

## APPENDIX 11.2

### Transport Infrastructure Ireland Significance Criteria

Magnitude of Change	Annual Mean NO <sub>2</sub> / PM <sub>10</sub>	No. days with PM <sub>10</sub> concentration > 50 µg/m <sup>3</sup>	Annual Mean PM <sub>2.5</sub>
Large	Increase / decrease ≥4 µg/m <sup>3</sup>	Increase / decrease >4 days	Increase / decrease ≥2.5 µg/m <sup>3</sup>
Medium	Increase / decrease 2 - <4 µg/m <sup>3</sup>	Increase / decrease 3 or 4 days	Increase / decrease 1.25 - <2.5 µg/m <sup>3</sup>
Small	Increase / decrease 0.4 - <2 µg/m <sup>3</sup>	Increase / decrease 1 or 2 days	Increase / decrease 0.25 - <1.25 µg/m <sup>3</sup>
Imperceptible	Increase / decrease <0.4 µg/m <sup>3</sup>	Increase / decrease <1 day	Increase / decrease <0.25 µg/m <sup>3</sup>

**Table A11.2.1:** Definition of Impact Magnitude for Changes in Ambient Pollutant Concentrations

Absolute Concentration in Relation to Objective/Limit Value	Change in Concentration <sup>Note 1</sup>		
	Small	Medium	Large
Increase with Scheme			
Above Objective/Limit Value With Scheme (≥40 µg/m <sup>3</sup> of NO <sub>2</sub> or PM <sub>10</sub> ) (≥25 µg/m <sup>3</sup> of PM <sub>2.5</sub> )	Slight Adverse	Moderate Adverse	Substantial Adverse
Just Below Objective/Limit Value With Scheme (36 - <40 µg/m <sup>3</sup> of NO <sub>2</sub> or PM <sub>10</sub> ) (22.5 - <25 µg/m <sup>3</sup> of PM <sub>2.5</sub> )	Slight Adverse	Moderate Adverse	Moderate Adverse
Below Objective/Limit Value With Scheme (30 - <36 µg/m <sup>3</sup> of NO <sub>2</sub> or PM <sub>10</sub> ) (18.75 - <22.5 µg/m <sup>3</sup> of PM <sub>2.5</sub> )	Negligible	Slight Adverse	Slight Adverse
Well Below Objective/Limit Value With Scheme (<30 µg/m <sup>3</sup> of NO <sub>2</sub> or PM <sub>10</sub> ) (<18.75 µg/m <sup>3</sup> of PM <sub>2.5</sub> )	Negligible	Negligible	Slight Adverse
Decrease with Scheme			
Above Objective/Limit Value With Scheme (≥40 µg/m <sup>3</sup> of NO <sub>2</sub> or PM <sub>10</sub> ) (≥25 µg/m <sup>3</sup> of PM <sub>2.5</sub> )	Slight Beneficial	Moderate Beneficial	Substantial Beneficial
Just Below Objective/Limit Value With Scheme (36 - <40 µg/m <sup>3</sup> of NO <sub>2</sub> or PM <sub>10</sub> ) (22.5 - <25 µg/m <sup>3</sup> of PM <sub>2.5</sub> )	Slight Beneficial	Moderate Beneficial	Moderate Beneficial
Below Objective/Limit Value With Scheme (30 - <36 µg/m <sup>3</sup> of NO <sub>2</sub> or PM <sub>10</sub> ) (18.75 - <22.5 µg/m <sup>3</sup> of PM <sub>2.5</sub> )	Negligible	Slight Beneficial	Slight Beneficial
Well Below Objective/Limit Value With Scheme (<30 µg/m <sup>3</sup> of NO <sub>2</sub> or PM <sub>10</sub> ) (<18.75 µg/m <sup>3</sup> of PM <sub>2.5</sub> )	Negligible	Negligible	Slight Beneficial

Note 1 Well Below Standard = <75% of limit value.

**Table A11.2.2:** Air Quality Impact Significance Criteria For Annual Mean NO<sub>2</sub> and PM<sub>10</sub> and PM<sub>2.5</sub> Concentrations at a Receptor

Absolute Concentration in Relation to Objective / Limit Value	Change in Concentration <sup>Note 1</sup>		
	Small	Medium	Large
Increase with Scheme			
Above Objective/Limit Value With Scheme ( $\geq 35$ days)	Slight Adverse	Moderate Adverse	Substantial Adverse
Just Below Objective/Limit Value With Scheme ( $32 - < 35$ days)	Slight Adverse	Moderate Adverse	Moderate Adverse
Below Objective/Limit Value With Scheme ( $26 - < 32$ days)	Negligible	Slight Adverse	Slight Adverse
Well Below Objective/Limit Value With Scheme ( $< 26$ days)	Negligible	Negligible	Slight Adverse
Decrease with Scheme			
Above Objective/Limit Value With Scheme ( $\geq 35$ days)	Slight Beneficial	Moderate Beneficial	Substantial Beneficial
Just Below Objective/Limit Value With Scheme ( $32 - < 35$ days)	Slight Beneficial	Moderate Beneficial	Moderate Beneficial
Below Objective/Limit Value With Scheme ( $26 - < 32$ days)	Negligible	Slight Beneficial	Slight Beneficial
Well Below Objective/Limit Value With Scheme ( $< 26$ days)	Negligible	Negligible	Slight Beneficial

**Table A11.2.3:** Air Quality Impact Significance Criteria For Changes to Number of Days with PM<sub>10</sub> Concentration Greater than 50 µg/m<sup>3</sup> at a Receptor