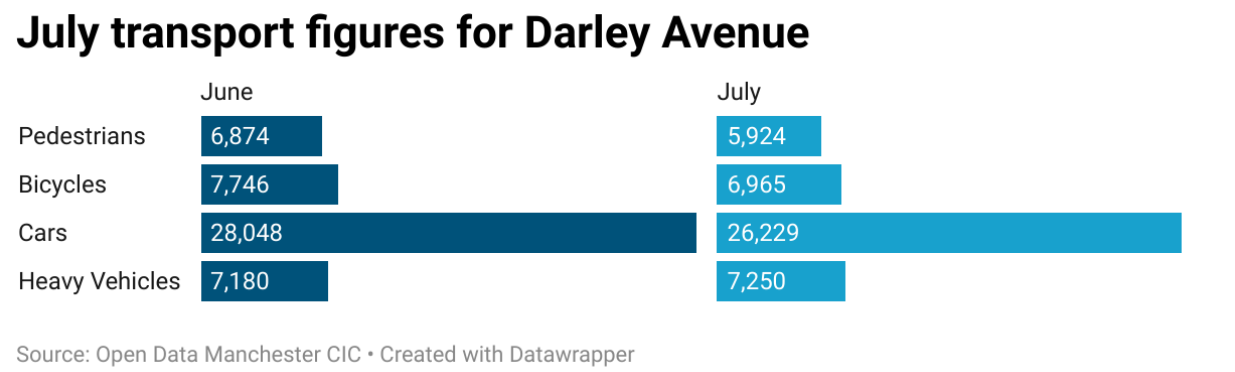
Traffic and Air Quality report for Barlow Hall Primary School, Darley Avenue.

July 2021

Monthly Transport figures for Darley Avenue



Cars on Darley Avenue Headline information[1]

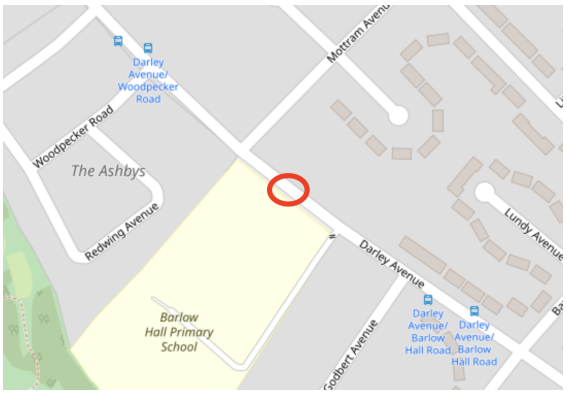
Barlow Hall Primary school closed for the summer holidays on **21 July 2021.**

- The total number of cars recorded on Darley Avenue this month was **26,229**, which is **down 6.5%** from last month.
- The busiest day for cars was **Friday 9 July** with **1214** cars recorded.
- The quietest day for cars was **Sunday 4 July** with **560** cars recorded.
- The busiest day for bicycles was **Tuesday 20 July** with **372** bicycles recorded.
- The average morning peak hour for traffic was **08:00-09:00.** The average afternoon peak hour was **17:00-18:00.**

[1] **Source:** Telraam.net **please note that all figures are indicative only and may vary up to 10%. Figures for pedestrians do not distinguish between individuals and groups - i.e a group of 3 people walking together will be counted as 1.

