

Roads and Maritime Services

TRAQ: Emissions and Air Quality Screening Assessment Report (Version 1.3)

Date of report: 05-Sep-2018 15:56  
 Report name: S01\_EB-Des\_2026

INPUT DATA

Simulation name	TRAQ simulation									
Road type	Arterial									
Traffic data	Traffic per day	Speed (km/h)	Grade (%)	Length (km)						
Lane 1	5975	80	0	1						
Lane 2	5975	80	0	1						
Median strip	none									
Traffic mix (%)	CP	CD	LDCP	LD CD	HDCP	RT	AT	BusD	MC	
Lane 1	80.4	2.3	10.2	3.4	0.1	1.8	0.9	0.2	0.7	User
Lane 2	80.4	2.3	10.2	3.4	0.1	1.8	0.9	0.2	0.7	User
24-hour average speed	36	Default								
Peak hour percentage of daily (%)	10									
Year of assessment	2026									
Local landuse	Rural									
Air quality environment	Sydney South West									
Season	Worst-case	Default								
Cold start emissions	Included	Default								

METEOROLOGICAL CONDITIONS

Wind direction	Worst-case wind angle
Wind speed	1 m/s
Atmospheric stability	F class (stable night time conditions)
Temperature	15 deg C

EMISSIONS (Air Pollutants)

	g/km/v CO	g/km/v NOx	g/km/v PM10	kg/h CO	kg/h NOx	kg/h PM10
Lane 1	2.42	0.15	0.04	1.44	0.09	0.03
Lane 2	2.42	0.15	0.04	1.44	0.09	0.03

EMISSIONS (Greenhouse Gases)

	Fuel consumption (L/h)		CO2-e emission factors (kg/L)		CO2-e emissions (t CO2-e/h)	CO2-e emissions (t CO2-e/y)
	Petrol	Diesel	Petrol	Diesel		
Lane 1	39.5	9.2	2.38032	2.69814	0.1	433.8
Lane 2	39.5	9.2	2.38032	2.69814	0.1	433.8
					0.2	867.6

PREDICTED ROADSIDE CONCENTRATIONS AND ASSESSMENT

Maximum 1-hour average CO concentrations (mg/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	0.9	30	Compliance
10 m from kerb	0.4	30	Compliance
20 m from kerb	0.3	30	Compliance
30 m from kerb	0.2	30	Compliance
40 m from kerb	0.2	30	Compliance
50 m from kerb	0.2	30	Compliance
75 m from kerb	0.1	30	Compliance
100 m from kerb	0.1	30	Compliance
150 m from kerb	0.1	30	Compliance
200 m from kerb	0.1	30	Compliance

Maximum 8-hour average CO concentrations (mg/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	0.6	10	Compliance
10 m from kerb	0.3	10	Compliance
20 m from kerb	0.2	10	Compliance
30 m from kerb	0.1	10	Compliance
40 m from kerb	0.1	10	Compliance
50 m from kerb	0.1	10	Compliance
75 m from kerb	0.1	10	Compliance
100 m from kerb	0.1	10	Compliance
150 m from kerb	0.1	10	Compliance
200 m from kerb	0.1	10	Compliance

Maximum 1-hour average NO2 concentrations (ug/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	5.7	246	Compliance
10 m from kerb	3.4	246	Compliance
20 m from kerb	3.2	246	Compliance
30 m from kerb	2.6	246	Compliance
40 m from kerb	2.3	246	Compliance
50 m from kerb	2	246	Compliance
75 m from kerb	1.6	246	Compliance
100 m from kerb	1.4	246	Compliance
150 m from kerb	1.1	246	Compliance
200 m from kerb	0.9	246	Compliance

Annual average NO2 concentrations (ug/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	1.1	62	Compliance
10 m from kerb	0.7	62	Compliance
20 m from kerb	0.6	62	Compliance
30 m from kerb	0.5	62	Compliance
40 m from kerb	0.5	62	Compliance
50 m from kerb	0.4	62	Compliance
75 m from kerb	0.3	62	Compliance
100 m from kerb	0.3	62	Compliance
150 m from kerb	0.2	62	Compliance
200 m from kerb	0.2	62	Compliance

Maximum 24-hour average PM10 concentrations (ug/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	8.2	50	Compliance
10 m from kerb	3.2	50	Compliance
20 m from kerb	2.3	50	Compliance
30 m from kerb	1.9	50	Compliance

40 m from kerb	1.6	50	Compliance
50 m from kerb	1.4	50	Compliance
75 m from kerb	1.1	50	Compliance
100 m from kerb	1	50	Compliance
150 m from kerb	0.8	50	Compliance
200 m from kerb	0.6	50	Compliance

Annual average PM10 concentrations (ug/m3)

Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	3.3	25	Compliance
10 m from kerb	1.3	25	Compliance
20 m from kerb	0.9	25	Compliance
30 m from kerb	0.7	25	Compliance
40 m from kerb	0.6	25	Compliance
50 m from kerb	0.6	25	Compliance
75 m from kerb	0.5	25	Compliance
100 m from kerb	0.4	25	Compliance
150 m from kerb	0.3	25	Compliance
200 m from kerb	0.3	25	Compliance

END OF REPORT

Roads and Maritime Services

TRAQ: Emissions and Air Quality Screening Assessment Report (Version 1.3)

Date of report: 05-Sep-2018 16:03  
 Report name: S01\_WB-Des\_2026

INPUT DATA

Simulation name	TRAQ simulation									
Road type	Arterial									
Traffic data	Traffic per day	Speed (km/h)	Grade (%)	Length (km)						
Lane 1	7800	80	0	1						
Lane 2	7800	80	0	1						
Median strip	none									
Traffic mix (%)	CP	CD	LDCP	LDCD	HDCP	RT	AT	BusD	MC	User
Lane 1	80.4	2.3	10.2	3.4	0.1	1.8	0.9	0.2	0.7	User
Lane 2	80.4	2.3	10.2	3.4	0.1	1.8	0.9	0.2	0.7	User
24-hour average speed	36	Default								
Peak hour percentage of daily (%)	10									
Year of assessment	2026									
Local landuse	Rural									
Air quality environment	Sydney South West									
Season	Worst-case	Default								
Cold start emissions	Included	Default								

METEOROLOGICAL CONDITIONS

Wind direction	Worst-case wind angle
Wind speed	1 m/s
Atmospheric stability	F class (stable night time conditions)
Temperature	15 deg C

EMISSIONS (Air Pollutants)

	g/km/v	g/km/v	g/km/v	kg/h	kg/h	kg/h
	CO	NOx	PM10	CO	NOx	PM10
Lane 1	2.42	0.15	0.04	1.88	0.12	0.03
Lane 2	2.42	0.15	0.04	1.88	0.12	0.03

EMISSIONS (Greenhouse Gases)

	Fuel consumption (L/h)		CO2-e emission factors (kg/L)		CO2-e emissions (t CO2-e/h)	CO2-e emissions (t CO2-e/y)
	Petrol	Diesel	Petrol	Diesel		
Lane 1	51.5	12.1	2.38032	2.69814	0.2	566.6
Lane 2	51.5	12.1	2.38032	2.69814	0.2	566.6
					0.3	1133.2

PREDICTED ROADSIDE CONCENTRATIONS AND ASSESSMENT

Maximum 1-hour average CO concentrations (mg/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	1.2	30	Compliance
10 m from kerb	0.5	30	Compliance
20 m from kerb	0.3	30	Compliance
30 m from kerb	0.3	30	Compliance
40 m from kerb	0.2	30	Compliance
50 m from kerb	0.2	30	Compliance
75 m from kerb	0.2	30	Compliance
100 m from kerb	0.1	30	Compliance
150 m from kerb	0.1	30	Compliance
200 m from kerb	0.1	30	Compliance

Maximum 8-hour average CO concentrations (mg/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	0.8	10	Compliance
10 m from kerb	0.3	10	Compliance
20 m from kerb	0.2	10	Compliance
30 m from kerb	0.2	10	Compliance
40 m from kerb	0.2	10	Compliance
50 m from kerb	0.1	10	Compliance
75 m from kerb	0.1	10	Compliance
100 m from kerb	0.1	10	Compliance
150 m from kerb	0.1	10	Compliance
200 m from kerb	0.1	10	Compliance

Maximum 1-hour average NO2 concentrations (ug/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	7.3	246	Compliance
10 m from kerb	4.2	246	Compliance
20 m from kerb	4	246	Compliance
30 m from kerb	3.3	246	Compliance
40 m from kerb	2.8	246	Compliance
50 m from kerb	2.5	246	Compliance
75 m from kerb	2	246	Compliance
100 m from kerb	1.7	246	Compliance
150 m from kerb	1.3	246	Compliance
200 m from kerb	1.1	246	Compliance

Annual average NO2 concentrations (ug/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	1.5	62	Compliance
10 m from kerb	0.8	62	Compliance
20 m from kerb	0.8	62	Compliance
30 m from kerb	0.7	62	Compliance
40 m from kerb	0.6	62	Compliance
50 m from kerb	0.5	62	Compliance
75 m from kerb	0.4	62	Compliance
100 m from kerb	0.3	62	Compliance
150 m from kerb	0.3	62	Compliance
200 m from kerb	0.2	62	Compliance

Maximum 24-hour average PM10 concentrations (ug/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	10.4	50	Compliance
10 m from kerb	4	50	Compliance
20 m from kerb	2.9	50	Compliance
30 m from kerb	2.3	50	Compliance

40 m from kerb	2	50	Compliance
50 m from kerb	1.8	50	Compliance
75 m from kerb	1.4	50	Compliance
100 m from kerb	1.2	50	Compliance
150 m from kerb	1	50	Compliance
200 m from kerb	0.8	50	Compliance

Annual average PM10 concentrations (ug/m3)

Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	4.2	25	Compliance
10 m from kerb	1.6	25	Compliance
20 m from kerb	1.1	25	Compliance
30 m from kerb	0.9	25	Compliance
40 m from kerb	0.8	25	Compliance
50 m from kerb	0.7	25	Compliance
75 m from kerb	0.6	25	Compliance
100 m from kerb	0.5	25	Compliance
150 m from kerb	0.4	25	Compliance
200 m from kerb	0.3	25	Compliance

END OF REPORT

Roads and Maritime Services

TRAQ: Emissions and Air Quality Screening Assessment Report (Version 1.3)

Date of report: 06-Sep-2018 09:07  
 Report name: S01\_EB-Des\_2036

INPUT DATA

Simulation name	TRAQ simulation									
Road type	Arterial									
Traffic data	Traffic per day	Speed (km/h)	Grade (%)	Length (km)						
Lane 1	6320	80	0	1						
Lane 2	6320	80	0	1						
Lane 3	6320	80	0	1						
Median strip	none									
Traffic mix (%)	CP	CD	LDCP	LDCD	HDCP	RT	AT	BusD	MC	
Lane 1	80.4	2.3	10.2	3.4	0.1	1.8	0.9	0.2	0.7	User
Lane 2	80.4	2.3	10.2	3.4	0.1	1.8	0.9	0.2	0.7	User
Lane 3	80.4	2.3	10.2	3.4	0.1	1.8	0.9	0.2	0.7	User
24-hour average speed	35.5	Default								
Peak hour percentage of daily (%)	10									
Year of assessment	2036									
Local landuse	Rural									
Air quality environment	Sydney South West									
Season	Worst-case	Default								
Cold start emissions	Included	Default								

METEOROLOGICAL CONDITIONS

Wind direction	Worst-case wind angle
Wind speed	1 m/s
Atmospheric stability	F class (stable night time conditions)
Temperature	15 deg C

EMISSIONS (Air Pollutants)

	g/km/v	g/km/v	g/km/v	kg/h	kg/h	kg/h
	CO	NOx	PM10	CO	NOx	PM10
Lane 1	2.51	0.09	0.04	1.59	0.06	0.03
Lane 2	2.51	0.09	0.04	1.59	0.06	0.03
Lane 3	2.51	0.09	0.04	1.59	0.06	0.03

EMISSIONS (Greenhouse Gases)

	Fuel consumption (L/h)		CO2-e emission factors (kg/L)		CO2-e emissions (t CO2-e/h)	CO2-e emissions (t CO2-e/y)
	Petrol	Diesel	Petrol	Diesel		
Lane 1	39.6	9.6	2.38032	2.69814	0.1	438.6
Lane 2	39.6	9.6	2.38032	2.69814	0.1	438.6
Lane 3	39.6	9.6	2.38032	2.69814	0.1	438.6
					0.4	1315.8

PREDICTED ROADSIDE CONCENTRATIONS AND ASSESSMENT

Maximum 1-hour average CO concentrations (mg/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	1.3	30	Compliance
10 m from kerb	0.6	30	Compliance
20 m from kerb	0.4	30	Compliance
30 m from kerb	0.3	30	Compliance
40 m from kerb	0.3	30	Compliance
50 m from kerb	0.3	30	Compliance
75 m from kerb	0.2	30	Compliance
100 m from kerb	0.2	30	Compliance
150 m from kerb	0.1	30	Compliance
200 m from kerb	0.1	30	Compliance
Maximum 8-hour average CO concentrations (mg/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	0.9	10	Compliance
10 m from kerb	0.4	10	Compliance
20 m from kerb	0.3	10	Compliance
30 m from kerb	0.2	10	Compliance
40 m from kerb	0.2	10	Compliance
50 m from kerb	0.2	10	Compliance
75 m from kerb	0.1	10	Compliance
100 m from kerb	0.1	10	Compliance
150 m from kerb	0.1	10	Compliance
200 m from kerb	0.1	10	Compliance
Maximum 1-hour average NO2 concentrations (ug/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	4.7	246	Compliance
10 m from kerb	3.1	246	Compliance
20 m from kerb	3	246	Compliance
30 m from kerb	2.5	246	Compliance
40 m from kerb	2.2	246	Compliance
50 m from kerb	1.9	246	Compliance
75 m from kerb	1.6	246	Compliance
100 m from kerb	1.3	246	Compliance
150 m from kerb	1	246	Compliance
200 m from kerb	0.9	246	Compliance
Annual average NO2 concentrations (ug/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	0.9	62	Compliance
10 m from kerb	0.6	62	Compliance
20 m from kerb	0.6	62	Compliance
30 m from kerb	0.5	62	Compliance
40 m from kerb	0.4	62	Compliance
50 m from kerb	0.4	62	Compliance
75 m from kerb	0.3	62	Compliance
100 m from kerb	0.3	62	Compliance
150 m from kerb	0.2	62	Compliance
200 m from kerb	0.2	62	Compliance
Maximum 24-hour average PM10 concentrations (ug/m3)			
Receptor location	Due to roadway	Criteria	Assessment

At kerb (0 m)	10.6	50	Compliance
10 m from kerb	4.7	50	Compliance
20 m from kerb	3.4	50	Compliance
30 m from kerb	2.8	50	Compliance
40 m from kerb	2.4	50	Compliance
50 m from kerb	2.2	50	Compliance
75 m from kerb	1.8	50	Compliance
100 m from kerb	1.5	50	Compliance
150 m from kerb	1.2	50	Compliance
200 m from kerb	1	50	Compliance

Annual average PM10 concentrations (ug/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	4.2	25	Compliance
10 m from kerb	1.9	25	Compliance
20 m from kerb	1.4	25	Compliance
30 m from kerb	1.1	25	Compliance
40 m from kerb	1	25	Compliance
50 m from kerb	0.9	25	Compliance
75 m from kerb	0.7	25	Compliance
100 m from kerb	0.6	25	Compliance
150 m from kerb	0.5	25	Compliance
200 m from kerb	0.4	25	Compliance

END OF REPORT

**Roads and Maritime Services**

**TRAQ: Emissions and Air Quality Screening Assessment Report (Version 1.3)**

Date of report: 06-Sep-2018 09:08  
 Report name: S01\_WB-Des\_2036

**INPUT DATA**

Simulation name	TRAQ simulation									
Road type	Arterial									
Traffic data	Traffic per day	Speed (km/h)	Grade (%)	Length (km)						
Lane 1	7530	80	0	1						
Lane 2	7530	80	0	1						
Lane 3	7530	80	0	1						
Median strip	none									
Traffic mix (%)	CP	CD	LDCP	LDCD	HDCP	RT	AT	BusD	MC	
Lane 1	80.4	2.3	10.2	3.4	0.1	1.8	0.9	0.2	0.7	User
Lane 2	80.4	2.3	10.2	3.4	0.1	1.8	0.9	0.2	0.7	User
Lane 3	80.4	2.3	10.2	3.4	0.1	1.8	0.9	0.2	0.7	User
24-hour average speed	35.5	Default								
Peak hour percentage of daily (%)	10									
Year of assessment	2036									
Local landuse	Rural									
Air quality environment	Sydney South West									
Season	Worst-case	Default								
Cold start emissions	Included	Default								

**METEOROLOGICAL CONDITIONS**

Wind direction	Worst-case wind angle
Wind speed	1 m/s
Atmospheric stability	F class (stable night time conditions)
Temperature	15 deg C

**EMISSIONS (Air Pollutants)**

	g/km/v	g/km/v	g/km/v	kg/h	kg/h	kg/h
	CO	NOx	PM10	CO	NOx	PM10
Lane 1	2.51	0.09	0.04	1.89	0.07	0.03
Lane 2	2.51	0.09	0.04	1.89	0.07	0.03
Lane 3	2.51	0.09	0.04	1.89	0.07	0.03

