacent RVI1 Thatto Heath LCA. The Clock Face Spur would be located approximately 160m to the southwest of the LCT at its termination in an industrial area off Lea Green Road in the adjoining IF1 Link Road LCA. It is unlikely that the pipeline trenches would be visible or would influence the LCA due to screening from the extensive existing built elements in the area. The magnitude of change would be Very Low to Zero.		
	Level of effect:	HAGI, pipeline and trenchless crossing construction compounds – Negligible and Not Significant to Zero.	
	Type of effect:	Short-term duration (temporary), indirect and adverse.	
	Operation and maintenance (Year 1) phase: The pipeline corridor would be reinstated with no lasting effects on the landscape features in views. Consequently, there would be a Zero magnitude of change on landscape character and key characteristics.		
	Level of effect:	No Effect	
	Type of effect:	N/A	
Limitations / assumptions	1. Assessments related to landscape elements and in particular tree / vegetation loss are estimated pending the arboriculture survey and further design maturity that would be outlined in the Environmental Statement.		

	2.	It has been assumed that hedgerows and trees lost to provide temporary construction access would be reinstated with new planting where possible post-construction i.e where they do not lie in easements.
Overall assessment	Construction phase: There would be very limited indirect effects from the proposed North Corridor and Clock Face Spur due to distance and intervening built environment, hedgerows and vegetation.	
	Level of effect:	Pipeline— Negligible and Not Significant .
	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.	

Table 8C.35: Landscape Assessment for LCA IF1 Link Road

Figures: 8.8		
LCA hierarchy:	National Character Area	NCA 56 Lancashire Coal Measures
Landscape Designations:	None	
Administrative area:	St Helens	
Character description:	The Proposed Development passes through the north and south of LCA IF1 Link Road, this is the one of two LCAs within the Industrial Fringe LCT. The key landscape characteristics of the LCT are detailed below taken from the <i>Landscape Character Assessment for St Helens</i>⁵. <u>Key characteristics (LCT):</u> • <i>“Relatively flat landform, consisting primarily of flat broad valley floors, creating a limited experience of enclosure from the subtle change in landscape along valley sides. Development on the surrounding subtly elevated slopes creates some sense of enclosure, particularly where combined with trees;</i> • <i>Close to main communication infrastructure (i.e. Motorway or dual carriageway link road);</i> • <i>Area often in incorporates pockets of degraded agricultural land;</i> • <i>Clusters of large scale industrial warehouse and office units of various styles and forms in relatively open landscape;</i> • <i>Large scale of built form with greater ratio of built to open space. Surrounding remnant areas to buildings dominated by vast areas of hard landscape of wide open road carriageways and junctions, carparking, security fencing, and awkward remnants of small scale amenity planting;</i> • <i>Lack of domestic human scale elements – with the experience of being dwarfed by built form. Residential settlement on these flat valley floors is uncommon, but frequent on the raised landscape adjacent;</i> • <i>Other characteristic features include dismantled and active railway lines and evidence of past industrial development give a neglected degraded character;</i> • <i>Small areas of scrub and trees scattered throughout the character area, often associated with reclaimed or abandoned land, dismantled railways, watercourses and newly landscapes areas;</i>	

- *Large scale road network and roundabouts that dominate open space reinforced by embankments and graded junctions which physically and visually reinforce the presence of the route and fragment the underlying landform.”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

“1. 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	<u>Landscape value:</u> 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.		
	<u>Landscape susceptibility:</u> The <i>Landscape Character Assessment for St Helens</i> 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			
Pipeline (North Corridor and Clock Face Spur)	Construction phase: Figure 8.8, Volume 3 shows the North Corridor and Clock Face Spur of the pipeline within the LVIA study area and IF1 Link Road LCA. The North Corridor would skirt the northwest boundary of the LCA as it passes along Sherdley Road on a trenchless crossing. Within the LCA, this area is influenced by large industrial buildings which transition to residential housing and a different LCA to the west of Sherdley Road. A storage area would be located in a public amenity / recreation area on the western side of Sherdley Road, occupying the majority of the open area. The storage area would be mostly screened from the LCA by large industrial buildings adjacent to Sherdley Road.		

The Clock Face Spur pipeline corridor 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 ~195m before turning east through a roadside hedge and into an area of open amenity land beside commercial buildings where it would terminate.

The working width of the pipeline corridor would be between approximately 18m and 30m, comprising site fencing, open cut pipeline trench with adjacent material storage area, associated construction machinery, internal haul road, and soil storage as indicated in **Chapter 2, Volume 2**. Construction along Lea Green Road and Sherdley Road would involve roadside and road excavation.

Construction activity along the North Corridor 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 be High-Medium when experienced locally to the construction works (within the same road or ~200m) reducing to Low or less from the wider LCA, where the pipeline corridor would be less visible due to distance and the built environment.

The open cut sections comprising the majority of the pipeline corridor would pass through a section of tall mature hedgerow to the southwest of Lea Green Road and further mature trees and tall roadside hedgerow as it passes into open land adjacent to large industrial buildings. The localised removal of trees and shrubs in hedgerows and scrub would appear as a break in the pattern of roadside vegetation. The potential loss of localised trees and hedgerows in this LCA would be partially mitigated by replacement of planting in-situ, following the construction phase as recorded in the Year 1 assessment below.

The magnitude of change likely to affect the landscape character, key characteristics and elements would range from High-Medium (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:	Pipeline corridor and storage compound – Moderate and potentially locally Significant (where construction compounds or the pipeline are visible) and 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.

Operation and maintenance (Year 1) phase:

The pipeline corridor and associated storage compound would all be reinstated with no lasting effects on the streetscape. The loss of some limited sections of roadside trees, hedgerow and hedgerow trees within a ~10m wide easement at five hedgerow field boundaries would however be permanent although partly mitigated by replacement planting of hedgerow / shrubs within the remainder of the corridor, outside the easement. Consequently, there would be a Very Low to Zero magnitude of change on landscape character

	and key characteristics and a predicted Low magnitude of change on landscape elements until replacement planting is established.				
	<table> <tr> <td>Level of effect:</td><td>Pipeline corridor and storage compound – Minor/Negligible and Not Significant (Minor and Not Significant where replanted hedgerows are establishing)</td></tr> <tr> <td>Type of effect:</td><td>Permanent and neutral.</td></tr> </table>	Level of effect:	Pipeline corridor and storage compound – Minor/Negligible and Not Significant (Minor and Not Significant where replanted hedgerows are establishing)	Type of effect:	Permanent and neutral.
Level of effect:	Pipeline corridor and storage compound – Minor/Negligible and Not Significant (Minor and Not Significant where replanted hedgerows are establishing)				
Type of effect:	Permanent and neutral.				
Temporary construction accesses (Lea Green Road, Sherdley Road)	Construction phase: <u>Temporary construction access options: Lea Green Road and Sherdley Road:</u> All construction access for the pipeline would utilise the existing road network within the pipeline corridor. Some limited tree removal and or coppicing / pruning may be required to allow for visibility splays, but this is unlikely to significantly affect the landscape character or elements (roadside trees, hedgerows and hedgerow trees) in these locations. Further details would be provided in the Environmental Statement where an arboricultural assessment to BS 5837 would be submitted. 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 potential temporary partial road closure, movement of construction vehicles and localised removal of vegetation to accommodate pipeline works and create visibility splays would appear similar to utilities works in the urban surroundings and would potentially be up to a High-Medium magnitude affecting a small geographical area of landscape character in the local vicinity of the temporary construction access routes. <table> <tr> <td>Level of effect:</td><td>Moderate and potentially locally Significant to be clarified in the Environmental Statement following provision of more detailed construction traffic information.</td></tr> <tr> <td>Type of effect:</td><td>Short-term duration (temporary), direct and adverse.</td></tr> </table>	Level of effect:	Moderate and potentially locally Significant to be clarified in the Environmental Statement following provision of more detailed construction traffic information.	Type of effect:	Short-term duration (temporary), direct and adverse.
Level of effect:	Moderate and potentially locally Significant to be clarified in the Environmental Statement following provision of more detailed construction traffic information.				
Type of effect:	Short-term duration (temporary), direct and adverse.				
Limitations / assumptions	1. Assessments related to landscape elements and in particular tree / vegetation loss are estimated pending the arboriculture survey and further design maturity that would be outlined in the Environmental Statement. 2. It has been assumed that hedgerows and trees lost to provide temporary construction access would be reinstated with new planting where possible post-construction i.e. where they do not lie in easements. 3. It is assumed that no ongoing maintenance access is required at Lea Green Road.				
Overall assessment	Construction phase: Collectively the construction works involving the underground pipelines, temporary storage compounds and temporary construction access options routed through the IF1 Link Road LCA would lead to a moderate scale of development, continuing for the construction phase (6-12 months). Roadside vegetation, whilst intermittent				

in nature would combine with the surrounding built environment 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-Medium magnitude of change in close proximity to the pipeline corridor. Some localised losses of hedgerows and hedgerow trees can be largely reinstated following completion of the construction phase.	
Level of effect:	Minor to Negligible and Not Significant with localised areas of Moderate and Significant effects close to the pipeline corridor.
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 relating to mitigation hedgerow replanting which at Year 1 are likely to be young plants of limited height and volume.	

Table 8C.36: Landscape Assessment for LCA SS6 Rainhill

Figures: 8.8 and 8.37		
LCA hierarchy:	National Character Area	NCA 56 Lancashire Coal Measures
Landscape Designations:	None	
Administrative area:	St Helens	
Character description:	The Proposed Development passes northeast of LCA SS6 Rainhill, this is the one of six LCAs within the Separate Settlement LCT. The key landscape characteristics of the LCT are detailed below taken from the <i>Landscape Character Assessment for St Helens</i>⁵. <u>Key characteristics (LCT):</u> • “Settled areas of landscape which have developed outside the main urban landscape of St Helens, and have a distinct settlement character and defined edges to create a separate settlement; • Distinctive separate character of the settlement is reinforced by the historic development on elevated landscapes on gentle slopes and broad ridgelines above, or on the edge of a broad valley; • Land use primarily defined by developed settled land use, characterised by a variety of development forms, primarily residential; • Prominent church building with vertical spire often denotes historic core with associated old market street or main street lined by a number of individual sandstone stone houses. The prominence of the church in the wider landscape and as an orientation feature is emphasised by the elevated location developed as the modern core of the settlement; • Defined historic centre and street structure with varying degrees intactness and some original historic architecture; • Physically separated from St Helens and other settlements by rural or urban fringe landscape, but with settlement edge defined to a lesser or greater clarity to give a sense of arrival and departure from one settled landscape into another.”⁵ <u>Area Description (LCA)</u>	

- *“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 cross roads. 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 where 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

“1. 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. <u>Landscape susceptibility:</u> The Landscape Character Assessment for St Helens⁵ 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 “<i>area is slightly elevated above adjacent open character areas to the west and therefore there is some intervisibility</i>”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			
Pipeline (North Corridor and Clock Face Spur)	Construction phase: Figure 8.8, Volume 3 shows the North Pipeline within the LVIA study area, and SS6 Rainhill LCA. The proposed North Corridor would not pass through this LCA and effects would be indirect. The North Corridor would be located in the adjacent EF1 Elton Head Hall Farm LCA and would pass parallel to the eastern edge of the Rainhill LCA at distances of between 120m from the southeast of the LCA and 500m from the northeast of the LCA. 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 pipeline trenches would influence the Rainhill LCA beyond the eastern edge due to extensive existing built elements in the area. The magnitude of change would be Low to Zero.		
	Level of effect:	HAGI, pipeline and trenchless crossing construction compounds – Minor and Not Significant to No Effect.	
	Type of effect:	Short-term duration (temporary), indirect and adverse.	

	Operation and maintenance (Year 1) phase: The pipeline corridor would be reinstated with no lasting effects on the landscape features in views. Consequently, there would be a Zero magnitude of change on landscape character and key characteristics.	
	Level of effect:	No Effect
	Type of effect:	N/A
Clock Face HAGI (Figure 8.37)	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 ~910m means that south-easterly views 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 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 separation distance (a minimum of 910m) 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
Limitations / assumptions	- Assessments related to landscape elements and in particular tree / vegetation loss are estimated pending the arboriculture survey and further design maturity that would be outlined in the Environmental Statement. - It has been assumed that hedgerows and trees lost to provide temporary construction access would be reinstated with new planting where possible post-construction i.e where they do not lie in easements.	
Overall assessment	Construction phase:	

	There would be limited indirect effects from the proposed North Corridor to the eastern edge of the LCA where they would be visible in views affecting a different character area. Elsewhere the effects on the character and elements of the Rainhill LCA would be Very Low to Zero due to distance and intervening built environment, hedgerows, and vegetation.	
	Level of effect:	Pipeline and construction compounds – Minor and Not Significant to None .
	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 overall.	

Table 8C.37: Landscape Assessment for LCA EF1 Elton Head Hall Farm

Figures: 8.8		
LCA hierarchy:	National Character Area	NCA 56 Lancashire Coal Measures
Landscape Designations:	None	
Administrative area:	St Helens	
Character description:	The Proposed Development passes through the centre of LCA EF1 Elton Head Hall Farm, this is the one of two LCAs within the Edge Farmland LCT. The key landscape characteristics of the LCT are detailed below taken from the <i>Landscape Character Assessment for St Helens</i>⁵. <u>Key characteristics (LCT):</u> • “Undulating fragment of larger settled landform incorporating local hill summit and broad gentle slope. • Character type has a predominantly rural land use, but is defined and physically/visually contained by a prominent urban edge on more than one side and encloses the landscape; • The toothed edge between the rural and urban landscape creates an abrupt but complex urban rural interface where the experience of the rural landscape is dominated by the close proximity of the surrounding urban landscape; • Rural landscape character of irregular small to medium fields suffers from neglect of hedgerow field pattern which weakens underlying landscape pattern. In addition alternative recreational land uses are developed in open landscapes such as course, playing fields and community parks; • Open landscape provides opportunity to site more recent infrastructure requirements including pylon lines and roads, which increase the urban influence on landscape and fragment the character.”⁵ <u>Area Description (LCA)</u> • “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 75metres at Elton Head, and sloping gradually south to 55metres 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

“1. 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			
Pipeline (North Corridor)	Construction phase: Figure 8.8, Volume 3 shows the North Corridor of the pipeline within the LVIA study area and EF1 Elton Head Hall Farm LCA. The North Corridor would pass through the centre of the LCA from the south to the north of the area. The North Corridor 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 3 open arable and pasture fields before crossing the rail line on trenchless crossing facilitated by trenchless crossing compounds in open fields. 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 up to 7 field boundaries comprising mostly hedgerow and hedgerow trees and would cross a farm access track as open cut. The 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. 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. The compounds are likely to feature in the landscape adjacent to the A570, St Helens Linkway and rail line where man-made elements are already part of the character of the area. The pipeline corridor would comprise site fencing, open cut pipeline trench with adjacent material storage area, associated construction machinery, internal haul road, and soil storage as indicated in Chapter 2, Volume 2. 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 ~500m) 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 7 No. field boundaries within the LCA that are typically defined by hedgerows with occasional trees, tree lines and drainage ditches. The localised removal of trees and shrubs at these 7 No. locations would appear as a break in the pattern of field boundary vegetation. The potential loss of localised trees and hedgerows in this LCA would be partially mitigated by replacement of planting in-situ, following the construction phase as recorded in the Year 1 assessment below. 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.		
	<table border="1"> <tr> <td>Level of effect:</td><td>Pipeline and trenchless crossing construction compounds – Major/Moderate to Moderate and Significant (within 200m of the works) and Minor to Minor/Negligible and Not Significant elsewhere within the wider LCA.</td></tr> </table>	Level of effect:	Pipeline and trenchless crossing construction compounds – Major/Moderate to Moderate and Significant (within 200m of the works) and Minor to Minor/Negligible and Not Significant elsewhere within the wider LCA.
Level of effect:	Pipeline and trenchless crossing construction compounds – Major/Moderate to Moderate and Significant (within 200m of the works) and Minor to Minor/Negligible and Not Significant elsewhere within the wider LCA.		
	<table border="1"> <tr> <td>Type of effect:</td><td>Short-term duration (temporary with some permanent effects), direct and adverse.</td></tr> </table>	Type of effect:	Short-term duration (temporary with some permanent effects), direct and adverse.
Type of effect:	Short-term duration (temporary with some permanent effects), direct and adverse.		
	Operation and maintenance (Year 1) phase: The pipeline corridor and associated trenchless crossing compounds and storage areas would all be reinstated with no lasting effects on the arable and pastoral fields. The loss of some limited sections of hedgerow and hedgerow trees within a ~10m wide easement at 7 No. locations would however be permanent although partly mitigated by replacement planting of hedgerow / shrubs within the remainder of the corridor, outside the easement. Consequently, there would be a Very Low to Zero magnitude of change on landscape character and key characteristics and a predicted Low magnitude of change on landscape elements until replacement planting is established.		
	<table border="1"> <tr> <td>Level of effect:</td><td>Pipeline corridor and trenchless crossing compounds – Negligible and Not Significant (Minor and Not Significant where replanted hedgerows are establishing)</td></tr> </table>	Level of effect:	Pipeline corridor and trenchless crossing compounds – Negligible and Not Significant (Minor and Not Significant where replanted hedgerows are establishing)
Level of effect:	Pipeline corridor and trenchless crossing compounds – Negligible and Not Significant (Minor and Not Significant where replanted hedgerows are establishing)		
	<table border="1"> <tr> <td>Type of effect:</td><td>Permanent and neutral.</td></tr> </table>	Type of effect:	Permanent and neutral.
Type of effect:	Permanent and neutral.		
Temporary construction accesses (NH57, NH58)	Construction phase: Temporary construction access options: A570 St Helens Linkway / Eurolink roundabout (NH57), B5204, Elton Head Road (NH58); 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 required, existing roads would need to be widened up to ~8m. Some limited tree removal and or coppicing / pruning may be required to allow for visibility splays, but this is unlikely to significantly affect the landscape character or elements (hedgerows and		

	hedgerow trees) in these locations. Further details would be provided in the Environmental Statement where an arboricultural assessment to BS 5837 would be submitted. 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 road widening and visibility splays would potentially be up to a High 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 potentially locally Significant to be clarified in the Environmental Statement following provision of more detailed construction traffic information.
	Type of effect:	Short-term duration (temporary), direct and adverse.
Limitations / assumptions	1. Assessments related to landscape elements and in particular tree / vegetation loss are estimated pending the arboriculture survey and further design maturity that would be outlined in the Environmental Statement. 2. It has been assumed that hedgerows and trees lost to provide temporary construction access would be reinstated with new planting where possible post-construction i.e. where they do not lie in easements.	
Overall assessment	Construction phase: Collectively the construction works involving underground pipelines, temporary construction compounds, and two separate temporary construction access options routed through the EF1 Elton Head Hall Farm LCA would lead to a moderate scale of development, continuing for the construction phase (6-12 months). Successive layers of vegetation, 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 in close proximity to the construction 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 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 effect on the landscape character and key characteristics overall would be **Minor/Negligible** and **Not Significant** as any replaced vegetation is re-establishing.

