

# ENVIRONMENTAL STATEMENT (VOLUME II)

## CHAPTER 19 – SUMMARY OF SIGNIFICANT EFFECTS

### Padeswood Carbon Dioxide Spur Pipeline Proposed Development

Town and Country Planning Act 1990

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## 19. SUMMARY OF LIKELY SIGNIFICANT ENVIRONMENTAL EFFECTS

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### 19.1. INTRODUCTION

- 19.1.1. This chapter provides a summary of the likely significant effects reported in this Environmental Statement (ES). Topic specific impact assessments as a result of the Padeswood Spur Pipeline Proposed Development are presented in detail in **Chapters 6 to 18 (Document References: PW.3.2.6 to PW.3.2.18)** of this ES.
- 19.1.2. The methodology for the assessment of likely significant effects is set out in **Section 5.11 of Chapter 5: EIA Methodology (Document Reference: PW.3.2.5)** and **Chapters 6 to 18 (Document References: PW.3.2.6 to PW.3.2.18)** of this ES. Effects, whether adverse or beneficial, assessed as being “moderate” or “major” are deemed to be significant. Effects determined to be “minor”, “negligible” or “neutral” are deemed to be not significant. Any deviation from this approach is detailed in the specific topic chapters of this ES. **Table 19.1** below provides a summary of the likely significant effects only, i.e. those that have been assessed as “moderate” or above.
- 19.1.3. The following topics did not identify any likely significant effects in their assessments following the implementation of mitigation, and are therefore not included in this Chapter:
- Chapter 6 – Air Quality (Document Reference: PW.3.2.6)
  - Chapter 7 – Climate Resilience (Document Reference: PW.3.2.7)
  - Chapter 8 – Cultural Heritage (Document Reference: PW.3.2.8)
  - Chapter 9 – Biodiversity (Document Reference: PW.3.2.9)
  - Chapter 11 – Land and Soils (Document Reference: PW.3.2.11)
  - Chapter 13 – Major Accidents and Disasters (Document Reference: PW.3.2.13)
  - Chapter 15 – Population and Human Health (Document Reference: PW.3.2.15)
  - Chapter 16 – Traffic and Transport (Document Reference: PW.3.2.16)
  - Chapter 17 – Water Resources and Flood Risk (Document Reference: PW.3.2.17)
  - Chapter 18 – Cumulative Effects Assessment (Document Reference: PW.3.2.18)

Table 19.1- Summary of Significant Residual Effects

Key: Permanent/Temporary – P/T; Direct/Indirect – D/I; Short / Medium / Long term – ST/MT/LT.

Receptor	Pre-mitigation significance of effects	Mitigation measure	Residual effect
<b>Chapter 10 – Greenhouse Gases</b>			
<b>Operation</b>			
Operational Stage GHG emissions	<b>Beneficial (Significant)</b> including the avoided emissions captured from the plant that feed into the Carbon Dioxide Pipeline system as part of the Project, and accounting for the CO <sub>2</sub> lost through fugitive emissions and maintenance activities.	The CO <sub>2</sub> lost through fugitive emissions and maintenance activities could be minimised by specifying high efficiency mechanical and electrical equipment and operating, maintaining, and refurbishing the Padeswood Spur Pipeline Proposed Development using best practices in energy efficiency and low carbon energy sources.	<b>Beneficial (Significant).</b> P / D / LT
<b>Chapter 12 – Landscape and Visual</b>			
<b>Construction</b>			
<b>Sensitive Landscape Receptors</b>			
Farmland Fringe (FLNTVS009)	Proposed pipeline route extends across a long stretch of this Local Character Area, with temporary Construction	Construction Stage mitigation measures, as included within the <b>Outline Environmental Management Plan (OEMP, Document Reference: PW.4.1).</b>	<b>Moderate Adverse (significant)</b> T / D / ST