**EMISSIONS (Greenhouse Gases)**

	Fuel consumption (L/h)		CO2-e emission factors (kg/L)		CO2-e emissions (t CO2-e/h)	CO2-e emissions (t CO2-e/y)
	Petrol	Diesel	Petrol	Diesel		
Lane 1	47.1	11.5	2.38032	2.69814	0.1	522.5
Lane 2	47.1	11.5	2.38032	2.69814	0.1	522.5
Lane 3	47.1	11.5	2.38032	2.69814	0.1	522.5
					0.4	1567.4

**PREDICTED ROADSIDE CONCENTRATIONS AND ASSESSMENT**

Maximum 1-hour average CO concentrations (mg/m3)		Criteria	Assessment
Receptor location	Due to roadway		
At kerb (0 m)	1.5	30	Compliance
10 m from kerb	0.6	30	Compliance
20 m from kerb	0.5	30	Compliance
30 m from kerb	0.4	30	Compliance
40 m from kerb	0.3	30	Compliance
50 m from kerb	0.3	30	Compliance
75 m from kerb	0.2	30	Compliance
100 m from kerb	0.2	30	Compliance
150 m from kerb	0.2	30	Compliance
200 m from kerb	0.1	30	Compliance
Maximum 8-hour average CO concentrations (mg/m3)		Criteria	Assessment
Receptor location	Due to roadway		
At kerb (0 m)	1	10	Compliance
10 m from kerb	0.5	10	Compliance
20 m from kerb	0.3	10	Compliance
30 m from kerb	0.3	10	Compliance
40 m from kerb	0.2	10	Compliance
50 m from kerb	0.2	10	Compliance
75 m from kerb	0.2	10	Compliance
100 m from kerb	0.1	10	Compliance
150 m from kerb	0.1	10	Compliance
200 m from kerb	0.1	10	Compliance
Maximum 1-hour average NO2 concentrations (ug/m3)		Criteria	Assessment
Receptor location	Due to roadway		
At kerb (0 m)	5.5	246	Compliance
10 m from kerb	3.6	246	Compliance
20 m from kerb	3.5	246	Compliance
30 m from kerb	2.9	246	Compliance
40 m from kerb	2.5	246	Compliance
50 m from kerb	2.3	246	Compliance
75 m from kerb	1.8	246	Compliance
100 m from kerb	1.5	246	Compliance
150 m from kerb	1.2	246	Compliance
200 m from kerb	1	246	Compliance
Annual average NO2 concentrations (ug/m3)		Criteria	Assessment
Receptor location	Due to roadway		
At kerb (0 m)	1.1	62	Compliance
10 m from kerb	0.7	62	Compliance
20 m from kerb	0.7	62	Compliance
30 m from kerb	0.6	62	Compliance
40 m from kerb	0.5	62	Compliance
50 m from kerb	0.5	62	Compliance
75 m from kerb	0.4	62	Compliance
100 m from kerb	0.3	62	Compliance
150 m from kerb	0.2	62	Compliance
200 m from kerb	0.2	62	Compliance
Maximum 24-hour average PM10 concentrations (ug/m3)		Criteria	Assessment
Receptor location	Due to roadway		

At kerb (0 m)	12.4	50	Compliance
10 m from kerb	5.4	50	Compliance
20 m from kerb	4	50	Compliance
30 m from kerb	3.3	50	Compliance
40 m from kerb	2.8	50	Compliance
50 m from kerb	2.5	50	Compliance
75 m from kerb	2	50	Compliance
100 m from kerb	1.7	50	Compliance
150 m from kerb	1.4	50	Compliance
200 m from kerb	1.1	50	Compliance

Annual average PM10 concentrations (ug/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	5	25	Compliance
10 m from kerb	2.2	25	Compliance
20 m from kerb	1.6	25	Compliance
30 m from kerb	1.3	25	Compliance
40 m from kerb	1.1	25	Compliance
50 m from kerb	1	25	Compliance
75 m from kerb	0.8	25	Compliance
100 m from kerb	0.7	25	Compliance
150 m from kerb	0.5	25	Compliance
200 m from kerb	0.5	25	Compliance

END OF REPORT



Roads and Maritime Services

TRAQ: Emissions and Air Quality Screening Assessment Report (Version 1.3)

Date of report: 05-Sep-2018 16:09  
 Report name: S02\_EB-Des\_2026

INPUT DATA

Simulation name	TRAQ simulation									
Road type	Arterial									
Traffic data	Traffic per day	Speed (km/h)	Grade (%)	Length (km)						
Lane 1	6030	80	0	1						
Lane 2	6030	80	0	1						
Median strip	none									
Traffic mix (%)	CP	CD	LDCP	LD CD	HDCP	RT	AT	BusD	MC	
Lane 1	80.4	2.3	10.2	3.4	0.1	1.8	0.9	0.2	0.7	User
Lane 2	80.4	2.3	10.2	3.4	0.1	1.8	0.9	0.2	0.7	User
24-hour average speed	36	Default								
Peak hour percentage of daily (%)	10									
Year of assessment	2026									
Local landuse	Rural									
Air quality environment	Sydney South West									
Season	Worst-case	Default								
Cold start emissions	Included	Default								

METEOROLOGICAL CONDITIONS

Wind direction	Worst-case wind angle
Wind speed	1 m/s
Atmospheric stability	F class (stable night time conditions)
Temperature	15 deg C

EMISSIONS (Air Pollutants)

	g/km/v CO	g/km/v NOx	g/km/v PM10	kg/h CO	kg/h NOx	kg/h PM10
Lane 1	2.42	0.15	0.04	1.46	0.09	0.03
Lane 2	2.42	0.15	0.04	1.46	0.09	0.03

EMISSIONS (Greenhouse Gases)

	Fuel consumption (L/h)		CO2-e emission factors (kg/L)		CO2-e emissions (t CO2-e/h)	CO2-e emissions (t CO2-e/y)
	Petrol	Diesel	Petrol	Diesel		
Lane 1	39.8	9.3	2.38032	2.69814	0.1	437.4
Lane 2	39.8	9.3	2.38032	2.69814	0.1	437.4
					0.2	874.8

PREDICTED ROADSIDE CONCENTRATIONS AND ASSESSMENT

Maximum 1-hour average CO concentrations (mg/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	0.9	30	Compliance
10 m from kerb	0.4	30	Compliance
20 m from kerb	0.3	30	Compliance
30 m from kerb	0.2	30	Compliance
40 m from kerb	0.2	30	Compliance
50 m from kerb	0.2	30	Compliance
75 m from kerb	0.1	30	Compliance
100 m from kerb	0.1	30	Compliance
150 m from kerb	0.1	30	Compliance
200 m from kerb	0.1	30	Compliance
Maximum 8-hour average CO concentrations (mg/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	0.7	10	Compliance
10 m from kerb	0.3	10	Compliance
20 m from kerb	0.2	10	Compliance
30 m from kerb	0.1	10	Compliance
40 m from kerb	0.1	10	Compliance
50 m from kerb	0.1	10	Compliance
75 m from kerb	0.1	10	Compliance
100 m from kerb	0.1	10	Compliance
150 m from kerb	0.1	10	Compliance
200 m from kerb	0.1	10	Compliance
Maximum 1-hour average NO2 concentrations (ug/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	5.8	246	Compliance
10 m from kerb	3.4	246	Compliance
20 m from kerb	3.2	246	Compliance
30 m from kerb	2.6	246	Compliance
40 m from kerb	2.3	246	Compliance
50 m from kerb	2	246	Compliance
75 m from kerb	1.6	246	Compliance
100 m from kerb	1.4	246	Compliance
150 m from kerb	1.1	246	Compliance
200 m from kerb	0.9	246	Compliance
Annual average NO2 concentrations (ug/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	1.2	62	Compliance
10 m from kerb	0.7	62	Compliance
20 m from kerb	0.6	62	Compliance
30 m from kerb	0.5	62	Compliance
40 m from kerb	0.5	62	Compliance
50 m from kerb	0.4	62	Compliance
75 m from kerb	0.3	62	Compliance
100 m from kerb	0.3	62	Compliance
150 m from kerb	0.2	62	Compliance
200 m from kerb	0.2	62	Compliance
Maximum 24-hour average PM10 concentrations (ug/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	8.3	50	Compliance
10 m from kerb	3.3	50	Compliance
20 m from kerb	2.3	50	Compliance
30 m from kerb	1.9	50	Compliance

40 m from kerb	1.6	50	Compliance
50 m from kerb	1.4	50	Compliance
75 m from kerb	1.2	50	Compliance
100 m from kerb	1	50	Compliance
150 m from kerb	0.8	50	Compliance
200 m from kerb	0.6	50	Compliance

Annual average PM10 concentrations (ug/m3)

Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	3.3	25	Compliance
10 m from kerb	1.3	25	Compliance
20 m from kerb	0.9	25	Compliance
30 m from kerb	0.8	25	Compliance
40 m from kerb	0.6	25	Compliance
50 m from kerb	0.6	25	Compliance
75 m from kerb	0.5	25	Compliance
100 m from kerb	0.4	25	Compliance
150 m from kerb	0.3	25	Compliance
200 m from kerb	0.3	25	Compliance

END OF REPORT

Roads and Maritime Services

TRAQ: Emissions and Air Quality Screening Assessment Report (Version 1.3)

Date of report: 06-Sep-2018 09:11  
 Report name: S02\_EB-Des\_2036

INPUT DATA

Simulation name	TRAQ simulation									
Road type	Arterial									
Traffic data	Traffic per day	Speed (km/h)	Grade (%)	Length (km)						
Lane 1	8500	80	0	1						
Lane 2	8500	80	0	1						
Median strip	none									
Traffic mix (%)	CP	CD	LDCP	LD CD	HDCP	RT	AT	BusD	MC	
Lane 1	80.4	2.3	10.2	3.4	0.1	1.8	0.9	0.2	0.7	User
Lane 2	80.4	2.3	10.2	3.4	0.1	1.8	0.9	0.2	0.7	User
24-hour average speed	35.5	Default								
Peak hour percentage of daily (%)	10									
Year of assessment	2036									
Local landuse	Rural									
Air quality environment	Sydney South West									
Season	Worst-case	Default								
Cold start emissions	Included	Default								

METEOROLOGICAL CONDITIONS

Wind direction	Worst-case wind angle
Wind speed	1 m/s
Atmospheric stability	F class (stable night time conditions)
Temperature	15 deg C

EMISSIONS (Air Pollutants)

	g/km/v	g/km/v	g/km/v	kg/h	kg/h	kg/h
	CO	NOx	PM10	CO	NOx	PM10
Lane 1	2.51	0.09	0.04	2.13	0.08	0.04
Lane 2	2.51	0.09	0.04	2.13	0.08	0.04

EMISSIONS (Greenhouse Gases)

	Fuel consumption (L/h)		CO2-e emission factors (kg/L)		CO2-e emissions (t CO2-e/h)	CO2-e emissions (t CO2-e/y)
	Petrol	Diesel	Petrol	Diesel		
Lane 1	53.2	12.9	2.38032	2.69814	0.2	589.3
Lane 2	53.2	12.9	2.38032	2.69814	0.2	589.3
					0.3	1178.5

PREDICTED ROADSIDE CONCENTRATIONS AND ASSESSMENT

Maximum 1-hour average CO concentrations (mg/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	1.3	30	Compliance
10 m from kerb	0.5	30	Compliance
20 m from kerb	0.4	30	Compliance
30 m from kerb	0.3	30	Compliance
40 m from kerb	0.3	30	Compliance
50 m from kerb	0.2	30	Compliance
75 m from kerb	0.2	30	Compliance
100 m from kerb	0.2	30	Compliance
150 m from kerb	0.1	30	Compliance
200 m from kerb	0.1	30	Compliance
Maximum 8-hour average CO concentrations (mg/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	0.9	10	Compliance
10 m from kerb	0.4	10	Compliance
20 m from kerb	0.3	10	Compliance
30 m from kerb	0.2	10	Compliance
40 m from kerb	0.2	10	Compliance
50 m from kerb	0.2	10	Compliance
75 m from kerb	0.1	10	Compliance
100 m from kerb	0.1	10	Compliance
150 m from kerb	0.1	10	Compliance
200 m from kerb	0.1	10	Compliance
Maximum 1-hour average NO2 concentrations (ug/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	4.9	246	Compliance
10 m from kerb	2.9	246	Compliance
20 m from kerb	2.7	246	Compliance
30 m from kerb	2.2	246	Compliance
40 m from kerb	1.9	246	Compliance
50 m from kerb	1.7	246	Compliance
75 m from kerb	1.4	246	Compliance
100 m from kerb	1.2	246	Compliance
150 m from kerb	0.9	246	Compliance
200 m from kerb	0.7	246	Compliance
Annual average NO2 concentrations (ug/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	1	62	Compliance
10 m from kerb	0.6	62	Compliance
20 m from kerb	0.5	62	Compliance
30 m from kerb	0.4	62	Compliance
40 m from kerb	0.4	62	Compliance
50 m from kerb	0.3	62	Compliance
75 m from kerb	0.3	62	Compliance
100 m from kerb	0.2	62	Compliance
150 m from kerb	0.2	62	Compliance
200 m from kerb	0.1	62	Compliance
Maximum 24-hour average PM10 concentrations (ug/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	11.1	50	Compliance
10 m from kerb	4.3	50	Compliance
20 m from kerb	3	50	Compliance
30 m from kerb	2.5	50	Compliance

40 m from kerb	2.1	50	Compliance
50 m from kerb	1.9	50	Compliance
75 m from kerb	1.5	50	Compliance
100 m from kerb	1.3	50	Compliance
150 m from kerb	1	50	Compliance
200 m from kerb	0.8	50	Compliance

Annual average PM10 concentrations (ug/m3)

Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	4.4	25	Compliance
10 m from kerb	1.7	25	Compliance
20 m from kerb	1.2	25	Compliance
30 m from kerb	1	25	Compliance
40 m from kerb	0.9	25	Compliance
50 m from kerb	0.8	25	Compliance
75 m from kerb	0.6	25	Compliance
100 m from kerb	0.5	25	Compliance
150 m from kerb	0.4	25	Compliance
200 m from kerb	0.3	25	Compliance

END OF REPORT

**Roads and Maritime Services**

**TRAQ: Emissions and Air Quality Screening Assessment Report (Version 1.3)**

Date of report: 05-Sep-2018 16:14  
 Report name: S03\_EB-Des\_2026

**INPUT DATA**

Simulation name	TRAQ simulation									
Road type	Arterial									
Traffic data	Traffic per day	Speed (km/h)	Grade (%)	Length (km)						
Lane 1	9990	80	0	1						
Median strip	none									
Traffic mix (%)	CP	CD	LDCP	LDLD	HDCP	RT	AT	BusD	MC	User
Lane 1	80.4	2.3	10.2	3.4	0.1	1.8	0.9	0.2	0.7	
24-hour average speed	36	Default								
Peak hour percentage of daily (%)	10									
Year of assessment	2026									
Local landuse	Rural									
Air quality environment	Sydney South West									
Season	Worst-case	Default								
Cold start emissions	Included	Default								

**METEOROLOGICAL CONDITIONS**

Wind direction	Worst-case wind angle
Wind speed	1 m/s
Atmospheric stability	F class (stable night time conditions)
Temperature	15 deg C

**EMISSIONS (Air Pollutants)**

	g/km/v	g/km/v	g/km/v	kg/h	kg/h	kg/h
	CO	NOx	PM10	CO	NOx	PM10
Lane 1	2.42	0.15	0.04	2.41	0.15	0.04

**EMISSIONS (Greenhouse Gases)**

	Fuel consumption (L/h)		CO2-e emission factors (kg/L)		CO2-e emissions (t CO2-e/h)	CO2-e emissions (t CO2-e/y)
	Petrol	Diesel	Petrol	Diesel		
Lane 1	66	15.4	2.38032	2.69814	0.2	725.1
					0.2	725.1

**PREDICTED ROADSIDE CONCENTRATIONS AND ASSESSMENT**

Maximum 1-hour average CO concentrations (mg/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	0.9	30	Compliance
10 m from kerb	0.3	30	Compliance
20 m from kerb	0.2	30	Compliance
30 m from kerb	0.2	30	Compliance
40 m from kerb	0.1	30	Compliance
50 m from kerb	0.1	30	Compliance
75 m from kerb	0.1	30	Compliance
100 m from kerb	0.1	30	Compliance
150 m from kerb	0.1	30	Compliance
200 m from kerb	0.1	30	Compliance

  

Maximum 8-hour average CO concentrations (mg/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	0.6	10	Compliance
10 m from kerb	0.2	10	Compliance
20 m from kerb	0.1	10	Compliance
30 m from kerb	0.1	10	Compliance
40 m from kerb	0.1	10	Compliance
50 m from kerb	0.1	10	Compliance
75 m from kerb	0.1	10	Compliance
100 m from kerb	0.1	10	Compliance
150 m from kerb	0	10	Compliance
200 m from kerb	0	10	Compliance

  

Maximum 1-hour average NO2 concentrations (ug/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	5.3	246	Compliance
10 m from kerb	2.8	246	Compliance
20 m from kerb	2.5	246	Compliance
30 m from kerb	2	246	Compliance
40 m from kerb	1.8	246	Compliance
50 m from kerb	1.6	246	Compliance
75 m from kerb	1.3	246	Compliance
100 m from kerb	1.1	246	Compliance
150 m from kerb	0.8	246	Compliance
200 m from kerb	0.7	246	Compliance

  