Table 8C.38: Landscape Assessment for LCA UG2 Sherdley Park

Figures: 8.8 and 8.38		
LCA hierarchy:	National Character Area	NCA 56 Lancashire Coal Measures
Landscape Designations:	None	
Administrative area:	St Helens	
Character description:	The Proposed Development passes northwest of LCA UG2 Sherdley Park, this is the one of three LCAs within the Urban Greenspace LCT. The key landscape characteristics of the LCT are detailed below taken from the <i>Landscape Character Assessment for St Helens</i>⁵. <u>Key characteristics (LCT):</u> • “Relatively large areas of planned open space delineated on three sides or completely enclosed by the adjacent settled landscape. The open landscape comprises flat to gently undulating landform partially covering a small localised hill or ridgeline; • The open space is of a size and scale to physically and visually separate areas of adjacent townscape. In addition the townscape varies along the boundaries, which reinforces the distinctness of the open space as a discrete area, as opposed to open space within a wider residential area; • Large areas of amenity / recreational grass highlight landform and are divided by mature woodland blocks and tree belts which area typically access by footpath; • Areas contain elements and characteristics of former designed landscapes and parks such as mature woodland / trees, stone walls, path network or landscape framework; • The open areas are generally uninhabited which reinforces the contrast of character with adjacent townscapes, although in some instances there are remnants of historic buildings and structures; • There is varied sense of enclosure influenced by the proximity of mature woodland blocks and belts and elevation of view; • Popular places of recreation such as walking, dog exercise and golf.”⁵ <u>Area Description (LCA)</u>	

- *“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

	“1. 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	<u>Landscape value:</u> 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 slightly increases its value. The scenic value of the area is experienced through a network of footpaths and by local PRoW and by recreational users of the golf course to the north of the LCA. The overall landscape value is assessed as High-Medium. <u>Landscape susceptibility:</u> The Landscape Character Assessment for St Helens⁵ 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 “<i>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.</i>”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 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:	High-Medium
		Landscape susceptibility:	Medium
Magnitude of change			
Pipeline	Construction phase:		

(North Corridor and St Helens Spur)	Figure 8.8, Volume 3 shows the North Corridor within the LVIA study area, and UG2 Sherdley Park LCA. The proposed North Corridor would not pass through this LCA and effects would be indirect. The North Corridor would be located in the adjacent RVI1 Thatto Heath LCA to the west of the LCA and at its closest point would be located at a distance of approximately 60m to the west of the LCA. At this location the pipeline would be located across the A570 and behind roadside trees where at most there would be heavily filtered winter views. There may be increased visibility as the pipeline corridor passes the end of the Score access road as it passes along Sherdley Road to the west. It is unlikely that the pipeline construction trench would influence the character and features of UG2 Sherdley Park LCA due to extensive screening from mature trees. The magnitude of change would be Very Low to Zero. St Helens Spur would be located in the adjacent UIV3 Ravenhead LCA to the northwest of Sherdley Park LCA and at its closest point would be located at a distance of approximately 60m to the northwest of the LCA. At this location the pipeline would follow Burtonhead Road from the St Helens HAGI, pass to the northwest of a roundabout (adjacent to the Sherdley Park LCA boundary) and continue north along St Helens Linkway. There may be increased visibility as the pipeline corridor passes the end of the Score access road as it passes along Sherdley Road to the west. It is unlikely that the pipeline construction trench would influence the character and features of UG2 Sherdley Park LCA due to extensive screening from mature trees and the presence of urban, commercial and busy transport routes in any filtered winter views. The magnitude of change would be Very Low to Zero.
Level of effect:	Pipeline – Minor/Negligible and Not Significant to No Effect.
Type of effect:	Short-term duration (temporary), indirect and adverse.
Operation and maintenance (Year 1) phase: The pipeline corridor would be reinstated with no lasting effects on the landscape features in views. Consequently, there would be a Zero magnitude of change on landscape character and key characteristics.	
Level of effect:	No Effect
Type of effect:	N/A
St Helens HAGI (Figure 8.38)	Construction phase: The St Helens HAGI is sited on open grass and scrub directly off Burtonhead Road adjacent to large industrial buildings to the west and Ravenhead Retail Park to the east. This would be located beyond the LCA's boundary although its study area coincides with this receptor unit. The high proportion of intervening built form and densely vegetated parkland between the LCA and the HAGI and its associated construction

	compound together with a minimum separation distance of ~430m means that views towards the HAGI 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 St Helens 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. Illustrative examples of a layout, and photographic examples of operational schemes are contained in Chapter 2, Volume 2 . The separation distance (a minimum of ~430m) and presence of intervening screening elements (including large-scale built form and densely vegetated parkland) means that the effect on the landscape character and key characteristics would be Zero.	
	Level of effect:	No Effect
	Type of effect:	N/A
Limitations / assumptions	- Assessments related to landscape elements and in particular tree / vegetation loss are estimated pending the arboriculture survey and further design maturity that would be outlined in the Environmental Statement. - It has been assumed that hedgerows and trees lost to provide temporary construction access would be reinstated with new planting where possible post-construction i.e where they do not lie in easements.	
Overall assessment	Construction phase: There would be limited indirect effects from the proposed North Corridor to the western edge of the LCA where they would be mostly screened by dense vegetation.	
	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.	

Table 8C.39: Landscape Assessment for LCA RVI1 Thatto Heath

Figures: 8.8 and 8.38		
LCA hierarchy:	National Character Area	NCA 56 Lancashire Coal Measures
Landscape Designations:	None	
Administrative area:	St Helens	
Character description:	The Proposed Development passes through the centre of LCA RVI1 Thatto Heath, this is the one of three LCAs within the Residential Valley Infill LCT. The key landscape characteristics of the LCT are detailed below taken from the <i>Landscape Character Assessment for St Helens</i>⁵. <u>Key characteristics (LCT):</u> • “Residential infill townscape which has extended out from smaller historical centres and spread between adjacent more elevated landscapes. Located on low-lying areas between ridgelines and / or hills ranging between 30 and 50 metres AOD; • Geographically more amorphous forms of predominantly residential landscaper which have developed over a period of time and as such incorporate a number of successive residential layout and house styles. This imposes a more complex and less distinct residential character, which is primarily defined by the low lying ‘valley’ locations and the more contained and enclosed character; • Areas usually associated with one of the main (historic) road arteries radiating from St Helens, but no defining road spine and as such have a varied road network; • Evidence of historic village centres such as original churches and historic buildings with the associated road layout. Later residential development includes smaller pockets of industrial terraced housing in a grid and later pre and post war housing expansion defined by a curved crescent road layout and gardens; • Areas usually form suburbs of St Helens and an outer urban edge of varying prominence is created; • Landscape incorporates areas of open space sometimes associated with constraining ground conditions such as a slope of hill and prominent mature woodland blocks remnant from former field layouts or river courses;	

- *Areas lack a centre or focal point, lack of orientation reinforced by developed skylines and limited intervisibility to adjacent character areas.”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

“1. 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.

	<i>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</i>			
Assessment of sensitivity	<u>Landscape value:</u> 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. <u>Landscape susceptibility:</u> The <i>Landscape Character Assessment for St Helens</i> ⁵ defines the overall landscape sensitivity of the LCA as ‘Low’ due to a “ <i>lack of focal features</i> ” ⁵ , distinct urban character or “ <i>quality open space</i> ” ⁵ . The study also considers the visual characteristics of the LCA and notes that there is “ <i>some intervisibility to adjacent more elevated landscapes</i> ” ⁵ . In terms of perceptual characteristics, the ‘ <i>urban character</i> ’ 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				
Pipeline (North Corridor and St Helens Spur)	Construction phase: Figure 8.8, Volume 3 shows the North Corridor of the pipeline within the LVIA study area and RV11 Thatto Heath LCA. The North Corridor would skirt the southwest boundary of the LCA as it passes along the B5204, Elton Head Road, before passing through the southeast 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 and would appear similar to utilities roadworks in the urban area. A storage area would be located in a public amenity / recreation area on the western side of Sherdley Road, occupying the majority of the open area. The storage compound would contain pipes stacked to a height of 3m for up to 6 months and would be mostly screened within the wider LCA by the built environment.			

The pipeline corridor would comprise site fencing, open cut pipeline trench with adjacent material storage area, associated construction machinery, internal haul road, and soil storage as indicated in **Chapter 2, Volume 2**. Construction along Elton Head Road and Sherdley Road would involve roadside and road excavation.

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 High-Medium when experienced locally to the construction works (within the same road or ~200m) reducing to Low or less from the wider LCA, where the pipeline corridor would be less visible due to distance and the built environment.

The open cut sections comprising the majority of the pipeline corridor may require the removal of occasional street trees within the Preliminary Order Limits along Sherdley Road. The localised removal of trees and shrubs would appear as a break in the pattern of roadside vegetation. The potential loss of localised trees in this LCA would be partially mitigated by replacement of planting in-situ, following the construction phase as recorded in the Year 1 assessment below.

The magnitude of change likely to affect the landscape character, key characteristics and elements would range from High-Medium (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:	Pipeline corridor and storage compound – Major/Moderate to Moderate and potentially locally Significant (where storage compound or the pipeline are visible) 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.

Operation and maintenance (Year 1) phase:

The pipeline corridor and associated storage compound would all be reinstated with no lasting effects on the streetscape. The loss of some limited sections of roadside trees would be mitigated by replacement planting outside the easement. Consequently, there would be a Very Low to Zero magnitude of change on landscape character and key characteristics and a predicted Low magnitude of change on landscape elements until replacement planting is established.

	Level of effect:	Pipeline corridor and storage compound – Minor/Negligible and Not Significant (Minor-Negligible and Not Significant where replanted street trees are establishing)
	Type of effect:	Permanent and neutral.
Temporary construction accesses (Elton Head Road, Sherdley Road)	Construction phase: Temporary construction access options: <u>Elton Head Road and Sherdley Road</u> : All construction access for the pipeline would utilise the existing road network within the pipeline corridor. Some limited street tree removal may be required to accommodate the works, but this is unlikely to significantly affect the landscape character or elements in these locations. Further details would be provided in the Environmental Statement where an arboricultural assessment to BS 5837 would be submitted. 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 potential temporary partial road closure, movement of construction vehicles and localised removal of vegetation to accommodate pipeline works and create visibility splays would appear similar to utilities works in the urban surroundings and would potentially be up to a High-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 potentially locally Significant
	Type of effect:	Short-term duration (temporary), direct and adverse.
St Helens HAGI (Figure 8.38)	Construction phase: The St Helens HAGI is sited on open grass and scrub directly off Burtonhead Road and to the rear of the Ravenhead Retail Park. This would be located beyond the LCA's boundary although its study area coincides with this receptor unit. The high proportion of intervening built form and densely vegetated parkland between the LCA and the HAGI and its associated construction compound, including the large-scale industrial units to the southwest of the HAGI, together with a minimum separation distance of ~660m means that views towards the HAGI 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 St Helens 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. Illustrative examples of a layout, and photographic examples of operational schemes are contained in Chapter 2, Volume 2 . The separation distance between the HAGI and the LCA (a minimum of ~660m) and presence of intervening screening elements (including large-scale built form and densely vegetated parkland) means that the effect on the landscape character and key characteristics would be Zero.	
	Level of effect:	No Effect
	Type of effect:	N/A
Limitations / assumptions	- Assessments related to landscape elements and in particular tree / vegetation loss are estimated pending the arboriculture survey and further design maturity that would be outlined in the Environmental Statement. - It has been assumed that hedgerows and trees lost to provide temporary construction access would be reinstated with new planting where possible post-construction i.e. where they do not lie in easements. - It is assumed that street trees within the Preliminary Order Limits along Sherdley Road would be removed to accommodate the works.	
Overall assessment	Construction phase: Collectively the construction works involving the underground pipelines, temporary storage compounds and construction access options routed through the RVI1 Thatto Heath LCA would lead to a moderate scale of development, continuing for the construction phase (6-12 months). Roadside vegetation, whilst intermittent in nature would combine with the surrounding built environment 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-Medium magnitude of change in close proximity to the pipeline corridor. Some localised losses of hedgerows and hedgerow trees can be largely reinstated following completion of the construction phase.	
	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.
	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 to Negligible (Not Significant) effects relating to mitigation street tree replanting which at Year 1 are likely to be young plants of limited height and volume.

Table 8C.40: Landscape Assessment for LCA UG3 Rainhill Golf Course

Figures: 8.8		
LCA hierarchy:	National Character Area	NCA 56 Lancashire Coal Measures
Landscape Designations:	None	
Administrative area:	St Helens	
Character description:	The Proposed Development passes south-east of LCA UG3 Rainhill Golf Course, this is the one of three LCAs within the Urban Greenspace LCT. The key landscape characteristics of the LCT are detailed below taken from the <i>Landscape Character Assessment for St Helens</i> 2006. <u>Key characteristics (LCT):</u> • <i>“Relatively large areas of planned open space delineated on three sides or completely enclosed by the adjacent settled landscape. The open landscape comprises flat to gently undulating landform partially covering a small localised hill or ridgeline;</i> • <i>The open space is of a size and scale to physically and visually separate areas of adjacent townscape. In addition the townscape varies along the boundaries, which reinforces the distinctness of the open space as a discrete area, as opposed to open space within a wider residential area;</i> • <i>Large areas of amenity / recreational grass highlight landform and are divided by mature woodland blocks and tree belts which area typically access by footpath;</i> • <i>Areas contain elements and characteristics of former designed landscapes and parks such as mature woodland / trees, stone walls, path network or landscape framework;</i> • <i>The open areas are generally uninhabited which reinforces the contrast of character with adjacent townscapes, although in some instances there are remnants of historic buildings and structures;</i> • <i>There is varied sense of enclosure influenced by the proximity of mature woodland blocks and belts and elevation of view;</i> • <i>Popular places of recreation such as walking, dog exercise and golf.”⁵</i> <u>Area Description (LCA)</u>	

- *“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

“1. 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 <i>Landscape Character Assessment for St Helens</i> 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 “ <i>partially set within broad ‘subtle depression, so only visible by immediate adjacent character areas...with intervisibility to immediate residential areas’</i> ” ⁵ . In terms of perceptual characteristics, the study also notes the “ <i>Variety of open and enclosed spaces and experiences defined by extent of tree cover, which contrasts markedly with adjacent settled landscapes</i> ” 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			
Pipeline (North Corridor)	Construction phase: Figure 8.8, Volume 3 shows the North Corridor within the LVIA study area, and UG3 Rainhill Golf Course LCA. The proposed North Corridor would not pass through this LCA and effects would be indirect. The North Corridor would be located in the adjacent EF1 Elton Head Hall Farm LCA to the southeast of the LCA and at its closest point would be located at a distance of approximately 600m to the east of the LCA. At this location the pipeline would be located across the B5413 Rainhill Road and beyond mature trees and built elements where, at most, there would be heavily filtered winter views. The magnitude of change would be Very Low to Zero.		
	Level of effect:	Pipeline – Minor/Negligible and Not Significant to None .	
	Type of effect:	Short-term duration (temporary), indirect and adverse.	
	Operation and maintenance (Year 1) phase: The pipeline corridor would be reinstated with no lasting effects on the landscape features in views. Consequently, there would be a Zero magnitude of change on landscape character and key characteristics.		
	Level of effect:	No Effect	
	Type of effect:	N/A	

Limitations / assumptions	1. Assessments related to landscape elements and in particular tree / vegetation loss are estimated pending the arboriculture survey and further design maturity that would be outlined in the Environmental Statement. 2. It has been assumed that hedgerows and trees lost to provide temporary construction access would be reinstated with new planting where possible post-construction i.e where they do not lie in easements.
Overall assessment	Construction phase: There would be limited indirect effects from the proposed North Corridor to the western edge of the LCA where they would be mostly screened by dense vegetation.
	Level of effect: Minor/Negligible and Not Significant to None.
	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 overall. Any residual change to the landscape features or characteristics of the LCA would be imperceptible.

Table 8C.41: Landscape Assessment for LCA RFS1 Grange Park

Figures: 8.8		
LCA hierarchy:	National Character Area	NCA 56 Lancashire Coal Measures
Landscape Designations:	None	
Administrative area:	St Helens	
Character description:	The Proposed Development passes southeast of LCA RFS1 Grange Park, one of five LCAs within the Raised Fringe Settlement LCT. The key landscape characteristics of the LCT are detailed below taken from the <i>Landscape Character Assessment for St Helens</i>⁵. <u>Key characteristics (LCT):</u> • <i>“Settled areas located on raised areas or broad ridgelines adjacent to the historic core of St Helens, ranging between approximately 30 and 80 metres AOD;</i> • <i>Geographically more amorphous forms of predominantly residential landscaper which have developed over a period of time and as such incorporate a number of successive residential layout and house styles. This imposes a more complex and less distinct residential character, which is primarily defined by the subtle elevation giving a more open urban character and the role these townscapes play in creating a sense of arrival into St Helens;</i> • <i>Areas usually associated with one of the main (historic) road arteries radiating from St Helens, but no defining road spine and as such have a varied road network;</i> • <i>Evidence of historic village centres such as original churches and historic buildings with the associated road layout. The elevated location of churches highlights their prominence locally, and they act as important local orientation features and landmarks;</i> • <i>Later residential development includes smaller pockets of industrial terraced housing in a grid and later pre and post war housing expansion defined by a curved crescent road layout and gardens;</i> • <i>Areas usually form suburbs of St Helens and an outer urban edge of varying prominence is created;</i>	

- *Landscape incorporates areas of open space sometimes associated with constraining ground conditions such as a slope of hill and prominent mature woodland blocks remnant from former field layouts or river courses.”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

“1. 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

	<i>maintain the wooded townscape structure and along the urban edges where development can contribute to a more robust edge.”⁵</i>		
Assessment of sensitivity	<u>Landscape value:</u> 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. <u>Landscape susceptibility:</u> The <i>Landscape Character Assessment for St Helens</i>⁵ defines the overall landscape sensitivity of the LCA as ‘Medium’ relating to the “<i>less distinctive urban townscape</i>”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 “<i>strong intervisibility to adjacent landscapes</i>”⁵. In terms of perceptual characteristics, the “<i>busy road and railway routes</i>”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			
Pipeline (North Corridor)	Construction phase: Figure 8.8, Volume 3 shows the North Corridor of the pipeline within the LVIA study area and RFS1 Grange Park LCA. The North Corridor would skirt the southeast boundary of the LCA as it passes from arable and pastoral fields in the adjoining landscape to 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 the urban area, and therefore not an unfamiliar temporary feature in the streetscape). The working width of the pipeline corridor would comprise site fencing, open cut pipeline trench with adjacent material storage area, associated construction machinery, internal haul road, and soil storage as indicated in Chapter 2, Volume 2. Construction along Elton Head Road and Sherdley Road would involve roadside and road excavation.		

