

APPENDIX 14.2: TRAFFIC DATA

A summary of the traffic data use in the assessment is presented below. Traffic data were provided by Royal Haskoning DHV.

To ensure a conservative, robust assessment the proposed development traffic flows provided by Royal Haskoning DHV were calculated from traffic generation during the peak August month. In addition Royal Haskoning DHV applied a 20% contingency to the following to provide a robust assessment:

- Construction vehicle trip generation;
- Lodge trip generation;
- Day-visitor trip generation; and
- Staff trip generation.

TEMPRO growth factors adjusted by the National Transport Model (NTM) were used by Royal Haskoning DHV to derive baseline flows in the assessment years for the roads in the study area.

No committed/consented development were considered, as agreed with Staffordshire County Council.

As discussed within **ES Chapter 14: Air Quality**, emission factors were calculated using the EFT v6.0.1, provided by DEFRA. To ensure a worst case assessment it was assumed that there would be no improvement in emission factors from the baseline / model verification year of 2013 in future years

A number of road links have been broken down into sections to allow the conditions to be better reflected within the model, for example to allow speeds to be reduced on the approaches to junctions, following technical guidance provided within LAQM.TG(09).

2013 Baseline

Road Link	AADT	%HGV	Speed (kph)	Emission Factors (g/km/s)	
				NO _x	PM ₁₀
1	2,513	14.1	50.4	0.02485	0.00128
2	2,316	13.9	64.1	0.01976	0.00114
3	212	5.1	64.4	0.00122	0.00008
4	259	5.8	41.7	0.00193	0.00011
5	3,335	5.5	45.0	0.02334	0.00135
6	818	5.5	48.3	0.00549	0.00033
6_junc	818	5.5	26.9	0.00783	0.00036
7	3,225	5.5	48.3	0.02166	0.00129
7_fast	3,225	5.5	80.5	0.01857	0.00130
8	212	5.1	80.5	0.00119	0.00008
9_junc	540	4.4	24.1	0.00505	0.00023
9	540	4.4	48.3	0.00338	0.00021

2017 Without Development

Road Link	AADT	%HGV	Speed (kph)	Emission Factors (g/km/s)	
				NO _x	PM ₁₀
1	2,584	14.1	50.4	0.02556	0.00131
2	2,382	13.9	64.1	0.02032	0.00118
3	218	5.1	64.4	0.00125	0.00008
4	267	5.8	41.7	0.00200	0.00011

5	3,440	5.5	45.0	0.02407	0.00139
6	844	5.5	48.3	0.00567	0.00034
6_junc	844	5.5	26.9	0.00808	0.00037
7	3,327	5.5	48.3	0.02234	0.00133
7_fast	3,327	5.5	80.5	0.01915	0.00134
8	218	5.1	80.5	0.00123	0.00009
9_junc	557	4.4	24.1	0.00521	0.00024
9	557	4.4	48.3	0.00348	0.00021

2017 With Development

Road Link	AADT	%HGV	Speed (kph)	Emission Factors (g/km/s)	
				NO _x	PM ₁₀
1	3,138	11.6	50.4	0.02800	0.001491
2	2,611	12.7	64.1	0.02126	0.001251
3	341	3.3	64.4	0.00176	0.000124
4	393	4.0	41.7	0.00260	0.000152
5	3,448	5.5	45.0	0.02411	0.001393
6	970	4.8	48.3	0.00623	0.000379
6_junc	970	4.8	26.9	0.00881	0.000416
7	3,445	5.3	48.3	0.02287	0.001371
7_fast	3,445	5.3	80.5	0.01966	0.001383
8	973	1.1	80.5	0.00449	0.000343
9_junc	1,311	1.9	24.1	0.00981	0.000511
9	1,311	1.9	48.3	0.00687	0.000463