Receptor	Pre-mitigation significance of effects	Mitigation measure	Residual effect
	Compounds, access routes and vegetation removal to appear visible. <b>Overall effect: Moderate adverse (significant)</b>		
<b>Visual Receptors</b>			
<b>PAGI 1</b> <u>Receptors:</u> Recreational Users of PRow Buckley 56	Construction activity will be visible, with the enclosed landscape directing views inwards. <b>Overall effect: Major Adverse (significant)</b>	Construction Stage mitigation measures, as included within the OEMP (Document Reference: PW.4.1).	<b>Major Adverse (significant)</b> T / D / ST
<b>S1</b> <u>Receptors:</u> Recreational Users of PRow Buckley 54 Residents of dwellings off A5118	Views of construction activity will be readily available within the open landscape. <b>Overall effect: Major Adverse (significant)</b>	Construction Stage mitigation measures, as included within the OEMP (Document Reference: PW.4.1).	<b>Major Adverse (significant)</b> T / D / ST
<b>S3</b> <u>Receptors:</u> Residents at Garreg-Lwyd Farm	Views of construction activity will be readily available within the open landscape.	Construction Stage mitigation measures, as included within the OEMP (Document Reference: PW.4.1).	<b>Major Adverse (significant)</b> T / D / ST

Receptor	Pre-mitigation significance of effects	Mitigation measure	Residual effect
	Overall effect: Major Adverse (significant)		
Wat's Dyke Way <u>Receptors:</u> Recreational users of Wat's Dyke Way	Views of construction activity will be readily available within the open landscape. Overall effect: Major Adverse (significant)	Construction Stage mitigation measures, as included within the OEMP (Document Reference: PW.4.1).	Major Adverse (significant) T / D / ST
S4 <u>Receptors:</u> Residents at Plas Major Farm and Glen Brook Farmhouse	Filtered views of construction activity will be visible within the landscape. Overall effect: Moderate-Major Adverse (significant)	Construction Stage mitigation measures, as included within the OEMP (Document Reference: PW.4.1).	Moderate Adverse (significant) T / D / ST
S6 <u>Receptors:</u> Residents off Rose Lane Users of Rose Lane	Filtered views of construction activity will be visible within the landscape. Overall Effect: Moderate adverse (significant)	Construction Stage mitigation measures, as included within the OEMP (Document Reference: PW.4.1).	Moderate adverse (significant) T / D / ST
S8 <u>Receptors:</u> Recreational users PRoW Mold 46	View of taller construction features to appear visible within	Construction Stage mitigation measures, as included within the OEMP (Document Reference: PW.4.1).	Moderate adverse (significant) T / D / ST

Receptor	Pre-mitigation significance of effects	Mitigation measure	Residual effect
Residents off Ffordd Argoed	glimpsed views above existing vegetation. <b>Overall Effect: Moderate adverse (significant)</b>		
S9 <u>Receptors:</u> Residents at Bryn-y-Baal	Trenchless crossing points to appear visible within views from Wat's Dyke Way. <b>Overall Effect: Moderate adverse (significant)</b>	Construction Stage mitigation measures, as included within the OEMP (Document Reference: PW.4.1).	Moderate adverse (significant) T / D / ST
S11 <u>Receptors:</u> Residents at New Brighton Road users of A5119	Construction compound area to appear visible within views from residents at New Brighton. <b>Overall Effect: Moderate adverse (significant)</b>	Construction Stage mitigation measures, as included within the OEMP (Document Reference: PW.4.1).	Moderate adverse (significant) T / D / ST
S13 <u>Receptors:</u> Recreational users of Bridleway Flintshire 74 Residents at Llwyn Offa	Open views towards the Padeswood Spur Pipeline Proposed Development from residents at Llwyn Offa and bridleway users.	Construction Stage mitigation measures, as included within the OEMP (Document Reference: PW.4.1).	Major adverse (significant) T / D / ST

