

Tackling roadside nitrogen dioxide concentrations in Wales

Welsh Government supplemental plan to the UK plan for tackling roadside nitrogen dioxide concentrations 2017 Nitrogen dioxide (NO₂) concentrations and speed limit data for the Strategic Road Network

Monthly average NO₂ concentrations recorded via permanent monitors – 1 August 2019 to 29 February 2020:

Route	Aug 2019	Sep 2019	Oct 2019	Nov 2019	Dec 2019	Jan 2020	Feb 2020
A494 at Deeside	*Monitor not operational	24.2 µg/m ³	29.6 µg/m ³	34.7 µg/m ³	31.0 µg/m ³	26.0 µg/m ³	16.7 µg/m ³
A483 near Wrexham	*Monitor not operational	19.7 µg/m ³	24.9 µg/m ³	27.9 µg/m ³	23.2 µg/m ³	22.4 µg/m ³	16.3 µg/m ³
M4 between Junctions 41 and 42 Port Talbot	**Monitor not operational	**Monitor not operational	**Monitor not operational	**Monitor not operational	**Monitor not operational	**Monitor not operational	**Monitor not operational
M4 between Junctions 25 and 26 at Newport	**Monitor not operational	**Monitor not operational	**Monitor not operational	**Monitor not operational	**Monitor not operational	**Monitor not operational	**Monitor not operational
A470 between Upper Boat and Pontypridd	**Monitor not operational	**Monitor not operational	**Monitor not operational	**Monitor not operational	**Monitor not operational	**Monitor not operational	**Monitor not operational

* Monitors in North Wales were commissioned on 30 August 2019.

**Monitors in South Wales were commissioned on 24 February 2020.

Monthly average NO₂ concentrations recorded via diffusion tube monitors – 1 August 2019 to 29 February 2020:

Route	Aug 2019	Sep 2019	Oct 2019	Nov 2019	Dec 2019	Jan 2020	Feb 2020
A494 at Deeside	37.5 µg/m ³	36.3 µg/m ³	40.0 µg/m ³	46.5 µg/m ³	48.1 µg/m ³	36.2 µg/m ³	38.5 µg/m ³
A483 near Wrexham	37.9 µg/m ³	41.6 µg/m ³	43.4 µg/m ³	48.0 µg/m ³	45.8 µg/m ³	36.0 µg/m ³	41.0 µg/m ³
M4 between Junctions 41 and 42 Port Talbot	36.1 µg/m ³	45.1 µg/m ³	48.6 µg/m ³	52.0 µg/m ³	51.9 µg/m ³	41.7 µg/m ³	43.2 µg/m ³
M4 between Junctions 25 and 26 at Newport	59.6 µg/m ³	66.0 µg/m ³	67.0 µg/m ³	62.8 µg/m ³	66.4 µg/m ³	54.8 µg/m ³	45.1 µg/m ³
A470 between Upper Boat and Pontypridd	38.4 µg/m ³	44.4 µg/m ³	50.5 µg/m ³	51.7 µg/m ³	59.3 µg/m ³	51.6 µg/m ³	43.2 µg/m ³

Monthly average NO2 concentrations recorded via diffusion tube monitors – 1 August 2018 to 29 February 2019:

Route	Aug 2018	Sep 2018	Oct 2018	Nov 2018	Dec 2018	Jan 2018	Feb 2018
A494 at Deeside	42.5 µg/m ³	43.1 µg/m ³	45.6 µg/m ³	47.4 µg/m ³	51.5 µg/m ³	43.2 µg/m ³	49.3 µg/m ³
A483 near Wrexham	52.7 µg/m ³	51.0 µg/m ³	52.8 µg/m ³	57.5 µg/m ³	49.5 µg/m ³	53.4 µg/m ³	57.5 µg/m ³
M4 between Junctions 41 and 42 Port Talbot	53.9 µg/m ³	47.6 µg/m ³	54.3 µg/m ³	54.6 µg/m ³	58.3 µg/m ³	61.0 µg/m ³	64.6 µg/m ³
M4 between Junctions 25 and 26 at Newport	72.7 µg/m ³	64.2 µg/m ³	69.5 µg/m ³	71.5 µg/m ³	74.7 µg/m ³	75.3 µg/m ³	76.0 µg/m ³
A470 between Upper Boat and Pontypridd	43.2 µg/m ³	57.2 µg/m ³	59.8 µg/m ³	63.3 µg/m ³	73.8 µg/m ³	65.8 µg/m ³	78.6 µg/m ³

