

# Appendix F – Air Quality Monitoring and Background Concentrations

Table F-1 NO<sub>2</sub> Diffusion Tube Monitoring Sites within 1km of the Scheme

X	Y	Site Name	NO <sub>2</sub> annualised bias adjusted concentration 2016 (µg.m <sup>-3</sup> )	Data Capture (%)
289233	346334	Portadown Road	35.2	100.0%
290714	346650	Tirnascope Road	17.9	100.0%
289205	345812	Killuney Park Road	10.1	100.0%
288534	345803	Portadown Road (2)	34.5	83.3%
287698	345491	College Hill	29.7	83.3%
288045	345149	Victoria Street	26.9	83.3%
289298	345215	Hamiltonsbawn Road	10.3	100.0%
290104	345288	Hamiltonsbawn Road	11.0	100.0%
289160	346670	Drumman Hill	7.5	100.0%
287344	344770	Irish Street	<b>48.9</b>	83.3%
287894	344990	Newry Road	<b>59.4</b>	100.0%
288637	343876	Canavancaw Road	23.6	100.0%
289787	344172	Edenaveys Gardens	10.3	100.0%
291049	342307	Markethill Road	11.7	83.3%
287517	345826	Armagh CM	<b>44.8</b>	100.0%
290357	342971	Derryraine Road	8.3	100.0%
291082	343698	Drumbeemore Road	5.9	100.0%
291049	342307	Killuney Road	11.7	100.0%
290011	345553	Tirnascope Road (2)	6.9	100.0%
291180	345794	Tirnascope Road (3)	6.1	100.0%
291592	344952	Bannvale Vistas	9.3	100.0%
288975	344656	Dobbins Grove	22.2	100.0%
288567	344762	Greenfield Way	10.3	100.0%
288780	344248	Thornleigh	8.9	83.3%
288987	344108	Stockingmans Hills	14.5	100.0%
290008	345095	Edenaveys Road	7.7	100.0%
<b>Air Quality Objective</b>			<b>40</b>	

Table F-2 Background Pollutant Concentrations Obtained for 1km<sup>2</sup> Grids Covering the Proposed Scheme Options and Surrounding Road Network

1km <sup>2</sup> grid (OS ref)	Pollutant	Background pollutant concentration (µg.m <sup>-3</sup> )		
		2014	2016	2020
289500; 343500	<b>NO<sub>x</sub></b>	6.7	6	4.8
	<b>NO<sub>2</sub></b>	5.2	4.7	3.7
	<b>PM<sub>10</sub></b>	11.3	11.1	10.7
	<b>PM<sub>2.5</sub></b>	7.7	7.5	7.2
290500; 343500	<b>NO<sub>x</sub></b>	6.0	5.5	4.3
	<b>NO<sub>2</sub></b>	4.7	4.2	3.4
	<b>PM<sub>10</sub></b>	11	10.7	10.3
	<b>PM<sub>2.5</sub></b>	7.4	7.2	6.8
288500; 344500	<b>NO<sub>x</sub></b>	9.0	8.1	6.2
	<b>NO<sub>2</sub></b>	6.9	6.2	4.8
	<b>PM<sub>10</sub></b>	13.4	13.2	12.7

1km <sup>2</sup> grid (OS ref)	Pollutant	Background pollutant concentration (µg.m <sup>-3</sup> )		
		2014	2016	2020
	<b>PM<sub>2.5</sub></b>	9.8	9.6	9.2
289500; 344500	<b>NO<sub>x</sub></b>	7.3	6.6	5.1
	<b>NO<sub>2</sub></b>	5.6	5.1	4.0
	<b>PM<sub>10</sub></b>	11.8	11.6	11.2
	<b>PM<sub>2.5</sub></b>	8.2	7.9	7.6
290500; 344500	<b>NO<sub>x</sub></b>	6.3	5.8	4.6
	<b>NO<sub>2</sub></b>	4.9	4.5	3.6
	<b>PM<sub>10</sub></b>	11.1	10.9	10.5
	<b>PM<sub>2.5</sub></b>	7.5	7.3	6.9
288500; 345500	<b>NO<sub>x</sub></b>	9.8	8.8	6.7
	<b>NO<sub>2</sub></b>	7.4	6.7	5.2
	<b>PM<sub>10</sub></b>	14	13.7	13.2
	<b>PM<sub>2.5</sub></b>	10.4	10.2	9.7
289500; 345500	<b>NO<sub>x</sub></b>	8.1	7.3	5.6
	<b>NO<sub>2</sub></b>	6.3	5.6	4.4
	<b>PM<sub>10</sub></b>	12	11.7	11.3
	<b>PM<sub>2.5</sub></b>	8.3	8	7.7
288500; 346500	<b>NO<sub>x</sub></b>	8.1	7.2	5.5
	<b>NO<sub>2</sub></b>	6.2	5.6	4.3
	<b>PM<sub>10</sub></b>	11.9	11.7	11.2
	<b>PM<sub>2.5</sub></b>	8.3	8.1	7.7
289500; 346500	<b>NO<sub>x</sub></b>	7.9	7.1	5.4
	<b>NO<sub>2</sub></b>	6.1	5.5	4.2
	<b>PM<sub>10</sub></b>	11.8	11.6	11.2
	<b>PM<sub>2.5</sub></b>	8	7.8	7.5
288500; 343500	<b>NO<sub>x</sub></b>	6.9	6.3	4.9
	<b>NO<sub>2</sub></b>	5.4	4.9	3.8
	<b>PM<sub>10</sub></b>	11.2	11	10.6
	<b>PM<sub>2.5</sub></b>	7.7	7.5	7.1