Annual average NO2 concentrations (ug/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	1.1	62	Compliance
10 m from kerb	0.6	62	Compliance
20 m from kerb	0.5	62	Compliance
30 m from kerb	0.4	62	Compliance
40 m from kerb	0.4	62	Compliance
50 m from kerb	0.3	62	Compliance
75 m from kerb	0.3	62	Compliance
100 m from kerb	0.2	62	Compliance
150 m from kerb	0.2	62	Compliance
200 m from kerb	0.1	62	Compliance

  

Maximum 24-hour average PM10 concentrations (ug/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	7.5	50	Compliance
10 m from kerb	2.7	50	Compliance
20 m from kerb	1.8	50	Compliance
30 m from kerb	1.5	50	Compliance
40 m from kerb	1.3	50	Compliance
50 m from kerb	1.1	50	Compliance
75 m from kerb	0.9	50	Compliance
100 m from kerb	0.8	50	Compliance

150 m from kerb	0.6	50	Compliance
200 m from kerb	0.5	50	Compliance
Annual average PM10 concentrations (ug/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	3	25	Compliance
10 m from kerb	1.1	25	Compliance
20 m from kerb	0.7	25	Compliance
30 m from kerb	0.6	25	Compliance
40 m from kerb	0.5	25	Compliance
50 m from kerb	0.4	25	Compliance
75 m from kerb	0.4	25	Compliance
100 m from kerb	0.3	25	Compliance
150 m from kerb	0.2	25	Compliance
200 m from kerb	0.2	25	Compliance

END OF REPORT

Roads and Maritime Services

TRAQ: Emissions and Air Quality Screening Assessment Report (Version 1.3)

Date of report: 06-Sep-2018 09:13  
 Report name: S03\_EB-Des\_2036

INPUT DATA

Simulation name	TRAQ simulation									
Road type	Arterial									
Traffic data	Traffic per day	Speed (km/h)	Grade (%)	Length (km)						
Lane 1	16120	80	0	1						
Median strip	none									
Traffic mix (%)	CP	CD	LDCP	LDLD	HDCP	RT	AT	BusD	MC	User
Lane 1	80.4	2.3	10.2	3.4	0.1	1.8	0.9	0.2	0.7	
24-hour average speed	35.5	Default								
Peak hour percentage of daily (%)	10									
Year of assessment	2036									
Local landuse	Rural									
Air quality environment	Sydney South West									
Season	Worst-case	Default								
Cold start emissions	Included	Default								

METEOROLOGICAL CONDITIONS

Wind direction	Worst-case wind angle
Wind speed	1 m/s
Atmospheric stability	F class (stable night time conditions)
Temperature	15 deg C

EMISSIONS (Air Pollutants)

	g/km/v	g/km/v	g/km/v	kg/h	kg/h	kg/h
	CO	NOx	PM10	CO	NOx	PM10
Lane 1	2.51	0.09	0.04	4.05	0.15	0.07

EMISSIONS (Greenhouse Gases)

	Fuel consumption (L/h)		CO2-e emission factors (kg/L)		CO2-e emissions (t CO2-e/h)	CO2-e emissions (t CO2-e/y)
	Petrol	Diesel	Petrol	Diesel		
Lane 1	100.9	24.5	2.38032	2.69814	0.3	1117.9
					0.3	1117.9

PREDICTED ROADSIDE CONCENTRATIONS AND ASSESSMENT

Maximum 1-hour average CO concentrations (mg/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	1.3	30	Compliance
10 m from kerb	0.5	30	Compliance
20 m from kerb	0.3	30	Compliance
30 m from kerb	0.2	30	Compliance
40 m from kerb	0.2	30	Compliance
50 m from kerb	0.2	30	Compliance
75 m from kerb	0.1	30	Compliance
100 m from kerb	0.1	30	Compliance
150 m from kerb	0.1	30	Compliance
200 m from kerb	0.1	30	Compliance

Maximum 8-hour average CO concentrations (mg/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	0.9	10	Compliance
10 m from kerb	0.3	10	Compliance
20 m from kerb	0.2	10	Compliance
30 m from kerb	0.2	10	Compliance
40 m from kerb	0.1	10	Compliance
50 m from kerb	0.1	10	Compliance
75 m from kerb	0.1	10	Compliance
100 m from kerb	0.1	10	Compliance
150 m from kerb	0.1	10	Compliance
200 m from kerb	0.1	10	Compliance

Maximum 1-hour average NO2 concentrations (ug/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	5	246	Compliance
10 m from kerb	2.5	246	Compliance
20 m from kerb	2.2	246	Compliance
30 m from kerb	1.8	246	Compliance
40 m from kerb	1.5	246	Compliance
50 m from kerb	1.4	246	Compliance
75 m from kerb	1.1	246	Compliance
100 m from kerb	0.9	246	Compliance
150 m from kerb	0.8	246	Compliance
200 m from kerb	0.6	246	Compliance

Annual average NO2 concentrations (ug/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	1	62	Compliance
10 m from kerb	0.5	62	Compliance
20 m from kerb	0.4	62	Compliance
30 m from kerb	0.4	62	Compliance
40 m from kerb	0.3	62	Compliance
50 m from kerb	0.3	62	Compliance
75 m from kerb	0.2	62	Compliance
100 m from kerb	0.2	62	Compliance
150 m from kerb	0.2	62	Compliance
200 m from kerb	0.1	62	Compliance

Maximum 24-hour average PM10 concentrations (ug/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	11.2	50	Compliance
10 m from kerb	3.8	50	Compliance
20 m from kerb	2.5	50	Compliance
30 m from kerb	2	50	Compliance
40 m from kerb	1.7	50	Compliance
50 m from kerb	1.5	50	Compliance
75 m from kerb	1.2	50	Compliance
100 m from kerb	1.1	50	Compliance

150 m from kerb	0.9	50	Compliance
200 m from kerb	0.7	50	Compliance
Annual average PM10 concentrations (ug/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	4.5	25	Compliance
10 m from kerb	1.5	25	Compliance
20 m from kerb	1	25	Compliance
30 m from kerb	0.8	25	Compliance
40 m from kerb	0.7	25	Compliance
50 m from kerb	0.6	25	Compliance
75 m from kerb	0.5	25	Compliance
100 m from kerb	0.4	25	Compliance
150 m from kerb	0.3	25	Compliance
200 m from kerb	0.3	25	Compliance

END OF REPORT



## Roads and Maritime Services

### TRAQ: Emissions and Air Quality Screening Assessment Report (Version 1.3)

Date of report: 06-Sep-2018 10:23  
Report name: S04\_NB\_Exi\_2016

#### INPUT DATA

Simulation name	TRAQ simulation									
Road type	Arterial									
Traffic data	Traffic per day	Speed (km/h)	Grade (%)	Length (km)						
Lane 1	6825	80	0	1						
Median strip	none									
Traffic mix (%)	CP	CD	LDCP	LDLD	HDCP	RT	AT	BusD	MC	User
Lane 1	80.4	2.3	10.2	3.4	0.1	1.8	0.9	0.2	0.7	
24-hour average speed	36.3	Default								
Peak hour percentage of daily (%)	10									
Year of assessment	2016									
Local landuse	Rural									
Air quality environment	Sydney South West									
Season	Worst-case	Default								
Cold start emissions	Included	Default								

#### METEOROLOGICAL CONDITIONS

Wind direction	Worst-case wind angle
Wind speed	1 m/s
Atmospheric stability	F class (stable night time conditions)
Temperature	15 deg C

#### EMISSIONS (Air Pollutants)

	g/km/v	g/km/v	g/km/v	kg/h	kg/h	kg/h
	CO	NOx	PM10	CO	NOx	PM10
Lane 1	2.37	0.46	0.05	1.62	0.32	0.03

#### EMISSIONS (Greenhouse Gases)

	Fuel consumption (L/h)		CO2-e emission factors (kg/L)		CO2-e emissions (t CO2-e/h)	CO2-e emissions (t CO2-e/y)
	Petrol	Diesel	Petrol	Diesel		
Lane 1	49.1	10.8	2.38032	2.69814	0.1	532.9
					0.1	532.9

#### PREDICTED ROADSIDE CONCENTRATIONS AND ASSESSMENT

##### Maximum 1-hour average CO concentrations (mg/m3)

Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	0.6	30	Compliance
10 m from kerb	0.2	30	Compliance
20 m from kerb	0.1	30	Compliance
30 m from kerb	0.1	30	Compliance
40 m from kerb	0.1	30	Compliance
50 m from kerb	0.1	30	Compliance
75 m from kerb	0.1	30	Compliance
100 m from kerb	0.1	30	Compliance
150 m from kerb	0	30	Compliance
200 m from kerb	0	30	Compliance

##### Maximum 8-hour average CO concentrations (mg/m3)

Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	0.4	10	Compliance
10 m from kerb	0.2	10	Compliance
20 m from kerb	0.1	10	Compliance
30 m from kerb	0.1	10	Compliance
40 m from kerb	0.1	10	Compliance
50 m from kerb	0.1	10	Compliance
75 m from kerb	0.1	10	Compliance
100 m from kerb	0	10	Compliance
150 m from kerb	0	10	Compliance
200 m from kerb	0	10	Compliance

##### Maximum 1-hour average NO2 concentrations (ug/m3)

Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	11.6	246	Compliance
10 m from kerb	6.4	246	Compliance
20 m from kerb	5.8	246	Compliance
30 m from kerb	4.7	246	Compliance
40 m from kerb	4	246	Compliance
50 m from kerb	3.6	246	Compliance
75 m from kerb	2.8	246	Compliance
100 m from kerb	2.4	246	Compliance
150 m from kerb	1.9	246	Compliance
200 m from kerb	1.6	246	Compliance

##### Annual average NO2 concentrations (ug/m3)

Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	2.3	62	Compliance
10 m from kerb	1.3	62	Compliance
20 m from kerb	1.2	62	Compliance
30 m from kerb	0.9	62	Compliance
40 m from kerb	0.8	62	Compliance
50 m from kerb	0.7	62	Compliance
75 m from kerb	0.6	62	Compliance
100 m from kerb	0.5	62	Compliance
150 m from kerb	0.4	62	Compliance
200 m from kerb	0.3	62	Compliance

##### Maximum 24-hour average PM10 concentrations (ug/m3)

Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	5.9	50	Compliance
10 m from kerb	2.2	50	Compliance
20 m from kerb	1.5	50	Compliance
30 m from kerb	1.2	50	Compliance
40 m from kerb	1	50	Compliance
50 m from kerb	0.9	50	Compliance
75 m from kerb	0.7	50	Compliance
100 m from kerb	0.6	50	Compliance

150 m from kerb	0.5	50	Compliance
200 m from kerb	0.4	50	Compliance
Annual average PM10 concentrations (ug/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	2.4	25	Compliance
10 m from kerb	0.9	25	Compliance
20 m from kerb	0.6	25	Compliance
30 m from kerb	0.5	25	Compliance
40 m from kerb	0.4	25	Compliance
50 m from kerb	0.4	25	Compliance
75 m from kerb	0.3	25	Compliance
100 m from kerb	0.2	25	Compliance
150 m from kerb	0.2	25	Compliance
200 m from kerb	0.2	25	Compliance

END OF REPORT

## Roads and Maritime Services

### TRAQ: Emissions and Air Quality Screening Assessment Report (Version 1.3)

Date of report: 06-Sep-2018 10:29  
Report name: S04\_SB-Exi\_2016

#### INPUT DATA

Simulation name	TRAQ simulation									
Road type	Arterial									
Traffic data	Traffic per day	Speed (km/h)	Grade (%)	Length (km)						
Lane 1	5776	80	0	1						
Median strip	none									
Traffic mix (%)	CP	CD	LDCP	LDLD	HDCP	RT	AT	BusD	MC	User
Lane 1	77.1	2.2	9.8	3.3	0.2	4.2	2.2	0.5	0.6	
24-hour average speed	36.3	Default								
Peak hour percentage of daily (%)	10									
Year of assessment	2016									
Local landuse	Rural									
Air quality environment	Sydney South West									
Season	Worst-case	Default								
Cold start emissions	Included	Default								

#### METEOROLOGICAL CONDITIONS

Wind direction	Worst-case wind angle
Wind speed	1 m/s
Atmospheric stability	F class (stable night time conditions)
Temperature	15 deg C

#### EMISSIONS (Air Pollutants)

	g/km/v	g/km/v	g/km/v	kg/h	kg/h	kg/h
	CO	NOx	PM10	CO	NOx	PM10
Lane 1	2.31	0.56	0.06	1.33	0.32	0.03

#### EMISSIONS (Greenhouse Gases)

	Fuel consumption (L/h)		CO2-e emission factors (kg/L)		CO2-e emissions (t CO2-e/h)	CO2-e emissions (t CO2-e/y)
	Petrol	Diesel	Petrol	Diesel		
Lane 1	39.9	17.8	2.38032	2.69814	0.1	522.0
					0.1	<b>522.0</b>

#### PREDICTED ROADSIDE CONCENTRATIONS AND ASSESSMENT

##### Maximum 1-hour average CO concentrations (mg/m3)

Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	0.5	30	Compliance
10 m from kerb	0.2	30	Compliance
20 m from kerb	0.1	30	Compliance
30 m from kerb	0.1	30	Compliance
40 m from kerb	0.1	30	Compliance
50 m from kerb	0.1	30	Compliance
75 m from kerb	0.1	30	Compliance
100 m from kerb	0.1	30	Compliance
150 m from kerb	0	30	Compliance
200 m from kerb	0	30	Compliance

##### Maximum 8-hour average CO concentrations (mg/m3)

Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	0.3	10	Compliance
10 m from kerb	0.1	10	Compliance
20 m from kerb	0.1	10	Compliance
30 m from kerb	0.1	10	Compliance
40 m from kerb	0.1	10	Compliance
50 m from kerb	0.1	10	Compliance
75 m from kerb	0	10	Compliance
100 m from kerb	0	10	Compliance
150 m from kerb	0	10	Compliance
200 m from kerb	0	10	Compliance

##### Maximum 1-hour average NO2 concentrations (ug/m3)

Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	12.1	246	Compliance
10 m from kerb	6.7	246	Compliance
20 m from kerb	6.1	246	Compliance
30 m from kerb	4.9	246	Compliance
40 m from kerb	4.2	246	Compliance
50 m from kerb	3.7	246	Compliance
75 m from kerb	3	246	Compliance
100 m from kerb	2.5	246	Compliance
150 m from kerb	2	246	Compliance
200 m from kerb	1.6	246	Compliance

##### Annual average NO2 concentrations (ug/m3)

Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	2.4	62	Compliance
10 m from kerb	1.3	62	Compliance
20 m from kerb	1.2	62	Compliance
30 m from kerb	1	62	Compliance
40 m from kerb	0.8	62	Compliance
50 m from kerb	0.7	62	Compliance
75 m from kerb	0.6	62	Compliance
100 m from kerb	0.5	62	Compliance
150 m from kerb	0.4	62	Compliance
200 m from kerb	0.3	62	Compliance

##### Maximum 24-hour average PM10 concentrations (ug/m3)

Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	6	50	Compliance
10 m from kerb	2.2	50	Compliance
20 m from kerb	1.5	50	Compliance
30 m from kerb	1.2	50	Compliance
40 m from kerb	1	50	Compliance
50 m from kerb	0.9	50	Compliance
75 m from kerb	0.7	50	Compliance
100 m from kerb	0.6	50	Compliance

150 m from kerb	0.5	50	Compliance
200 m from kerb	0.4	50	Compliance
Annual average PM10 concentrations (ug/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	2.4	25	Compliance
10 m from kerb	0.9	25	Compliance
20 m from kerb	0.6	25	Compliance
30 m from kerb	0.5	25	Compliance
40 m from kerb	0.4	25	Compliance
50 m from kerb	0.4	25	Compliance
75 m from kerb	0.3	25	Compliance
100 m from kerb	0.2	25	Compliance
150 m from kerb	0.2	25	Compliance
200 m from kerb	0.2	25	Compliance

END OF REPORT

Roads and Maritime Services

TRAQ: Emissions and Air Quality Screening Assessment Report (Version 1.3)

Date of report: 05-Sep-2018 16:31  
 Report name: S04\_NB-Des\_2026

INPUT DATA

Simulation name	TRAQ simulation									
Road type	Arterial									
Traffic data	Traffic per day	Speed (km/h)	Grade (%)	Length (km)						
Lane 1	13470	80	0	1						
Median strip	none									
Traffic mix (%)	CP	CD	LDCP	LDLD	HDCP	RT	AT	BusD	MC	User
Lane 1	80.4	2.3	10.2	3.4	0.1	1.8	0.9	0.2	0.7	
24-hour average speed	36	Default								
Peak hour percentage of daily (%)	10									
Year of assessment	2026									
Local landuse	Rural									
Air quality environment	Sydney South West									
Season	Worst-case	Default								
Cold start emissions	Included	Default								

METEOROLOGICAL CONDITIONS

Wind direction	Worst-case wind angle
Wind speed	1 m/s
Atmospheric stability	F class (stable night time conditions)
Temperature	15 deg C

EMISSIONS (Air Pollutants)

	g/km/v	g/km/v	g/km/v	kg/h	kg/h	kg/h
	CO	NOx	PM10	CO	NOx	PM10
Lane 1	2.42	0.15	0.04	3.25	0.2	0.06

EMISSIONS (Greenhouse Gases)

