# Headlines from the A37 Source Apportionment

Source Apportionment: where vehicle emissions are coming from – the % contribution of each vehicle type.

This is calculated using the Emissions Factor Toolkit (EFT) which is published by the Department for Environment, Food and Rural Affairs (Defra) and the Devolved Administrations.
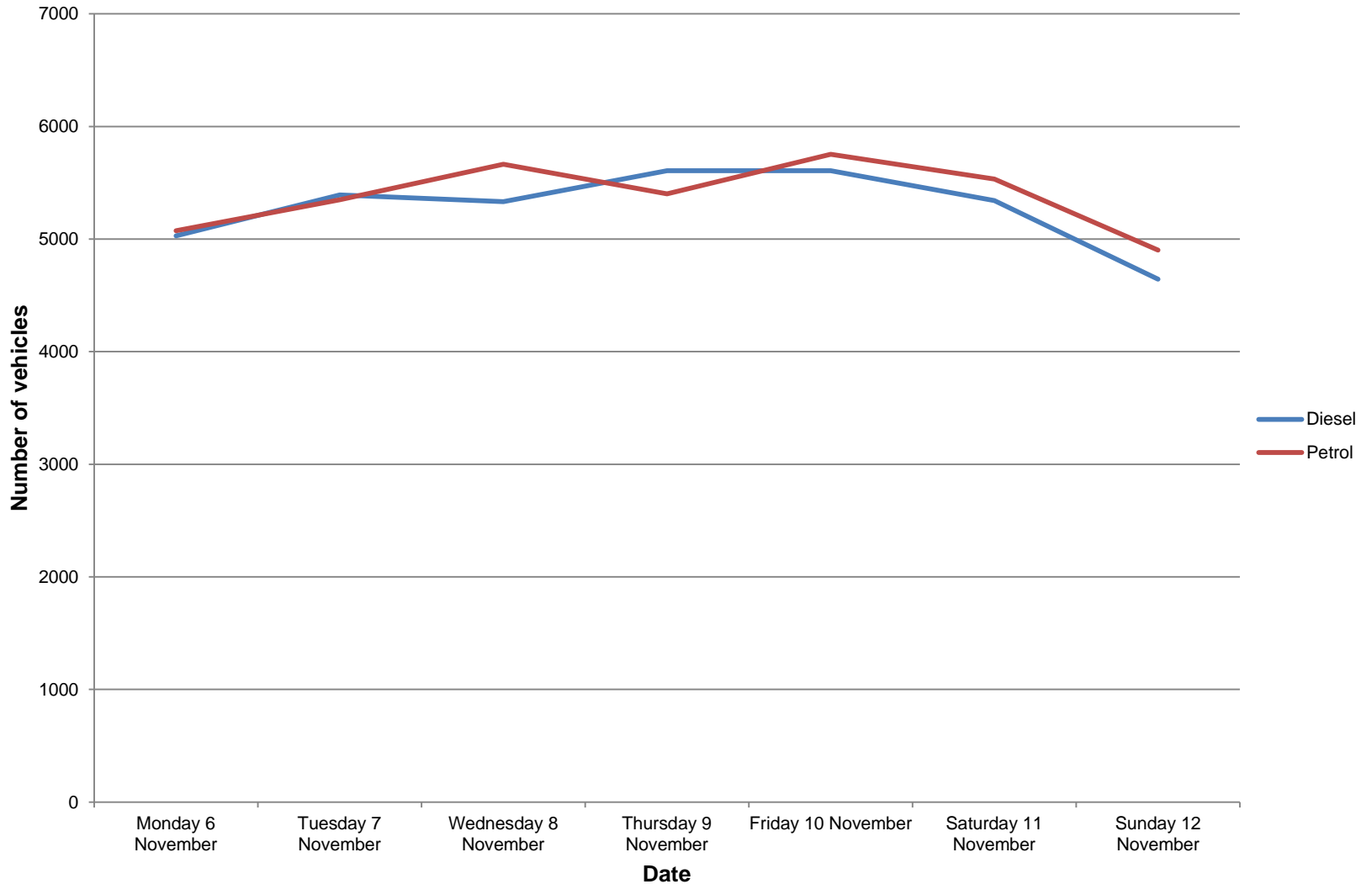
The toolkit uses information about the vehicle fleet composition (vehicle