Monthly average NO2 concentrations recorded via diffusion tube monitors – 1 August 2017 to 29 February 2018:

Route	Aug 2017	Sep 2017	Oct 2017	Nov 2017	Dec 2017	Jan 2018	Feb 2018
A494 at Deeside	No monitoring undertaken*	No monitoring undertaken*	No monitoring undertaken*	No monitoring undertaken*	No monitoring undertaken*	47.0 µg/m ³	49.6 µg/m ³
A483 near Wrexham	No monitoring undertaken*	No monitoring undertaken*	No monitoring undertaken*	No monitoring undertaken*	No monitoring undertaken*	58.1 µg/m ³	60.6 µg/m ³
M4 between Junctions 41 and 42 Port Talbot	No monitoring undertaken*	No monitoring undertaken*	No monitoring undertaken*	No monitoring undertaken*	No monitoring undertaken*	58.5 µg/m ³	71.4 µg/m ³
M4 between Junctions 25 and 26 at Newport	No monitoring undertaken*	No monitoring undertaken*	No monitoring undertaken*	No monitoring undertaken*	No monitoring undertaken*	67.4 µg/m ³	76.5 µg/m ³
A470 between Upper Boat and Pontypridd	No monitoring undertaken*	No monitoring undertaken*	No monitoring undertaken*	No monitoring undertaken*	No monitoring undertaken*	68.1 µg/m ³	82.0 µg/m ³

*Diffusion tube monitoring commenced on 18 December 2017.

Percentage compliance with 50mph speed limit - 1 August 2019 to 29 February 2020:

Location	Direction	Percentage proportion travelling within 50mph speed limit						
		Aug 19	Sep 19	Oct 19	Nov 19	Dec 19	Jan 20	Feb 20
A494 at Deeside	Eastbound	N/A*	83.00%	87.30%	89.00%	88.10%	88.20%	89.00%
	Westbound	N/A*	94.60%	96.30%	95.70%	96.10%	97.50%	95.70%

Location	Direction	Percentage proportion travelling within 50mph speed limit						
		Aug 19	Sep 19	Oct 19	Nov 19	Dec 19	Jan 20	Feb 20
A483 near Wrexham	Eastbound	N/A	92.70%	91.80%	92.10%	N/A	91.40%	92.10%
	Westbound	N/A*	93.80%	94.10%	94.50%	94.60%	96.10%	94.50%

Location	Direction	Percentage proportion travelling within 50mph speed limit						
		Aug 19	Sep 19	Oct 19	Nov 19	Dec 19	Jan 20	Feb 20
M4 between Junctions 41 and 42 Port Talbot	Eastbound	N/A*	92.20%	94.60%	95.30%	N/A	95.40%	92.40%
	Westbound	N/A*	95.60%	96.50%	N/A**	N/A**	97.70%	97.50%

*Data not available as cameras had not been commissioned.

**Data for the sites for November and December 2019 not available at this time due to a fault with the camera suppliers IT equipment.

Location	Direction	Percentage proportion travelling within 50mph speed limit						
		Aug 19	Sep 19	Oct 19	Nov 19	Dec 19	Jan 20	Feb 20
M4 between Junctions 25 and 26 at Newport	Eastbound	Not available*	Not available*	Not available*	Not available*	Not available*	Not available*	Not available*
	Westbound	Not available*	Not available*	Not available*	Not available*	Not available*	Not available*	Not available*

*Spot speed camera data for this location is held by GoSafe and not the Welsh Government.

Location	Direction	Percentage proportion travelling within 50mph speed limit						
		Aug 19	Sep 19	Oct 19	Nov 19	Dec 19	Jan 20	Feb 20
A470 between Upper Boat and Pontypridd	Eastbound	87.90%	93.60%	95.50%	94.10%	94.50%	94.40%	87.90%
	Westbound	81.10%	88.10%	95.10%	93.70%	91.40%	90.90%	81.10%