	Fuel consumption (L/h)		CO2-e emission factors (kg/L)		CO2-e emissions (t CO2-e/h)	CO2-e emissions (t CO2-e/y)
	Petrol	Diesel	Petrol	Diesel		
Lane 1	89	20.8	2.38032	2.69814	0.3	978.1
					0.3	978.1

PREDICTED ROADSIDE CONCENTRATIONS AND ASSESSMENT

Maximum 1-hour average CO concentrations (mg/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	1.1	30	Compliance
10 m from kerb	0.4	30	Compliance
20 m from kerb	0.3	30	Compliance
30 m from kerb	0.2	30	Compliance
40 m from kerb	0.2	30	Compliance
50 m from kerb	0.2	30	Compliance
75 m from kerb	0.1	30	Compliance
100 m from kerb	0.1	30	Compliance
150 m from kerb	0.1	30	Compliance
200 m from kerb	0.1	30	Compliance

Maximum 8-hour average CO concentrations (mg/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	0.8	10	Compliance
10 m from kerb	0.3	10	Compliance
20 m from kerb	0.2	10	Compliance
30 m from kerb	0.1	10	Compliance
40 m from kerb	0.1	10	Compliance
50 m from kerb	0.1	10	Compliance
75 m from kerb	0.1	10	Compliance
100 m from kerb	0.1	10	Compliance
150 m from kerb	0.1	10	Compliance
200 m from kerb	0.1	10	Compliance

Maximum 1-hour average NO2 concentrations (ug/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	6.9	246	Compliance
10 m from kerb	3.6	246	Compliance
20 m from kerb	3.2	246	Compliance
30 m from kerb	2.6	246	Compliance
40 m from kerb	2.2	246	Compliance
50 m from kerb	2	246	Compliance
75 m from kerb	1.6	246	Compliance
100 m from kerb	1.4	246	Compliance
150 m from kerb	1.1	246	Compliance
200 m from kerb	0.9	246	Compliance

Annual average NO2 concentrations (ug/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	1.4	62	Compliance
10 m from kerb	0.7	62	Compliance
20 m from kerb	0.6	62	Compliance
30 m from kerb	0.5	62	Compliance
40 m from kerb	0.4	62	Compliance
50 m from kerb	0.4	62	Compliance
75 m from kerb	0.3	62	Compliance
100 m from kerb	0.3	62	Compliance
150 m from kerb	0.2	62	Compliance
200 m from kerb	0.2	62	Compliance

Maximum 24-hour average PM10 concentrations (ug/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	9.8	50	Compliance
10 m from kerb	3.4	50	Compliance
20 m from kerb	2.3	50	Compliance
30 m from kerb	1.8	50	Compliance
40 m from kerb	1.6	50	Compliance
50 m from kerb	1.4	50	Compliance
75 m from kerb	1.1	50	Compliance
100 m from kerb	1	50	Compliance

150 m from kerb	0.8	50	Compliance
200 m from kerb	0.6	50	Compliance
Annual average PM10 concentrations (ug/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	3.9	25	Compliance
10 m from kerb	1.4	25	Compliance
20 m from kerb	0.9	25	Compliance
30 m from kerb	0.7	25	Compliance
40 m from kerb	0.6	25	Compliance
50 m from kerb	0.6	25	Compliance
75 m from kerb	0.5	25	Compliance
100 m from kerb	0.4	25	Compliance
150 m from kerb	0.3	25	Compliance
200 m from kerb	0.3	25	Compliance

END OF REPORT

## Roads and Maritime Services

### TRAQ: Emissions and Air Quality Screening Assessment Report (Version 1.3)

Date of report: 05-Sep-2018 16:33  
Report name: S04\_SB-Des\_2026

#### INPUT DATA

Simulation name	TRAQ simulation									
Road type	Arterial									
Traffic data	Traffic per day	Speed (km/h)	Grade (%)	Length (km)						
Lane 1	14700	80	0	1						
Median strip	none									
Traffic mix (%)	CP	CD	LDCP	LDLD	HDCP	RT	AT	BusD	MC	User
Lane 1	80.4	2.3	10.2	3.4	0.1	1.8	0.9	0.2	0.7	
24-hour average speed	36	Default								
Peak hour percentage of daily (%)	10									
Year of assessment	2026									
Local landuse	Rural									
Air quality environment	Sydney South West									
Season	Worst-case	Default								
Cold start emissions	Included	Default								

#### METEOROLOGICAL CONDITIONS

Wind direction	Worst-case wind angle
Wind speed	1 m/s
Atmospheric stability	F class (stable night time conditions)
Temperature	15 deg C

#### EMISSIONS (Air Pollutants)

	g/km/v	g/km/v	g/km/v	kg/h	kg/h	kg/h
	CO	NOx	PM10	CO	NOx	PM10
Lane 1	2.42	0.15	0.04	3.55	0.22	0.06

#### EMISSIONS (Greenhouse Gases)

	Fuel consumption (L/h)		CO2-e emission factors (kg/L)		CO2-e emissions (t CO2-e/h)	CO2-e emissions (t CO2-e/y)
	Petrol	Diesel	Petrol	Diesel		
Lane 1	97.1	22.7	2.38032	2.69814	0.3	1067.2
					0.3	<b>1067.2</b>

#### PREDICTED ROADSIDE CONCENTRATIONS AND ASSESSMENT

##### Maximum 1-hour average CO concentrations (mg/m3)

Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	1.2	30	Compliance
10 m from kerb	0.4	30	Compliance
20 m from kerb	0.3	30	Compliance
30 m from kerb	0.2	30	Compliance
40 m from kerb	0.2	30	Compliance
50 m from kerb	0.2	30	Compliance
75 m from kerb	0.1	30	Compliance
100 m from kerb	0.1	30	Compliance
150 m from kerb	0.1	30	Compliance
200 m from kerb	0.1	30	Compliance

##### Maximum 8-hour average CO concentrations (mg/m3)

Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	0.8	10	Compliance
10 m from kerb	0.3	10	Compliance
20 m from kerb	0.2	10	Compliance
30 m from kerb	0.2	10	Compliance
40 m from kerb	0.1	10	Compliance
50 m from kerb	0.1	10	Compliance
75 m from kerb	0.1	10	Compliance
100 m from kerb	0.1	10	Compliance
150 m from kerb	0.1	10	Compliance
200 m from kerb	0.1	10	Compliance

##### Maximum 1-hour average NO2 concentrations (ug/m3)

Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	7.4	246	Compliance
10 m from kerb	3.8	246	Compliance
20 m from kerb	3.4	246	Compliance
30 m from kerb	2.7	246	Compliance
40 m from kerb	2.3	246	Compliance
50 m from kerb	2.1	246	Compliance
75 m from kerb	1.7	246	Compliance
100 m from kerb	1.4	246	Compliance
150 m from kerb	1.1	246	Compliance
200 m from kerb	0.9	246	Compliance

##### Annual average NO2 concentrations (ug/m3)

Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	1.5	62	Compliance
10 m from kerb	0.8	62	Compliance
20 m from kerb	0.7	62	Compliance
30 m from kerb	0.5	62	Compliance
40 m from kerb	0.5	62	Compliance
50 m from kerb	0.4	62	Compliance
75 m from kerb	0.3	62	Compliance
100 m from kerb	0.3	62	Compliance
150 m from kerb	0.2	62	Compliance
200 m from kerb	0.2	62	Compliance

##### Maximum 24-hour average PM10 concentrations (ug/m3)

Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	10.5	50	Compliance
10 m from kerb	3.6	50	Compliance
20 m from kerb	2.4	50	Compliance
30 m from kerb	1.9	50	Compliance
40 m from kerb	1.6	50	Compliance
50 m from kerb	1.5	50	Compliance
75 m from kerb	1.2	50	Compliance
100 m from kerb	1	50	Compliance

150 m from kerb	0.8	50	Compliance
200 m from kerb	0.7	50	Compliance
Annual average PM10 concentrations (ug/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	4.2	25	Compliance
10 m from kerb	1.4	25	Compliance
20 m from kerb	1	25	Compliance
30 m from kerb	0.8	25	Compliance
40 m from kerb	0.7	25	Compliance
50 m from kerb	0.6	25	Compliance
75 m from kerb	0.5	25	Compliance
100 m from kerb	0.4	25	Compliance
150 m from kerb	0.3	25	Compliance
200 m from kerb	0.3	25	Compliance

END OF REPORT



Roads and Maritime Services

TRAQ: Emissions and Air Quality Screening Assessment Report (Version 1.3)

Date of report: 05-Sep-2018 16:46  
 Report name: S04\_NB-Min\_2026

INPUT DATA

Simulation name	TRAQ simulation									
Road type	Arterial									
Traffic data	Traffic per day	Speed (km/h)	Grade (%)	Length (km)						
Lane 1	14600	80	0	1						
Median strip	none									
Traffic mix (%)	CP	CD	LDCP	LDLD	HDCP	RT	AT	BusD	MC	User
Lane 1	80.4	2.3	10.2	3.4	0.1	1.8	0.9	0.2	0.7	
24-hour average speed	36	Default								
Peak hour percentage of daily (%)	10									
Year of assessment	2026									
Local landuse	Rural									
Air quality environment	Sydney South West									
Season	Worst-case	Default								
Cold start emissions	Included	Default								

METEOROLOGICAL CONDITIONS

Wind direction	Worst-case wind angle
Wind speed	1 m/s
Atmospheric stability	F class (stable night time conditions)
Temperature	15 deg C

EMISSIONS (Air Pollutants)

	g/km/v	g/km/v	g/km/v	kg/h	kg/h	kg/h
	CO	NOx	PM10	CO	NOx	PM10
Lane 1	2.42	0.15	0.04	3.53	0.22	0.06

EMISSIONS (Greenhouse Gases)

	Fuel consumption (L/h)		CO2-e emission factors (kg/L)		CO2-e emissions (t CO2-e/h)	CO2-e emissions (t CO2-e/y)
	Petrol	Diesel	Petrol	Diesel		
Lane 1	96.5	22.6	2.38032	2.69814	0.3	1061.0
					0.3	1061.0

PREDICTED ROADSIDE CONCENTRATIONS AND ASSESSMENT

Maximum 1-hour average CO concentrations (mg/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	1.2	30	Compliance
10 m from kerb	0.4	30	Compliance
20 m from kerb	0.3	30	Compliance
30 m from kerb	0.2	30	Compliance
40 m from kerb	0.2	30	Compliance
50 m from kerb	0.2	30	Compliance
75 m from kerb	0.1	30	Compliance
100 m from kerb	0.1	30	Compliance
150 m from kerb	0.1	30	Compliance
200 m from kerb	0.1	30	Compliance

Maximum 8-hour average CO concentrations (mg/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	0.8	10	Compliance
10 m from kerb	0.3	10	Compliance
20 m from kerb	0.2	10	Compliance
30 m from kerb	0.2	10	Compliance
40 m from kerb	0.1	10	Compliance
50 m from kerb	0.1	10	Compliance
75 m from kerb	0.1	10	Compliance
100 m from kerb	0.1	10	Compliance
150 m from kerb	0.1	10	Compliance
200 m from kerb	0.1	10	Compliance

Maximum 1-hour average NO2 concentrations (ug/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	7.3	246	Compliance
10 m from kerb	3.8	246	Compliance
20 m from kerb	3.4	246	Compliance
30 m from kerb	2.7	246	Compliance
40 m from kerb	2.3	246	Compliance
50 m from kerb	2	246	Compliance
75 m from kerb	1.7	246	Compliance
100 m from kerb	1.4	246	Compliance
150 m from kerb	1.1	246	Compliance
200 m from kerb	0.9	246	Compliance

Annual average NO2 concentrations (ug/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	1.5	62	Compliance
10 m from kerb	0.8	62	Compliance
20 m from kerb	0.7	62	Compliance
30 m from kerb	0.5	62	Compliance
40 m from kerb	0.5	62	Compliance
50 m from kerb	0.4	62	Compliance
75 m from kerb	0.3	62	Compliance
100 m from kerb	0.3	62	Compliance
150 m from kerb	0.2	62	Compliance
200 m from kerb	0.2	62	Compliance

Maximum 24-hour average PM10 concentrations (ug/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	10.5	50	Compliance
10 m from kerb	3.6	50	Compliance
20 m from kerb	2.4	50	Compliance
30 m from kerb	1.9	50	Compliance
40 m from kerb	1.6	50	Compliance
50 m from kerb	1.5	50	Compliance
75 m from kerb	1.2	50	Compliance
100 m from kerb	1	50	Compliance

150 m from kerb	0.8	50	Compliance
200 m from kerb	0.7	50	Compliance
Annual average PM10 concentrations (ug/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	4.2	25	Compliance
10 m from kerb	1.4	25	Compliance
20 m from kerb	1	25	Compliance
30 m from kerb	0.8	25	Compliance
40 m from kerb	0.7	25	Compliance
50 m from kerb	0.6	25	Compliance
75 m from kerb	0.5	25	Compliance
100 m from kerb	0.4	25	Compliance
150 m from kerb	0.3	25	Compliance
200 m from kerb	0.3	25	Compliance

END OF REPORT

## Roads and Maritime Services

### TRAQ: Emissions and Air Quality Screening Assessment Report (Version 1.3)

Date of report: 05-Sep-2018 17:02  
Report name: S04\_SB-Min\_2026

#### INPUT DATA

Simulation name	TRAQ simulation									
Road type	Arterial									
Traffic data	Traffic per day	Speed (km/h)	Grade (%)	Length (km)						
Lane 1	15000	80	0	1						
Median strip	none									
Traffic mix (%)	CP	CD	LDCP	LDLD	HDCP	RT	AT	BusD	MC	User
Lane 1	77.1	2.2	9.8	3.3	0.2	4.2	2.2	0.5	0.6	
24-hour average speed	36	Default								
Peak hour percentage of daily (%)	10									
Year of assessment	2026									
Local landuse	Rural									
Air quality environment	Sydney South West									
Season	Worst-case	Default								
Cold start emissions	Included	Default								

#### METEOROLOGICAL CONDITIONS

Wind direction	Worst-case wind angle
Wind speed	1 m/s
Atmospheric stability	F class (stable night time conditions)
Temperature	15 deg C

#### EMISSIONS (Air Pollutants)

	g/km/v	g/km/v	g/km/v	kg/h	kg/h	kg/h
	CO	NOx	PM10	CO	NOx	PM10
Lane 1	2.35	0.22	0.05	3.53	0.32	0.07

#### EMISSIONS (Greenhouse Gases)

	Fuel consumption (L/h)		CO2-e emission factors (kg/L)		CO2-e emissions (t CO2-e/h)	CO2-e emissions (t CO2-e/y)
	Petrol	Diesel	Petrol	Diesel		
Lane 1	95.2	45.4	2.38032	2.69814	0.3	1274.2
					0.3	1274.2

#### PREDICTED ROADSIDE CONCENTRATIONS AND ASSESSMENT

##### Maximum 1-hour average CO concentrations (mg/m3)

Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	1.2	30	Compliance
10 m from kerb	0.4	30	Compliance
20 m from kerb	0.3	30	Compliance
30 m from kerb	0.2	30	Compliance
40 m from kerb	0.2	30	Compliance
50 m from kerb	0.2	30	Compliance
75 m from kerb	0.1	30	Compliance
100 m from kerb	0.1	30	Compliance
150 m from kerb	0.1	30	Compliance
200 m from kerb	0.1	30	Compliance

##### Maximum 8-hour average CO concentrations (mg/m3)

Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	0.8	10	Compliance
10 m from kerb	0.3	10	Compliance
20 m from kerb	0.2	10	Compliance
30 m from kerb	0.2	10	Compliance
40 m from kerb	0.1	10	Compliance
50 m from kerb	0.1	10	Compliance
75 m from kerb	0.1	10	Compliance
100 m from kerb	0.1	10	Compliance
150 m from kerb	0.1	10	Compliance
200 m from kerb	0.1	10	Compliance

##### Maximum 1-hour average NO2 concentrations (ug/m3)

Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	10.8	246	Compliance
10 m from kerb	5.5	246	Compliance
20 m from kerb	4.9	246	Compliance
30 m from kerb	3.9	246	Compliance
40 m from kerb	3.4	246	Compliance
50 m from kerb	3	246	Compliance
75 m from kerb	2.4	246	Compliance
100 m from kerb	2.1	246	Compliance
150 m from kerb	1.7	246	Compliance
200 m from kerb	1.4	246	Compliance

##### Annual average NO2 concentrations (ug/m3)

Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	2.2	62	Compliance
10 m from kerb	1.1	62	Compliance
20 m from kerb	1	62	Compliance
30 m from kerb	0.8	62	Compliance
40 m from kerb	0.7	62	Compliance
50 m from kerb	0.6	62	Compliance
75 m from kerb	0.5	62	Compliance
100 m from kerb	0.4	62	Compliance
150 m from kerb	0.3	62	Compliance
200 m from kerb	0.3	62	Compliance

##### Maximum 24-hour average PM10 concentrations (ug/m3)

Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	12.2	50	Compliance
10 m from kerb	4.2	50	Compliance
20 m from kerb	2.8	50	Compliance
30 m from kerb	2.2	50	Compliance
40 m from kerb	1.9	50	Compliance
50 m from kerb	1.7	50	Compliance
75 m from kerb	1.4	50	Compliance
100 m from kerb	1.2	50	Compliance