type, fuel type and Euro emissions standard) to calculate emissions of the pollutant oxides of nitrogen ($NO_x$).
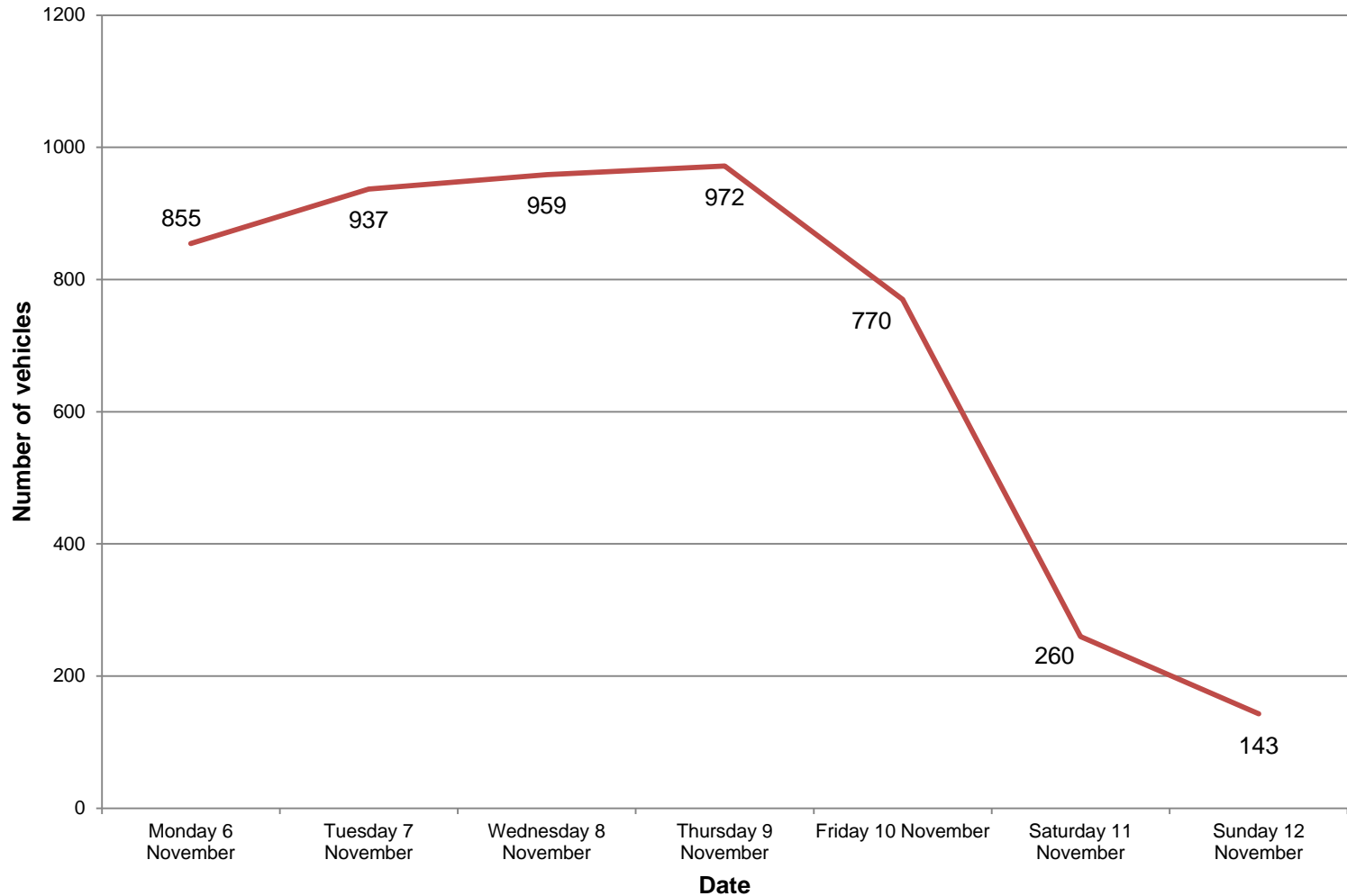
# Total Vehicle Count
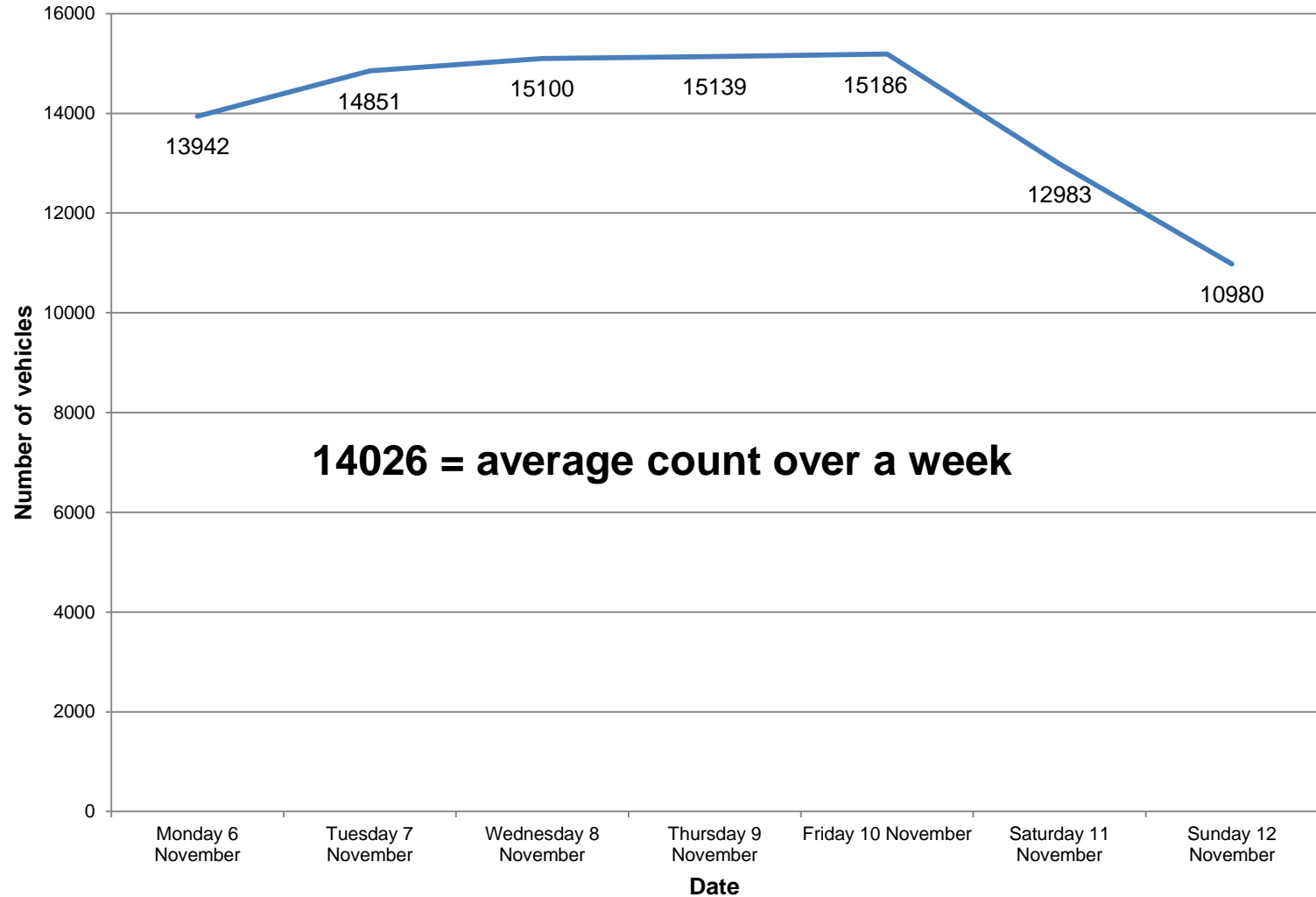


