

APPENDIX 21.12

Effect	Receptor and importance	Nature of Effect	Significance	Mitigation & Enhancement Measures	Residual Significance	Cumulative Effect	Significance (and Nature) of Cumulative Effect	Explanation
Construction Phase								
Construction Dust	Human and ecological receptors identified within 200 m of construction areas A to I, as identified in Table 19.9, High local importance.	Nuisance and Health Short to medium term Temporary Direct High magnitude	High negative significance	Mitigation as detailed in Section 19.8 and CEMP	Low Negative Significance	Construction Dust	Low Negative (Temporary, Short term, Direct)	Only one construction dust receptor identified in Chapter 19: Local Air Quality is located within 200m of a proposed development and the Project. Receptor 39 (Batherton Close), which lies 70 m from Construction Area C (Freight line to St Helen's Canal). There are currently no other developments in this location and therefore no potential for cumulative effects. also adjacent to proposed development 3. If construction was to occur at the same time as the Project there would therefore be potential for negative cumulative effects from

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Construction Traffic Emissions	Human and ecological receptors identified within 200 m of construction areas A to I, as identified in Table 19.9 High local importance.	Health Short to medium term Temporary Direct Very low magnitude	Low negative significance	Mitigation as detailed in Section 19.8 and CEMP	Low Negative Significance	Construction traffic emissions	Low Negative (Temporary, Short term, Direct)	<p>construction dust from both developments. A low negative significance has been assigned to the cumulative effect on the basis that a CEMP (or similar) would be adhered to as part of the development.</p> <p>The assessment of construction traffic emissions from the Project has not considered construction traffic emissions from other proposed developments. As such, where a receptor lies within 200 m of proposed developments and the Project, there is the potential for short term cumulative effects. (e.g. Receptor 39 – Batherton Close, which lies 70 m from construction area C and is also adjacent to proposed development 3) and the two</p>

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Disruption to Traffic during Construction	Human and ecological receptors identified within 200 m of construction areas A to I, as identified in Table 19.9 High local importance.	Health Short term Temporary Indirect High magnitude	High negative significance	Mitigation as detailed in Section 19.8 and CEMP	Moderate Negative Significance	Disruption to Traffic during Construction None	Moderate Negative (Temporary, Short term, Indirect)	developments coincide, then additional construction traffic emissions could cause cumulative effects. There are currently no other developments in this location and therefore no potential for cumulative effects Only one construction dust receptor identified in Chapter 19: Local Air Quality is located within 200m of a proposed development and the Project. Receptor 39 (Batherton Close), which lies 70 m from construction area C (Freight line to St Helen's Canal), is also adjacent to proposed development 3 the Widnes Waterfront Development. If construction was to occur at the same time as the Project there would therefore be potential for negative

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								cumulative effects as a result of further disruption to traffic during construction
Operational Phase								
Silver Jubilee Bridge	Key sensitive receptors identified in Table 19.10 High local importance.	Health Long term Direct High magnitude (NO ₂ and PM ₁₀)	High positive significance (NO ₂) Moderate positive significance (PM ₁₀)	No further mitigation required	High positive significance (NO ₂) Moderate positive significance (PM ₁₀)	Silver Jubilee Bridge, levels of NO ₂ and PM ₁₀	High positive significance (NO ₂) Moderate positive significance (PM ₁₀) (Long term, Direct)	There are a number of receptors within 200 m of proposed development 132 (the Halebank Regeneration Area). Significance of cumulative effect is unchanged from the residual significance as proposed development as traffic has been included in the modelled road network.
A557 Weston Point Expressway	Key sensitive receptors identified in 19.10. High local importance	Health Long term Direct Moderate magnitude (NO ₂ and PM ₁₀)	Moderate positive significance (NO ₂) Low positive significance (PM ₁₀)	No further mitigation required	Moderate positive significance (NO ₂) Low positive significance (PM ₁₀)	A557 Weston Point Expressway, levels of NO ₂ and PM ₁₀ None	Moderate positive significance (NO ₂) Low positive significance (PM ₁₀) (Long term, Direct)	There are currently no other developments in this location and therefore no potential for cumulative effects There are a number of receptors within 200 m of proposed development 6 (the Heath). Significance of cumulative effect is unchanged from the

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A533 Central Expressway (Castlefields / Halton Brook / Southgate), Whitehouse Expressway (Palacefields) and the Mersey Gateway Bridge Corridor	Key sensitive receptors identified in 19.10. High local importance	Health Long term Direct Very low magnitude (NO ₂ and PM ₁₀)	Low negative significance (NO ₂) Not significant (PM ₁₀)	No further mitigation beyond indicative measures detailed in Section 19.8.	Low negative significance (NO ₂) Not significant (PM ₁₀)	None	-	residual significance as proposed development traffic has been included in the modelled road network. There are no key sensitive receptors within 200m of proposed developments and the Project at this location
M56 Motorway	Key sensitive receptors identified in 19.10. High local importance	Health Long term Direct Extremely low magnitude (NO ₂ and PM ₁₀)	Low negative significance (NO ₂) Not significant (PM ₁₀)	No further mitigation beyond indicative measures detailed in Section 19.8.	Low negative significance (NO ₂) Not significant (PM ₁₀)	None	-	There are no key sensitive receptors within 200m of proposed developments and the Project at this location
Deacon Road, Widnes	Key sensitive receptors identified in 19.10. High local importance	Health Long term Direct Very low magnitude (NO ₂)	Low negative significance (NO ₂) Not significant (PM ₁₀)	No further mitigation beyond indicative measures detailed in Section 19.8.	Low negative significance (NO ₂) Not significant (PM ₁₀)	None	-	There are no key sensitive receptors within 200m of proposed developments and the Project at this location

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		Extremely low magnitude (PM ₁₀)		Section 19.8.				
Greenway Road, Runcorn	Key sensitive receptors identified in 19.10. High local importance	Health Long term Direct High magnitude (NO ₂) Moderate magnitude (PM ₁₀)	High positive significance (NO ₂) Low positive (PM ₁₀)	No further mitigation required	High positive significance (NO ₂) Low positive (PM ₁₀)	None	-	There are no key sensitive receptors within 200m of proposed developments and the Project at this location
Changes in regional NO _x , PM ₁₀ and CO ₂ emissions from the modelled road network	Based on the length of the modelled road network. High regional importance	Health and climate change Long term Direct Very low magnitude	Low positive significance	No further mitigation required	Low Positive Significance	Changes in regional NO _x , PM ₁₀ and CO ₂ emissions from the modelled road network	Low Positive Significance (Long term, Direct)	Since modelled traffic data includes traffic from some other developments (see Table 21.1), changes in regional NO _x , PM ₁₀ and CO ₂ emissions from the modelled road network considers the impact of proposed developments.

Table 21.12: Cumulative effects relating to Local Air Quality arising from the Project