150 m from kerb	0.9	50	Compliance
200 m from kerb	0.8	50	Compliance
Annual average PM10 concentrations (ug/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	4.9	25	Compliance
10 m from kerb	1.7	25	Compliance
20 m from kerb	1.1	25	Compliance
30 m from kerb	0.9	25	Compliance
40 m from kerb	0.8	25	Compliance
50 m from kerb	0.7	25	Compliance
75 m from kerb	0.5	25	Compliance
100 m from kerb	0.5	25	Compliance
150 m from kerb	0.4	25	Compliance
200 m from kerb	0.3	25	Compliance

END OF REPORT

## Roads and Maritime Services

### TRAQ: Emissions and Air Quality Screening Assessment Report (Version 1.3)

Date of report: 06-Sep-2018 09:15  
Report name: S04\_NB-Des\_2036

#### INPUT DATA

Simulation name	TRAQ simulation									
Road type	Arterial									
Traffic data	Traffic per day	Speed (km/h)	Grade (%)	Length (km)						
Lane 1	8480	80	0	1						
Lane 2	8480	80	0	1						
Median strip	none									
Traffic mix (%)	CP	CD	LDCP	LDCD	HDCP	RT	AT	BusD	MC	
Lane 1	80.4	2.3	10.2	3.4	0.1	1.8	0.9	0.2	0.7	User
Lane 2	80.4	2.3	10.2	3.4	0.1	1.8	0.9	0.2	0.7	User
24-hour average speed	35.5	Default								
Peak hour percentage of daily (%)	10									
Year of assessment	2036									
Local landuse	Rural									
Air quality environment	Sydney South West									
Season	Worst-case	Default								
Cold start emissions	Included	Default								

#### METEOROLOGICAL CONDITIONS

Wind direction	Worst-case wind angle
Wind speed	1 m/s
Atmospheric stability	F class (stable night time conditions)
Temperature	15 deg C

#### EMISSIONS (Air Pollutants)

	g/km/v	g/km/v	g/km/v	kg/h	kg/h	kg/h
	CO	NOx	PM10	CO	NOx	PM10
Lane 1	2.51	0.09	0.04	2.13	0.08	0.04
Lane 2	2.51	0.09	0.04	2.13	0.08	0.04

#### EMISSIONS (Greenhouse Gases)

	Fuel consumption (L/h)		CO2-e emission factors (kg/L)		CO2-e emissions (t CO2-e/h)	CO2-e emissions (t CO2-e/y)
	Petrol	Diesel	Petrol	Diesel		
Lane 1	53.1	12.9	2.38032	2.69814	0.2	588.4
Lane 2	53.1	12.9	2.38032	2.69814	0.2	588.4
					0.3	1176.8

#### PREDICTED ROADSIDE CONCENTRATIONS AND ASSESSMENT

Maximum 1-hour average CO concentrations (mg/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	1.3	30	Compliance
10 m from kerb	0.5	30	Compliance
20 m from kerb	0.4	30	Compliance
30 m from kerb	0.3	30	Compliance
40 m from kerb	0.3	30	Compliance
50 m from kerb	0.2	30	Compliance
75 m from kerb	0.2	30	Compliance
100 m from kerb	0.2	30	Compliance
150 m from kerb	0.1	30	Compliance
200 m from kerb	0.1	30	Compliance

Maximum 8-hour average CO concentrations (mg/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	0.9	10	Compliance
10 m from kerb	0.4	10	Compliance
20 m from kerb	0.3	10	Compliance
30 m from kerb	0.2	10	Compliance
40 m from kerb	0.2	10	Compliance
50 m from kerb	0.2	10	Compliance
75 m from kerb	0.1	10	Compliance
100 m from kerb	0.1	10	Compliance
150 m from kerb	0.1	10	Compliance
200 m from kerb	0.1	10	Compliance

Maximum 1-hour average NO2 concentrations (ug/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	4.9	246	Compliance
10 m from kerb	2.8	246	Compliance
20 m from kerb	2.7	246	Compliance
30 m from kerb	2.2	246	Compliance
40 m from kerb	1.9	246	Compliance
50 m from kerb	1.7	246	Compliance
75 m from kerb	1.4	246	Compliance
100 m from kerb	1.2	246	Compliance
150 m from kerb	0.9	246	Compliance
200 m from kerb	0.7	246	Compliance

Annual average NO2 concentrations (ug/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	1	62	Compliance
10 m from kerb	0.6	62	Compliance
20 m from kerb	0.5	62	Compliance
30 m from kerb	0.4	62	Compliance
40 m from kerb	0.4	62	Compliance
50 m from kerb	0.3	62	Compliance
75 m from kerb	0.3	62	Compliance
100 m from kerb	0.2	62	Compliance
150 m from kerb	0.2	62	Compliance
200 m from kerb	0.1	62	Compliance

Maximum 24-hour average PM10 concentrations (ug/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	11.1	50	Compliance
10 m from kerb	4.3	50	Compliance
20 m from kerb	3	50	Compliance
30 m from kerb	2.5	50	Compliance

40 m from kerb	2.1	50	Compliance
50 m from kerb	1.9	50	Compliance
75 m from kerb	1.5	50	Compliance
100 m from kerb	1.3	50	Compliance
150 m from kerb	1	50	Compliance
200 m from kerb	0.8	50	Compliance

Annual average PM10 concentrations (ug/m3)

Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	4.4	25	Compliance
10 m from kerb	1.7	25	Compliance
20 m from kerb	1.2	25	Compliance
30 m from kerb	1	25	Compliance
40 m from kerb	0.9	25	Compliance
50 m from kerb	0.8	25	Compliance
75 m from kerb	0.6	25	Compliance
100 m from kerb	0.5	25	Compliance
150 m from kerb	0.4	25	Compliance
200 m from kerb	0.3	25	Compliance

END OF REPORT

## Roads and Maritime Services

### TRAQ: Emissions and Air Quality Screening Assessment Report (Version 1.3)

Date of report: 06-Sep-2018 09:17  
Report name: S04\_SB-Des\_2036

#### INPUT DATA

Simulation name	TRAQ simulation									
Road type	Arterial									
Traffic data	Traffic per day	Speed (km/h)	Grade (%)	Length (km)						
Lane 1	9320	80	0	1						
Lane 2	9320	80	0	1						
Median strip	none									
Traffic mix (%)	CP	CD	LDCP	LD CD	HDCP	RT	AT	BusD	MC	User
Lane 1	80.4	2.3	10.2	3.4	0.1	1.8	0.9	0.2	0.7	User
Lane 2	80.4	2.3	10.2	3.4	0.1	1.8	0.9	0.2	0.7	User
24-hour average speed	35.5	Default								
Peak hour percentage of daily (%)	10									
Year of assessment	2036									
Local landuse	Rural									
Air quality environment	Sydney South West									
Season	Worst-case	Default								
Cold start emissions	Included	Default								

#### METEOROLOGICAL CONDITIONS

Wind direction	Worst-case wind angle
Wind speed	1 m/s
Atmospheric stability	F class (stable night time conditions)
Temperature	15 deg C

#### EMISSIONS (Air Pollutants)

	g/km/v	g/km/v	g/km/v	kg/h	kg/h	kg/h
	CO	NOx	PM10	CO	NOx	PM10
Lane 1	2.51	0.09	0.04	2.34	0.09	0.04
Lane 2	2.51	0.09	0.04	2.34	0.09	0.04

#### EMISSIONS (Greenhouse Gases)

	Fuel consumption (L/h)		CO2-e emission factors (kg/L)		CO2-e emissions (t CO2-e/h)	CO2-e emissions (t CO2-e/y)
	Petrol	Diesel	Petrol	Diesel		
Lane 1	58.4	14.2	2.38032	2.69814	0.2	647.2
Lane 2	58.4	14.2	2.38032	2.69814	0.2	647.2
					0.4	1294.5

#### PREDICTED ROADSIDE CONCENTRATIONS AND ASSESSMENT

Maximum 1-hour average CO concentrations (mg/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	1.4	30	Compliance
10 m from kerb	0.6	30	Compliance
20 m from kerb	0.4	30	Compliance
30 m from kerb	0.3	30	Compliance
40 m from kerb	0.3	30	Compliance
50 m from kerb	0.2	30	Compliance
75 m from kerb	0.2	30	Compliance
100 m from kerb	0.2	30	Compliance
150 m from kerb	0.1	30	Compliance
200 m from kerb	0.1	30	Compliance

Maximum 8-hour average CO concentrations (mg/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	1	10	Compliance
10 m from kerb	0.4	10	Compliance
20 m from kerb	0.3	10	Compliance
30 m from kerb	0.2	10	Compliance
40 m from kerb	0.2	10	Compliance
50 m from kerb	0.2	10	Compliance
75 m from kerb	0.1	10	Compliance
100 m from kerb	0.1	10	Compliance
150 m from kerb	0.1	10	Compliance
200 m from kerb	0.1	10	Compliance

Maximum 1-hour average NO2 concentrations (ug/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	5.4	246	Compliance
10 m from kerb	3.1	246	Compliance
20 m from kerb	2.9	246	Compliance
30 m from kerb	2.4	246	Compliance
40 m from kerb	2	246	Compliance
50 m from kerb	1.8	246	Compliance
75 m from kerb	1.5	246	Compliance
100 m from kerb	1.2	246	Compliance
150 m from kerb	1	246	Compliance
200 m from kerb	0.8	246	Compliance

Annual average NO2 concentrations (ug/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	1.1	62	Compliance
10 m from kerb	0.6	62	Compliance
20 m from kerb	0.6	62	Compliance
30 m from kerb	0.5	62	Compliance
40 m from kerb	0.4	62	Compliance
50 m from kerb	0.4	62	Compliance
75 m from kerb	0.3	62	Compliance
100 m from kerb	0.2	62	Compliance
150 m from kerb	0.2	62	Compliance
200 m from kerb	0.2	62	Compliance

Maximum 24-hour average PM10 concentrations (ug/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	12	50	Compliance
10 m from kerb	4.6	50	Compliance
20 m from kerb	3.2	50	Compliance
30 m from kerb	2.7	50	Compliance

40 m from kerb	2.3	50	Compliance
50 m from kerb	2	50	Compliance
75 m from kerb	1.6	50	Compliance
100 m from kerb	1.4	50	Compliance
150 m from kerb	1.1	50	Compliance
200 m from kerb	0.9	50	Compliance

Annual average PM10 concentrations (ug/m3)

Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	4.8	25	Compliance
10 m from kerb	1.8	25	Compliance
20 m from kerb	1.3	25	Compliance
30 m from kerb	1.1	25	Compliance
40 m from kerb	0.9	25	Compliance
50 m from kerb	0.8	25	Compliance
75 m from kerb	0.7	25	Compliance
100 m from kerb	0.6	25	Compliance
150 m from kerb	0.4	25	Compliance
200 m from kerb	0.4	25	Compliance

END OF REPORT



Roads and Maritime Services

TRAQ: Emissions and Air Quality Screening Assessment Report (Version 1.3)

Date of report: 06-Sep-2018 09:26  
 Report name: S04\_NB-Min\_2036

INPUT DATA

Simulation name	TRAQ simulation									
Road type	Arterial									
Traffic data	Traffic per day	Speed (km/h)	Grade (%)	Length (km)						
Lane 1	7895	80	0	1						
Lane 2	7895	80	0	1						
Median strip	none									
Traffic mix (%)	CP	CD	LDCP	LD CD	HDCP	RT	AT	BusD	MC	
Lane 1	80.4	2.3	10.2	3.4	0.1	1.8	0.9	0.2	0.7	User
Lane 2	80.4	2.3	10.2	3.4	0.1	1.8	0.9	0.2	0.7	User
24-hour average speed	35.5	Default								
Peak hour percentage of daily (%)	10									
Year of assessment	2036									
Local landuse	Rural									
Air quality environment	Sydney South West									
Season	Worst-case	Default								
Cold start emissions	Included	Default								

METEOROLOGICAL CONDITIONS

Wind direction	Worst-case wind angle
Wind speed	1 m/s
Atmospheric stability	F class (stable night time conditions)
Temperature	15 deg C

EMISSIONS (Air Pollutants)

	g/km/v	g/km/v	g/km/v	kg/h	kg/h	kg/h
	CO	NOx	PM10	CO	NOx	PM10
Lane 1	2.51	0.09	0.04	1.98	0.07	0.03
Lane 2	2.51	0.09	0.04	1.98	0.07	0.03

EMISSIONS (Greenhouse Gases)

	Fuel consumption (L/h)		CO2-e emission factors (kg/L)		CO2-e emissions (t CO2-e/h)	CO2-e emissions (t CO2-e/y)
	Petrol	Diesel	Petrol	Diesel		
Lane 1	49.4	12	2.38032	2.69814	0.1	547.4
Lane 2	49.4	12	2.38032	2.69814	0.1	547.4
					0.3	1094.7

PREDICTED ROADSIDE CONCENTRATIONS AND ASSESSMENT

Maximum 1-hour average CO concentrations (mg/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	1.2	30	Compliance
10 m from kerb	0.5	30	Compliance
20 m from kerb	0.3	30	Compliance
30 m from kerb	0.3	30	Compliance
40 m from kerb	0.2	30	Compliance
50 m from kerb	0.2	30	Compliance
75 m from kerb	0.2	30	Compliance
100 m from kerb	0.1	30	Compliance
150 m from kerb	0.1	30	Compliance
200 m from kerb	0.1	30	Compliance
Maximum 8-hour average CO concentrations (mg/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	0.9	10	Compliance
10 m from kerb	0.3	10	Compliance
20 m from kerb	0.2	10	Compliance
30 m from kerb	0.2	10	Compliance
40 m from kerb	0.2	10	Compliance
50 m from kerb	0.1	10	Compliance
75 m from kerb	0.1	10	Compliance
100 m from kerb	0.1	10	Compliance
150 m from kerb	0.1	10	Compliance
200 m from kerb	0.1	10	Compliance
Maximum 1-hour average NO2 concentrations (ug/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	4.6	246	Compliance
10 m from kerb	2.7	246	Compliance
20 m from kerb	2.5	246	Compliance
30 m from kerb	2.1	246	Compliance
40 m from kerb	1.8	246	Compliance
50 m from kerb	1.6	246	Compliance
75 m from kerb	1.3	246	Compliance
100 m from kerb	1.1	246	Compliance
150 m from kerb	0.8	246	Compliance
200 m from kerb	0.7	246	Compliance
Annual average NO2 concentrations (ug/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	0.9	62	Compliance
10 m from kerb	0.5	62	Compliance
20 m from kerb	0.5	62	Compliance
30 m from kerb	0.4	62	Compliance
40 m from kerb	0.4	62	Compliance
50 m from kerb	0.3	62	Compliance
75 m from kerb	0.3	62	Compliance
100 m from kerb	0.2	62	Compliance
150 m from kerb	0.2	62	Compliance
200 m from kerb	0.1	62	Compliance
Maximum 24-hour average PM10 concentrations (ug/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	10.4	50	Compliance
10 m from kerb	4	50	Compliance
20 m from kerb	2.8	50	Compliance
30 m from kerb	2.3	50	Compliance

40 m from kerb	2	50	Compliance
50 m from kerb	1.8	50	Compliance
75 m from kerb	1.4	50	Compliance
100 m from kerb	1.2	50	Compliance
150 m from kerb	1	50	Compliance
200 m from kerb	0.8	50	Compliance

Annual average PM10 concentrations (ug/m3)

Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	4.1	25	Compliance
10 m from kerb	1.6	25	Compliance
20 m from kerb	1.1	25	Compliance
30 m from kerb	0.9	25	Compliance
40 m from kerb	0.8	25	Compliance
50 m from kerb	0.7	25	Compliance
75 m from kerb	0.6	25	Compliance
100 m from kerb	0.5	25	Compliance
150 m from kerb	0.4	25	Compliance
200 m from kerb	0.3	25	Compliance

END OF REPORT

## Roads and Maritime Services

### TRAQ: Emissions and Air Quality Screening Assessment Report (Version 1.3)

Date of report: 06-Sep-2018 09:33  
 Report name: S04\_SB-Min\_2036

#### INPUT DATA

Simulation name	TRAQ simulation									
Road type	Arterial									
Traffic data	Traffic per day	Speed (km/h)	Grade (%)	Length (km)						
Lane 1	7990	80	0	1						
Lane 2	7990	80	0	1						
Median strip	none									
Traffic mix (%)	CP	CD	LDCP	LD CD	HDCP	RT	AT	BusD	MC	User
Lane 1	77.1	2.2	9.8	3.3	0.2	4.2	2.2	0.5	0.6	User
Lane 2	77.1	2.2	9.8	3.3	0.2	4.2	2.2	0.5	0.6	User
24-hour average speed	35.5	Default								
Peak hour percentage of daily (%)	10									
Year of assessment	2036									
Local landuse	Rural									
Air quality environment	Sydney South West									
Season	Worst-case	Default								
Cold start emissions	Included	Default								

#### METEOROLOGICAL CONDITIONS

Wind direction	Worst-case wind angle
Wind speed	1 m/s
Atmospheric stability	F class (stable night time conditions)
Temperature	15 deg C

#### EMISSIONS (Air Pollutants)

	g/km/v CO	g/km/v NOx	g/km/v PM10	kg/h CO	kg/h NOx	kg/h PM10
Lane 1	2.48	0.15	0.05	1.98	0.12	0.04
Lane 2	2.48	0.15	0.05	1.98	0.12	0.04

#### EMISSIONS (Greenhouse Gases)

	Fuel consumption (L/h)		CO2-e emission factors (kg/L)		CO2-e emissions (t CO2-e/h)	CO2-e emissions (t CO2-e/y)
	Petrol	Diesel	Petrol	Diesel		
Lane 1	48.1	23.9	2.38032	2.69814	0.2	653.3
Lane 2	48.1	23.9	2.38032	2.69814	0.2	653.3
					0.4	1306.5