Air Quality & Pollution

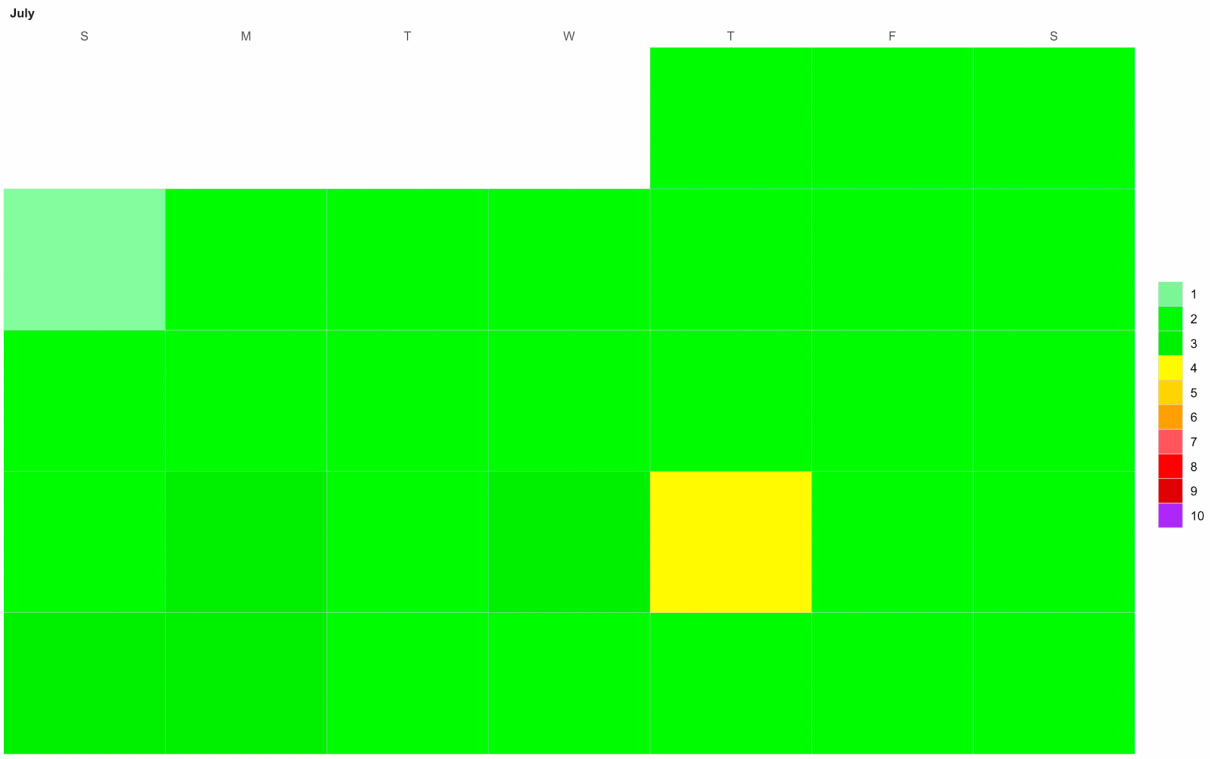
Pollution levels throughout **July** remained **Low** at both **Darley Avenue** and at the **junction of Wilbraham Road and Barlow Moor Road**. Darley Avenue registered 1 day of Moderate air pollution on 22 July..



Air Quality Index Tables[2]

Darley Avenue

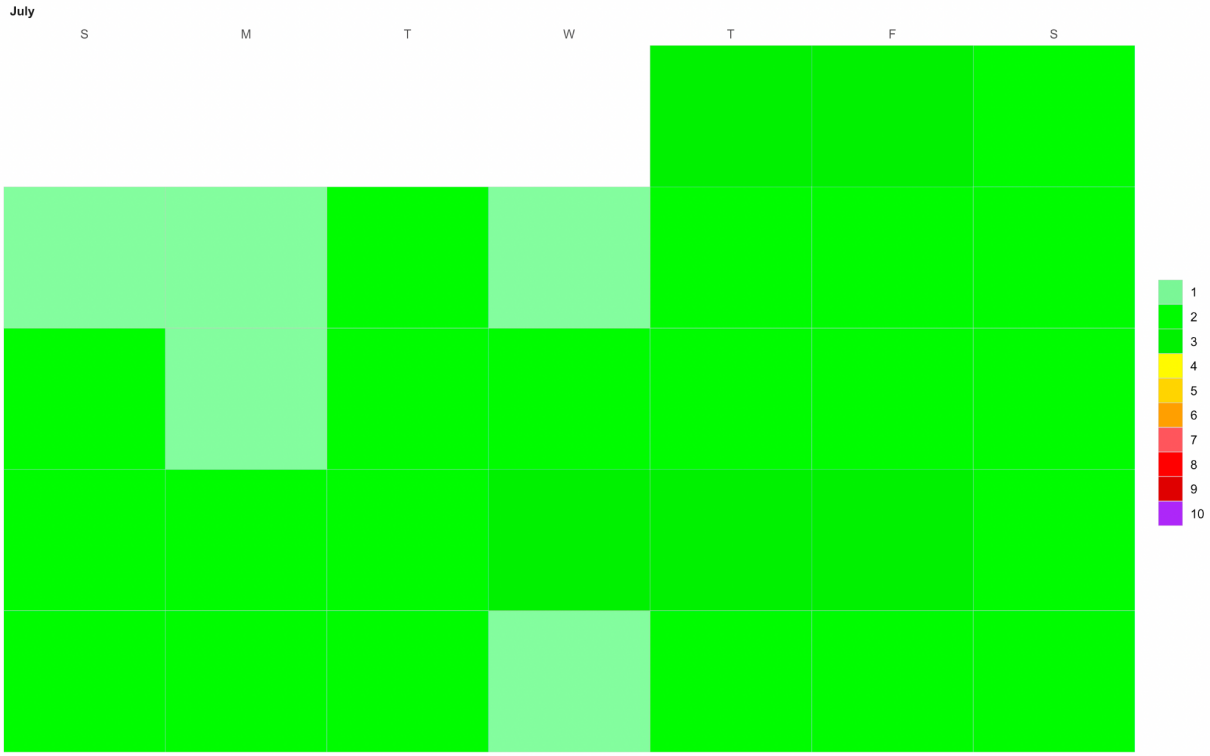
- 1 day registered Level 1 (Low)
- 25 day registered Level 2 (Low)
- 4 days registered Level 3 (Low)
- 1 days registered Level 4 (Moderate).