	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 High-Medium when experienced locally to the construction works (within the same road or ~200m) reducing to Low or less from the wider LCA, where the pipeline corridor would be less visible due to distance and the built environment. The open cut sections comprising the majority of the pipeline corridor may require the removal of occasional hedgerows and field boundary trees along as it passes through the agricultural fields in the adjoining EF1 Elton Head Hall Farm LCA to the south. The localised removal of trees and shrubs would appear as a break in the pattern of vegetation in adjoining landscape features resulting in indirect effects. The potential loss of localised hedgerow would be partially mitigated by replacement of planting in-situ, following the construction phase as recorded in the Year 1 assessment below. The magnitude of change likely to affect the landscape character, key characteristics and elements would range from High-Medium (in respect of landscape elements within and adjacent to the pipeline corridor) to Very Low to Zero elsewhere within the LCA.		
	<table border="1"> <tr> <td>Level of effect:</td><td>Pipeline corridor and storage compound – Major/Moderate to Moderate and potentially locally Significant (where the pipeline is visible) and Minor/Negligible and Not Significant to None elsewhere within the wider LCA.</td></tr> </table>	Level of effect:	Pipeline corridor and storage compound – Major/Moderate to Moderate and potentially locally Significant (where the pipeline is visible) and Minor/Negligible and Not Significant to None elsewhere within the wider LCA.
Level of effect:	Pipeline corridor and storage compound – Major/Moderate to Moderate and potentially locally Significant (where the pipeline is visible) and Minor/Negligible and Not Significant to None elsewhere within the wider LCA.		
	<table border="1"> <tr> <td>Type of effect:</td><td>Short-term duration (temporary with some permanent effects), direct and adverse.</td></tr> </table>	Type of effect:	Short-term duration (temporary with some permanent effects), direct and adverse.
Type of effect:	Short-term duration (temporary with some permanent effects), direct and adverse.		
	Operation and maintenance (Year 1) phase: The pipeline corridor and associated storage compound would all be reinstated with no lasting effects on the streetscape. The loss of some limited sections of roadside hedgerow would be mitigated by replacement planting outside the easement. Consequently, there would be a Very Low to Zero magnitude of change on landscape character and key characteristics and a predicted Low magnitude of change on landscape elements until replacement planting is established.		
	<table border="1"> <tr> <td>Level of effect:</td><td>Pipeline corridor and storage compound – Negligible and Not Significant (Minor-Negligible and Not Significant where replanted street trees are establishing)</td></tr> </table>	Level of effect:	Pipeline corridor and storage compound – Negligible and Not Significant (Minor-Negligible and Not Significant where replanted street trees are establishing)
Level of effect:	Pipeline corridor and storage compound – Negligible and Not Significant (Minor-Negligible and Not Significant where replanted street trees are establishing)		
	<table border="1"> <tr> <td>Type of effect:</td><td>Permanent and neutral.</td></tr> </table>	Type of effect:	Permanent and neutral.
Type of effect:	Permanent and neutral.		
Temporary construction accesses (NH 58,	Construction phase: <u>Temporary construction access options:</u> Elton Head Road (NH58): All construction access for the pipeline would utilise the existing road network within the pipeline corridor. Where required roads would need to be		

Elton Head Road)	widened up to ~8m. Some limited tree removal and or coppicing / pruning may be required to allow for visibility splays, but this is unlikely to significantly affect the landscape character or elements (hedgerows and hedgerow trees) in these locations. Further details would be provided in the Environmental Statement where an arboricultural assessment to BS 5837 would be submitted. 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 potential temporary partial road closure, movement of construction vehicles and localised removal of vegetation to accommodate pipeline works and create visibility splays would appear similar to utilities works in the urban surroundings and would potentially be up to a High 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 potentially locally Significant
	Type of effect:	Short-term duration (temporary), direct and adverse.
Limitations / assumptions	- Assessments related to landscape elements and in particular tree / vegetation loss are estimated pending the arboriculture survey and further design maturity that would be outlined in the Environmental Statement. - It has been assumed that hedgerows and trees lost to provide temporary construction access would be reinstated with new planting where possible post-construction i.e. where they do not lie in easements.	
Overall assessment	Construction phase: Collectively the construction works involving the underground pipelines, and construction access options routed through the RFS1 Grange Park LCA would lead to a moderate scale of development, continuing for the construction phase (6-12 months). Vegetation to the south of the LCA would combine with the surrounding built environment 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-Medium magnitude of change in close proximity to the 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 Moderate and Significant effects close to the pipeline corridor.
	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 to No Effect . There would be filtered views of reinstated landscape elements in views southeast from the LCA.

Table 8C.42: Landscape Assessment for LCA UIV3 Ravenhead

Figures: 8.8, 8.38, Viewpoints SH1 (Figure 8.67), SH2 (Figure 8.68), SH3 (Figure 8.69) and SH4 (Figure 8.70)		
LCA hierarchy:	National Character Area	NCA 56 Lancashire Coal Measures
Landscape Designations:	None	
Administrative area:	St Helens	
Character description:	The Proposed Development passes through the centre of LCA UIV3 Ravenhead, one of three LCAs within the Urban Industrial Valley LCT. The key landscape characteristics of the LCT are detailed below taken from the <i>Landscape Character Assessment for St Helens</i>⁵. <u>Key characteristics (LCT):</u> • “Typically low lying broad valley landscapes within the ‘bowl’ of St Helens located in landforms ranging from 20 to 40 metres AOD. Although in some instance large scale landform remodelling has been undertaken to facilitate the construction of large industrial blocks. This has created a series of locally prominent artificial slopes with unnatural straight edges and steep angles; • Land use primarily defined by series of large scale industrial buildings and warehouses which have a uniform bland character typically of a ‘block’ shape with generally muted colours and a lack of architectural detail which gives a reduced experience of scale of the development. Industrial buildings associated with range of chimney and gasometer vertical features which skyline on the townscape horizon and create important local and regional landmarks given their prominence; • The scale of development and the irregular arrangement of buildings gives the appearance of incremental development with lack of strong landscape framework and can give a ‘cluttered’ and complex built form which is difficult to orientate around; • Lack of orientation is reinforced by the limited views out from the industrial landscape to adjacent areas due to the low lying valley location and the scale of the buildings blocking views; • Open space surrounding buildings is primarily given over to infrastructure and servicing of the buildings in hard landscape. Wide roads and car parking surround the buildings and remnants of ‘green’ landscape area invariably maintained grass verges with a limited number of trees and shrubs.	

Some remnant field patterns with neglected hedgerows and some limited pioneer species area also present in awkward corners, but area dwarfed by the scale of the buildings;

- *Often estates are in close proximity to large scale infrastructure including dualled roads, railway networks and pylon lines;*
- *Lighting of areas in particular dominant industrial blocks and chimneys create significant and visually dramatic night time urban horizon;*
- *Large scale building scan create a harsh microclimate with 'wind tunnels' created between the buildings and extensive shadowing from the high warehouses, which in turn can reinforce the perception of a barren landscape*
- *Within the broader overriding large scale industrial built form, pockets of dense pre-war industrial terraced housing exist. The small scale and dense built form of the terraces provide a pronounced contrast in scale when set against the wider industrial landscape, and impose a strong sense of identity.”⁵*

Area Description (LCA)

- *“The area lies on the south edge of a low lying broad valley basin which rises gently southwestwards 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

“1. 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 <i>Landscape Character Assessment for St Helens</i> ⁵ defines the overall landscape sensitivity of the LCA as ‘ <i>Low to Medium</i> ’ due to “ <i>fragmentation of industrial character</i> ” ⁵ . The study also considers the visual characteristics of the LCA and notes that “ <i>whilst the landform is dipped in a broad valley, the large scale of buildings and vertical chimneys are highly visible</i> ” ⁵ . In terms of perceptual characteristics, the “ <i>large scale</i> ” 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. However susceptibility to change is slightly increased by the introduction of A HAGI which would be a permanent feature in the landscape. 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			
Pipeline (North Corridor and St Helens Spur)	Construction phase: Figure 8.8, Volume 3 shows the North Corridor of the pipeline within the LVIA study area and UIV3 Ravenhead LCA. The route of the North Pipeline would be limited to several roads in the LCA: As it enters the LCA, the pipeline corridor would follow Sherdley Road along the southeast boundary of the LCA, the route would then follow Sutton Heath Road before finally entering Burtonhead Road where it would terminate at the St Helens HAGI. The pipeline construction would be an open cut along the roads and would appear similar to utilities roadworks in the urban area. The route of the St Helens Spur (Pilkingtons NGF Spur 2) pipeline would also follow linear roads within the LCA, following Burtonhead Road southeast from St Helens HAGI for ~480m, and would then cut northeast across open greenspace comprising grassland, shrubs and scrub, and follow the A570, St Helens Linkway where it would be located along the open grassland verge and footpath to the west of the road. The pipeline would cross St Helens Linkway and terminate to the southeast of the Saints Retail Park roundabout. The pipeline construction would be open cut along the roads and would appear similar to utilities roadworks in the wider urban area. A further short spur (St Helen's to Glass Future Spur) would travel northwest along Burtonhead Road for approximately 270m from St Helens HAGI where it would reach the large industrial glass unit to the west of		

the road. The pipeline construction would be an open cut trench along the road and would appear similar to utilities roadworks in the urban area.

The working width of the pipeline corridor would be between approximately 14m and 36m, comprising site fencing, open cut pipeline trench with adjacent material storage area, associated construction machinery, internal haul road, and soil storage as indicated in **Chapter 2, Volume 2**. Construction along Sherdley Road, Sutton Heath Road, Burtonhead Road and St Helens Linkway would involve roadside and road excavation.

Construction activity along the North Corridor and 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 High-Medium when experienced locally to the construction works (within the same road or ~200m) reducing to Low to Zero from the wider LCA, where the pipeline corridor would be less visible due to distance and the built environment as illustrated in Viewpoints SH1,2,3,4.

The open cut sections comprising the majority of the pipeline corridor may require the removal of occasional street trees, shrubs and scrub woodland within the Preliminary Order Limits along St Helens Linkway. The localised removal of trees and shrubs would appear as a break in the pattern of roadside vegetation. The potential loss of localised trees and shrubs in this LCA would be partially mitigated by replacement of planting in-situ, following the construction phase as recorded in the Year 1 assessment below.

The magnitude of change likely to affect the landscape character, key characteristics and elements would range from High-Medium (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:	Pipeline corridor– Major/Moderate to Moderate and potentially locally Significant (where activity associated with pipeline is visible) 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.

Operation and maintenance (Year 1) phase:

The pipeline corridor and associated storage compound would all be reinstated with no lasting effects on the streetscape. The loss of some limited sections of roadside trees and shrubs would be mitigated by replacement planting outside the easement for trees. Consequently, there would be a Very Low to Zero magnitude of change on landscape character and key characteristics and a predicted Low magnitude of change on landscape elements until replacement planting is established.

	Level of effect:	Pipeline corridor and storage compound – Negligible and Not Significant (Minor-Negligible and Not Significant) where replanted street trees are establishing)
	Type of effect:	Permanent and neutral.
Temporary construction accesses (Sherdley Road, Sutton Heath Road, Burtonhead Road (NH60), St Helens Linkway)	Construction phase:	<u>Temporary construction access options:</u> Sherdley Road, Sutton Heath Road, Burtonhead Road, St Helens Linkway; All construction access for the pipeline would utilise the existing road network within the pipeline corridor. Some limited street tree removal or pruning may be required to accommodate the works, but this is unlikely to significantly affect the landscape character or elements in these locations. Further details would be provided in the Environmental Statement where an arboricultural assessment to BS 5837 would be submitted. 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 potential temporary partial road closure, movement of construction vehicles and localised removal of vegetation to accommodate pipeline works and create visibility splays would appear similar to utilities works in the urban surroundings and would potentially be up to a High 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 potentially locally Significant to be clarified in the Environmental Statement following provision of more detailed construction traffic information.
	Type of effect:	Short-term duration (temporary), direct and adverse.
St Helens HAGI (Figure 8.38)	Construction phase:	The St Helens HAGI site is sited on open grass and scrub directly off Burtonhead Road directly opposite a large industrial building and to the rear of the Ravenhead Retail Park. Receptors in the locality where these changes in the landscape would be perceived include users of Burtonhead Road and workers and visitors in adjoining industrial and retail units as illustrated in Viewpoints SH1,2,3,4. 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. Temporary solid hoarding to the perimeter of the associated construction compounds would minimise visibility of activity and structures within the compound. Construction traffic would be similar to the existing high levels of road traffic using the local road network. 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 between the industrial units to the southwest, the retail units to the northeast and north and along Burtonhead Road within ~200m of the works.				
	<table> <tr> <td>Level of effect:</td><td>Major/Moderate to Moderate and locally Significant</td></tr> <tr> <td>Type of effect:</td><td>Short-term duration (temporary) and neutral</td></tr> </table>	Level of effect:	Major/Moderate to Moderate and locally Significant	Type of effect:	Short-term duration (temporary) and neutral
Level of effect:	Major/Moderate to Moderate and locally Significant				
Type of effect:	Short-term duration (temporary) and neutral				
	Operation and maintenance (Year 1) phase: The St Helens 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. Illustrative examples of a layout, and photographic examples of operational schemes are contained in Chapter 2, Volume 2. The HAGI would appear to be part of the surrounding industrial units and fenced areas. The effect on the landscape character and key characteristics would Very Low and localised, affecting a small geographical area in the local vicinity of the HAGI.				
	<table> <tr> <td>Level of effect:</td><td>Minor / Negligible and Not Significant</td></tr> <tr> <td>Type of effect:</td><td>Permanent and neutral</td></tr> </table>	Level of effect:	Minor / Negligible and Not Significant	Type of effect:	Permanent and neutral
Level of effect:	Minor / Negligible and Not Significant				
Type of effect:	Permanent and neutral				
Limitations / assumptions	1. Assessments related to landscape elements and in particular tree / vegetation loss are estimated pending the arboriculture survey and further design maturity that would be outlined in the Environmental Statement. 2. It has been assumed that shrubs and trees lost to provide temporary construction access would be reinstated with new planting where possible post-construction i.e. where they do not lie in easements. 3. No account of any potential landscape mitigation near the perimeter of the HAGI site has been accounted for and is pending further design maturity. A Year 15 assessment following construction would be included in the Environmental Statement.				
Overall assessment	Construction phase: Collectively the construction works involving the underground pipelines, HAGI and construction access options routed through the UIV3 Ravenhead LCA would lead to a moderate scale of development, continuing for the construction phase (6-12 months). Roadside vegetation, whilst intermittent in nature would combine with the surrounding built environment 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 HAGI 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 to 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), 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 to Negligible (Not Significant) effects relating to mitigation street tree replanting which at Year 1 are likely to be young plants of limited height and volume.	

Table 8C.43: Landscape Assessment for LCA SLV1 St Helens Historic Core

Figures: 8.8 and 8.38		
LCA hierarchy:	National Character Area	NCA 56 Lancashire Coal Measures
Landscape Designations:	None but partly located in a conservation area	
Administrative area:	St Helens	
Character description:	The Proposed Development passes 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 LCT are detailed below taken from the <i>Landscape Character Assessment for St Helens</i>⁵. <u>Key characteristics (LCT):</u> • “Within subtle valley ‘bowl’ or on the immediate gentle slopes of broad low lying valley giving a sense of containment and enclosure to the landscape; • High density urban built form dominates land use and predominantly radiates from the lower lying central core. Settled side valleys and upper slopes mean strong intervisibility to adjacent settled landscapes and views are typically to built visual horizons; • Mixture of building styles and materials, but strong medieval and historic industrial presence in form of road layout and buildings, giving a ‘core’ character and in places strong sense of townscape character; • Dense street structure in many locations, which movement through and views into the surrounding townscape, with most views framed by adjacent townscapes which reinforces the sense of enclosure; • High vitality of core landscape from densely populated residential areas and busy core landscape with movement and noise; and • Close juxtaposition to industrial areas, with strong intervisibility to vertical chimneys and gasometers to aid orientation within enclosed street network.”⁵ <u>Area Description (LCA)</u>	

- *“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 paviers 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

	“1. 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	<u>Landscape value:</u> 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. <u>Landscape susceptibility:</u> 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 Proposed Development, being of short-term and temporary duration (apart from the permanent above ground infrastructure of the St Helens HAGI), 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	Overall sensitivity: Medium	Landscape value:	Medium
		Landscape susceptibility:	Low
Magnitude of change			
Pipeline (North Corridor and St Helens Spurs)	Construction phase: Figure 8.8, Volume 3 shows the LVIA study area for the North Corridor of the pipeline coinciding with the St Helens Historic Core LCA. The pipeline corridors follow the routes of a number of roads or cross existing areas of car parking to the south of the LCA at a minimum separation distance of approximately 580m, 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 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
	Operation and maintenance (Year 1) phase: The pipeline corridor would be reinstated with no lasting effects on the landscape features in the restricted outward views from within the LCA. Any infrequent maintenance surveys which may be required on foot (line walking) over the route of the pipeline would have no characterising influence. Consequently, there would be a Zero magnitude of change on landscape character and key characteristics within this LCA.	
	Level of effect:	No Effect
	Type of effect:	N/A
Temporary construction accesses (None within the LCA)	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 and as an existing strategic route, is unlikely to need widening or any associated tree works. The access points at NH-60 and NH-61 as well as construction traffic using Burtonhead Road to access the St Helens HAGI would similarly not be perceived from within this LCA. Baseline levels of tranquillity are also likely to be low as a consequence of this LCA's proximity to the A570 St Helens Linkway, A58 and local road network within the LCA. The magnitude of change would be Zero.	
	Level of effect:	No Effect
	Type of effect:	N/A
St Helens HAGI (Figure 8.38)	Construction phase: The St Helens HAGI is sited on open grass and scrub directly off Burtonhead Road and to the rear of the Ravenhead Retail Park. This would be located beyond the LCA'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. Temporary solid hoarding to the perimeter of the associated construction compounds would minimise visibility of activity and structures within the compound. Construction traffic would be similar to the existing high levels of road	

	traffic using the intervening road network which includes the A58. The high proportion of intervening built form between the LCA and the HAGI and its associated construction compound, including the large-scale retail units within the Ravenhead Retail Park to the north of the HAGI, together with a minimum separation distance of 580m means that south-easterly views would be severely restricted. The magnitude of change would be Zero.				
	<table> <tr> <td>Level of effect:</td><td>No Effect</td></tr> <tr> <td>Type of effect:</td><td>N/A</td></tr> </table>	Level of effect:	No Effect	Type of effect:	N/A
Level of effect:	No Effect				
Type of effect:	N/A				
	Operation and maintenance (Year 1) phase: The St Helens 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. Illustrative examples of a layout, and photographic examples of operational schemes are contained in Chapter 2, Volume 2. The separation distance (a minimum of 580m) and presence of intervening screening elements (including large-scale built form) means that the effect on the landscape character and key characteristics would be Zero.				
	<table> <tr> <td>Level of effect:</td><td>No Effect</td></tr> <tr> <td>Type of effect:</td><td>N/A</td></tr> </table>	Level of effect:	No Effect	Type of effect:	N/A
Level of effect:	No Effect				
Type of effect:	N/A				
Limitations / assumptions	1. No account of any potential landscape mitigation near the perimeter of the HAGI site has been accounted for and is pending further design maturity. A Year 15 assessment following construction would be included in the Environmental Statement.				
Overall assessment	Construction phase: Collectively the construction works involving the underground pipeline (North Corridor and St Helens Spurs), the St Helens HAGI 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.				
	<table> <tr> <td>Level of effect:</td><td>No Effect</td></tr> <tr> <td>Type of effect:</td><td>N/A</td></tr> </table>	Level of effect:	No Effect	Type of effect:	N/A
Level of effect:	No Effect				
Type of effect:	N/A				
	Operation and maintenance (Year 1) phase:				

	There would be No Effect on the landscape character and key characteristics.