#### PREDICTED ROADSIDE CONCENTRATIONS AND ASSESSMENT

Maximum 1-hour average CO concentrations (mg/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	1.2	30	Compliance
10 m from kerb	0.5	30	Compliance
20 m from kerb	0.3	30	Compliance
30 m from kerb	0.3	30	Compliance
40 m from kerb	0.2	30	Compliance
50 m from kerb	0.2	30	Compliance
75 m from kerb	0.2	30	Compliance
100 m from kerb	0.1	30	Compliance
150 m from kerb	0.1	30	Compliance
200 m from kerb	0.1	30	Compliance
Maximum 8-hour average CO concentrations (mg/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	0.9	10	Compliance
10 m from kerb	0.3	10	Compliance
20 m from kerb	0.2	10	Compliance
30 m from kerb	0.2	10	Compliance
40 m from kerb	0.2	10	Compliance
50 m from kerb	0.1	10	Compliance
75 m from kerb	0.1	10	Compliance
100 m from kerb	0.1	10	Compliance
150 m from kerb	0.1	10	Compliance
200 m from kerb	0.1	10	Compliance
Maximum 1-hour average NO2 concentrations (ug/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	7.6	246	Compliance
10 m from kerb	4.4	246	Compliance
20 m from kerb	4.2	246	Compliance
30 m from kerb	3.4	246	Compliance
40 m from kerb	2.9	246	Compliance
50 m from kerb	2.6	246	Compliance
75 m from kerb	2.1	246	Compliance
100 m from kerb	1.8	246	Compliance
150 m from kerb	1.4	246	Compliance
200 m from kerb	1.2	246	Compliance
Annual average NO2 concentrations (ug/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	1.5	62	Compliance
10 m from kerb	0.9	62	Compliance
20 m from kerb	0.8	62	Compliance
30 m from kerb	0.7	62	Compliance
40 m from kerb	0.6	62	Compliance
50 m from kerb	0.5	62	Compliance
75 m from kerb	0.4	62	Compliance
100 m from kerb	0.4	62	Compliance
150 m from kerb	0.3	62	Compliance
200 m from kerb	0.2	62	Compliance
Maximum 24-hour average PM10 concentrations (ug/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	11.9	50	Compliance
10 m from kerb	4.6	50	Compliance
20 m from kerb	3.3	50	Compliance
30 m from kerb	2.7	50	Compliance

40 m from kerb	2.3	50	Compliance
50 m from kerb	2	50	Compliance
75 m from kerb	1.6	50	Compliance
100 m from kerb	1.4	50	Compliance
150 m from kerb	1.1	50	Compliance
200 m from kerb	0.9	50	Compliance

Annual average PM10 concentrations (ug/m3)

Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	4.8	25	Compliance
10 m from kerb	1.8	25	Compliance
20 m from kerb	1.3	25	Compliance
30 m from kerb	1.1	25	Compliance
40 m from kerb	0.9	25	Compliance
50 m from kerb	0.8	25	Compliance
75 m from kerb	0.7	25	Compliance
100 m from kerb	0.6	25	Compliance
150 m from kerb	0.4	25	Compliance
200 m from kerb	0.4	25	Compliance

END OF REPORT

Roads and Maritime Services

TRAQ: Emissions and Air Quality Screening Assessment Report (Version 1.3)

Date of report: 06-Sep-2018 10:26  
 Report name: S05\_NB-Exi\_2016

INPUT DATA

Simulation name	TRAQ simulation									
Road type	Arterial									
Traffic data	Traffic per day	Speed (km/h)	Grade (%)	Length (km)						
Lane 1	6825	80	0	1						
Median strip	none									
Traffic mix (%)	CP	CD	LDCP	LDLD	HDCP	RT	AT	BusD	MC	User
Lane 1	80.4	2.3	10.2	3.4	0.1	1.8	0.9	0.2	0.7	
24-hour average speed	36.3	Default								
Peak hour percentage of daily (%)	10									
Year of assessment	2016									
Local landuse	Rural									
Air quality environment	Sydney South West									
Season	Worst-case	Default								
Cold start emissions	Included	Default								

METEOROLOGICAL CONDITIONS

Wind direction	Worst-case wind angle
Wind speed	1 m/s
Atmospheric stability	F class (stable night time conditions)
Temperature	15 deg C

EMISSIONS (Air Pollutants)

	g/km/v	g/km/v	g/km/v	kg/h	kg/h	kg/h
	CO	NOx	PM10	CO	NOx	PM10
Lane 1	2.37	0.46	0.05	1.62	0.32	0.03

EMISSIONS (Greenhouse Gases)

	Fuel consumption (L/h)		CO2-e emission factors (kg/L)		CO2-e emissions (t CO2-e/h)	CO2-e emissions (t CO2-e/y)
	Petrol	Diesel	Petrol	Diesel		
Lane 1	49.1	10.8	2.38032	2.69814	0.1	532.9
					0.1	532.9

PREDICTED ROADSIDE CONCENTRATIONS AND ASSESSMENT

Maximum 1-hour average CO concentrations (mg/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	0.6	30	Compliance
10 m from kerb	0.2	30	Compliance
20 m from kerb	0.1	30	Compliance
30 m from kerb	0.1	30	Compliance
40 m from kerb	0.1	30	Compliance
50 m from kerb	0.1	30	Compliance
75 m from kerb	0.1	30	Compliance
100 m from kerb	0.1	30	Compliance
150 m from kerb	0	30	Compliance
200 m from kerb	0	30	Compliance

  

Maximum 8-hour average CO concentrations (mg/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	0.4	10	Compliance
10 m from kerb	0.2	10	Compliance
20 m from kerb	0.1	10	Compliance
30 m from kerb	0.1	10	Compliance
40 m from kerb	0.1	10	Compliance
50 m from kerb	0.1	10	Compliance
75 m from kerb	0.1	10	Compliance
100 m from kerb	0	10	Compliance
150 m from kerb	0	10	Compliance
200 m from kerb	0	10	Compliance

  

Maximum 1-hour average NO2 concentrations (ug/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	11.6	246	Compliance
10 m from kerb	6.4	246	Compliance
20 m from kerb	5.8	246	Compliance
30 m from kerb	4.7	246	Compliance
40 m from kerb	4	246	Compliance
50 m from kerb	3.6	246	Compliance
75 m from kerb	2.8	246	Compliance
100 m from kerb	2.4	246	Compliance
150 m from kerb	1.9	246	Compliance
200 m from kerb	1.6	246	Compliance

  

Annual average NO2 concentrations (ug/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	2.3	62	Compliance
10 m from kerb	1.3	62	Compliance
20 m from kerb	1.2	62	Compliance
30 m from kerb	0.9	62	Compliance
40 m from kerb	0.8	62	Compliance
50 m from kerb	0.7	62	Compliance
75 m from kerb	0.6	62	Compliance
100 m from kerb	0.5	62	Compliance
150 m from kerb	0.4	62	Compliance
200 m from kerb	0.3	62	Compliance

  

Maximum 24-hour average PM10 concentrations (ug/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	5.9	50	Compliance
10 m from kerb	2.2	50	Compliance
20 m from kerb	1.5	50	Compliance
30 m from kerb	1.2	50	Compliance
40 m from kerb	1	50	Compliance
50 m from kerb	0.9	50	Compliance
75 m from kerb	0.7	50	Compliance
100 m from kerb	0.6	50	Compliance

150 m from kerb	0.5	50	Compliance
200 m from kerb	0.4	50	Compliance
Annual average PM10 concentrations (ug/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	2.4	25	Compliance
10 m from kerb	0.9	25	Compliance
20 m from kerb	0.6	25	Compliance
30 m from kerb	0.5	25	Compliance
40 m from kerb	0.4	25	Compliance
50 m from kerb	0.4	25	Compliance
75 m from kerb	0.3	25	Compliance
100 m from kerb	0.2	25	Compliance
150 m from kerb	0.2	25	Compliance
200 m from kerb	0.2	25	Compliance

END OF REPORT

Roads and Maritime Services

TRAQ: Emissions and Air Quality Screening Assessment Report (Version 1.3)

Date of report: 06-Sep-2018 10:30  
 Report name: S05\_SB-Exi\_2016

INPUT DATA

Simulation name	TRAQ simulation									
Road type	Arterial									
Traffic data	Traffic per day	Speed (km/h)	Grade (%)	Length (km)						
Lane 1	5776	80	0	1						
Median strip	none									
Traffic mix (%)	CP	CD	LDCP	LDLD	HDCP	RT	AT	BusD	MC	User
Lane 1	77.1	2.2	9.8	3.3	0.2	4.2	2.2	0.5	0.6	
24-hour average speed	36.3	Default								
Peak hour percentage of daily (%)	10									
Year of assessment	2016									
Local landuse	Rural									
Air quality environment	Sydney South West									
Season	Worst-case	Default								
Cold start emissions	Included	Default								

METEOROLOGICAL CONDITIONS

Wind direction	Worst-case wind angle
Wind speed	1 m/s
Atmospheric stability	F class (stable night time conditions)
Temperature	15 deg C

EMISSIONS (Air Pollutants)

	g/km/v	g/km/v	g/km/v	kg/h	kg/h	kg/h
	CO	NOx	PM10	CO	NOx	PM10
Lane 1	2.31	0.56	0.06	1.33	0.32	0.03

EMISSIONS (Greenhouse Gases)

	Fuel consumption (L/h)		CO2-e emission factors (kg/L)		CO2-e emissions (t CO2-e/h)	CO2-e emissions (t CO2-e/y)
	Petrol	Diesel	Petrol	Diesel		
Lane 1	39.9	17.8	2.38032	2.69814	0.1	522.0
					0.1	522.0

PREDICTED ROADSIDE CONCENTRATIONS AND ASSESSMENT

Maximum 1-hour average CO concentrations (mg/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	0.5	30	Compliance
10 m from kerb	0.2	30	Compliance
20 m from kerb	0.1	30	Compliance
30 m from kerb	0.1	30	Compliance
40 m from kerb	0.1	30	Compliance
50 m from kerb	0.1	30	Compliance
75 m from kerb	0.1	30	Compliance
100 m from kerb	0.1	30	Compliance
150 m from kerb	0	30	Compliance
200 m from kerb	0	30	Compliance
Maximum 8-hour average CO concentrations (mg/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	0.3	10	Compliance
10 m from kerb	0.1	10	Compliance
20 m from kerb	0.1	10	Compliance
30 m from kerb	0.1	10	Compliance
40 m from kerb	0.1	10	Compliance
50 m from kerb	0.1	10	Compliance
75 m from kerb	0	10	Compliance
100 m from kerb	0	10	Compliance
150 m from kerb	0	10	Compliance
200 m from kerb	0	10	Compliance
Maximum 1-hour average NO2 concentrations (ug/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	12.1	246	Compliance
10 m from kerb	6.7	246	Compliance
20 m from kerb	6.1	246	Compliance
30 m from kerb	4.9	246	Compliance
40 m from kerb	4.2	246	Compliance
50 m from kerb	3.7	246	Compliance
75 m from kerb	3	246	Compliance
100 m from kerb	2.5	246	Compliance
150 m from kerb	2	246	Compliance
200 m from kerb	1.6	246	Compliance
Annual average NO2 concentrations (ug/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	2.4	62	Compliance
10 m from kerb	1.3	62	Compliance
20 m from kerb	1.2	62	Compliance
30 m from kerb	1	62	Compliance
40 m from kerb	0.8	62	Compliance
50 m from kerb	0.7	62	Compliance
75 m from kerb	0.6	62	Compliance
100 m from kerb	0.5	62	Compliance
150 m from kerb	0.4	62	Compliance
200 m from kerb	0.3	62	Compliance
Maximum 24-hour average PM10 concentrations (ug/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	6	50	Compliance
10 m from kerb	2.2	50	Compliance
20 m from kerb	1.5	50	Compliance
30 m from kerb	1.2	50	Compliance
40 m from kerb	1	50	Compliance
50 m from kerb	0.9	50	Compliance
75 m from kerb	0.7	50	Compliance
100 m from kerb	0.6	50	Compliance

150 m from kerb	0.5	50	Compliance
200 m from kerb	0.4	50	Compliance
Annual average PM10 concentrations (ug/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	2.4	25	Compliance
10 m from kerb	0.9	25	Compliance
20 m from kerb	0.6	25	Compliance
30 m from kerb	0.5	25	Compliance
40 m from kerb	0.4	25	Compliance
50 m from kerb	0.4	25	Compliance
75 m from kerb	0.3	25	Compliance
100 m from kerb	0.2	25	Compliance
150 m from kerb	0.2	25	Compliance
200 m from kerb	0.2	25	Compliance

END OF REPORT



Roads and Maritime Services

TRAQ: Emissions and Air Quality Screening Assessment Report (Version 1.3)

Date of report: 05-Sep-2018 16:41  
 Report name: S05\_NB-Des\_2026

INPUT DATA

Simulation name	TRAQ simulation									
Road type	Arterial									
Traffic data	Traffic per day	Speed (km/h)	Grade (%)	Length (km)						
Lane 1	10790	80	0	1						
Median strip	none									
Traffic mix (%)	CP	CD	LDCP	LDLD	HDCP	RT	AT	BusD	MC	User
Lane 1	80.4	2.3	10.2	3.4	0.1	1.8	0.9	0.2	0.7	
24-hour average speed	36	Default								
Peak hour percentage of daily (%)	10									
Year of assessment	2026									
Local landuse	Rural									
Air quality environment	Sydney South West									
Season	Worst-case	Default								
Cold start emissions	Included	Default								

METEOROLOGICAL CONDITIONS

Wind direction	Worst-case wind angle
Wind speed	1 m/s
Atmospheric stability	F class (stable night time conditions)
Temperature	15 deg C

EMISSIONS (Air Pollutants)

	g/km/v	g/km/v	g/km/v	kg/h	kg/h	kg/h
	CO	NOx	PM10	CO	NOx	PM10
Lane 1	2.42	0.15	0.04	2.61	0.16	0.05

EMISSIONS (Greenhouse Gases)

	Fuel consumption (L/h)		CO2-e emission factors (kg/L)		CO2-e emissions (t CO2-e/h)	CO2-e emissions (t CO2-e/y)
	Petrol	Diesel	Petrol	Diesel		
Lane 1	71.3	16.7	2.38032	2.69814	0.2	783.9
					0.2	783.9

PREDICTED ROADSIDE CONCENTRATIONS AND ASSESSMENT

Maximum 1-hour average CO concentrations (mg/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	0.9	30	Compliance
10 m from kerb	0.3	30	Compliance
20 m from kerb	0.2	30	Compliance
30 m from kerb	0.2	30	Compliance
40 m from kerb	0.2	30	Compliance
50 m from kerb	0.1	30	Compliance
75 m from kerb	0.1	30	Compliance
100 m from kerb	0.1	30	Compliance
150 m from kerb	0.1	30	Compliance
200 m from kerb	0.1	30	Compliance

Maximum 8-hour average CO concentrations (mg/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	0.6	10	Compliance
10 m from kerb	0.2	10	Compliance
20 m from kerb	0.2	10	Compliance
30 m from kerb	0.1	10	Compliance
40 m from kerb	0.1	10	Compliance
50 m from kerb	0.1	10	Compliance
75 m from kerb	0.1	10	Compliance
100 m from kerb	0.1	10	Compliance
150 m from kerb	0.1	10	Compliance
200 m from kerb	0	10	Compliance

Maximum 1-hour average NO2 concentrations (ug/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	5.6	246	Compliance
10 m from kerb	3	246	Compliance
20 m from kerb	2.7	246	Compliance
30 m from kerb	2.2	246	Compliance
40 m from kerb	1.9	246	Compliance
50 m from kerb	1.7	246	Compliance
75 m from kerb	1.3	246	Compliance
100 m from kerb	1.1	246	Compliance
150 m from kerb	0.9	246	Compliance
200 m from kerb	0.7	246	Compliance

Annual average NO2 concentrations (ug/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	1.1	62	Compliance
10 m from kerb	0.6	62	Compliance
20 m from kerb	0.5	62	Compliance
30 m from kerb	0.4	62	Compliance
40 m from kerb	0.4	62	Compliance
50 m from kerb	0.3	62	Compliance
75 m from kerb	0.3	62	Compliance
100 m from kerb	0.2	62	Compliance
150 m from kerb	0.2	62	Compliance
200 m from kerb	0.1	62	Compliance

Maximum 24-hour average PM10 concentrations (ug/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	8.1	50	Compliance
10 m from kerb	2.9	50	Compliance
20 m from kerb	1.9	50	Compliance
30 m from kerb	1.5	50	Compliance
40 m from kerb	1.3	50	Compliance
50 m from kerb	1.2	50	Compliance
75 m from kerb	1	50	Compliance
100 m from kerb	0.8	50	Compliance

150 m from kerb	0.6	50	Compliance
200 m from kerb	0.5	50	Compliance
Annual average PM10 concentrations (ug/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	3.2	25	Compliance
10 m from kerb	1.1	25	Compliance
20 m from kerb	0.8	25	Compliance
30 m from kerb	0.6	25	Compliance
40 m from kerb	0.5	25	Compliance
50 m from kerb	0.5	25	Compliance
75 m from kerb	0.4	25	Compliance
100 m from kerb	0.3	25	Compliance
150 m from kerb	0.3	25	Compliance
200 m from kerb	0.2	25	Compliance