[2] Source: The index is made up of readings taken from an EarthSense Zephyr air quality monitor installed on Darley Avenue. The index is worked out by measuring Nitrogen Monoxide (NO), Nitrogen Dioxide (NO2), Ozone (O3) and Particulate Matters (PM1, PM2.5 & PM10). We then used Defra's Daily Air Quality Index to determine the result and scale. For moro information, see the Glossary

Four Banks:

- 5 days registered Level 1 (Low)
- 21 days registered Level 2 (Low)
- 5 days registered Level 3 (Low).



Air Quality Index scale[3]

1	**Low**	Enjoy your usual activities
2		
3		
4	**Moderate**	Adults and children with lung problems, and adults with heart problems, who experience symptoms, should consider reducing strenuous physical activity, particularly outdoors.
5		
6		
7	**High**	Adults and children with lung problems, and adults with heart problems, should **reduce** strenuous physical exertion, particularly outdoors, and particularly if they experience symptoms. People with asthma may find they need to use their reliever inhaler more often. Older people should also **reduce** physical exertion.
8		
9		
10	**Very high**	Adults and children with lung problems, adults with heart problems, and older people, should **avoid** strenuous physical activity. People with asthma may find they need to use their reliever inhaler more often.

[3] Source: https://uk-air.defra.gov.uk/air-pollution/daqi. For more information on how we calculated our own index, see the Glossary.

Glossary and other useful information

AQI - **Air quality index**. This tells you levels of air pollution and can provide recommendations about actions and health advice. There are various indexes available but in the UK the most commonly used is the Defra Daily Air Quality Index.

The index is based on concentrations of various pollutants, which are broken down into various levels, as shown in the table below. Different averaging periods are given depending on the pollutant. The overall index given is whichever is highest level.[4]

We have used the following table, based on Defra's Daily Air Quality Index, to calculate our own air quality index.

Index	Ozone, 8 hour mean (µm/m3)	Nitrogen Dioxide, hourly mean (µm/m3)	PM2.5 particles, 24 hour mean (µm/m3)	PM10 particles, 24 hour mean (µm/m3)
1	0-33	0-67	0-11	0-16
2	34-66	68-134	12-23	17-33
3	67-100	135-200	24-35	34-50
4	101-120	201-267	36-41	51-58
5	121-140	268-334	42-47	59-66
6	141-160	335-400	48-53	67-75
7	161-187	401-467	54-58	76-83
8	188-213	468-534	59-64	84-91
9	214-240	535-600	65-70	92-100
10	≥ 240	≥ 601	≥ 71	≥ 101

[4] Source: https://uk-air.defra.gov.uk/air-pollution/daqi. Defra also monitor Sulphur Dioxide, but our monitors do not measure this.

µm/m3 - micrograms per cubic metre - air pollution is given as a concentration in micrograms (one millionth of a gram or "**µm"**) per metre cubed (m3).

NO - Nitrogen Monoxide or **Nitric Oxide.** A colourless gas, Is not considered hazardous to health at typical ambient temperatures.

NO2 - Nitrogen Dioxide - a reddish, brown gas, considered a primary air pollutant. In sunny, dry conditions, NO2 can break down and release an oxygen ion and cause an increase in ozone (O3).

NO and NO2 are created when nitrogen and oxygen react at high temperature - such as in a car's combustion engine or the heat caused during a lightning strike.

O3 - Ozone - considered a secondary pollutant. At ground level, ozone can contribute to respiratory problems.[5]

O3 is created when NO2 breaks down. Sunlight can cause this reaction. We tend to see an inverse correlation between the two pollutants - O3 readings increasing whilst NO2 tends to drop during daylight hours, and O3 dropping whilst NO2 increases overnight.

Particulate Matter (PM)[6] - describes the mixture of liquid and solids found in the air, such as dust or ash. PM measurements are given based on the diameter or width of the particle.

PM1 - means the mass per cubic metre of air with particles of a diameter less that 1 micrometres (µm)

PM2.5 - means the mass per cubic metre of air with particles of a diameter less than 2.5 micrometres (µm)

PM10 - means the mass per cubic metre of air with particles of a diameter less than 10. micrometres (µm)

Defra - is the UK Government's Department for Environment, Food and Rural Affairs who oversee environmental policy within the UK

For more information about air pollution, you might find this beginner's guide useful. Defra also have lots of information about air pollution and their own Daily Air Quality Index.

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[5] Source: https://www.aeroqual.com/ozone-pollution-problem

[6] https://laqm.defra.gov.uk/public-health/pm25.html