Table 8C.44: Landscape Assessment for LCA SLV2 St Helens Retail Ring

Figures: 8.8 and 8.38		
LCA hierarchy:	National Character Area	NCA 56 Lancashire Coal Measures
Landscape Designations:	None but LCA adjacent to Conservation Area	
Administrative area:	St Helens	
Character description:	The Proposed Development passes south of LCA SLV2 St Helens Retail Ring, this is the one of three LCAs within the Settled Low-lying Valley LCT. The key landscape characteristics of the LCT are detailed below taken from the <i>Landscape Character Assessment for St Helens</i>⁵. <u>Key characteristics (LCT):</u> • “Within subtle valley ‘bowl’ or on the immediate gentle slopes of broad low lying valley giving a sense of containment and enclosure to the landscape; • High density urban built form dominates land use and predominantly radiates from the lower lying central core. Settled side valleys and upper slopes mean strong intervisibility to adjacent settled landscapes and views are typically to built visual horizons; • Mixture of building styles and materials, but strong medieval and historic industrial presence in form of road layout and buildings, giving a ‘core’ character and in places strong sense of townscape character; • Dense street structure in many locations, which movement through and views into the surrounding townscape, with most views framed by adjacent townscapes which reinforces the sense of enclosure; • High vitality of core landscape from densely populated residential areas and busy core landscape with movement and noise; • Close juxtaposition to industrial areas, with strong intervisibility to vertical chimneys and gasometers to aid orientation within enclosed street network.”⁵ <u>Area Description (LCA)</u>	

- *“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

“1. 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. <u>Landscape susceptibility:</u> 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 Proposed Development, being of short-term and temporary duration (apart from the permanent above ground infrastructure of the St Helens HAGI), the landscape susceptibility to this type of development is reduced. The <i>Landscape Character Assessment for St Helens</i>⁵ defines the overall landscape sensitivity of the LCA as ‘Low’ due to fragmented layout and design of buildings, “<i>lack of cohesion between historic and contemporary landscape structure</i>”⁵, and “<i>functional character with limited quality of the urban landscape</i>”⁵. The study also considers the visual characteristics of the LCA and notes that ‘<i>large scale buildings, limits intervisibility</i>’. The overall susceptibility of the landscape to the Project is assessed as Low.		
Sensitivity	Overall sensitivity: Medium	Landscape value:	Medium
		Landscape susceptibility:	Low
Magnitude of change			
Pipeline (North Corridor and St Helens Spurs)	Construction phase: Figure 8.8, Volume 3 shows the LVIA study area for the North Corridor of the pipeline coinciding with the SLV2 St Helens Retail Ring LCA. The pipeline corridors follow the routes of a number of roads in the adjoining UIV3 Ravenhead LCA to the south at a minimum separation distance of approximately 310m, Construction activity along the North Corridor and 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 high levels of intervening built form, highway infrastructure, and roadside vegetation would restrict intervisibility, although construction works may be perceptible along the A570 St Helens Linkway from the southern edge of the LCA and the magnitude of landscape change would be Very Low to Zero.		
	Level of effect:	Pipeline - Minor/Negligible to No Effect	

	Type of effect:	Short-term duration (temporary), indirect and adverse
	Operation and maintenance (Year 1) phase: The pipeline corridor would be reinstated with no lasting effects on the landscape features in the restricted outward views from within the LCA. Any infrequent maintenance surveys which may be required on foot (line walking) over the route of the pipeline would have no characterising influence. Consequently, there would be a Zero magnitude of change on landscape character and key characteristics within this LCA.	
	Level of effect:	No Effect
	Type of effect:	N/A
Temporary construction accesses (None within the LCA)	Construction phase: There would be no access requirements within this LCA. Any increase in traffic along the A570 St Helens Linkway, approximately 310m to the south, would not be discernible due to the high proportion of intervening built form and as an existing strategic route, is unlikely to need widening or any associated tree works. The access points at NH-60 and NH-61 as well as construction traffic using Burtonhead Road to access the St Helens HAGI would similarly not be perceived from within this LCA. Baseline levels of tranquillity are also likely to be low as a consequence of this LCA's proximity to the A570 St Helens Linkway, local road network within the LCA. The magnitude of change would be Zero.	
	Level of effect:	No Effect
	Type of effect:	N/A
St Helens HAGI (Figure 8.38)	Construction phase: The St Helens HAGI is sited on open grass and scrub directly off Burtonhead Road and to the rear of the Ravenhead Retail Park. This would be located beyond the LCA'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. Temporary solid hoarding to the perimeter of the associated construction compounds would minimise visibility of activity and structures within the compound. Construction traffic would be similar to the existing high levels of road traffic using the intervening road network which includes the A58. The high proportion of intervening built form between the LCA and the HAGI and its associated construction compound, including the large-scale retail units within the Ravenhead Retail Park to the north of the HAGI, together with a minimum separation	

	distance of 360m means that south-westerly views would be severely restricted. The magnitude of change would be Zero.				
	<table> <tr> <td>Level of effect:</td><td>No Effect</td></tr> <tr> <td>Type of effect:</td><td>N/A</td></tr> </table>	Level of effect:	No Effect	Type of effect:	N/A
Level of effect:	No Effect				
Type of effect:	N/A				
	Operation and maintenance (Year 1) phase: The St Helens 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. Illustrative examples of a layout, and photographic examples of operational schemes are contained in Chapter 2, Volume 2. The separation distance (a minimum of 580m) and presence of intervening screening elements (including large-scale built form) means that the effect on the landscape character and key characteristics would be Zero.				
	<table> <tr> <td>Level of effect:</td><td>No Effect</td></tr> <tr> <td>Type of effect:</td><td>N/A</td></tr> </table>	Level of effect:	No Effect	Type of effect:	N/A
Level of effect:	No Effect				
Type of effect:	N/A				
Limitations / assumptions	- No account of any potential landscape mitigation near the perimeter of the HAGI site has been accounted for and is pending further design maturity. A Year 15 assessment following construction would be included in the Environmental Statement. - It is assumed that the St Helens Spur would cross A570 St Helens Linkway on an open cut crossing.				
Overall assessment	Construction phase: Collectively the construction works involving the underground pipeline (North Corridor and St Helens Spurs), the St Helens HAGI and construction access routes would lead to a localised Low level of effect where the St Helens Spur may be visible from within this LCA to Zero due to high levels of internal and intervening built form and roadside vegetation which 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 Very Low to Zero. <table> <tr> <td>Level of effect:</td><td>Minor/Negligible to No Effect</td></tr> <tr> <td>Type of effect:</td><td>Short-term duration (temporary) and neutral</td></tr> </table> Operation and maintenance (Year 1) phase: There would be No Effect on the landscape character and key characteristics.	Level of effect:	Minor/Negligible to No Effect	Type of effect:	Short-term duration (temporary) and neutral
Level of effect:	Minor/Negligible to No Effect				
Type of effect:	Short-term duration (temporary) and neutral				

Table 8C.45: Landscape Assessment for LCA SLV3 St Helens Terraces

Figures: 8.8 and 8.38		
LCA hierarchy:	National Character Area	NCA 56 Lancashire Coal Measures
Landscape Designations:	None but adjacent to conservation area in adjoining LCA	
Administrative area:	St Helens	
Character description:	The Proposed Development passes south of LCA SLV3 St Helens Terraces, this is the one of three LCAs within the Settled Low-lying Valley LCT. The key landscape characteristics of the LCT are detailed below taken from the <i>Landscape Character Assessment for St Helens</i>⁵. <u>Key characteristics (LCT):</u> • “Within subtle valley ‘bowl’ or on the immediate gentle slopes of broad low lying valley giving a sense of containment and enclosure to the landscape; • High density urban built form dominates land use and predominantly radiates from the lower lying central core. Settled side valleys and upper slopes mean strong intervisibility to adjacent settled landscapes and views are typically to built visual horizons; • Mixture of building styles and materials, but strong medieval and historic industrial presence in form of road layout and buildings, giving a ‘core’ character and in places strong sense of townscape character; • Dense street structure in many locations, which movement through and views into the surrounding townscape, with most views framed by adjacent townscapes which reinforces the sense of enclosure; • High vitality of core landscape from densely populated residential areas and busy core landscape with movement and noise; • Close juxtaposition to industrial areas, with strong intervisibility to vertical chimneys and gasometers to aid orientation within enclosed street network.”⁵ <u>Area Description (LCA)</u>	

- *“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 road 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*

	<u>Judgement about Potential to Accommodate Development</u> <i>“1. 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</i>		
Assessment of sensitivity	<u>Landscape value:</u> 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. <u>Landscape susceptibility:</u> 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 Proposed Development, being of short-term and temporary duration (apart from the permanent above ground infrastructure of the St Helens HAGI), the landscape susceptibility to this type of development is reduced. The Landscape Character Assessment for St Helens⁵ defines the overall landscape sensitivity of the LCA as ‘Medium to High’ due to <i>“The scale, proportions and repetition of the historic street structure and architecture”⁵</i>. The study also considers the visual characteristics of the LCA and notes <i>“Little intervisibility to other areas as a result of the dense residential fabric. Occasionally long views to the town centre buildings and landmarks”⁵</i>. The overall susceptibility of the landscape to the Project is assessed as Medium.		
Sensitivity	Medium	Landscape value:	Medium
		Landscape susceptibility:	Medium
Magnitude of change			

Pipeline (North Corridor and St Helens Spurs)	Construction phase: Figure 8.8, Volume 3 shows the LVIA study area for the North Corridor of the pipeline coinciding with the SLV2 St Helens Retail Ring LCA. The pipeline corridors follow the routes of a number of roads in the adjoining UIV3 Ravenhead LCA to the south at a minimum separation distance of approximately 720m, Construction activity along the North Corridor and 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 high levels of 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
	Operation and maintenance (Year 1) phase: The pipeline corridor would be reinstated with no lasting effects on the landscape features in the restricted outward views from within the LCA. Any infrequent maintenance surveys which may be required on foot (line walking) over the route of the pipeline would have no characterising influence. Consequently, there would be a Zero magnitude of change on landscape character and key characteristics within this LCA.	
	Level of effect:	No Effect
	Type of effect:	N/A
Temporary construction accesses (None within the LCA)	Construction phase: There would be no access requirements within this LCA. Any increase in traffic along the arterial road network in the LCA, would not be discernible due to the high proportion of intervening built form. The access points at NH-60 and NH-61 as well as construction traffic using Burtonhead Road to access the St Helens HAGI would similarly not be perceived from within this LCA. The magnitude of change would be Zero.	
	Level of effect:	No Effect
	Type of effect:	N/A
St Helens HAGI (Figure 8.38)	Construction phase: The St Helens HAGI is sited on open grass and scrub directly off Burtonhead Road and to the rear of the Ravenhead Retail Park. This would be located beyond the LCA'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. The high proportion of intervening built form between the LCA and the HAGI and its associated construction compound, including the large-scale retail units within the Ravenhead Retail Park to the north of the HAGI, together with a minimum separation distance of 910m means that south-westerly views 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 St Helens HAGI would be approximately 1ha in area, 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. Illustrative examples of a layout, and photographic examples of operational schemes are contained in Chapter 2, Volume 2 . The separation distance (a minimum of 910m) and presence of intervening screening elements (including large-scale built form) means that the effect on the landscape character and key characteristics would be Zero.	
	Level of effect:	No Effect
	Type of effect:	N/A
Limitations / assumptions	1. No account of any potential landscape mitigation near the perimeter of the HAGI site has been accounted for and is pending further design maturity. A Year 15 assessment following construction would be included in the Environmental Statement.	
Overall assessment	Construction phase: Collectively the construction works involving the underground pipeline (North Corridor and St Helens Spurs), the St Helens HAGI 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. Overall, the magnitude of change on the LCA would be Zero.	
	Level of effect:	No Effect
	Type of effect:	N/A
	Operation and maintenance (Year 1) phase: There would be No Effect on the landscape character and key characteristics.	

Table 8C.46: Landscape Assessment for LCA UIV2 Sutton Brook

Figures: 8.8 and 8.38		
LCA hierarchy:	National Character Area	NCA 56 Lancashire Coal Measures
Landscape Designations:	None	
Administrative area:	St Helens	
Character description:	The Proposed Development passes through the west of LCA UIV2 Sutton Brook, this is the one of three LCAs within the Urban Industrial Valley LCT. The key landscape characteristics of the LCT are detailed below taken from the <i>Landscape Character Assessment for St Helens</i>⁵. <u>Key characteristics (LCT):</u> • “Typically low lying broad valley landscapes within the ‘bowl’ of St Helens located in landforms ranging from 20 to 40 metres AOD. Although in some instance large scale landform remodelling has been undertaken to facilitate the construction of large industrial blocks. This has created a series of locally prominent artificial slopes with unnatural straight edges and steep angles; • Land use primarily defined by series of large scale industrial buildings and warehouses which have a uniform bland character typically of a ‘block’ shape with generally muted colours and a lack of architectural detail which gives a reduced experience of scale of the development. Industrial buildings associated with range of chimney and gasometer vertical features which skyline on the townscape horizon and create important local and regional landmarks given their prominence; • The scale of development and the irregular arrangement of buildings gives the appearance of incremental development with lack of strong landscape framework and can give a ‘cluttered’ and complex built form which is difficult to orientate around; • Lack of orientation is reinforced by the limited views out from the industrial landscape to adjacent areas due to the low lying valley location and the scale of the buildings blocking views; • Open space surrounding buildings is primarily given over to infrastructure and servicing of the buildings in hard landscape. Wide roads and car parking surround the buildings and remnants of ‘green’ landscape area invariably maintained grass verges with a limited number of trees and shrubs.	

Some remnant field patterns with neglected hedgerows and some limited pioneer species area also present in awkward corners, but area dwarfed by the scale of the buildings;

- *Often estates are in close proximity to large scale infrastructure including dualled roads, railway networks and pylon lines;*
- *Lighting of areas in particular dominant industrial blocks and chimneys create significant and visually dramatic night time urban horizon;*
- *Large scale building scan create a harsh microclimate with 'wind tunnels' created between the buildings and extensive shadowing from the high warehouses, which in turn can reinforce the perception of a barren landscape*
- *Within the broader overriding large scale industrial built form, pockets of dense pre-war industrial terraced housing exist. The small scale and dense built form of the terraces provide a pronounced contrast in scale when set against the wider industrial landscape, and impose a strong sense of identity.”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

“1. 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 southeast 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*

	<i>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.</i>		
Sensitivity	Medium - Low	Landscape value:	Medium - Low
		Landscape susceptibility:	Low
Magnitude of change			
Pipeline (North Corridor and Clock Face)	Construction phase: Figure 8.8, Volume 3 shows the St Helens Spur (Pilkingtons NGF Spur 2) of the pipeline within the LVIA study area and UIV2 Sutton Brook LCA. The St Helens Spur pipeline would skirt the western boundary of the LCA as it passes along the A570, St Helens Linkway and terminates to the south of the Saints Retail Park access road. The pipeline construction would be an open cut to the west of the St Helens Linkway but would cross the road on an open cut, enter an undeveloped area of the retail park. The construction works would appear similar to utilities roadworks in the urban area. The working width of the pipeline corridor would be up to approximately 15m, comprising site fencing, open cut pipeline trench with adjacent material storage area, associated construction machinery, internal haul road, and soil storage as indicated in Chapter 2, Volume 2. 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 High-Medium when experienced locally to the construction works (within the same road or ~200m) reducing to Low or less from the wider LCA, where the pipeline corridor would be less visible due to distance and the built environment. The open cut sections comprising the majority of the pipeline corridor may require the removal of occasional street trees within the red line boundary along St Helens Linkway. The localised removal of trees and shrubs would appear as a break in the pattern of roadside vegetation. The potential loss of localised trees on the boundary of this LCA would be partially mitigated by replacement of planting in-situ, following the construction phase as recorded in the Year 1 assessment below. The magnitude of change likely to affect the landscape character, key characteristics and elements would range from High-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:	Pipeline corridor – Major/Moderate to Moderate and potentially locally Significant (where the pipeline is visible) and Negligible and Not Significant to None 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 pipeline corridor and associated storage compound would all be reinstated with no lasting effects on the streetscape. The loss of some limited sections of roadside trees would be mitigated by replacement planting outside the easement. Consequently, there would be a Very Low to Zero magnitude of change on landscape character and key characteristics and a predicted Low magnitude of change on landscape elements until replacement planting is established.	
	Level of effect:	Pipeline corridor and storage compound – Negligible and Not Significant (Minor-Negligible) and Not Significant where replanted street trees are establishing
	Type of effect:	Permanent and neutral.
Temporary construction accesses (A570, St Helens Linkway, NH61)	Construction phase: <u>Temporary construction access options: Elton Head Road and Sherdley Road:</u> All construction access for the pipeline would utilise the existing road network within the pipeline corridor. Some limited street tree removal may be required to accommodate the works, but this is unlikely to significantly affect the landscape character or elements in these locations. Further details would be provided in the Environmental Statement where an arboricultural assessment to BS 5837 would be submitted. 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 potential temporary partial road closure, movement of construction vehicles and localised removal of vegetation to accommodate pipeline works would appear similar to utilities works in the urban surroundings and would potentially be up to a High-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 potentially locally Significant to be clarified in the Environmental Statement following provision of more detailed construction traffic information.
	Type of effect:	Short-term duration (temporary), direct and adverse.
St Helens HAGI (Figure 8.38)	Construction phase:	

	Temporary construction: The St Helens HAGI is sited on open grass and scrub directly off Burtonhead Road and to the rear of the Ravenhead Retail Park. This would be located beyond the LCA's boundary although its study area coincides with this receptor unit. The high proportion of intervening built form including large retail units and roadside vegetation between the LCA and the HAGI and its associated construction compound, together with a minimum separation distance of ~200m means that views towards the HAGI 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 St Helens 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. Illustrative examples of a layout, and photographic examples of operational schemes are contained in Chapter 2, Volume 2. The separation distance (a minimum of ~200m) and presence of intervening screening elements (including large-scale built form and vegetated roadsides) means that the effect on the landscape character and key characteristics would be Zero.	
	Level of effect:	No Effect
	Type of effect:	N/A
Limitations / assumptions	1. Assessments related to landscape elements and in particular tree / vegetation loss are estimated pending the arboriculture survey and further design maturity that would be outlined in the Environmental Statement. 2. It has been assumed that hedgerows and trees lost to provide temporary construction access would be reinstated with new planting where possible post-construction i.e. where they do not lie in easements. 3. It is assumed that St Helens Spur would cross the A570 St Helens Spur using an open cut method.	
Overall assessment	Construction phase: Collectively the construction works involving the underground pipelines, temporary storage compounds and construction access options routed through the UIV2 Sutton Brook LCA would lead to a moderate scale of development, continuing for the construction phase (6-12 months). Roadside vegetation, whilst intermittent in nature would combine with the surrounding built environment 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-Medium magnitude of change in close proximity to the pipeline corridor. Some localised losses of hedgerows and hedgerow trees can be largely reinstated following completion of the construction phase.	
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.
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 to Negligible (Not Significant) effects relating to mitigation street tree replanting which at Year 1 are likely to be young plants of limited height and volume.	

