

Table 1 - Baseline Results and Results of Measures

The tables below shows a number of results of modelled NO₂ concentrations on strategic roads in Cardiff as required by the legal Direction and in line with the requirements of the EU Ambient Air Quality Directive.

The PCM baseline columns show the results which have been forecasted by Defra using the national Pollution Climate Mapping (PCM) model. The Local baseline results have been produced using more accurate and local data to forecast local NO₂ concentrations on these road links. These results are considered more accurate and reliable than the PCM results. The results forecasted to 2021, are the levels of NO₂ that would be expected on these roads if the Council did not implement any measures to reduce air pollution.

The CASAP columns show the results which are forecasted for 2021, with the implementation of the measures detailed in the OBC.

In Table 2 the CAZ 1 and CAZ 2 Columns show the forecasted results with the implementation on the two CAZ scenarios (CAZ1 Cars only and CAZ2 HGVs and LGVs only).

Table 1 - Baseline Results and CASAP Measures

Road	PCM Baseline		Local Baseline		CASAP 1	CASAP 2	CASAP 3
	2015	2021	2015	2021	2021	2021	2021
A4119	22.4	17.9	37.1	30.7	29.7	30.2	29.73
A4054	19.1	15.0	25.3	19.5	19.1	19.2	17.92
A4119	29.9	24.0	34.4	24.4	23.6	27.6	26.77
A4161	40.3	32.7	34.9	26.2	25.5	25.5	25.31
A48	27.9	22.3	32.9	25.4	24.1	24.1	23.99
A4119	27.2	21.8	23.8	18.8	18.2	18.2	17.75
A470	31.1	25.2	45.4	30.6	27.5	26.5	25.09
A4160	32.2	25.7	36.7	26.9	25.5	25.1	24.94
A4161	43.7	33.8	42.2	30.8	28.8	28.3	27.84
A4161	37.5	29.7	43.9	30.4	28.1	27.3	26.92
A469	33.1	27.1	27.2	21.5	20.7	20.7	20.36
A4160	30.4	25.0	30.4	23.7	22.6	22.3	22.25
A4119	31.9	25.9	36.6	29.0	27.5	27.5	26.77
A4232	47.3	37.7	34.3	29.5	28.0	28.3	28.23
A48	48.8	39.1	40.0	30.6	31.3	31.6	31.45
A4160	28.2	22.7	24.2	19.3	18.9	18.6	18.49
A469	28.5	22.4	33.0	25.8	24.8	24.8	24.59
A4161	29.5	23.3	26.5	20.3	19.6	19.6	19.26
A4161	24.9	20.1	26.6	20.2	19.5	19.9	19.78
A48	31.9	25.7	29.4	22.7	21.9	22.0	21.72
A469	31.8	25.5	32.2	24.7	24.5	24.3	24.02
A4119	28.4	22.9	31.6	24.5	23.5	23.9	23.76
A4161	40.9	33.4	43.7	29.6	28.1	28.0	27.59
A470	40.8	32.5	38.1	27.6	26.1	25.6	25.23
A48	45.3	37.1	37.1	28.8	28.0	28.2	28.01
A4160	38.3	32.1	40.0	28.8	27.8	30.0	29.75

Road	PCM Baseline		Local Baseline		CASAP 1	CASAP 2	CASAP 3
	2015	2021	2015	2021	2021	2021	2021
A4232	43.1	34.3	32.1	27.5	26.8	27.2	27.09
A4055	34.9	28.4	31.4	25.5	24.0	24.1	24.06
A470	35.6	28.5	37.3	29.1	28.3	28.2	27.96
A470	31.3	24.6	41.3	30.0	27.9	27.8	27.32
A48	59.6	45.4	36.4	27.9	27.6	27.6	27.48
A4232	52.5	40.7	30.1	24.8	22.9	23.0	22.99
A4119	27.5	21.6	28.8	22.3	21.6	21.7	21.42
A4161	41.2	31.9	55.7	41.1	37.3	36.0	35
A4055	35.8	29.1	31.6	24.5	23.4	23.4	23.34
A4234	44.6	36.8	38.2	26.3	25.4	26.3	26.16
A4232	33.6	26.4	21.7	17.5	17.3	17.4	17.31
A4232	42.2	29.9	35.3	28.9	29.6	29.8	29.68
A4160	26.9	21.2	21.0	18.1	16.3	16.4	16.3
A470	26.5	22.2	26.9	21.8	21.4	21.9	21.66
A470	35.4	25.3	34.8	25.2	23.3	23.0	22.42
A4050	30.2	23.1	32.5	25.0	24.1	24.3	24.19

Note: local results are colour coded as green for less than $35\mu\text{g}\text{m}^{-3}$, amber between $35\mu\text{g}\text{m}^{-3}$ and $40\mu\text{g}\text{m}^{-3}$ and red for greater the $40\mu\text{g}\text{m}^{-3}$ (the compliance threshold). Numbers are rounded to the nearest integer, hence any values less than $40.5\mu\text{g}\text{m}^{-3}$ are not counted as exceedance

