

Appendix 5 – Air Quality Impact Assessment Methodology

Table A: Significance Criteria for Assessing Magnitude of Impact.

Nitrogen Dioxide (NO₂)	
Major Adverse	<p>'With development' results in an increase in concentrations over 'without development' concentrations of greater than 1 µg/m³ or 2.5%; where 'without development' concentrations are predicted to exceed the 40 µg/m⁻³ objective limit value; or</p> <p>'With development' results in increases in concentrations greater than 1 µg/m³ or 2.5% that are predicted to cause exceedance of the 40 µg/m⁻³ objective limit value; where WITHOUT development concentrations are NOT predicted to exceed 40 µg/m⁻³ objective limit value; or</p> <p>'With development' results in an increase in concentrations over 'without development' greater than 25%.</p>
Moderate Adverse	<p>'With development results in an increase in concentrations over 'without development' concentrations of less than 1 µg/m³ or 2.5%; where 'without development' concentrations are predicted to exceed the 40 µg/m⁻³ objective limit value;</p> <p>'With development' results in an increase in concentrations over 'without development' of greater than 10% but less than 25%</p>
Minor Adverse	'With development' results in an increase in concentrations over 'without development' concentrations of greater than 2.5% but less than 10%
No significance / insignificant	'With development' results in a change in concentrations over 'without development' concentrations of less than 1 µg/m ³ or 2.5%
Minor beneficial	With development results in a decrease in concentrations over without development concentrations of greater than 2.5% but less than 10%.
Moderate beneficial	With development results in a decrease in concentrations over without development concentrations of greater than 10% but less than 25%.
Major beneficial	With development results in a decrease in concentrations over without development concentrations of greater than 25%
Particulate Matter (PM₁₀)	
Major Adverse	<p>With development results in an increase in concentrations over without development concentrations of greater than 1 µg/m³ or 2.5%; where without development concentrations are predicted to exceed the 40 µg/m³ objective limit value or</p> <p>With development results in increases in concentrations greater than 1 µg/m³ or 2.5% that are predicted to cause exceedance of the 40 µg/m³ objective limit value; where without development concentrations are not predicted to exceed 40 µg/m³ objective limit value</p> <p>With development results in an increase in concentrations over without development greater than 25%</p>
Moderate Adverse	With development results in increases in concentrations greater than 1 µg/m ³ or 2.5% but the actual concentration does not cause an exceedance of the 40µg/m ³ objective limit or

	With development results in an increase in concentrations over without development concentrations of less than 1 or 2.5%; where without development concentrations are predicted to exceed 40 µg/m ³ objective limit value or With development results in an increase in concentrations over without development greater than 10% but less than 25%
Minor Adverse	With development results in an increase in concentrations over without development concentrations of greater than 1µg/m ³ or 2.5% but less than 10%
No significance/ insignificant	With development results in concentrations over without development concentrations of less than 1 µg/m ³ or 2.5%
Minor beneficial	With development results in a decrease in concentrations over without development concentrations of greater than 1µg/m ³ or 2.5% but less than %
Moderate beneficial	With development results in a decrease in concentrations over without development concentrations of greater than 10% but less than 25%
Major beneficial	With development results in a decrease in concentrations over without development concentrations of greater than 25%
NOTES	Where air quality impacts meet multiple criteria, the higher significance class will be applied.

Table B: Methodology for Determining Sensitivity.

Sensitivity	Examples
High	The location has little ability to absorb change without fundamentally altering its present character, or is of international or national importance.
Moderate	The location has moderate capacity to absorb change without significantly altering its present character, or is of high importance.
Low	The location is tolerant of change without detriment to its character, is of low or local importance.

The significance of an impact from vehicular emissions is determined by the interaction of magnitude and sensitivity. The Impact Significance Matrix used in this assessment is set out Appendix H.

Table C: Impact Significance Matrix.

Magnitude	Sensitivity		
	High	Moderate	Low
Major	Major Adverse/Beneficial	Major – Moderate Adverse/Beneficial	Moderate – Minor Adverse/Beneficial
Moderate	Major – Moderate Adverse/Beneficial	Moderate – Minor Adverse/Beneficial	Minor Adverse/Beneficial
Minor	Moderate – Minor Adverse/Beneficial	Minor Adverse/Beneficial	Minor – Negligible
Negligible / Insignificant	Negligible / Insignificant	Negligible / Insignificant	Negligible / Insignificant