Table 8C.47: Landscape Assessment for LCT Mossland

Figures: 8.11, 8.40 and Viewpoint P2 (Figure 8.59)		
LCA hierarchy:	National Character Area	NCA 55 Manchester Conurbation and NCA 60 Mersey Valley
Landscape Designations:	None	
Administrative area:	Trafford	
Character description:	The Proposed Development passes through the western half of LCT Mossland. The key landscape characteristics of the LCT are detailed below taken from a <i>Trafford Metropolitan Borough Landscape Strategy</i>⁶⁷. <u>Key characteristics (LCT):</u> • “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;	

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 28 June 2022).

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.

- *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 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, the chemical works to the north (which partially extends into the LCT and are described as *“large Petro-Chemical works, which overshadow the rural areas and dominate the visual outlook”⁶*) and brownfield land associated with the 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 Strategy⁶* 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	Overall sensitivity: Medium	Landscape value:	Medium to Low
		Landscape susceptibility:	High to Medium
Magnitude of change			
Pipeline (East Corridor pipeline and Partington Spur) (	Construction phase: Figure 8.11, Volume 3 shows the East Corridor of the pipeline crossing this LCT within a construction corridor comprising site fencing, open cut pipeline trench with adjacent material storage area, associated construction machinery, internal haul road, and soil storage as indicated in Chapter 2, Volume 2. The pipeline corridor would pass through an open agricultural field before continuing northwards along the edge of an existing track or 'Ride'. Once beyond the former railway line, the route would head north-west across brownfield land towards the Partington HAGI. The construction activities along this section of pipeline corridor may include the localised removal of trees and shrubs from along the route of the 'Ride' whilst the Bassel Polyfins spur would also require the removal of vegetation from along two linear belts of trees / shrubs. 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. 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 the same field unit or ~500m), reducing to Medium-Low or less from the wider LCT, where the pipeline corridor would appear contained within the large-scale nature of the open fields. Beyond ~500m from the construction activity, the works would appear similar to works associated with periodic agricultural activity taking place across the arable farmed Mossland. Visibility would be partly limited in some places by field boundary and 'Ride' vegetation and tree cover whilst the disturbance and increased levels of noise and movement associated with the construction activities would locally disrupt perceptions of remoteness and tranquillity found locally 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 elsewhere within the LCT.		

	Level of effect:	Pipeline corridor – Major/Moderate and Significant to Minor 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 pipeline corridor would be reinstated with no lasting effects on the agricultural field. The loss of some limited sections of tree and shrub vegetation from along the north-south aligned 'Ride' would however be permanent although partly mitigated by replacement planting of shrubs/small trees within the remainder of the corridor, outside of the easement (i.e. not directly on top of the pipeline). Consequently, there would be a Very Low to Zero magnitude of change on landscape character and key characteristics and a predicted Low magnitude of change on landscape elements until replacement planting is established.	
	Level of effect:	Pipeline corridor: Minor to No Effect and Not Significant
	Type of effect:	Permanent, direct and adverse
Temporary construction accesses (None within the LCT)	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 (Figure 8.40)	Construction phase: A temporary construction compound would be located to the immediate north of the Partington HAGI site on brownfield land south of Common Lane, comprising hard standing and regenerated grassland / scrub. The HAGI is also located on brownfield land. The construction period would be 6-12 months. Given the brownfield context and limited loss of landscape elements, 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 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 magnitude of change would be Low reducing 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 to Minor/Negligible/No Effect 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 Partington 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. Illustrative examples of a layout, and photographic examples of operational schemes are contained in Chapter 2, Volume 2 . 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 HAGI which comprises brownfield land with limited public access and similar types of fenced compounds (i.e the existing Partington National Grid 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/No Effect and Not Significant
	Type of effect:	Permanent, direct and adverse.
Limitations / assumptions	1. Assessments related to landscape elements and in particular tree / vegetation loss are estimated pending the arboriculture survey and further design maturity that would be outlined in the Environmental Statement. 2. It has been assumed that hedgerows and trees lost to provide temporary construction access would be reinstated with new planting where possible post-construction i.e. where they do not lie in easements. 3. No account of any potential landscape mitigation near the perimeter of the HAGI sites has been accounted for and is pending further design maturity. A Year 15 assessment following construction would be included in the Environmental Statement.	
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 (6-12 months). Overall the magnitude of change on the LCT would be Low to Very Low with localised areas experiencing up to a High-Medium magnitude of change in close proximity to the pipeline corridor. 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.
	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 Minor to Minor Negligible and Not Significant	

Table 8C.48: Landscape Assessment for LCT Settled Sandlands

Figures: 8.11, 8.39 and Viewpoints W1 (Figure 8.71), W2 (Figure 8.72), W3 (Figure 8.73) and W4 (Figure 8.74)		
LCA hierarchy:	National Character Area	NCA 55 Manchester Conurbation and NCA 60 Mersey Valley
Landscape Designations:	None but conservation area at Dunham Woodhouses	
Administrative area:	Trafford	
Character description:	The Proposed Development passes through the centre of LCT Settled Sandlands. The key landscape characteristics of the LCT are detailed below taken from <i>Trafford Metropolitan Borough Landscape Strategy</i>⁶. <u>Key characteristics (LCT):</u> • “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; and • The presence of several watercourses and ponds;”⁶ <u>Strategy Statement</u> “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	<u>Landscape value:</u> 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 “ <i>one of the largest remaining high quality rural areas within Trafford's Borough</i> ” 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.		
	<u>Landscape susceptibility:</u> The <i>Trafford Metropolitan Borough Landscape Strategy</i> 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 trees 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 “ <i>relatively few changes</i> ” 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	Overall sensitivity: Medium	Landscape value:	Medium
		Landscape susceptibility:	Medium
Magnitude of change			
Pipeline (East Corridor pipeline and Warburton Spur)	Construction phase: Figure 8.11, Volume 3 shows the East Corridor of the pipeline crossing the Settled Sandlands LCT. The pipeline corridor crosses several arable and pasture fields, passing through field boundaries comprising ditches and hedgerows with hedgerow trees. The open cut sections would cross a maximum of four ditches and eight locations where the field boundaries are defined by hedgerows with occasional trees. The Trans		

Pennine Trail would also be crossed using an open cut technique. 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 potential loss of localised trees and hedgerows in this LCT would be partially mitigated by replacement of planting in-situ, following the construction phase as recorded in the Year 1 assessment below. Two small watercourses; the Sinderland Brook and Caldwell Brook, would also be crossed by the pipeline corridor within this LCT using open cut installation which may involve either by fluming or damming of the watercourses to facilitate access. A temporary crossing point would be required over the brooks and would typically involve the installation of a temporary ‘bailey’ type bridge with support bases on either side, typically aggregate or stone. 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.

The pipeline corridor comprising site fencing, open cut pipeline trench with adjacent material storage area, associated construction machinery, internal haul road, and soil storage as indicated in **Chapter 2, Volume 2**. 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 ~500m) 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. Beyond ~500m from the construction activity, the works would appear similar to works associated with periodic agricultural activity.

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:	Pipeline corridor– 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.

Operation and maintenance (Year 1) phase:

The pipeline corridor and associated temporary pipe storage compounds would all be reinstated with no lasting effects on the arable and pasture fields or the banks and courses of the Sinderland and Caldwell Brooks. The loss of some limited sections of hedgerow and hedgerow trees within a narrow easement directly above the pipeline route at eight locations would however be permanent, although partly mitigated by

	replacement planting of hedgerow / trees within the remainder of the corridor, outside of the easement. Consequently, there would be a Very Low to Zero magnitude of change on landscape character and key characteristics and a predicted Low magnitude of change on landscape elements until replacement planting is established.	
	Level of effect:	Pipeline corridor– Minor / Negligible and Not Significant
	Type of effect:	Permanent and neutral.
Temporary construction accesses (EH42, EH-43, EH-44, EH-45, Eh-46, EH-47, EH-48, EH-49 and EH-50)	Construction phase: <u>Temporary construction access: Moss Lane/Covershaw Lane/Sinderland Road (EH-49 and EH-50), Sawpit Street (EH-47 and EH-48), B5160 (EH-45 and EH-46) Cargreen Lane (EH42, EH-43 and EH-44).</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. Where required roads would need to be widened up to 8m in width. Some limited tree removal and or coppicing / pruning may be required to allow for visibility splays, but this is unlikely to significantly affect the landscape character or elements (hedgerows and hedgerow trees) in these locations. Further details would be provided in the Environmental Statement where an arboricultural assessment to BS 5837 would be submitted. Access would be required for the duration of the construction phase (6-12 months) within the LCT 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 road widening and visibility splays would potentially be up to a High 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 to Minor and Not Significant elsewhere within the wider LCT.
	Type of effect:	Short-term duration (temporary), direct and adverse.
Warburton HAGI (Figure 8.39)	Construction phase: <u>A temporary construction compound would be located to the west of the Warburton HAGI site, on an agricultural field between Cargreen Lane and the B5160. The Warburton HAGI would be sited on an agricultural field between the Trans Pennine Way and the B5160, close to the Warburton National Grid AGI Facility. Tree cover along the perimeter of both fields would be retained and protected. The temporary compound, which could be present for 6-12 month, 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. Lighting</u>	

	would be required during the hours of darkness for operational activity (typically in winter) and may also be required for security with the lighting design seeking to minimise light spill outside of the compound. Temporary earth bunds and/or solid hoarding to the perimeter of the compound would minimise visibility of activity and structures within it. 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.
Level of effect:	Major/Moderate and Significant within the vicinity of the temporary construction compound and HAGI 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 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. Illustrative examples of a layout, and photographic examples of operational schemes are contained in Chapter 2, Volume 2. The open roadside boundary with the B5160 and partially open boundary with Cargreen Lane means that intervisibility with the HAGI would be experienced from within and would contrast with the rural landscape to the north and west with limited intervisibility from the south and east due to vegetative screening. 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 potentially Significant within the local vicinity of the HAGI and Not Significant elsewhere within the wider LCT.
Type of effect:	Permanent, direct and adverse
Limitations / assumptions	1. Assessments related to landscape elements and in particular tree / vegetation loss are estimated pending the arboriculture survey and further design maturity that would be outlined in the Environmental Statement. 2. It has been assumed that hedgerows and trees lost to provide temporary construction access would be reinstated with new planting where possible post-construction i.e. where they do not lie in easements.

	3. No account of any potential landscape mitigation near the perimeter of the HAGI sites has been accounted for and is pending further design maturity. A Year 15 assessment following construction would be included in the Environmental Statement.	
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 pipe storage areas within the LCT would represent a moderate scale development continuing for the duration of the construction phase (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 HAGI. 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 hedgerow which lie within the pipeline easement (i.e directly above the pipeline).	
	Level of effect:	Minor or less and Not Significant with localised areas of Major/Moderate and Significant effects close to the pipeline corridor, and construction compounds and Warburton HAGI and along construction access routes which need widening
	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 Minor/Negligible and Not Significant with one localised area in the vicinity of the Warburton HAGI resulting in Moderate effects that would be potentially Significant .	

Table 8C.49: Landscape Assessment for LCT Urban River Valley

Figures: 8.11, 8.40 and Viewpoint P3 (Figure 8.60)		
LCA hierarchy:	National Character Area	NCA 60 Mersey Valley
Landscape Designations:	None	
Administrative area:	Trafford	
Character description:	The Proposed Development passes through a very small proportion of LCT Urban River Valley. The key landscape characteristics of the LCT are detailed below taken from a <i>Trafford Metropolitan Borough Landscape Strategy</i>⁶. <u>Key characteristics (LCT):</u> • “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; and • Few distinguishing built features, a secluded character in parts.”⁶ <u>Strategy Statement</u> “1. 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	<u>Landscape value:</u>	

	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 whilst the Manchester Ship Canal and remnant woodland and occasional pastoral 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 PRowWs are present, including the locally promoted Partington Nature Reserve Trail⁸ but no long-distance footpaths or national/regional cycle routes. The overall landscape value is assessed as Low. <u>Landscape susceptibility:</u> The only direct (physical) changes to this LCA as a consequence of the Project would be in relation to a short length of the SAICA Spur and pigging compound within the boundary of the SAICA Paper Mill. 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	Overall sensitivity: Low	Landscape value:	Low
		Landscape susceptibility:	Low
Magnitude of change			
Pipeline (East Corridor and Partington Spurs	Construction phase: Figure 8.11, Volume 3 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. The pipeline corridors would comprise site fencing, open cut pipeline trench with adjacent material storage area, associated construction machinery, internal haul roads (E2-E12), and soil storage as indicated in Chapter 2, Volume 2.		

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).

	This would also involve a single major trenchless crossing of the A6144 close to the south-eastern corner of the SAICA Paper Mill. Construction activity 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 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. A short length of the SAICA, Partington spurline falls within the LCT including the construction activities associated with a pigging facility at SIACA. The working corridor would be aligned within a wide grass verge within the fenced boundary of the SAICA Paper Mill access via an internal road. The presence of dense woodland to the south of this route would restrict intervisibility from the Partington Nature Reserve Trail to the south. Effects would be highly localised within a narrow (less than 50m wide) corridor between the woodland to the south and the large-scale SAICA Paper Mill building to the north. The magnitude of change likely to affect the landscape character, key characteristics and elements would range from Medium (in respect of landscape elements and LCT within and adjacent to the SAICA, Partington spur pipeline corridor) to Very Low and Zero elsewhere within the LCT.		
	<table border="1"> <tr> <td>Level of effect:</td><td>Pipeline corridor: Minor and Not Significant within the Partington spur pipeline corridor to Negligible/No Effect and Not Significant elsewhere within the wider LCT.</td></tr> </table>	Level of effect:	Pipeline corridor: Minor and Not Significant within the Partington spur pipeline corridor to Negligible/No Effect and Not Significant elsewhere within the wider LCT.
Level of effect:	Pipeline corridor: Minor and Not Significant within the Partington spur pipeline corridor to Negligible/No Effect and Not Significant elsewhere within the wider LCT.		
	<table border="1"> <tr> <td>Type of effect:</td><td>Short-term duration (temporary), direct and adverse</td></tr> </table>	Type of effect:	Short-term duration (temporary), direct and adverse
Type of effect:	Short-term duration (temporary), direct and adverse		
	Operation and maintenance (Year 1) phase: The pipeline corridor would all be reinstated with no lasting effects on the landscape character within the LCT. The pigging facilities include above ground pipework as well as operating equipment including valves which would involve infrequent access. The small scale of the pigging facility and its landscape context means that the magnitude of change would be Very Low to Zero and infrequent light vehicles would be indistinguishable from general traffic on the local road network.		
	<table border="1"> <tr> <td>Level of effect:</td><td>Negligible/No Effect and Not Significant.</td></tr> </table>	Level of effect:	Negligible/No Effect and Not Significant.
Level of effect:	Negligible/No Effect and Not Significant.		
	<table border="1"> <tr> <td>Type of effect:</td><td>Short-term duration (temporary), direct and neutral.</td></tr> </table>	Type of effect:	Short-term duration (temporary), direct and neutral.
Type of effect:	Short-term duration (temporary), direct and neutral.		
Temporary construction accesses None within the LCT	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 and EH-52 close to the SAICA Paper Mill. Access would continue via Common Lane (E2-E12) beyond the LCT's boundary. Where required, roads would need		

	to be widened up to ~8m. although as a strategic 'A' classified road this is unlikely to be required. Some limited tree removal and or coppicing / pruning may be required to allow for visibility splays at EH-51 and EH-52, but this is unlikely to significantly affect the landscape character or elements in these locations. Any increase in traffic along the A6144 is unlikely to be readily perceived from within this LCT, where baseline levels of tranquillity are also likely to be low. The magnitude of change would be Very Low to Zero.	
	Level of effect:	Negligible to No Effect and Not Significant.
	Type of effect:	Short-term duration (temporary), indirect and adverse
Partington HAGI (Figure 8.40)	Construction phase: The Partington HAGI 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 Partington HAGI would be approximately 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. Illustrative examples of a layout, and photographic examples of operational schemes are contained in Chapter 2, Volume 2 . The separation distance and presence of intervening screening elements (including large-scale built form) means that the effect on the landscape character and key characteristics of this LCT would be Very Low to Zero.	
	Level of effect:	Negligible to No Effect
	Type of effect:	N/A