2 – Baseline Results, CASAP Results and CAZ Results

Road Name	PCM Baseline		Local Baseline		CASAP 1	CASAP 2	CASAP 3	CAZ 1	CAZ 2
	2015	2021	2015	2021	2021	2021	2021	2021	2021
A4119	22.4	17.9	37.1	30.7	29.7	30.2	29.7	30.7	30.6
A4054	19.1	15.0	25.3	19.5	19.1	19.2	17.9	19.3	19.0
A4119	29.9	24.0	34.4	24.4	23.6	27.6	26.8	23.5	23.6
A4161	40.3	32.7	34.9	26.2	25.5	25.5	25.3	25.6	25.2
A48	27.9	22.3	32.9	25.4	24.1	24.1	24.0	25.1	24.7
A4119	27.2	21.8	23.8	18.8	18.2	18.2	17.8	18.4	18.5
A470	31.1	25.2	45.4	30.6	27.5	26.5	25.1	28.2	28.7
A4160	32.2	25.7	36.7	26.9	25.5	25.1	24.9	25.4	24.9
A4161	43.7	33.8	42.2	30.8	28.8	28.3	27.8	25.8	27.9
A4161	37.5	29.7	43.9	30.4	28.1	27.3	26.9	27.8	28.0
A469	33.1	27.1	27.2	21.5	20.7	20.7	20.4	21.1	20.7
A4160	30.4	25.0	30.4	23.7	22.6	22.3	22.3	22.6	22.3
A4119	31.9	25.9	36.6	29.0	27.5	27.5	26.8	27.9	27.6
A4232	47.3	37.7	34.3	29.5	28.0	28.3	28.2	29.5	28.6
A48	48.8	39.1	40.0	30.6	31.3	31.6	31.5	31.5	30.8
A4160	28.2	22.7	24.2	19.3	18.9	18.6	18.5	18.8	18.4
A469	28.5	22.4	33.0	25.8	24.8	24.8	24.6	25.5	25.2
A4161	29.5	23.3	26.5	20.3	19.6	19.6	19.3	19.6	19.6
A4161	24.9	20.1	26.6	20.2	19.5	19.9	19.8	19.6	19.3
A48	31.9	25.7	29.4	22.7	21.9	22.0	21.7	22.2	21.6
A469	31.8	25.5	32.2	24.7	24.5	24.3	24.0	24.5	24.5
A4119	28.4	22.9	31.6	24.5	23.5	23.9	23.8	25.1	24.6

Road Name	PCM Baseline		Local Baseline		CASAP 1	CASAP 2	CASAP 3	CAZ 1	CAZ 2
	2015	2021	2015	2021	2021	2021	2021	2021	2021
A4161	40.9	33.4	43.7	29.6	28.1	28.0	27.6	27.8	27.5
A470	40.8	32.5	38.1	27.6	26.1	25.6	25.2	25.5	25.3
A48	45.3	37.1	37.1	28.8	28.0	28.2	28.0	28.4	27.7
A4160	38.3	32.1	40.0	28.8	27.8	30.0	29.8	28.2	28.6
A4232	43.1	34.3	32.1	27.5	26.8	27.2	27.1	27.4	27.1
A4055	34.9	28.4	31.4	25.5	24.0	24.1	24.1	24.8	24.4
A470	35.6	28.5	37.3	29.1	28.3	28.2	28.0	28.2	27.8
A470	31.3	24.6	41.3	30.0	27.9	27.8	27.3	25.9	27.1
A48	59.6	45.4	36.4	27.9	27.6	27.6	27.5	27.7	26.9
A4232	52.5	40.7	30.1	24.8	22.9	23.0	23.0	24.1	23.7
A4119	27.5	21.6	28.8	22.3	21.6	21.7	21.4	21.3	21.0
A4161	41.2	31.9	55.7	41.1	37.3	36.0	35.0	32.5	35.3
A4055	35.8	29.1	31.6	24.5	23.4	23.4	23.3	23.8	23.2
A4234	44.6	36.8	38.2	26.3	25.4	26.3	26.2	26.1	26.2
A4232	33.6	26.4	21.7	17.5	17.3	17.4	17.3	17.5	17.4
A4232	42.2	29.9	35.3	28.9	29.6	29.8	29.7	30.1	29.5
A4160	26.9	21.2	21.0	18.1	16.3	16.4	16.3	17.9	17.7
A470	26.5	22.2	26.9	21.8	21.4	21.9	21.7	22.0	21.9
A470	35.4	25.3	34.8	25.2	23.3	23.0	22.4	21.6	22.7
A4050	30.2	23.1	32.5	25.0	24.1	24.3	24.2	25.0	24.7

Note: local results are colour coded as green for less than $35\mu\text{g}\text{m}^{-3}$, amber between $35\mu\text{g}\text{m}^{-3}$ and $40\mu\text{g}\text{m}^{-3}$ and red for greater the $40\mu\text{g}\text{m}^{-3}$ (the compliance threshold). Numbers are rounded to the nearest integer, hence any values less than $40.5\mu\text{g}\text{m}^{-3}$ are not counted as exceedance