from Monday 6 November – Sunday 12 November 2017 when a complete weeks data was collected
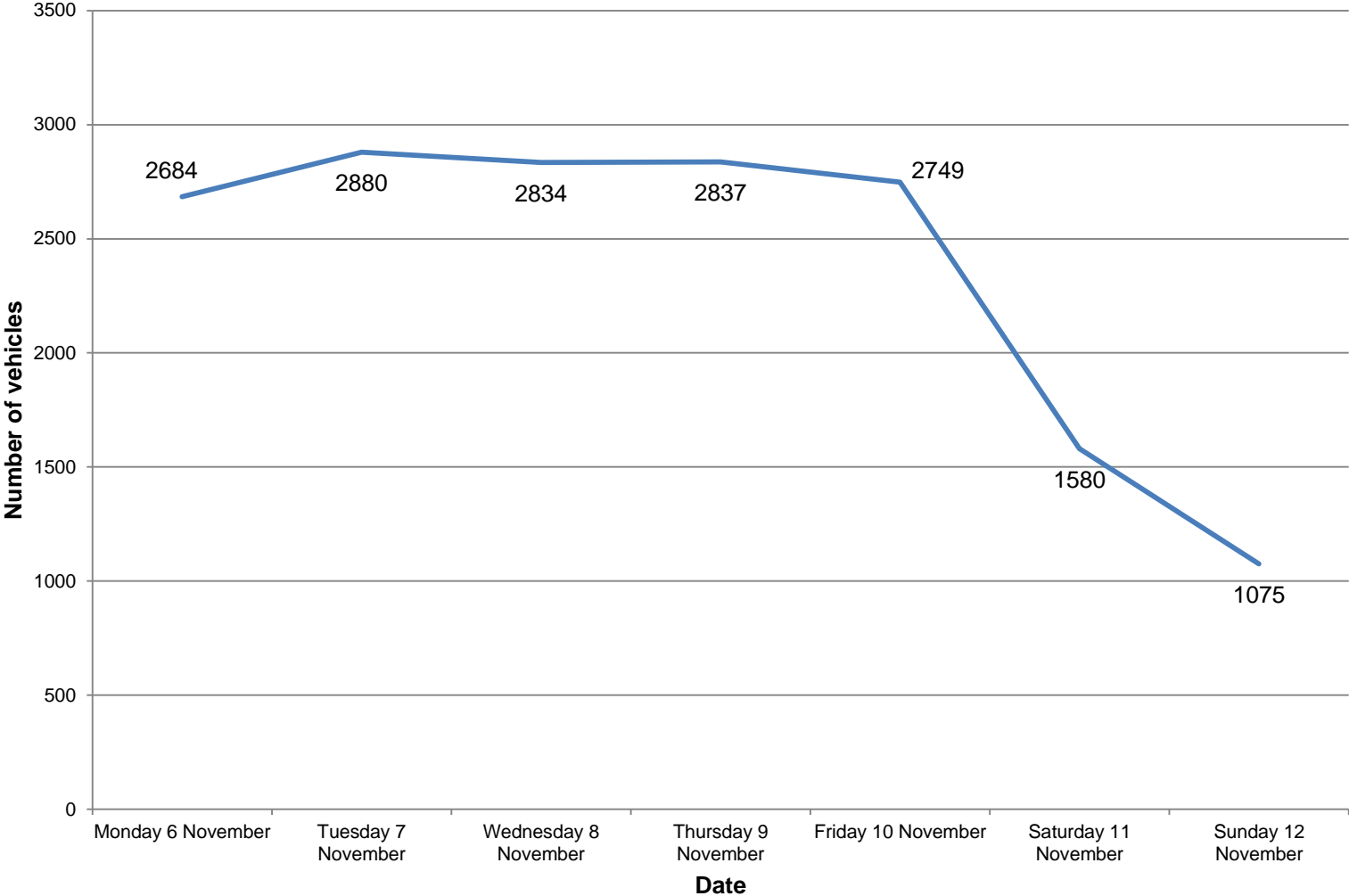
# Count of Cars