Limitations / assumptions	1. Assessments related to landscape elements and in particular tree / vegetation loss are estimated pending the arboriculture survey and further design maturity that would be outlined in the Environmental Statement. 2. It has been assumed that hedgerows and trees lost to provide temporary construction access would be reinstated with new planting where possible post-construction i.e. where they do not lie in easements. 3. No account of any potential landscape mitigation near the perimeter of the HAGI sites has been accounted for and is pending further design maturity. A Year 15 assessment following construction would be included in the Environmental Statement.
Overall assessment	Construction phase: Collectively the construction works involving the underground pipeline (SAICA, Partington spur pipeline and pigging facility) within the LCT, and the presence of construction access routes, HAGI construction compound and further 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 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: 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.
	Operation and maintenance (Year 1) phase: The effect on the landscape character and key characteristics overall would be Negligible and Not Significant to No Effect

Table 8C.50: Landscape Assessment for LCT River Meadowlands

Figures: 8.10 and 8.39		
LCA hierarchy:	National Character Area	NCA 60 Mersey Valley
Landscape Designations:	None	
Administrative area:	Trafford	
Character description:	The Proposed Development passes through the centre of LCT River Meadowlands. The key landscape characteristics of the LCT are detailed below taken from <i>Trafford Metropolitan Borough Landscape Strategy</i>⁶. <u>Key characteristics (LCT):</u> • <i>“Low-lying topography associated with a flat alluvial floodplain;</i> • <i>Meandering watercourse, not visually prominent due to the slightly sunken position within the flat topography;</i> • <i>Medium scale pastoral landscape with patches of wet grassland;</i> • <i>Semi-regular enclosure pattern marked by thorn hedgerows and post and wire fences;</i> • <i>Open often distant views along the floodplain, views north and south controlled by the rising ground beyond the floodplain;</i> • <i>Secluded character with the occasional building; and</i> • <i>Marginal aquatic vegetation with occasional fringing trees and scrub.”</i>⁶ <u>Strategy Statement</u> <i>“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.”</i>⁶	
Assessment of sensitivity	<u>Landscape value:</u> 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. <u>Landscape susceptibility:</u> The <i>Trafford Metropolitan Borough Landscape Strategy</i> 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	Overall sensitivity: Medium	Landscape value:	Medium
		Landscape susceptibility:	High to Medium
Magnitude of change			
Pipeline (East Corridor pipeline)	Construction phase: Figure 8.10, Volume 3 shows the East Corridor of the pipeline crossing this narrow LCT within a construction corridor comprising site fencing, open cut pipeline trench with adjacent material storage area, associated construction machinery, internal haul road, and soil storage as indicated in Chapter 2, Volume 2 . The River Bollin would also be crossed using open cut installation which may involve either by fluming or damming of the watercourse to facilitate access to the riverbed. A temporary crossing point would be required over the river and would typically involve the installation of a temporary 'bailey' type bridge with support bases on either side, typically aggregate or stone. The pipeline corridor would then continue northwards 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 (less than 300m of pipeline crosses this LCT) with progressive backfill and reinstatement as works are completed along the route. Beyond the LCTs boundary, two pipe storage areas would be located close to the Warburton HAGI temporary construction		

	compound approximately 300m to the north of the LCT at the closest point. The tree cover along the southern edge of the field allocated for the pipe storage areas and along the intervening former railway line which now hosts the Trans Pennine Trail would provide partial filtering of views of pipes stacked to a height of 4m for up to 6 months from within this LCT. The scale and geographical extent of these construction activities would give rise to a Medium magnitude of change when experienced locally to the construction works (within the same field unit or ~500m), reducing to Low or less from the wider LCT, where the pipeline corridor would appear contained within the large-scale nature of the open fields. Beyond ~500m from the construction activity, the works would appear similar to works associated with periodic agricultural activity. 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 Medium (in respect of landscape elements and LCT within and adjacent to the pipeline corridor) to Low elsewhere within the LCT.				
	<table> <tr> <td>Level of effect:</td><td>Pipeline corridor Moderate and Significant to Minor and Not Significant elsewhere within the wider LCT.</td></tr> <tr> <td>Type of effect:</td><td>Short-term duration (temporary), direct and adverse.</td></tr> </table>	Level of effect:	Pipeline corridor Moderate and Significant to Minor and Not Significant elsewhere within the wider LCT.	Type of effect:	Short-term duration (temporary), direct and adverse.
Level of effect:	Pipeline corridor Moderate and Significant to Minor 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 pipeline corridor would all be reinstated with no lasting effects on the course and banks of the River Bollin or the pasture field to the north. Consequently, there would be a Very Low to Zero magnitude of change on landscape character and key characteristics at Year 1 and a predicted Very Low magnitude of change on landscape elements until replacement planting is established after which the magnitude of change would become Zero.				
	<table> <tr> <td>Level of effect:</td><td>Pipeline corridor: Minor/Negligible to No Effect and Not Significant</td></tr> <tr> <td>Type of effect:</td><td>Permanent, direct and adverse</td></tr> </table>	Level of effect:	Pipeline corridor: Minor/Negligible to No Effect and Not Significant	Type of effect:	Permanent, direct and adverse
Level of effect:	Pipeline corridor: Minor/Negligible to No Effect and Not Significant				
Type of effect:	Permanent, direct and adverse				
Temporary construction accesses (None within the LCT)	Construction phase: <u>Temporary construction access:</u> There would be no access requirements within this LCT. The closets access points (EH-42 to EH-46) are all located beyond the boundary of the LCT and any loss of vegetation associated with the construction of these access point would not be perceived from within this landscape. The increase in 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 to No Effect and Not Significant
	Type of effect:	Short-term duration (temporary), indirect and adverse
Warburton HAGI (Figure 8.39)	Construction phase: A temporary construction compound for the Warburton HAGI would be located close to the National Grid Above Ground Installation (AGI) facility at Carrgreen Lane. 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 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 earth bunds and / or 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. Construction traffic may be similar to farm vehicles and road traffic along the adjoining B5160 and is unlikely to have a notable characterising influence from within this LCT located to the south. 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 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 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. Illustrative examples of a layout, and photographic examples of operational schemes are contained in Chapter 2, Volume 2 . The separation distance (a minimum of 490m) 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
Limitations / assumptions	1. Assessments related to landscape elements and in particular tree / vegetation loss are estimated pending the arboriculture survey and further design maturity that would be outlined in the Environmental Statement. 2. It has been assumed that hedgerows and trees lost to provide temporary construction access would be reinstated with new planting where possible post-construction i.e. where they do not lie in easements. 3. No account of any potential landscape mitigation near the perimeter of the HAGI sites has been accounted for and is pending further design maturity. A Year 15 assessment following construction would be included in the Environmental Statement.	
Overall assessment	Construction phase: Collectively the construction works involving the underground pipeline (East Corridor) within the LCT, and the presence of construction access routes, HAGI construction compound and pipe storage areas to the north, beyond the LCT's boundary would represent a moderate scale development continuing for the duration of the construction phase (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 Medium magnitude of change in close proximity to the pipeline corridor, particularly where it crosses the River Bollin. The course and banks of the river and neighbouring pasture land use 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.
	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 Minor/Negligible and Not Significant to No Effect .	

Table 8C.51: Landscape Assessment for LCT Wooded Estatelands

Figures: 8.10 and 8.39		
LCA hierarchy:	National Character Area	NCA 60 Mersey Valley
Landscape Designations:	None	
Administrative area:	Trafford	
Character description:	The Proposed Development passes to the west of LCT Wooded Estatelands. The key landscape characteristics of the LCT are detailed below taken from <i>Trafford Metropolitan Borough Landscape Strategy</i>⁶. <u>Key characteristics (LCT):</u> • “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 <u>Strategy Statement</u> “1. 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	<u>Landscape value:</u>	

	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 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. <u>Landscape susceptibility:</u> 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 Proposed Development, 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	Overall sensitivity: Medium	Landscape value:	Medium
		Landscape susceptibility:	Medium to Low
Magnitude of change			

Pipeline (East Corridor pipeline)	Construction phase: Figure 8.10, Volume 3 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. This section of East Corridor includes a pipe storage area within a field to the west of the pipeline corridor at a distance of 960m accessed via the B5160, beyond the boundary of the LCT. The pipeline corridor comprising site fencing, open cut pipeline trench with adjacent material storage area, associated construction machinery, internal haul roads (E2-E12), and soil storage as indicated in Chapter 2, Volume 2 . 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 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 LCA. 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 LCA the magnitude of landscape change would commonly be Zero.	
	Level of effect:	Pipeline and pipe storage area – 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 East Corridor of the pipeline and associated pipe storage area would all be reinstated with no lasting effects on the landscape features in the restricted outward views from within the LCT. Any infrequent maintenance surveys which may be required on foot (line walking) over the route of the pipeline would have no characterising influence. Consequently, there would be a Zero magnitude of change on landscape character and key characteristics within this LCA.	
	Level of effect:	No Effect
	Type of effect:	N/A
Temporary construction	Construction phase:	

accesses (A56 and B5160)	Access requirements within this LCT include the use of the A56 and B5160 as 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. As existing parts of the strategic road network, it is anticipated that the widening of roads up to a width of 8m is unlikely to be required. 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 to No Effect and Not Significant
Type of effect:	Short-term duration (temporary), direct and adverse
Warburton HAGI (Figure 8.39)	Construction phase: A temporary construction compound would be sited to the west of the Warburton HAGI, beyond the LCT's boundary. 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. The presence of internal tree cover within the area of LCT which coincides within the HAGI study area, allied with intervening tree cover and a small proportion of built form between the LCT and the HAGI and its associated construction compound and minimum separation distance of 940m means that south-easterly views would be heavily restricted. The magnitude of change would be Very Low and commonly 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 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. Illustrative examples of a layout, and photographic examples of operational schemes are contained in Chapter 2, Volume 2. The separation distance (a minimum of 940m) and presence of intervening screening elements (both vegetative and built form) including the tree cover to the east of the HAGI means that the effect on the landscape character and key characteristics would be Very Low and commonly Zero. Level of effect: Minor/Negligible to No Effect and Not Significant Type of effect: Permanent, indirect and neutral

Limitations / assumptions	1. No account of any potential landscape mitigation near the perimeter of the HAGI sites has been accounted for and is pending further design maturity. A Year 15 assessment following construction would be included in the Environmental Statement.	
Overall assessment	Construction phase: Collectively the construction works involving the access routes which follow existing highways through or adjacent to the LCT and the presence of HAGI and pipeline corridor beyond the LCT's boundary would represent a small-scale 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 to No Effect and Not Significant 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.
	Operation and maintenance (Year 1) phase: The effect on the landscape character and key characteristics overall would be Minor/Negligible and Not Significant .	

Table 8C.52: Landscape Assessment for LCA 3c Lymm

Figures: 8.10		
LCA hierarchy:	National Character Area	NCA 60 Mersey Valley
Landscape Designations:	None	
Administrative area:	Warrington	
Character description:	The Proposed Development passes within 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 <i>Warrington A Landscape Character Assessment</i>⁹ <u>Key characteristics</u> • <i>Smaller scale, more intimate rural landscape;</i> • <i>Luxuriant hedgerow trees with diverse range of species;</i> • <i>Rolling landscape;</i> • <i>Restricted views; and</i> • <i>Strong feeling of high landscape quality</i>⁹.	
Assessment of sensitivity	<u>Landscape value:</u> 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 “<i>high quality landscape</i>”⁹. The overall landscape value is assessed as Medium. <u>Landscape susceptibility:</u>	

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 30 August 2021).

	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	Overall sensitivity: Medium	Landscape value:	Medium
		Landscape susceptibility:	Medium
Magnitude of change			
Pipeline (East Corridor pipeline)	Construction phase: Figure 8.10, Volume 3 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 pipe 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 and as such, there would be some limited direct landscape effects. The temporary compound 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 (6m). Lighting would be required during the hours of darkness for operational activity typically in winter and may be required for security with the lighting design seeking to minimise light spill outside of the compound. Pipes would be stored up to 4m in height and for a maximum duration of 6 months within the temporary pipe store. 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 ~500m), reducing to Medium-Low or less from the wider LCA, where the temporary trenchless crossing and pipeline storage compounds 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.. Beyond ~500m from the construction activity, the works would appear similar to works associated with periodic agricultural activity.		

	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:	Trenchless crossing and pipe storage compounds – 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.
	Operation and maintenance (Year 1) phase: The temporary compounds would be reinstated with no lasting effects on the host agricultural field. Consequently, there would be a Zero magnitude of change on landscape character and key characteristics within this LCA.	
	Level of effect:	No Effect
	Type of effect:	N/A
Temporary construction accesses	Construction phase: <u>Temporary construction access: B5159, A56 and Agden Park Lane.</u> All construction access for the East Corridor of the pipeline which passes to the east and south of this LCA would utilise the existing road network to join the temporary haul routes within the pipeline corridor. Where required, roads would need to be widened with some vegetation loss to facilitate this widening. Further details would be provided in the Environmental Statement where an arboricultural assessment to BS 5837 would be submitted. 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 road widening would potentially be up to a High magnitude affecting a small geographical area of landscape character in the local vicinity of the temporary construction access routes. This may be lower along the A56 and B5159 where higher levels of traffic movements are likely to be present under baseline conditions and road widening is less likely.	
	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.

Limitations / assumptions	1. Assessments related to landscape elements and in particular tree / vegetation loss are estimated pending the arboriculture survey and further design maturity that would be outlined in the Environmental Statement. 2. It has been assumed that hedgerows and trees lost to provide temporary construction access would be reinstated with new planting where possible post-construction.	
Overall assessment	Construction phase: Collectively the construction works involving the presence of construction access routes and temporary trenchless crossing and pipe storage compounds would represent a small to moderate-scale development continuing for the duration of the construction phase (6-12 months). 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, whilst the loss of short sections of hedgerow and tree cover from along the highway corridor where it requires widening 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, particular those areas in close proximity to the temporary compound and access routes. 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 close to the temporary trenchless crossing and pipe storage compounds and along construction access routes which need widening.
	Type of effect:	Short-term duration (temporary), direct and adverse.
	Operation and maintenance (Year 1) phase: There would be No Effect on the landscape character and key characteristics of this LCA.	

Table 8C.53: Landscape Assessment for LCA 5a River Mersey/Bollin

Figures: 8.5, 8.6, 8.7, 8.10, 8.35, 8.36, Viewpoints HW1 (Figure 8.56) and HW2 (Figure 8.57)		
LCA hierarchy:	National Character Area	NCA 60 Mersey Valley
Landscape Designations:	None	
Administrative area:	Warrington	
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 Proposed Development 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 <i>Warrington: A Landscape Character Assessment</i>⁹. <u>Key characteristics</u> • <i>“The River Mersey and River Bollin;</i> • <i>The Manchester Ship Canal;</i> • <i>Mounded landfill sites;</i> • <i>Slurry and dredging lagoons;</i> • <i>Importance for nature conservation;</i> • <i>Dominance of floodplain crossings (road and rail bridges);</i> • <i>Residual floodplain meadows;</i> • <i>Widespread residential and industrial development on the floodplain;</i> • <i>Artificial levee and channel constraints to the river;</i> • <i>Lack of visual importance of the river (normally screened from views); and</i> • <i>The Mersey Way recreational footpath.”</i>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 Novelis, 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 susceptibility 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	Overall sensitivity: Medium	Landscape value:	Medium
		Landscape susceptibility:	Medium to Low

Magnitude of change

Pipeline (North Corridor with Option NP4, East Corridor and Novelis, Warrington Spur Options WSp1 and WSp2)

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 Novelis, Warrington Spur Options WSp1 and WSp2 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 3 shows the East Corridor of the pipeline crossing a small number of open agricultural fields within a small proportion of LCA 5a River Mersey/Bollin (East) close to its eastern edge. The construction corridor would comprise site fencing, open cut pipeline trench with adjacent material storage area, associated construction machinery, internal haul road, and soil storage as indicated in **Chapter 2, Volume 2**. The corridor would cross through field boundaries comprising hedgerows with hedgerow trees at two locations. The localised removal of trees, shrubs and hedgerow at each of these locations would appear as a break in the field pattern although the potential loss of localised trees and hedgerows would be partially mitigated by replacement of planting in-situ, following the construction phase as recorded in the Year 1 assessment below. The River Bollin and Agden Brook along the boundary of the LCA would also be crossed using open cut installation which may involve either by fluming or damming of the watercourse to facilitate access to the riverbed. A temporary crossing point would be required over the river and would typically involve the installation of a temporary 'bailey' type bridge with support bases on either side, typically aggregate or stone. 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 pipe 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 cover along the southern edge of the field allocated for the pipe storage area and along the intervening former railway line which now hosts the Trans Pennine Trail would provide partial filtering of views of pipes 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**, the assessment assumes that within the far western area to the north of the River Mersey, that the pipeline route would be via the trenchless crossing between the trenchless crossing compound close to Fiddler Ferry Power Station beyond the LCA's boundary and that sited on the southern banks of the River Mersey. Beyond this the construction corridor would be sited across the scrub/woodland/grassland mosaic of the floodplain for either the North Corridor or Option NP4 and would necessitate to localised loss of tree and scrub cover from within the corridor.

To the south of the River Mersey, and in addition to the pipeline corridor, temporary trenchless crossing compounds would be sited at three locations to facilitate the trenchless crossing of the River Mersey and Manchester Ship Canal. These would be located (from west to east) on the southern bank of the River Mersey, on either the northern bank of the Manchester Ship Canal to the west of option HWH1 of the Higher Walton HAGI or on the northern bank of the Manchester Ship Canal to the west of option HWH2 of the Higher Walton HAGI (depending on whether Option NP4 or the North Corridor is taken forward), and on the western bank of the River Mersey within the eastern fringes of the LCA. These temporary 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 (6m). Lighting would be required during the house of darkness for operational activity typically in winter and may be required for security with the lighting design seeking to minimise light spill outside of the compound. Temporary pipe storage areas would be sited to the north and south of the A5080 with pipes and materials stored up to 4m in height and for a maximum duration of 6 months. The compounds would be sited on existing arable fields, with 150m of internal field boundary removed within the compound to the south of the River Mersey (although the perimeter field boundary vegetation would be retained and protected) or within an area of scrub/grassland mosaic between the Moore Nature Reserve and Manchester Ship Canal.