END OF REPORT

## Roads and Maritime Services

### TRAQ: Emissions and Air Quality Screening Assessment Report (Version 1.3)

Date of report: 05-Sep-2018 16:42  
Report name: S05\_SB-Des\_2026

#### INPUT DATA

Simulation name	TRAQ simulation									
Road type	Arterial									
Traffic data	Traffic per day	Speed (km/h)	Grade (%)	Length (km)						
Lane 1	10860	80	0	1						
Median strip	none									
Traffic mix (%)	CP	CD	LDCP	LDLD	HDCP	RT	AT	BusD	MC	User
Lane 1	80.4	2.3	10.2	3.4	0.1	1.8	0.9	0.2	0.7	
24-hour average speed	36	Default								
Peak hour percentage of daily (%)	10									
Year of assessment	2026									
Local landuse	Rural									
Air quality environment	Sydney South West									
Season	Worst-case	Default								
Cold start emissions	Included	Default								

#### METEOROLOGICAL CONDITIONS

Wind direction	Worst-case wind angle
Wind speed	1 m/s
Atmospheric stability	F class (stable night time conditions)
Temperature	15 deg C

#### EMISSIONS (Air Pollutants)

	g/km/v	g/km/v	g/km/v	kg/h	kg/h	kg/h
	CO	NOx	PM10	CO	NOx	PM10
Lane 1	2.42	0.15	0.04	2.62	0.16	0.05

#### EMISSIONS (Greenhouse Gases)

	Fuel consumption (L/h)		CO2-e emission factors (kg/L)		CO2-e emissions (t CO2-e/h)	CO2-e emissions (t CO2-e/y)
	Petrol	Diesel	Petrol	Diesel		
Lane 1	71.8	16.8	2.38032	2.69814	0.2	789.3
					0.2	<b>789.3</b>

#### PREDICTED ROADSIDE CONCENTRATIONS AND ASSESSMENT

##### Maximum 1-hour average CO concentrations (mg/m3)

Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	0.9	30	Compliance
10 m from kerb	0.3	30	Compliance
20 m from kerb	0.2	30	Compliance
30 m from kerb	0.2	30	Compliance
40 m from kerb	0.2	30	Compliance
50 m from kerb	0.1	30	Compliance
75 m from kerb	0.1	30	Compliance
100 m from kerb	0.1	30	Compliance
150 m from kerb	0.1	30	Compliance
200 m from kerb	0.1	30	Compliance

##### Maximum 8-hour average CO concentrations (mg/m3)

Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	0.6	10	Compliance
10 m from kerb	0.2	10	Compliance
20 m from kerb	0.2	10	Compliance
30 m from kerb	0.1	10	Compliance
40 m from kerb	0.1	10	Compliance
50 m from kerb	0.1	10	Compliance
75 m from kerb	0.1	10	Compliance
100 m from kerb	0.1	10	Compliance
150 m from kerb	0.1	10	Compliance
200 m from kerb	0	10	Compliance

##### Maximum 1-hour average NO2 concentrations (ug/m3)

Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	5.7	246	Compliance
10 m from kerb	3	246	Compliance
20 m from kerb	2.7	246	Compliance
30 m from kerb	2.2	246	Compliance
40 m from kerb	1.9	246	Compliance
50 m from kerb	1.7	246	Compliance
75 m from kerb	1.3	246	Compliance
100 m from kerb	1.1	246	Compliance
150 m from kerb	0.9	246	Compliance
200 m from kerb	0.7	246	Compliance

##### Annual average NO2 concentrations (ug/m3)

Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	1.1	62	Compliance
10 m from kerb	0.6	62	Compliance
20 m from kerb	0.5	62	Compliance
30 m from kerb	0.4	62	Compliance
40 m from kerb	0.4	62	Compliance
50 m from kerb	0.3	62	Compliance
75 m from kerb	0.3	62	Compliance
100 m from kerb	0.2	62	Compliance
150 m from kerb	0.2	62	Compliance
200 m from kerb	0.1	62	Compliance

##### Maximum 24-hour average PM10 concentrations (ug/m3)

Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	8.1	50	Compliance
10 m from kerb	2.9	50	Compliance
20 m from kerb	1.9	50	Compliance
30 m from kerb	1.6	50	Compliance
40 m from kerb	1.3	50	Compliance
50 m from kerb	1.2	50	Compliance
75 m from kerb	1	50	Compliance
100 m from kerb	0.8	50	Compliance

150 m from kerb	0.6	50	Compliance
200 m from kerb	0.5	50	Compliance
Annual average PM10 concentrations (ug/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	3.2	25	Compliance
10 m from kerb	1.2	25	Compliance
20 m from kerb	0.8	25	Compliance
30 m from kerb	0.6	25	Compliance
40 m from kerb	0.5	25	Compliance
50 m from kerb	0.5	25	Compliance
75 m from kerb	0.4	25	Compliance
100 m from kerb	0.3	25	Compliance
150 m from kerb	0.3	25	Compliance
200 m from kerb	0.2	25	Compliance

END OF REPORT

Roads and Maritime Services

TRAQ: Emissions and Air Quality Screening Assessment Report (Version 1.3)

Date of report: 05-Sep-2018 16:48  
 Report name: S05\_NB-Min\_2026

INPUT DATA

Simulation name	TRAQ simulation									
Road type	Arterial									
Traffic data	Traffic per day	Speed (km/h)	Grade (%)	Length (km)						
Lane 1	14600	80	0	1						
Median strip	none									
Traffic mix (%)	CP	CD	LDCP	LDLD	HDCP	RT	AT	BusD	MC	User
Lane 1	80.4	2.3	10.2	3.4	0.1	1.8	0.9	0.2	0.7	
24-hour average speed	36	Default								
Peak hour percentage of daily (%)	10									
Year of assessment	2026									
Local landuse	Rural									
Air quality environment	Sydney South West									
Season	Worst-case	Default								
Cold start emissions	Included	Default								

METEOROLOGICAL CONDITIONS

Wind direction	Worst-case wind angle
Wind speed	1 m/s
Atmospheric stability	F class (stable night time conditions)
Temperature	15 deg C

EMISSIONS (Air Pollutants)

	g/km/v	g/km/v	g/km/v	kg/h	kg/h	kg/h
	CO	NOx	PM10	CO	NOx	PM10
Lane 1	2.42	0.15	0.04	3.53	0.22	0.06

EMISSIONS (Greenhouse Gases)

	Fuel consumption (L/h)		CO2-e emission factors (kg/L)		CO2-e emissions (t CO2-e/h)	CO2-e emissions (t CO2-e/y)
	Petrol	Diesel	Petrol	Diesel		
Lane 1	96.5	22.6	2.38032	2.69814	0.3	1061.0
					0.3	1061.0

PREDICTED ROADSIDE CONCENTRATIONS AND ASSESSMENT

Maximum 1-hour average CO concentrations (mg/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	1.2	30	Compliance
10 m from kerb	0.4	30	Compliance
20 m from kerb	0.3	30	Compliance
30 m from kerb	0.2	30	Compliance
40 m from kerb	0.2	30	Compliance
50 m from kerb	0.2	30	Compliance
75 m from kerb	0.1	30	Compliance
100 m from kerb	0.1	30	Compliance
150 m from kerb	0.1	30	Compliance
200 m from kerb	0.1	30	Compliance

Maximum 8-hour average CO concentrations (mg/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	0.8	10	Compliance
10 m from kerb	0.3	10	Compliance
20 m from kerb	0.2	10	Compliance
30 m from kerb	0.2	10	Compliance
40 m from kerb	0.1	10	Compliance
50 m from kerb	0.1	10	Compliance
75 m from kerb	0.1	10	Compliance
100 m from kerb	0.1	10	Compliance
150 m from kerb	0.1	10	Compliance
200 m from kerb	0.1	10	Compliance

Maximum 1-hour average NO2 concentrations (ug/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	7.3	246	Compliance
10 m from kerb	3.8	246	Compliance
20 m from kerb	3.4	246	Compliance
30 m from kerb	2.7	246	Compliance
40 m from kerb	2.3	246	Compliance
50 m from kerb	2	246	Compliance
75 m from kerb	1.7	246	Compliance
100 m from kerb	1.4	246	Compliance
150 m from kerb	1.1	246	Compliance
200 m from kerb	0.9	246	Compliance

Annual average NO2 concentrations (ug/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	1.5	62	Compliance
10 m from kerb	0.8	62	Compliance
20 m from kerb	0.7	62	Compliance
30 m from kerb	0.5	62	Compliance
40 m from kerb	0.5	62	Compliance
50 m from kerb	0.4	62	Compliance
75 m from kerb	0.3	62	Compliance
100 m from kerb	0.3	62	Compliance
150 m from kerb	0.2	62	Compliance
200 m from kerb	0.2	62	Compliance

Maximum 24-hour average PM10 concentrations (ug/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	10.5	50	Compliance
10 m from kerb	3.6	50	Compliance
20 m from kerb	2.4	50	Compliance
30 m from kerb	1.9	50	Compliance
40 m from kerb	1.6	50	Compliance
50 m from kerb	1.5	50	Compliance
75 m from kerb	1.2	50	Compliance
100 m from kerb	1	50	Compliance

150 m from kerb	0.8	50	Compliance
200 m from kerb	0.7	50	Compliance
Annual average PM10 concentrations (ug/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	4.2	25	Compliance
10 m from kerb	1.4	25	Compliance
20 m from kerb	1	25	Compliance
30 m from kerb	0.8	25	Compliance
40 m from kerb	0.7	25	Compliance
50 m from kerb	0.6	25	Compliance
75 m from kerb	0.5	25	Compliance
100 m from kerb	0.4	25	Compliance
150 m from kerb	0.3	25	Compliance
200 m from kerb	0.3	25	Compliance

END OF REPORT

Roads and Maritime Services

TRAQ: Emissions and Air Quality Screening Assessment Report (Version 1.3)

Date of report: 05-Sep-2018 17:03  
 Report name: S05\_SB-Min\_2026

INPUT DATA

Simulation name	TRAQ simulation									
Road type	Arterial									
Traffic data	Traffic per day	Speed (km/h)	Grade (%)	Length (km)						
Lane 1	15000	80	0	1						
Median strip	none									
Traffic mix (%)	CP	CD	LDCP	LDLD	HDCP	RT	AT	BusD	MC	User
Lane 1	77.1	2.2	9.8	3.3	0.2	4.2	2.2	0.5	0.6	
24-hour average speed	36	Default								
Peak hour percentage of daily (%)	10									
Year of assessment	2026									
Local landuse	Rural									
Air quality environment	Sydney South West									
Season	Worst-case	Default								
Cold start emissions	Included	Default								

METEOROLOGICAL CONDITIONS

Wind direction	Worst-case wind angle
Wind speed	1 m/s
Atmospheric stability	F class (stable night time conditions)
Temperature	15 deg C

EMISSIONS (Air Pollutants)

	g/km/v	g/km/v	g/km/v	kg/h	kg/h	kg/h
	CO	NOx	PM10	CO	NOx	PM10
Lane 1	2.35	0.22	0.05	3.53	0.32	0.07

EMISSIONS (Greenhouse Gases)

	Fuel consumption (L/h)		CO2-e emission factors (kg/L)		CO2-e emissions (t CO2-e/h)	CO2-e emissions (t CO2-e/y)
	Petrol	Diesel	Petrol	Diesel		
Lane 1	95.2	45.4	2.38032	2.69814	0.3	1274.2
					0.3	1274.2

PREDICTED ROADSIDE CONCENTRATIONS AND ASSESSMENT

Maximum 1-hour average CO concentrations (mg/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	1.2	30	Compliance
10 m from kerb	0.4	30	Compliance
20 m from kerb	0.3	30	Compliance
30 m from kerb	0.2	30	Compliance
40 m from kerb	0.2	30	Compliance
50 m from kerb	0.2	30	Compliance
75 m from kerb	0.1	30	Compliance
100 m from kerb	0.1	30	Compliance
150 m from kerb	0.1	30	Compliance
200 m from kerb	0.1	30	Compliance

Maximum 8-hour average CO concentrations (mg/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	0.8	10	Compliance
10 m from kerb	0.3	10	Compliance
20 m from kerb	0.2	10	Compliance
30 m from kerb	0.2	10	Compliance
40 m from kerb	0.1	10	Compliance
50 m from kerb	0.1	10	Compliance
75 m from kerb	0.1	10	Compliance
100 m from kerb	0.1	10	Compliance
150 m from kerb	0.1	10	Compliance
200 m from kerb	0.1	10	Compliance

Maximum 1-hour average NO2 concentrations (ug/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	10.8	246	Compliance
10 m from kerb	5.5	246	Compliance
20 m from kerb	4.9	246	Compliance
30 m from kerb	3.9	246	Compliance
40 m from kerb	3.4	246	Compliance
50 m from kerb	3	246	Compliance
75 m from kerb	2.4	246	Compliance
100 m from kerb	2.1	246	Compliance
150 m from kerb	1.7	246	Compliance
200 m from kerb	1.4	246	Compliance

Annual average NO2 concentrations (ug/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	2.2	62	Compliance
10 m from kerb	1.1	62	Compliance
20 m from kerb	1	62	Compliance
30 m from kerb	0.8	62	Compliance
40 m from kerb	0.7	62	Compliance
50 m from kerb	0.6	62	Compliance
75 m from kerb	0.5	62	Compliance
100 m from kerb	0.4	62	Compliance
150 m from kerb	0.3	62	Compliance
200 m from kerb	0.3	62	Compliance

Maximum 24-hour average PM10 concentrations (ug/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	12.2	50	Compliance
10 m from kerb	4.2	50	Compliance
20 m from kerb	2.8	50	Compliance
30 m from kerb	2.2	50	Compliance
40 m from kerb	1.9	50	Compliance
50 m from kerb	1.7	50	Compliance
75 m from kerb	1.4	50	Compliance
100 m from kerb	1.2	50	Compliance

150 m from kerb	0.9	50	Compliance
200 m from kerb	0.8	50	Compliance
Annual average PM10 concentrations (ug/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	4.9	25	Compliance
10 m from kerb	1.7	25	Compliance
20 m from kerb	1.1	25	Compliance
30 m from kerb	0.9	25	Compliance
40 m from kerb	0.8	25	Compliance
50 m from kerb	0.7	25	Compliance
75 m from kerb	0.5	25	Compliance
100 m from kerb	0.5	25	Compliance
150 m from kerb	0.4	25	Compliance
200 m from kerb	0.3	25	Compliance

END OF REPORT



## Roads and Maritime Services

### TRAQ: Emissions and Air Quality Screening Assessment Report (Version 1.3)

Date of report: 06-Sep-2018 09:18  
Report name: S05\_NB-Des\_2036

#### INPUT DATA

Simulation name	TRAQ simulation									
Road type	Arterial									
Traffic data	Traffic per day	Speed (km/h)	Grade (%)	Length (km)						
Lane 1	5915	80	0	1						
Lane 2	5915	80	0	1						
Median strip	none									
Traffic mix (%)	CP	CD	LDCP	LDCD	HDCP	RT	AT	BusD	MC	
Lane 1	80.4	2.3	10.2	3.4	0.1	1.8	0.9	0.2	0.7	User
Lane 2	80.4	2.3	10.2	3.4	0.1	1.8	0.9	0.2	0.7	User
24-hour average speed	35.5	Default								
Peak hour percentage of daily (%)	10									
Year of assessment	2036									
Local landuse	Rural									
Air quality environment	Sydney South West									
Season	Worst-case	Default								
Cold start emissions	Included	Default								

#### METEOROLOGICAL CONDITIONS

Wind direction	Worst-case wind angle
Wind speed	1 m/s
Atmospheric stability	F class (stable night time conditions)
Temperature	15 deg C

#### EMISSIONS (Air Pollutants)

	g/km/v CO	g/km/v NOx	g/km/v PM10	kg/h CO	kg/h NOx	kg/h PM10
Lane 1	2.51	0.09	0.04	1.49	0.06	0.02
Lane 2	2.51	0.09	0.04	1.49	0.06	0.02

#### EMISSIONS (Greenhouse Gases)

	Fuel consumption (L/h)		CO2-e emission factors (kg/L)		CO2-e emissions (t CO2-e/h)	CO2-e emissions (t CO2-e/y)
	Petrol	Diesel	Petrol	Diesel		
Lane 1	37	9	2.38032	2.69814	0.1	410.1
Lane 2	37	9	2.38032	2.69814	0.1	410.1
					0.2	820.2

#### PREDICTED ROADSIDE CONCENTRATIONS AND ASSESSMENT

Maximum 1-hour average CO concentrations (mg/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	1	30	Compliance
10 m from kerb	0.4	30	Compliance
20 m from kerb	0.3	30	Compliance
30 m from kerb	0.2	30	Compliance
40 m from kerb	0.2	30	Compliance
50 m from kerb	0.2	30	Compliance
75 m from kerb	0.1	30	Compliance
100 m from kerb	0.1	30	Compliance
150 m from kerb	0.1	30	Compliance
200 m from kerb	0.1	30	Compliance

Maximum 8-hour average CO concentrations (mg/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	0.7	10	Compliance
10 m from kerb	0.3	10	Compliance
20 m from kerb	0.2	10	Compliance
30 m from kerb	0.2	10	Compliance
40 m from kerb	0.1	10	Compliance
50 m from kerb	0.1	10	Compliance
75 m from kerb	0.1	10	Compliance
100 m from kerb	0.1	10	Compliance
150 m from kerb	0.1	10	Compliance
200 m from kerb	0.1	10	Compliance