from Monday 6 November – Sunday 12 November 2017 when a complete weeks data was collected

# Count of Heavy Goods Vehicles



from Monday 6 November – Sunday 12 November 2017 when a complete weeks data was collected

# Count of Light Goods Vehicles



from Monday 6 November – Sunday 12 November 2017 when a complete weeks data was collected

# Important note:

The Emissions Factor Toolkit (EFT) makes certain assumptions and does not take road width or road gradient into account.

We know that both of these factors are significant on the A37 through Temple Cloud as certain vehicles are unable to pass one another without stopping and giving way.

As a result, the EFT may underestimate the emissions and % contribution of these vehicles as it does not take into account the additional engine power used in the start/stop.
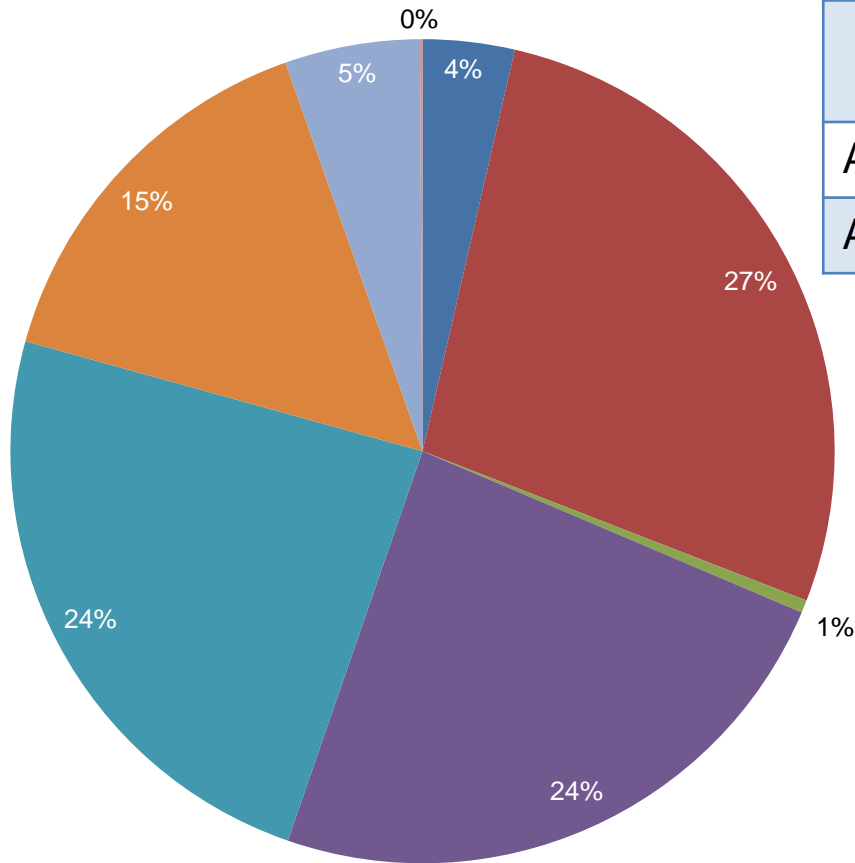
# Weekdays at 30 mph
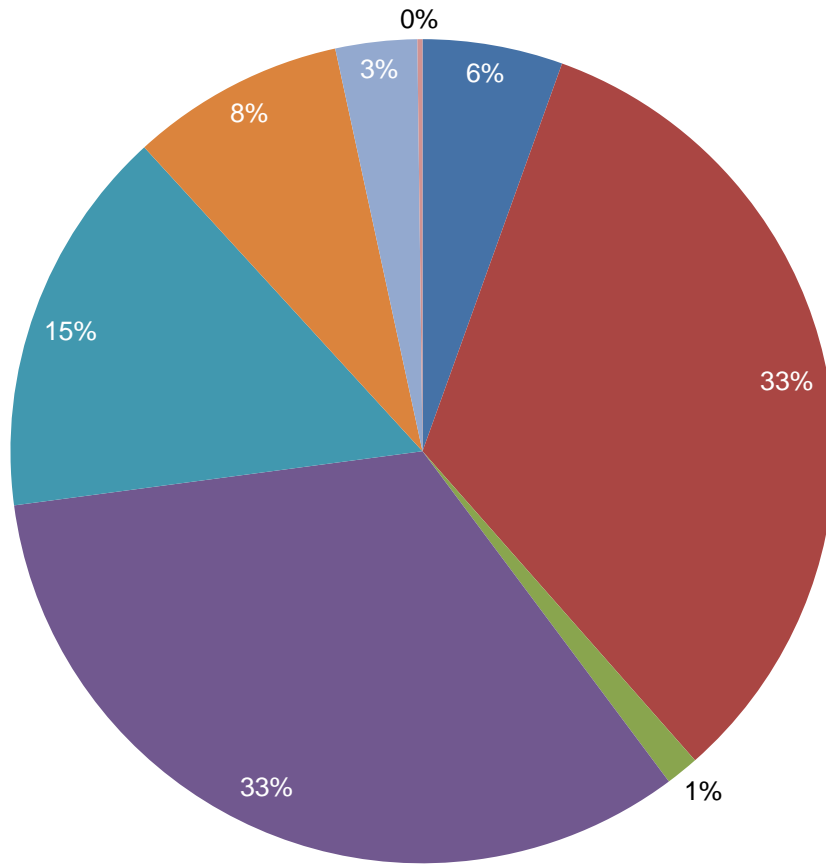