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 the same field unit or ~500m), 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. Beyond ~500m from the construction activity, the works would appear similar to works associated with periodic agricultural activity. 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 the higher perception 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:	Pipeline corridor – Major/Moderate and Significant to 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 pipeline corridor would all be reinstated with no lasting effects on the course and banks of the River Bollin or Agden Brook or the agricultural fields. Consequently, there would be a Very Low magnitude of change on landscape character and key characteristics at Year 1 and a predicted Low magnitude of change on landscape elements until replacement planting is established after which the magnitude of change would become Zero.	
	Level of effect:	Pipeline corridor: Minor to Minor/Negligible and Not Significant
	Type of effect:	Permanent, direct and neutral
Temporary construction accesses EH-39, EH-40 and EH-41 NH-34	Construction phase: <u>Temporary construction access LCA 5a River Mersey/Bollin (East):</u> <u>Bradshaw Lane/Spring Lane (EH-39, EH-40 and EH-41).</u> All construction access for the East 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. Where required roads would need to be widened with some vegetation loss to facilitate this widening. Some limited tree removal and or coppicing / pruning may also be required to allow for visibility splays at the designated access locations, but this is unlikely to significantly affect the landscape character in these locations. Further details would be provided in the Environmental Statement where an arboricultural assessment to BS 5837 would be submitted. 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 the rural lanes and localised removal of vegetation to accommodate road widening and visibility splays would potentially be up to a High magnitude affecting a small geographical area of landscape character in the local vicinity of the	

	temporary construction access routes. There would be no access requirements within the western end of the LCA (Novelis, Warrington Spur Options WSp1 and WSp2) and here the magnitude of change would be Zero. <u>Temporary construction access LCA 5a River Mersey/Bollin (West):</u> <u>Forrest Way (NH-34).</u> Two on-site access routes (N38 and N39) which lie outside of the pipeline corridor would cross this LCA. The majority of N38 would utilise an existing track to the north of the pulverised fuel ash settlement lagoons in this area, with a small proportion crossing the grassland/scrub mosaic to the east. N38 would also partially utilise an existing track associated with the former Arpley Meadows landfill site accessed via NH-34 from Forrest Way before crossing grassland to the north of Pump House Pool and Birch Wood. The construction of these on-site tracks could result in the localised removal of trees and shrubs. The magnitude of change resulting from the increased traffic movements through the LCA and localised removal of vegetation to accommodate the on-site access tracks would potentially be up to a High magnitude affecting a small geographical area of landscape character in the local vicinity of the temporary construction access routes.		
	<table> <tr> <td>Level of effect:</td><td>Major/Moderate and locally Significant to Minor and Not Significant elsewhere within the wider LCA.</td></tr> </table>	Level of effect:	Major/Moderate and locally Significant to Minor and Not Significant elsewhere within the wider LCA.
Level of effect:	Major/Moderate and locally Significant to Minor and Not Significant elsewhere within the wider LCA.		
	<table> <tr> <td>Type of effect:</td><td>Short-term duration (temporary), direct and adverse.</td></tr> </table>	Type of effect:	Short-term duration (temporary), direct and adverse.
Type of effect:	Short-term duration (temporary), direct and adverse.		
Higher Walton HAGI Options HWH1 and HWH2 (Figures 8.35 and 8.36)	Construction phase: The Higher Walton HAGI (Options HWH1 and HWH2) is sited on the northern banks of the Manchester Ship Canal. A temporary construction compound would be sited to the west of option HWH1 on land which comprises a mosaic of grassland/scrub/trees within a local wildlife site whilst the temporary construction compound for option HWH2 would be sited on a small field to the west of the West Coast Main Line. 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. Temporary earth bunds and/or solid hoarding to the perimeter of the associated construction compounds would minimise visibility of activity and structures within the compound. Construction traffic would access either compound via the on-site tracks assessed above. The high proportion of woodland and tree cover to the north of either option 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 small geographical area of landscape character in the local vicinity of the		

	temporary construction compound and HAGI under construction reducing to Low-Very Low across the remained of the LCA.	
	Level of effect:	Major/Moderate and Significant within the vicinity of the temporary construction compound and HAGI 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) for safety and to reduce visual impact. Illustrative examples of a layout, and photographic examples of operational schemes are contained in Chapter 2, Volume 2 . The effect on the landscape character and key characteristics would be Medium for HWH1 and 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 either option of the HAGI means that intervisibility with the HAGI would be restricted leading to a Very Low magnitude of change across the remainder of the LCA.	
	Level of effect:	Moderate or Minor/Negligible to Minor and Not Significant
	Type of effect:	Permanent, direct and adverse
Warburton HAGI (Figure 8.39)	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 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 earth bunds and/or 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. Construction traffic may be similar to farm vehicles and road traffic along the adjoining B5160 and is unlikely to have a notable characterising influence from within this LCA located to the south. 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 which now hosts the Trans	

	Pennine Trail, 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 above ground components would be at a low level (up to 5m) for safety and to reduce visual impact. Illustrative examples of a layout, and photographic examples of operational schemes are contained in Chapter 2, Volume 2 . 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
Limitations / assumptions	1. Assessments related to landscape elements and in particular tree / vegetation loss are estimated pending the arboriculture survey and further design maturity that would be outlined in the Environmental Statement. 2. It has been assumed that hedgerows and trees lost to provide temporary construction access would be reinstated with new planting where possible post-construction i.e. where they do not lie in easements. 3. No account of any potential landscape mitigation near the perimeter of the HAGI sites has been accounted for and is pending further design maturity. A Year 15 assessment following construction would be included in the Environmental Statement.	
Overall assessment	Construction phase: Collectively the construction works involving the underground pipeline (Eastern and North Corridor and option NP4), 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 (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 and along the highway corridor where	

it requires widening 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, particular those areas in close proximity to the pipeline corridor and access routes. 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 hedgerow and tree cover which lie within the pipeline easement (i.e directly above the pipeline). Towards the western end of the LCA, which coincides with the LVIA study area for the Novelis, Warrington Spur Options WSp1 and WSp2, 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 close to the pipeline corridor, trenchless construction compounds and along construction access routes which need to be created or widened.
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 Minor to Minor/Negligible and Not Significant with up to Moderate and Not Significant effects as a result of the High Walton HAGI options.	

Table 8C.54: Landscape Assessment for LCA 1f Penketh & Cuerdley

Figures: 8.7		
LCA hierarchy:	National Character Area	NCA 60 Mersey Valley
Landscape Designations:	None	
Administrative area:	Warrington	
Character description:	The Proposed Development 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 <i>Warrington A Landscape Character Assessment</i>⁹. <u>Key characteristics</u> • “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; and • Penketh Brook and associated tree lined banks.”⁹	
Assessment of sensitivity	<u>Landscape value:</u> 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 “<i>neglected and at worst missing altogether, exposing views to both industrial and suburban areas</i>”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 “<i>The farmland is visually dominated by the scale of the</i>	

	<i>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.</i> <u>Landscape susceptibility:</u> 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	Overall sensitivity: Low	Landscape value:	Low
		Landscape susceptibility:	Medium to Low
Magnitude of change			
Pipeline (North Corridor)	Construction phase: Figure 8.7, Volume 3 shows the North Corridor of the pipeline crossing this LCA. The pipeline corridor, comprising site fencing, open cut pipeline trench with adjacent material storage area, associated construction machinery, internal haul road, and soil storage as indicated in Chapter 2, Volume 2 . Construction activity would be transient and of short duration with progressive backfill and reinstatement as works are completed along the route. The pipeline corridor crosses several arable and pasture fields, with open cut sections crossing through field boundaries comprising hedgerows with hedgerow trees at up to four locations. Up to 75m of pipeline corridor would also cross a wooded area to the south of the A562 Widnes Road, identified as deciduous woodland on the National Forest Inventory, with further scatter trees and sections of tree belt present to the south of the woodland, also removed to facilitate the pipeline corridor. The assessment assumes that tree cover around the southern fringes of the True Fit Golf Course would be retained with the nearby trenchless crossing between the northern side of the Skelton Junction to Ditton Junction Line and south of the River Mersey (a distance of approximately 850m) enabling the retention of this vegetation. 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. The potential loss of localised trees and hedgerows in this LCA would be partially mitigated by replacement of planting in-situ, following the construction phase as recorded in the Year 1 assessment below.		

In addition to the pipeline corridor, temporary trenchless crossing compounds would be sited at four locations within this LCA to facilitate a trenchless crossing of major transport routes. These would be located (from north to south) on the southern side of the Manchester and Allerton Junction Line, either side of the A562, and to the east of the Fiddlers Ferry Power Station to enable the trenchless crossing of the Skelton Junction to Ditton Junction Line and River Mersey. These temporary 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 (6m). Lighting would be required during the hours of darkness for operational activity typically in winter and may be required for security with the lighting design seeking to minimise light spill outside of the compound. Temporary pipe storage areas would be sited to the north and south of the A5080 with pipes and materials stored up to 4m in height and for a maximum duration of 6 months. 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 which partially lies within the area of deciduous woodland.

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 ~500m), 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 large-scale energy generation. Beyond ~500m from the construction activity, the works would appear similar to works associated with periodic agricultural activity. 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:	Pipeline, trenchless crossing compounds and pipe storage areas – 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.

Operation and maintenance (Year 1) phase:

The pipeline corridor and associated trenchless crossing compounds and pipe storage areas would all be reinstated with no lasting effects on the arable and pasture fields. The loss of some limited sections of

	hedgerow and hedgerow trees within a narrow easement at four locations would however be permanent although partly mitigated by replacement planting of hedgerow / shrubs within the remainder of the corridor, outside the easement. The areas of felled woodland would also be reinstated to the south of the A562. Consequently, there would be a Very Low to Zero magnitude of change on landscape character and key characteristics and a predicted Low magnitude of change on landscape elements until replacement planting is established. <table border="1"> <tr> <td>Level of effect:</td><td>Pipeline, trenchless crossing compounds and pipe storage areas – Negligible to Minor / Negligible and Not Significant</td></tr> <tr> <td>Type of effect:</td><td>Permanent and neutral.</td></tr> </table>	Level of effect:	Pipeline, trenchless crossing compounds and pipe storage areas – Negligible to Minor / Negligible and Not Significant	Type of effect:	Permanent and neutral.
Level of effect:	Pipeline, trenchless crossing compounds and pipe storage areas – Negligible to Minor / Negligible and Not Significant				
Type of effect:	Permanent and neutral.				
Temporary construction accesses NH-36 to NH42	Construction phase: <u>Temporary construction access: A562 (NH-36, NH-37 and NH-38), Mowcroft Lane (NH-39 And NH-40) 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. Where required roads would need to be widened although this is likely to only apply to Mowcroft Lane which is unvegetated along the majority of its length and therefore tree/hedgerow loss would be avoided. Similar unvegetated highway corridors are present at NH-38, NH-39, NH-40, NH-41 and NH-42 and therefore there would be no vegetation lost at these accesses. Some limited tree and hedgerow removal would be required to allow for visibility splays at the designated access locations NH-36 and NH-37 on the A562, but this is unlikely to significantly affect the landscape character in these locations. Further details would be provided in the Environmental Statement where an arboricultural assessment to BS 5837 would be submitted. 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 (including HGVs) along the two A classified roads to the north and south would be Low potentially increasing to Medium along Mowcroft Lane (for light construction access only) affecting a small geographical area of landscape character in the local vicinity of the temporary construction access routes. <table border="1"> <tr> <td>Level of effect:</td><td>Moderate and Not Significant</td></tr> <tr> <td>Type of effect:</td><td>Short-term duration (temporary), direct and adverse.</td></tr> </table>	Level of effect:	Moderate and Not Significant	Type of effect:	Short-term duration (temporary), direct and adverse.
Level of effect:	Moderate and Not Significant				
Type of effect:	Short-term duration (temporary), direct and adverse.				
Limitations / assumptions	Assessments related to landscape elements and in particular tree / vegetation loss are estimated pending the arboriculture survey and further design maturity that would be outlined in the Environmental Statement.				

	2. It has been assumed that hedgerows and trees lost to provide temporary construction access would be reinstated with new planting where possible postconstruction i.e. where they do not lie in easements.	
Overall assessment	Construction phase: Collectively the construction works involving the underground pipeline (North Corridor) and the presence of construction access routes, four trenchless crossing compounds and two large pipe storage areas within the LCA would represent a moderate scale development continuing for the duration of the construction phase (6-12 months). The audible influence of construction activities would be incremental to the noise and movement of vehicles along rails 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 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 hedgerow 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 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 overall would be Minor to Minor/Negligible and Not Significant .	

Table 8C.55: Landscape Assessment for LCA 1a Stretton & Hatton

Figures: 8.4 and 8.5		
LCA hierarchy:	National Character Area	NCA 60 Mersey Valley
Landscape Designations:	None	
Administrative area:	Warrington	
Character description:	The Proposed Development passes through the western edge 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 <i>Warrington A Landscape Character Assessment</i>⁹. <u>Key characteristics</u> • “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; and • Presence of narrow sunken lanes with hedgerows restricting views”⁹.	
Assessment of sensitivity	<u>Landscape value:</u>	

	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 “<i>The fundamental rural landscape character of the area still remains and is both attractive and relatively cohesive</i>”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 PRowWs 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. <u>Landscape susceptibility:</u> 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 <i>Warrington A Landscape Character Assessment</i>⁹. In terms of perceptual susceptibility, the Hatton area is cited as being “<i>comparatively quiet and rural in nature, apart from the physical and audible intrusion of the M56 motorway.</i>”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	Overall sensitivity: Medium	Landscape value:	Medium
		Landscape susceptibility:	Medium
Magnitude of change			
Pipeline (North Corridor options NP3 and NP1)	Construction phase: Figures 8.4 and 8.5, Volume 3 shows option NP3 of the North Corridor of the pipeline crossing this LCA. The pipeline corridor comprising site fencing, open cut pipeline trench with adjacent material storage area, associated construction machinery, internal haul road, and soil storage as indicated in Chapter 2, Volume 2. Construction activity would be transient and of short duration with progressive backfill and reinstatement as works are completed along the route. The pipeline corridor crosses several arable and pasture fields, with open cut sections crossing through field boundaries comprising hedgerows with hedgerow trees at up to five locations. An additional route option (NP1) which would cross fields to enter the LCA along its eastern edge from a location to the west of Daresbury Hall with the potential loss of hedgerow and trees from three locations within the LCA. 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, following the construction phase as recorded in the Year 1 assessment below.

In addition to the pipeline corridor, temporary trenchless crossing compounds would be sited on agricultural fields either side of the M56 motorway where the perimeter field boundary vegetation would be retained and protected. These temporary 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 (6m). Lighting would be required during the hours of darkness for operational activity typically in winter and may be required for security with the lighting design seeking to minimise light spill outside of the compound.

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 ~500m), reducing to Medium-Low or less from the wider LCA, where the pipeline corridor would be perceived in the context of a rural landscape. Beyond ~500m from the construction activity, the works would appear similar to works associated with periodic agricultural activity. 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:	Pipeline corridor and trenchless crossing compounds – Major/Moderate and Significant to 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 pipeline corridor and trenchless crossing compounds would all be reinstated with no lasting effects on the arable and pasture fields. The loss of some limited sections of hedgerow and hedgerow trees within a narrow easement directly above the pipeline route options would however be permanent, although partly mitigated by replacement planting of hedgerow / trees within the remainder of the corridor, outside of the easement. Consequently, there would be a Very Low to Zero magnitude of change on landscape character and key characteristics and a predicted Low magnitude of change on landscape elements until replacement planting is established.

Level of effect:	Pipeline corridor and trenchless construction compounds – Minor to Minor / Negligible and Not Significant

	Type of effect:	Permanent and neutral
Temporary construction accesses (NH-07, NH-08 and NH-09)	Construction phase:	Temporary construction access: Summer Lane (NH-07 and NH-08), B5356 (NH-09). 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. Where required existing roads would need to be widened with some vegetation lost to facilitate this widening although this is likely to be restricted to Summer Lane. Some hedgerow removal would also be required at the three designated access locations within the LCA, but this is unlikely to significantly affect the landscape character in these locations. Further details would be provided in the Environmental Statement where an arboricultural assessment to BS 5837 would be submitted. 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 along the rural roads and lanes and localised removal of vegetation to accommodate road widening and 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 potentially locally Significant
	Type of effect:	Short-term duration (temporary), direct and adverse.
Limitations / assumptions	1. Assessments related to landscape elements and in particular tree / vegetation loss are estimated pending the arboriculture survey and further design maturity that would be outlined in the Environmental Statement. 2. It has been assumed that hedgerows and trees lost to provide temporary construction access would be reinstated with new planting where possible post-construction i.e. where they do not lie in easements.	
Overall assessment	Construction phase:	Collectively the construction works involving the underground pipeline (North Corridor option NP3) within the LCA, and the presence of construction access routes, and trenchless crossing compounds common to all options, would represent a moderate scale development continuing for the duration of the construction phase (6-12 months). 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 and trenchless crossing compound. 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 hedgerow 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.
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 Minor to Minor/Negligible and Not Significant .	

Table 8C.56: Landscape Assessment for LCA 3a Appleton Park & Grappenhall

Figures: 8.5, 8.35 and 8.36		
LCA hierarchy:	National Character Area	NCA 60 Mersey Valley
Landscape Designations:	None	
Administrative area:	Warrington	
Character description:	The Proposed Development 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 <i>Warrington A Landscape Character Assessment</i>⁹. <u>Key characteristics</u> • “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; and • ‘Advanced’ landscaping and ‘entrance’ features relating to proposed housing development”.⁹	
Assessment of sensitivity	<u>Landscape value:</u> 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. <u>Landscape susceptibility:</u> The extant assessment notes that in a borough-wide context, this LCA is “<i>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.</i>”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 “<i>particularly important as this forms the main horizon to views south from the northern half of the Borough</i>”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	Overall sensitivity: Medium	Landscape value:	Medium
		Landscape susceptibility:	Medium
Magnitude of change			
Pipeline (North Corridor including Options NP1, NP2, NP3, NP4 and NP5)	Construction phase: Figure 8.5, Volume 3 shows that either option NP4 and NP5 of the North Corridor would be routed through this LCA between the Manchester Ship Canal and the A56. Options NP1, NP2 and NP3 would continue across the agricultural landscape to the south of the A56 up to the administrative boundary with Halton. The pipeline corridor comprising site fencing, open cut pipeline trench with adjacent material storage area, associated construction machinery, internal haul road, and soil storage as indicated in Chapter 2, Volume 2. Construction activity would be transient and of short duration with progressive backfill and reinstatement as works are completed along the route. The pipeline corridor options cross several arable and pasture fields, with open cut sections crossing through field boundaries comprising hedgerows with hedgerow trees at a number of locations depending on the route option. 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, following the construction phase as recorded in the Year 1 assessment below.

In addition to the pipeline corridor, temporary trenchless crossing compounds would be sited on agricultural fields close to the Main Line Railway, on either side of the Bridgewater Canal and either side of the A56. At each site the perimeter field boundary vegetation would be retained and protected. These temporary 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 (6m). Lighting would be required during the house of darkness for operational activity typically in winter and may be required for security with the lighting design seeking to minimise light spill outside of the compound.

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 ~500m), 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. Beyond ~500m from the construction activity, the works would appear similar to works associated with periodic agricultural activity.