Maximum 1-hour average NO2 concentrations (ug/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	3.6	246	Compliance
10 m from kerb	2.1	246	Compliance
20 m from kerb	2	246	Compliance
30 m from kerb	1.6	246	Compliance
40 m from kerb	1.4	246	Compliance
50 m from kerb	1.2	246	Compliance
75 m from kerb	1	246	Compliance
100 m from kerb	0.8	246	Compliance
150 m from kerb	0.7	246	Compliance
200 m from kerb	0.5	246	Compliance

Annual average NO2 concentrations (ug/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	0.7	62	Compliance
10 m from kerb	0.4	62	Compliance
20 m from kerb	0.4	62	Compliance
30 m from kerb	0.3	62	Compliance
40 m from kerb	0.3	62	Compliance
50 m from kerb	0.2	62	Compliance
75 m from kerb	0.2	62	Compliance
100 m from kerb	0.2	62	Compliance
150 m from kerb	0.1	62	Compliance
200 m from kerb	0.1	62	Compliance

Maximum 24-hour average PM10 concentrations (ug/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	8	50	Compliance
10 m from kerb	3.2	50	Compliance
20 m from kerb	2.2	50	Compliance
30 m from kerb	1.8	50	Compliance

40 m from kerb	1.6	50	Compliance
50 m from kerb	1.4	50	Compliance
75 m from kerb	1.1	50	Compliance
100 m from kerb	1	50	Compliance
150 m from kerb	0.7	50	Compliance
200 m from kerb	0.6	50	Compliance

Annual average PM10 concentrations (ug/m3)

Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	3.2	25	Compliance
10 m from kerb	1.3	25	Compliance
20 m from kerb	0.9	25	Compliance
30 m from kerb	0.7	25	Compliance
40 m from kerb	0.6	25	Compliance
50 m from kerb	0.6	25	Compliance
75 m from kerb	0.4	25	Compliance
100 m from kerb	0.4	25	Compliance
150 m from kerb	0.3	25	Compliance
200 m from kerb	0.2	25	Compliance

END OF REPORT

Roads and Maritime Services

TRAQ: Emissions and Air Quality Screening Assessment Report (Version 1.3)

Date of report: 06-Sep-2018 09:20  
 Report name: S05\_SB-Des\_2036

INPUT DATA

Simulation name	TRAQ simulation									
Road type	Arterial									
Traffic data	Traffic per day	Speed (km/h)	Grade (%)	Length (km)						
Lane 1	6050	80	0	1						
Lane 2	6050	80	0	1						
Median strip	none									
Traffic mix (%)	CP	CD	LDCP	LD CD	HDCP	RT	AT	BusD	MC	
Lane 1	80.4	2.3	10.2	3.4	0.1	1.8	0.9	0.2	0.7	User
Lane 2	80.4	2.3	10.2	3.4	0.1	1.8	0.9	0.2	0.7	User
24-hour average speed	35.5	Default								
Peak hour percentage of daily (%)	10									
Year of assessment	2036									
Local landuse	Rural									
Air quality environment	Sydney South West									
Season	Worst-case	Default								
Cold start emissions	Included	Default								

METEOROLOGICAL CONDITIONS

Wind direction	Worst-case wind angle
Wind speed	1 m/s
Atmospheric stability	F class (stable night time conditions)
Temperature	15 deg C

EMISSIONS (Air Pollutants)

	g/km/v	g/km/v	g/km/v	kg/h	kg/h	kg/h
	CO	NOx	PM10	CO	NOx	PM10
Lane 1	2.51	0.09	0.04	1.52	0.06	0.03
Lane 2	2.51	0.09	0.04	1.52	0.06	0.03

EMISSIONS (Greenhouse Gases)

	Fuel consumption (L/h)		CO2-e emission factors (kg/L)		CO2-e emissions (t CO2-e/h)	CO2-e emissions (t CO2-e/y)
	Petrol	Diesel	Petrol	Diesel		
Lane 1	37.9	9.2	2.38032	2.69814	0.1	419.9
Lane 2	37.9	9.2	2.38032	2.69814	0.1	419.9
					0.2	839.8

PREDICTED ROADSIDE CONCENTRATIONS AND ASSESSMENT

Maximum 1-hour average CO concentrations (mg/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	1	30	Compliance
10 m from kerb	0.4	30	Compliance
20 m from kerb	0.3	30	Compliance
30 m from kerb	0.2	30	Compliance
40 m from kerb	0.2	30	Compliance
50 m from kerb	0.2	30	Compliance
75 m from kerb	0.1	30	Compliance
100 m from kerb	0.1	30	Compliance
150 m from kerb	0.1	30	Compliance
200 m from kerb	0.1	30	Compliance

Maximum 8-hour average CO concentrations (mg/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	0.7	10	Compliance
10 m from kerb	0.3	10	Compliance
20 m from kerb	0.2	10	Compliance
30 m from kerb	0.2	10	Compliance
40 m from kerb	0.1	10	Compliance
50 m from kerb	0.1	10	Compliance
75 m from kerb	0.1	10	Compliance
100 m from kerb	0.1	10	Compliance
150 m from kerb	0.1	10	Compliance
200 m from kerb	0.1	10	Compliance

Maximum 1-hour average NO2 concentrations (ug/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	3.6	246	Compliance
10 m from kerb	2.1	246	Compliance
20 m from kerb	2	246	Compliance
30 m from kerb	1.7	246	Compliance
40 m from kerb	1.4	246	Compliance
50 m from kerb	1.3	246	Compliance
75 m from kerb	1	246	Compliance
100 m from kerb	0.9	246	Compliance
150 m from kerb	0.7	246	Compliance
200 m from kerb	0.6	246	Compliance

Annual average NO2 concentrations (ug/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	0.7	62	Compliance
10 m from kerb	0.4	62	Compliance
20 m from kerb	0.4	62	Compliance
30 m from kerb	0.3	62	Compliance
40 m from kerb	0.3	62	Compliance
50 m from kerb	0.3	62	Compliance
75 m from kerb	0.2	62	Compliance
100 m from kerb	0.2	62	Compliance
150 m from kerb	0.1	62	Compliance
200 m from kerb	0.1	62	Compliance

Maximum 24-hour average PM10 concentrations (ug/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	8.2	50	Compliance
10 m from kerb	3.2	50	Compliance
20 m from kerb	2.3	50	Compliance
30 m from kerb	1.9	50	Compliance

40 m from kerb	1.6	50	Compliance
50 m from kerb	1.4	50	Compliance
75 m from kerb	1.1	50	Compliance
100 m from kerb	1	50	Compliance
150 m from kerb	0.8	50	Compliance
200 m from kerb	0.6	50	Compliance

Annual average PM10 concentrations (ug/m3)

Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	3.3	25	Compliance
10 m from kerb	1.3	25	Compliance
20 m from kerb	0.9	25	Compliance
30 m from kerb	0.7	25	Compliance
40 m from kerb	0.6	25	Compliance
50 m from kerb	0.6	25	Compliance
75 m from kerb	0.5	25	Compliance
100 m from kerb	0.4	25	Compliance
150 m from kerb	0.3	25	Compliance
200 m from kerb	0.3	25	Compliance

END OF REPORT

Roads and Maritime Services

TRAQ: Emissions and Air Quality Screening Assessment Report (Version 1.3)

Date of report: 06-Sep-2018 09:27  
 Report name: S05\_NB-Min\_2036

INPUT DATA

Simulation name	TRAQ simulation									
Road type	Arterial									
Traffic data	Traffic per day	Speed (km/h)	Grade (%)	Length (km)						
Lane 1	7895	80	0	1						
Lane 2	7895	80	0	1						
Median strip	none									
Traffic mix (%)	CP	CD	LDCP	LDCD	HDCP	RT	AT	BusD	MC	
Lane 1	80.4	2.3	10.2	3.4	0.1	1.8	0.9	0.2	0.7	User
Lane 2	80.4	2.3	10.2	3.4	0.1	1.8	0.9	0.2	0.7	User
24-hour average speed	35.5	Default								
Peak hour percentage of daily (%)	10									
Year of assessment	2036									
Local landuse	Rural									
Air quality environment	Sydney South West									
Season	Worst-case	Default								
Cold start emissions	Included	Default								

METEOROLOGICAL CONDITIONS

Wind direction	Worst-case wind angle
Wind speed	1 m/s
Atmospheric stability	F class (stable night time conditions)
Temperature	15 deg C

EMISSIONS (Air Pollutants)

	g/km/v	g/km/v	g/km/v	kg/h	kg/h	kg/h
	CO	NOx	PM10	CO	NOx	PM10
Lane 1	2.51	0.09	0.04	1.98	0.07	0.03
Lane 2	2.51	0.09	0.04	1.98	0.07	0.03

EMISSIONS (Greenhouse Gases)

	Fuel consumption (L/h)		CO2-e emission factors (kg/L)		CO2-e emissions (t CO2-e/h)	CO2-e emissions (t CO2-e/y)
	Petrol	Diesel	Petrol	Diesel		
Lane 1	49.4	12	2.38032	2.69814	0.1	547.4
Lane 2	49.4	12	2.38032	2.69814	0.1	547.4
					0.3	1094.7

PREDICTED ROADSIDE CONCENTRATIONS AND ASSESSMENT

Maximum 1-hour average CO concentrations (mg/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	1.2	30	Compliance
10 m from kerb	0.5	30	Compliance
20 m from kerb	0.3	30	Compliance
30 m from kerb	0.3	30	Compliance
40 m from kerb	0.2	30	Compliance
50 m from kerb	0.2	30	Compliance
75 m from kerb	0.2	30	Compliance
100 m from kerb	0.1	30	Compliance
150 m from kerb	0.1	30	Compliance
200 m from kerb	0.1	30	Compliance

Maximum 8-hour average CO concentrations (mg/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	0.9	10	Compliance
10 m from kerb	0.3	10	Compliance
20 m from kerb	0.2	10	Compliance
30 m from kerb	0.2	10	Compliance
40 m from kerb	0.2	10	Compliance
50 m from kerb	0.1	10	Compliance
75 m from kerb	0.1	10	Compliance
100 m from kerb	0.1	10	Compliance
150 m from kerb	0.1	10	Compliance
200 m from kerb	0.1	10	Compliance

Maximum 1-hour average NO2 concentrations (ug/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	4.6	246	Compliance
10 m from kerb	2.7	246	Compliance
20 m from kerb	2.5	246	Compliance
30 m from kerb	2.1	246	Compliance
40 m from kerb	1.8	246	Compliance
50 m from kerb	1.6	246	Compliance
75 m from kerb	1.3	246	Compliance
100 m from kerb	1.1	246	Compliance
150 m from kerb	0.8	246	Compliance
200 m from kerb	0.7	246	Compliance

Annual average NO2 concentrations (ug/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	0.9	62	Compliance
10 m from kerb	0.5	62	Compliance
20 m from kerb	0.5	62	Compliance
30 m from kerb	0.4	62	Compliance
40 m from kerb	0.4	62	Compliance
50 m from kerb	0.3	62	Compliance
75 m from kerb	0.3	62	Compliance
100 m from kerb	0.2	62	Compliance
150 m from kerb	0.2	62	Compliance
200 m from kerb	0.1	62	Compliance

Maximum 24-hour average PM10 concentrations (ug/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	10.4	50	Compliance
10 m from kerb	4	50	Compliance
20 m from kerb	2.8	50	Compliance
30 m from kerb	2.3	50	Compliance

40 m from kerb	2	50	Compliance
50 m from kerb	1.8	50	Compliance
75 m from kerb	1.4	50	Compliance
100 m from kerb	1.2	50	Compliance
150 m from kerb	1	50	Compliance
200 m from kerb	0.8	50	Compliance

Annual average PM10 concentrations (ug/m3)

Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	4.1	25	Compliance
10 m from kerb	1.6	25	Compliance
20 m from kerb	1.1	25	Compliance
30 m from kerb	0.9	25	Compliance
40 m from kerb	0.8	25	Compliance
50 m from kerb	0.7	25	Compliance
75 m from kerb	0.6	25	Compliance
100 m from kerb	0.5	25	Compliance
150 m from kerb	0.4	25	Compliance
200 m from kerb	0.3	25	Compliance

END OF REPORT

**Roads and Maritime Services**

**TRAQ: Emissions and Air Quality Screening Assessment Report (Version 1.3)**

Date of report: 06-Sep-2018 09:34  
 Report name: S05\_SB-Min\_2036

**INPUT DATA**

Simulation name	TRAQ simulation									
Road type	Arterial									
Traffic data	Traffic per day	Speed (km/h)	Grade (%)	Length (km)						
Lane 1	7990	80	0	1						
Lane 2	7990	80	0	1						
Median strip	none									
Traffic mix (%)	CP	CD	LDCP	LD CD	HDCP	RT	AT	BusD	MC	User
Lane 1	77.1	2.2	9.8	3.3	0.2	4.2	2.2	0.5	0.6	User
Lane 2	77.1	2.2	9.8	3.3	0.2	4.2	2.2	0.5	0.6	User
24-hour average speed	35.5	Default								
Peak hour percentage of daily (%)	10									
Year of assessment	2036									
Local landuse	Rural									
Air quality environment	Sydney South West									
Season	Worst-case	Default								
Cold start emissions	Included	Default								

**METEOROLOGICAL CONDITIONS**

Wind direction	Worst-case wind angle
Wind speed	1 m/s
Atmospheric stability	F class (stable night time conditions)
Temperature	15 deg C

**EMISSIONS (Air Pollutants)**

	g/km/v	g/km/v	g/km/v	kg/h	kg/h	kg/h
	CO	NOx	PM10	CO	NOx	PM10
Lane 1	2.48	0.15	0.05	1.98	0.12	0.04
Lane 2	2.48	0.15	0.05	1.98	0.12	0.04

**EMISSIONS (Greenhouse Gases)**

	Fuel consumption (L/h)		CO2-e emission factors (kg/L)		CO2-e emissions (t CO2-e/h)	CO2-e emissions (t CO2-e/y)
	Petrol	Diesel	Petrol	Diesel		
Lane 1	48.1	23.9	2.38032	2.69814	0.2	653.3
Lane 2	48.1	23.9	2.38032	2.69814	0.2	653.3
					0.4	1306.5

**PREDICTED ROADSIDE CONCENTRATIONS AND ASSESSMENT**

Maximum 1-hour average CO concentrations (mg/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	1.2	30	Compliance
10 m from kerb	0.5	30	Compliance
20 m from kerb	0.3	30	Compliance
30 m from kerb	0.3	30	Compliance
40 m from kerb	0.2	30	Compliance
50 m from kerb	0.2	30	Compliance
75 m from kerb	0.2	30	Compliance
100 m from kerb	0.1	30	Compliance
150 m from kerb	0.1	30	Compliance
200 m from kerb	0.1	30	Compliance
Maximum 8-hour average CO concentrations (mg/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	0.9	10	Compliance
10 m from kerb	0.3	10	Compliance
20 m from kerb	0.2	10	Compliance
30 m from kerb	0.2	10	Compliance
40 m from kerb	0.2	10	Compliance
50 m from kerb	0.1	10	Compliance
75 m from kerb	0.1	10	Compliance
100 m from kerb	0.1	10	Compliance
150 m from kerb	0.1	10	Compliance
200 m from kerb	0.1	10	Compliance
Maximum 1-hour average NO2 concentrations (ug/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	7.6	246	Compliance
10 m from kerb	4.4	246	Compliance
20 m from kerb	4.2	246	Compliance
30 m from kerb	3.4	246	Compliance
40 m from kerb	2.9	246	Compliance
50 m from kerb	2.6	246	Compliance
75 m from kerb	2.1	246	Compliance
100 m from kerb	1.8	246	Compliance
150 m from kerb	1.4	246	Compliance
200 m from kerb	1.2	246	Compliance
Annual average NO2 concentrations (ug/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	1.5	62	Compliance
10 m from kerb	0.9	62	Compliance
20 m from kerb	0.8	62	Compliance
30 m from kerb	0.7	62	Compliance
40 m from kerb	0.6	62	Compliance
50 m from kerb	0.5	62	Compliance
75 m from kerb	0.4	62	Compliance
100 m from kerb	0.4	62	Compliance
150 m from kerb	0.3	62	Compliance
200 m from kerb	0.2	62	Compliance
Maximum 24-hour average PM10 concentrations (ug/m3)			
Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	11.9	50	Compliance
10 m from kerb	4.6	50	Compliance
20 m from kerb	3.3	50	Compliance
30 m from kerb	2.7	50	Compliance

40 m from kerb	2.3	50	Compliance
50 m from kerb	2	50	Compliance
75 m from kerb	1.6	50	Compliance
100 m from kerb	1.4	50	Compliance
150 m from kerb	1.1	50	Compliance
200 m from kerb	0.9	50	Compliance

Annual average PM10 concentrations (ug/m3)

Receptor location	Due to roadway	Criteria	Assessment
At kerb (0 m)	4.8	25	Compliance
10 m from kerb	1.8	25	Compliance
20 m from kerb	1.3	25	Compliance
30 m from kerb	1.1	25	Compliance
40 m from kerb	0.9	25	Compliance
50 m from kerb	0.8	25	Compliance
75 m from kerb	0.7	25	Compliance
100 m from kerb	0.6	25	Compliance
150 m from kerb	0.4	25	Compliance
200 m from kerb	0.4	25	Compliance

END OF REPORT