



Appendix 3.13 Predicted Cumulative Hourly, Daily and Annual Average NO<sub>2</sub> concentrations in ug/m<sup>3</sup> at Various Assessment Height levels

Air Sensitive Receiver (ASR)	Description of ASR	X	Y	Z	Assessment Height (mAG)	Assessment Height (mPD)	(1) Sludge Treatment Facility at 65mAG			(2) Green Island Cement Plant			(3) Eco Park			(4) Shui Wing Steel Mill			(5) Industrial Chimney			(6) Marine Emission			(7) WENT Landfill and its Extension			(8) Road Traffic Emission (Model by CALINE4)			(9) Adjusted Concentrations contributed from BPPS & CPPS			Total Cumulative		
							1-hr ug/m <sup>3</sup>	24-hr ug/m <sup>3</sup>	Annual ug/m <sup>3</sup>	1-hr ug/m <sup>3</sup>	24-hr ug/m <sup>3</sup>	Annual ug/m <sup>3</sup>	1-hr ug/m <sup>3</sup>	24-hr ug/m <sup>3</sup>	Annual ug/m <sup>3</sup>	1-hr ug/m <sup>3</sup>	24-hr ug/m <sup>3</sup>	Annual ug/m <sup>3</sup>	1-hr ug/m <sup>3</sup>	24-hr ug/m <sup>3</sup>	Annual ug/m <sup>3</sup>	1-hr ug/m <sup>3</sup>	24-hr ug/m <sup>3</sup>	Annual ug/m <sup>3</sup>	1-hr ug/m <sup>3</sup>	24-hr ug/m <sup>3</sup>	Annual ug/m <sup>3</sup>	1-hr ug/m <sup>3</sup>	24-hr ug/m <sup>3</sup>	Annual ug/m <sup>3</sup>	1-hr ug/m <sup>3</sup>	24-hr ug/m <sup>3</sup>	Annual ug/m <sup>3</sup>			
Far Field A27	Tuen Mun Town Plaza	815619	826192	6	1.5	7.5	0.5	0.3	0.03	0.4	0.85	0.4	1.0	0.17	0.4	0.13	0.13	3.2	1.1	0.25	0.0	0.02	0.0	0.02	6.1	2.4	0.35	23	14	0.6	143	85	62			
					5.0	11.0	0.5	0.3	0.03	0.4	0.85	0.4	1.0	0.17	0.4	0.13	3.2	1.1	0.25	0.0	0.02	0.0	0.02	0.0	0.02	6.0	2.4	0.35	23	14	0.6	143	85	62		
Far Field A28	S.K.H. St. Simon's Lui Ming Choi Secondary School	815366	826679	6	1.5	7.5	0.5	0.3	0.03	0.4	0.85	0.4	1.0	0.17	0.4	0.13	3.2	1.1	0.25	0.0	0.02	0.0	0.02	6.1	2.4	0.35	23	14	0.6	143	85	62				
					5.0	11.0	0.5	0.3	0.03	0.4	0.85	0.4	1.0	0.17	0.4	0.13	3.2	1.1	0.25	0.0	0.02	0.0	0.02	0.0	0.02	6.0	2.4	0.35	23	14	0.6	143	85	62		
Far Field A29	Hong Lei Garden	815459	826601	5	1.5	7.5	0.5	0.3	0.03	0.4	0.85	0.4	1.0	0.17	0.4	0.13	3.2	1.1	0.25	0.0	0.02	0.0	0.02	6.1	2.4	0.35	23	14	0.6	143	85	62				
					5.0	11.0	0.5	0.3	0.03	0.4	0.85	0.4	1.0	0.17	0.4	0.13	3.2	1.1	0.25	0.0	0.02	0.0	0.02	0.0	0.02	6.0	2.4	0.35	23	14	0.6	143	85	62		
Far Field A30	Tai Hing Garden	815209	826904	17	1.5	7.5	0.5	0.3	0.03	0.4	0.85	0.4	1.0	0.17	0.4	0.13	3.2	1.1	0.25	0.0	0.02	0.0	0.02	6.1	2.4	0.35	23	14	0.6	143	85	62				
					5.0	11.0	0.5	0.3	0.03	0.4	0.85	0.4	1.0	0.17	0.4	0.13	3.2	1.1	0.25	0.0	0.02	0.0	0.02	0.0	0.02	6.0	2.4	0.35	23	14	0.6	143	85	62		
Far Field A31	Chelsea Heights	815449	826334	7	1.5	7.5	0.5	0.3	0.03	0.4	0.85	0.4	1.0	0.17	0.4	0.13	3.2	1.1	0.25	0.0	0.02	0.0	0.02	6.1	2.4	0.35	23	14	0.6	143	85	62				
					5.0	11.0	0.5	0.3	0.03	0.4	0.85	0.4	1.0	0.17	0.4	0.13	3.2	1.1	0.25	0.0	0.02	0.0	0.02	0.0	0.02	6.0	2.4	0.35	23	14	0.6	143	85	62		
Far Field A32	Melody Garden	813977	826276	6	1.5	7.5	0.5	0.3	0.03	0.4	0.85	0.4	1.0	0.17	0.4	0.13	3.2	1.1	0.25	0.0	0.02	0.0	0.02	6.1	2.4	0.35	23	14	0.6	143	85	62				
					5.0	11.0	0.5	0.3	0.03	0.4	0.85	0.4	1.0	0.17	0.4	0.13	3.2	1.1	0.25	0.0	0.02	0.0	0.02	0.0	0.02	6.0	2.4	0.35	23	14	0.6	143	85	62		

Remarks:

- (a) For road traffic impact, the worst wind condition at each ASR arising from road emissions was taken to predict the hourly, daily (with 0.4 traffic profile adjustment factor applied for daily) and annual average using CALINE4 model.
- (b) The predicted highest CALPUFF modelling results were taken to present the STF contribution at those far field ASRs.
- (c) Adjusted concentrations contributed from BPPS and CPPS at each ASR were calculated based on the same approach adopted in the LUG EIA Study. Detailed calculations refer to Appendix 3.11.
- (d) Cumulative impacts are calculated by summing (1) to (9) and background NO<sub>2</sub> concentration of 60 µg/m<sup>3</sup>. All NO<sub>2</sub> concentrations for (1) and (8) are calculated by applying Ozone Limiting Method to the predicted NO<sub>x</sub> concentration at each ASR due to individual source group with background ozone concentration of 74 µg/m<sup>3</sup>.