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:	Pipeline corridor and trenchless crossing compounds – Major/Moderate and Significant to 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 pipeline corridor and trenchless crossing compounds would all be reinstated with no lasting effects on the arable and pastoral fields. The loss of some limited sections of hedgerow and hedgerow trees within a narrow easement directly above the pipeline route options would however be permanent, although partly mitigated by replacement planting of hedgerow / trees within the remainder of the corridor, outside of the easement. Consequently, there would be a Very Low to Zero magnitude of change on landscape character and key characteristics and a predicted Low magnitude of change on landscape elements until replacement planting is established.

Level of effect:	Pipeline corridor and trenchless construction compounds – Minor to Minor / Negligible and Not Significant

	Type of effect:	Permanent and neutral
Temporary construction accesses	Construction phase:	
	<u>Option NP1: A56 (NH-13).</u>	
	<u>Option NP3: A56, Park Lane, Warrington Road (NH-15 and NH-16).</u>	
	<u>Option NP4: A56 (NH-14), Runcorn Road (NH-21 and NH-22), Bellhouse Lane (NH-24).</u>	
	<u>Option NP5: A56 (NH-14), Holly Hedge Road (NH-17 and NH-18), Runcorn Road (NH-19 and NH-20), Bellhouse Lane (NH-25).</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. Where required existing roads would need to be widened with some vegetation lost to facilitate this widening. Some hedgerow removal would also be required at the designated access locations within the LCA, but this is unlikely to significantly affect the landscape character in these locations. Further details would be provided in the Environmental Statement where an arboricultural assessment to BS 5837 would be submitted. 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 along the rural roads and lanes and localised removal of vegetation to accommodate road widening and designated access locations would potentially be up to a High 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
	Type of effect:	Short-term duration (temporary), direct and adverse.
Higher Walton HAGI Options HWH1 and HWH2 (Figures 8.35 and 8.36)	Construction phase:	
	The Higher Walton HAGI (Options HWH1 and HWH2) are sited on the northern banks of the Manchester Ship Canal. Both would be located beyond the LCA's boundary although its study area coincides with the northern fringes of this receptor unit (HWH1 ~ 400m and HWH2 100m separation distance). 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 west 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 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) for safety and to reduce visual impact. Illustrative examples of a layout, and photographic examples of operational schemes are contained in Chapter 2, Volume 2 . 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 and neutral. .
Limitations / assumptions	1. Assessments related to landscape elements and in particular tree / vegetation loss are estimated pending the arboriculture survey and further design maturity that would be outlined in the Environmental Statement. 2. It has been assumed that hedgerows and trees lost to provide temporary construction access would be reinstated with new planting where possible post-construction i.e. where they do not lie in easements. 3. No account of any potential landscape mitigation near the perimeter of the HAGI sites has been accounted for and is pending further design maturity. A Year 15 assessment following construction would be included in the Environmental Statement.	
Overall assessment	Construction phase: Collectively the construction works involving the underground pipeline (North Corridor options NP1, NP2, NP3, NP4 and NP5) within the LCA, 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 (6-12 months). 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 and trenchless crossing compound.	

	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 hedgerow 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 and trenchless crossing 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 Minor and Not Significant to No Effect	

Table 8C.57: Landscape Assessment for LCA 6a Victoria Park to Fiddlers Ferry

Figures: 8.6, 8.7, 8.35 and 8.36.		
LCA hierarchy:	National Character Area	NCA 60 Mersey Valley
Landscape Designations:	None	
Administrative area:	Warrington	
Character description:	The Proposed Development passes through the west of 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 <i>Warrington A Landscape Character Assessment</i>⁹. <u>Key characteristics</u> • <i>“Wild, almost remote, expansive areas downstream;</i> • <i>Restrictive river channel and inter-tidal margins upstream;</i> • <i>Presence of large flocks of bird life on the wider estuary;</i> • <i>Restrictive views and access to the river from inner town areas upstream;</i> • <i>Dominance of surrounding industrial use and landfill downstream; and</i> • <i>Relatively undisturbed areas with important nature conservation value”</i>⁹	
Assessment of sensitivity	<u>Landscape value:</u> 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 Rive 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. <u>Landscape susceptibility:</u> 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			
Pipeline (North Corridor)	Construction phase: The assessment assumes that the trenchless crossing between the northern side of the Skelton Junction to Ditton Junction Line (to the east of the Fiddlers Ferry Power Station and south of the River Mersey (a distance of approximately 850m) would ensure that the pipeline corridor itself would have no characterising influence on this LCA. The presence of the trenchless crossing compound on the eastern banks of the River Mersey, just beyond the boundary of the LCA would however, have a temporary characterising role. The compound 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 (6m). Lighting would be required during the house of darkness for operational activity typically in winter and may be required for security with the lighting design seeking to minimise light spill outside of the compound. The presence of this compound and the associated levels of noise and movement may dilute the “ <i>Wild, almost remote</i> ” 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.		
	Level of effect:	Pipeline corridor: Moderate and Significant to Minor/Negligible and Negligible 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 trenchless crossing compound to the east of but beyond the boundary of this LCA would be reinstated with no lasting effects on the landscape character within the LCA. The magnitude of change would be Zero.		
	Level of effect:	No Effect	
	Type of effect:	N/A	

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), direct and adverse.
Higher Walton HAGIs (Figures 8.35 and 8.36)	Construction phase: The Higher Walton HAGI (Options HWH1 and 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 a small compound to the 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 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. Illustrative examples of a layout, and photographic examples of operational schemes are contained in Chapter 2, Volume 2 . 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. The magnitude of change across the LCA would be Zero.	
	Level of effect:	No Effect
	Type of effect:	N/A
Limitations / assumptions	1. Assessments related to landscape elements and in particular tree / vegetation loss are estimated pending the arboriculture survey and further design maturity that would be outlined in the Environmental Statement.	

	2. No account of any potential landscape mitigation near the perimeter of the HAGI sites has been accounted for and is pending further design maturity. A Year 15 assessment following construction would be included in the Environmental Statement.	
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 HAGI 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 potentially Significant effects close to the trenchless crossing compound.
	Type of effect:	Short-term duration (temporary), direct and adverse.
	Operation and maintenance (Year 1) phase: There would be No Effect on the landscape character and key characteristics of this LCA at Year 1.	

Table 8C.58: Landscape Assessment for LCA 7a Arley

Figures: 8.9, 8.10, 8.47, 8.48 and 8.49		
LCA hierarchy:	National Character Area	NCA 60 Mersey Valley and NCA 61: Shropshire, Cheshire and Staffordshire Plain
Landscape Designations:	None	
Administrative area:	Cheshire East	
Character description:	The Proposed Development 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 <i>The Landscape Character of Cheshire East Borough</i>¹⁰. <u>LCA Description</u> • “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 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.	

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 30 August 2021).

	• <i>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</i> • <i>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.</i> • <i>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.</i> • <i>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</i>
Assessment of sensitivity	<u>Landscape value:</u> 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 will disrupt levels of tranquillity. The overall landscape value is assessed as Medium. <u>Landscape susceptibility:</u> 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 “<i>there are sufficient hedgerow trees to filter views across the landscape</i>”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	Overall sensitivity: Medium	Landscape value:	Medium
		Landscape susceptibility:	Medium to Low

Magnitude of change

Pipeline (East Corridor pipeline)	Construction phase: Figure 8.9 and 8.10, Volume 3 shows the East Corridor of the pipeline crossing the LCA between the administrative boundary with Warrington in the north and the boundary with Cheshire West and Chester in the south. The pipeline corridor would comprise site fencing, open cut pipeline trench with adjacent material storage area, associated construction machinery, internal haul road, and soil storage as indicated in Chapter 2, Volume 2. Construction activity would be transient and of short duration with progressive backfill and reinstatement as works are completed along the route. The pipeline corridor crosses several arable and pasture fields, open cut sections crossing through field boundaries comprising hedgerows with hedgerow trees at up to 25 locations. The localised removal of trees, shrubs and hedgerow at each of these locations would appear as a break in the field pattern. The potential loss of localised trees and hedgerows in this LCA would be partially mitigated by replacement of planting in-situ, following the construction phase as recorded in the Year 1 assessment below. In addition to the pipeline corridor, temporary compounds would be constructed at five locations within this LCA to facilitate a trenchless crossing of major transport routes and the Bridgewater Canal. These would be located (from south to north) on either side of the M6 motorway, either side of the A50, either side of the M56 and either side of the A56 with the western compound also providing the southern trenchless cross compound for the Bridgewater Canal with the second located on the northern side of the canal. These temporary 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 (6m). Lighting would be required during the house of darkness for operational activity typically in winter and may be required for security with the lighting design seeking to minimise light spill outside of the compound. Temporary pipe stores would be sited next to the temporary compounds at the A50 and A56 with pipes stored up to 4m in height and for a maximum duration of 6 months. 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

	western of the two compounds alongside the M6 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. 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 ~500m) 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 retained hedgerow field boundaries. Beyond ~500m from the construction activity, the works would appear similar to works associated with periodic agricultural activity. 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.				
	<table> <tr> <td>Level of effect:</td><td>Pipeline and temporary compounds – Major/Moderate and locally Significant to Minor or less and Not Significant elsewhere within the wider LCA.</td></tr> <tr> <td>Type of effect:</td><td>Short-term duration (temporary with some permanent effects), direct and adverse.</td></tr> </table>	Level of effect:	Pipeline and temporary compounds – 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.
Level of effect:	Pipeline and temporary compounds – 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.				
	Operation and maintenance (Year 1) phase: The pipeline corridor and associated temporary compounds would all be reinstated with no lasting effects on the arable and pasture fields. The loss of some limited sections of hedgerow and hedgerow trees within a narrow easement directly above the pipeline route at up to 25 locations would however be permanent, although partly mitigated by replacement planting of hedgerow / trees within the remainder of the corridor, outside of the easement. The area of young trees to the west of the M6 motorway would also be replanted.				
	<table> <tr> <td>Level of effect:</td><td>Pipeline corridor and trenchless construction compounds – Minor to Minor / Negligible and Not Significant East Block Valve compound - Minor and Not Significant</td></tr> <tr> <td>Type of effect:</td><td>Permanent and adverse</td></tr> </table>	Level of effect:	Pipeline corridor and trenchless construction compounds – Minor to Minor / Negligible and Not Significant East Block Valve compound - Minor and Not Significant	Type of effect:	Permanent and adverse
Level of effect:	Pipeline corridor and trenchless construction compounds – Minor to Minor / Negligible and Not Significant East Block Valve compound - Minor and Not Significant				
Type of effect:	Permanent and adverse				
Eastern Block Valve Options EBV 1-3	Operational infrastructure which would be present within the LCA includes one of three East Block Valve compound options which would either be sited on arable land to the east of Moss Lane (EVB1) or on either side of the A50 Warrington Road (EVB2 and EVB3). These small compounds (up to approximately 0.5ha) would be enclosed by fencing approximately 2.4m high with an access gate and access would be required for				

(Figures 8.47, 8.48 and 8.49)	service vehicles, typically a Light Goods Vehicle (LGV) via an access track across the arable field. Some ancillary valves and pipework would extend to a height of approximately 1.5m above ground and may include a small Instrumentation and Control (I&C) kiosk which would be 2.4m in height. Consequently, there would be a Very Low to Zero magnitude of change on landscape character and key characteristics and a predicted Low magnitude of change on landscape elements until replacement planting is established. There would also be a highly localised Low magnitude of change associated with the permanent East Block Valve compound.	
	Level of effect:	Minor and Not Significant
	Type of effect:	Permanent and adverse
Temporary construction accesses (EH-20 to EH-38)	Construction phase: Temporary construction access: 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 pipe stores. Where required roads would need to be widened with some vegetation loss to facilitate this widening. Some limited tree removal and or coppicing / pruning may also be required to allow for visibility splays at the designated access locations, but this is unlikely to significantly affect the landscape character in these locations. Further details would be provided in the Environmental Statement where an arboricultural assessment to BS 5837 would be submitted. 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 road widening and visibility splays would potentially be up to a High 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 to Minor and Not Significant elsewhere within the wider LCA.
	Type of effect:	Short-term duration (temporary), direct and adverse.
Limitations / assumptions	Assessments related to landscape elements and in particular tree / vegetation loss are estimated pending the arboriculture survey and further design maturity that would be outlined in the Environmental Statement.	

	2. It has been assumed that hedgerows and trees lost to provide temporary construction access would be reinstated with new planting where possible post-construction i.e. where they do not lie in easements.	
Overall assessment	Construction phase: Collectively the construction works involving the underground pipeline (East Corridor) and the presence of construction access routes, five trenchless crossing compounds and three pipe storage areas within the LCA would represent a moderate scale development continuing for the duration of the construction phase (6-12 months). 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, particular 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 within the exception of narrow sections of hedgerow which lie within the pipeline easement (i.e. directly above the pipeline).	
	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, construction compounds and along construction access routes which need widening.
	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 Minor to Minor/Negligible and Not Significant .	

Table 8C.59: Landscape Assessment for LCA 10a Lower Bollin

Figures: 8.10 and 8.39		
LCA hierarchy:	National Character Area	NCA 60 Mersey Valley and NCA 61: Shropshire, Cheshire and Staffordshire Plain
Landscape Designations:	Located within a local landscape designation (the former Area of Great Landscape Value of Macclesfield Borough) although only the westernmost tip of the designation is located within the Preliminary Order Limits	
Administrative area:	Cheshire East	
Character description:	The Proposed Development 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 <i>The Landscape Character of Cheshire East Borough</i>¹⁰. <u>LCA Description</u> • <i>“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.</i> • <i>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.</i>	

	• <i>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.</i> • <i>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.</i> • <i>In contrast, the western end¹¹ 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 dual 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</i>
Assessment of sensitivity	<u>Landscape value:</u> 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

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 Proposed Development.

	associated overhead line which cross the LCA and are locally prominent. The overall landscape value is assessed as High to Medium. <u>Landscape susceptibility:</u> 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 Medium.		
Sensitivity	Overall sensitivity: Medium	Landscape value:	High to Medium
		Landscape susceptibility:	Medium
Magnitude of change			
Pipeline (East Corridor pipeline)	Construction phase: Figure 8.10, Volume 3 shows the East Corridor of the pipeline crossing this narrow western end of this LCA comprising site fencing, open cut pipeline trench with adjacent material storage area, associated construction machinery, internal haul road, and soil storage as indicated in Chapter 2, Volume 2. The River Bollin located along the northern boundary of the LCA and the Agden Brook to its south would also be crossed using open cut installation which may involve either by fluming or damming of the watercourse to facilitate access to the riverbed. A temporary crossing point would be required over the river and would typically involve the installation of a temporary 'bailey' type bridge with support bases on either side, typically aggregate or stone. Construction activity along the East Corridor associated with the installation of the pipeline would be transient and of short duration (less than 150m of pipeline crosses this LCA) with progressive backfill and reinstatement as works are completed along the route. Beyond the LCAs boundary to the east, the pipeline corridor would cross LCA 5a River Mersey/Bollin (East) within the area administered by Warrington Borough Council and there would be clear intervisibility with construction activity along this section of pipeline in conjunction with that which falls within this LCA. 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 the same field unit or		

	~500m), 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. Beyond ~500m from the construction activity, the works would appear similar to works associated with periodic agricultural activity. 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 proportion of LCA which coincides with the LVIA study area. 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:	Pipeline corridor – Major/Moderate and Significant to 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 pipeline corridor would all be reinstated with no lasting effects on the course and banks of the River Bollin or Agden Brook or the pasture fields which border the watercourse. Consequently, there would be a Very Low magnitude of change on landscape character and key characteristics at Year 1 and a predicted Very Low magnitude of change on landscape elements until replacement planting is established after which the magnitude of change would become Zero.	
	Level of effect:	Pipeline corridor: Minor/Negligible and Not Significant
	Type of effect:	Permanent, direct and adverse
	Temporary construction accesses (None within the LCA)	Construction phase: <u>Temporary construction access:</u> There would be no access requirements within this LCA. The increase in traffic movements along the B5160 which is located approximately 300m to the north of the LCA at its closest point, and corresponding disruption to the higher levels of tranquillity and remoteness within the LCA, is unlikely to be readily perceived from within this landscape. 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

Warburton HAGI (Figure 8.39)	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 LCA's boundary although its study area coincides a small area within the north-western 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 4m (up to 4m in height), equipment and materials. Temporary earth bunds and/or 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. Construction traffic may be similar to farm vehicles and road traffic along the adjoining B5160 and is unlikely to have a notable characterising influence from within this LCA located to the south. The presence of vegetation and tree cover between the LCA 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 670m means that views would be partially restricted. The magnitude of change would be Very Low to Zero. <table border="1"> <tr> <td>Level of effect:</td><td>Minor/Negligible to No Effect and Not Significant</td></tr> <tr> <td>Type of effect:</td><td>Short-term duration (temporary), indirect and adverse</td></tr> </table> Operation and maintenance (Year 1) phase: The Warburton 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. Illustrative examples of a layout, and photographic examples of operational schemes are contained in Chapter 2, Volume 2. The separation distance (a minimum of 670m) 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. <table border="1"> <tr> <td>Level of effect:</td><td>Minor/Negligible to No Effect and Not Significant</td></tr> <tr> <td>Type of effect:</td><td>Permanent, indirect and neutral</td></tr> </table>	Level of effect:	Minor/Negligible to No Effect and Not Significant	Type of effect:	Short-term duration (temporary), indirect and adverse	Level of effect:	Minor/Negligible to No Effect and Not Significant	Type of effect:	Permanent, indirect and neutral
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Level of effect:	Minor/Negligible to No Effect and Not Significant								
Type of effect:	Permanent, indirect and neutral								
Limitations / assumptions	1. Assessments related to landscape elements and in particular tree / vegetation loss are estimated pending the arboriculture survey and further design maturity that would be outlined in the Environmental Statement. 2. It has been assumed that hedgerows and trees lost to provide temporary construction access would be reinstated with new planting where possible post-construction i.e. where they do not lie in easements.								

	3. No account of any potential landscape mitigation near the perimeter of the HAGI sites has been accounted for and is pending further design maturity. A Year 15 assessment following construction would be included in the Environmental Statement.	
Overall assessment	Construction phase: Collectively the construction works involving the underground pipeline (East Corridor) within the LCA, and the presence of construction access routes, HAGI construction compound and pipe storage areas to the north, beyond the LCA's boundary would represent a moderate scale development continuing for the duration of the construction phase (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 within the far north-western part of the LCA which coincides with the LVIA study area. 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, particularly where it crosses the River Bollin and Agden Brook. The course and banks of the river and neighbouring pasture land use 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.
	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 Minor/Negligible and Not Significant .	

HyNet North West Hydrogen Pipeline

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