Receptor	Pre-mitigation significance of effects	Mitigation measure	Residual effect
Users of Altami Road	Overall Effect: Major adverse (significant)		
NAGI2 <u>Receptors:</u> Recreational users of PRow Northop 4	Clear views of construction activity within existing fields. Overall Effect: Moderate adverse (significant)	Construction Stage mitigation measures, as included within the OEMP (Document Reference: PW.4.1).	Moderate adverse (significant) T / D / ST
Operation			
Visual Receptors			
PAGI 1 <u>Receptors:</u> Recreational Users of PRow Buckley 56 and PRow Buckley 55	Regraded land and new mitigation planting visible within views from identified receptors, alongside glimpsed views of Above Ground Installation (AGI) structure. Operational Year 1: Moderate adverse (significant) reducing to Minor adverse (not significant) at Operational Year 15.	Replacement mitigation planting and land regrading.	Operational Year 1: Moderate adverse (significant) reducing to Minor adverse (not significant) at Operational Year 15. P / D / LT
S1	Regraded land and new mitigation	Replacement mitigation planting and land regrading.	Operational Year 1: Moderate adverse (significant) reducing to

Receptor	Pre-mitigation significance of effects	Mitigation measure	Residual effect
<u>Receptors:</u> Recreational Users of PRow Buckley 54 Residents of dwellings off A5118	planting visible within views from identified receptors, alongside glimpsed views of AGI structure. <b>Operational Year 1: Moderate adverse (significant) reducing to Negligible (not significant) at Operational Year 15.</b>		Minor adverse (not significant) at Operational Year 15. P / D / LT
<b>S3</b> <u>Receptors:</u> Recreational users of Wat's Dyke Way Residents at Garreg-Lwyd Farm	Regraded land and new mitigation planting visible within views from identified receptors. <b>Operational Year 1: Moderate adverse (significant) reducing to Negligible (not significant) at Operational Year 15.</b>	Replacement mitigation planting and land regrading.	<b>Operational Year 1: Moderate adverse (significant) reducing to Negligible (not significant) at Operational Year 15.</b> P / D / LT
<b>S13</b> <u>Receptors:</u> Recreational users of Bridleway Flintshire 74	Regraded land and new mitigation planting visible within views from identified receptors.	Replacement mitigation planting and land regrading.	<b>Operational Year 1: Moderate adverse (significant) reducing to Negligible (not significant) at Operational Year 15.</b> P / D / LT

Receptor	Pre-mitigation significance of effects	Mitigation measure	Residual effect
Residents at Llwyn Offa Users of Alltami Road	Operational Year 1: Moderate adverse (significant) reducing to Negligible (not significant) at Operational Year 15.		
<b>Decommissioning</b>			
<b>Visual Receptors</b>			
PAGI1 <u>Receptors:</u> Recreational Users of PRow Buckley 56	Decommissioning effects to be reflective of Construction Stage effects. <b>Overall Effect:</b> Moderate adverse (significant) reducing to Negligible (not significant) following completion of decommissioning.	Mitigation planting and land regrading.	<b>Overall Effect: Moderate adverse (significant) reducing to Negligible (not significant) following completion of decommissioning.</b> T / D / ST
NAGI2 <u>Receptors:</u> Recreational users of PRow Northop 4	Decommissioning effects to be reflective of Construction Stage effects. <b>Overall Effect:</b> Moderate adverse (significant) reducing to Negligible (not significant) following	Mitigation planting and land regrading.	<b>Overall Effect: Moderate adverse (significant) reducing to Negligible (not significant) following completion of decommissioning.</b> T / D / ST

Receptor	Pre-mitigation significance of effects	Mitigation measure	Residual effect
	completion of decommissioning.		
Chapter 14 – Noise and Vibration			
Construction			
Receptors within close proximity to trenchless crossing activities	Either medium or high magnitude of noise impacts arising from trenchless crossing activities during daytime, evening and night-time. <b>Moderate adverse (significant)</b>	A combination of secondary noise mitigation measures including for example noise enclosures and localised noise barriers to provide a minimum of 10 dB noise level reduction.	<b>Moderate Adverse (significant)</b> at 94 noise sensitive receptors. T / I / MT

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