| | % Contribution to $NO_x$ emissions |
|---|---|
| All Light Vehicles | 73 |
| All Heavy Vehicles | 27 |

- **Diesel Cars** and **Diesel LGVs** are the largest contributors at 30 mph

Legend:
- Petrol Cars (%)
- Diesel Cars (%)
- Petrol LGVs (%)
- Diesel LGVs (%)
- Rigid HGVs (%)
- Artic HGVs (%)
- Buses/Coaches (%)
- Hybrid Cars (%)

Average of all weekday data collected between 31 October and 13 November 2017

# Weekdays at 5 mph



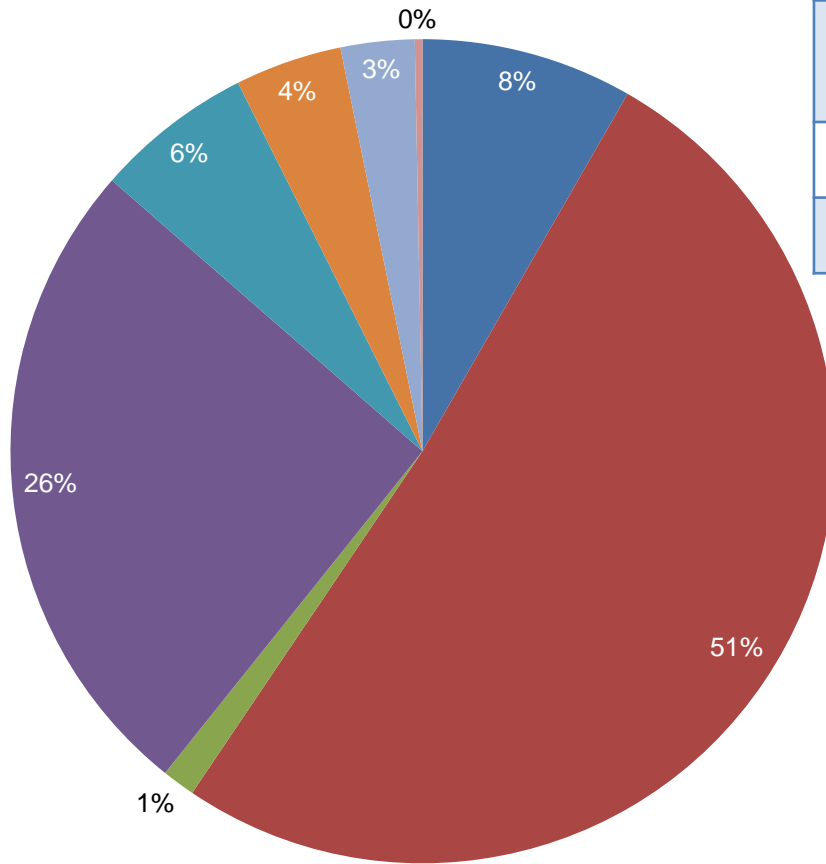| | % Contribution to $NO_x$ emissions |
|---|---|
| All Light Vehicles | 55 |
| All Heavy Vehicles | 45 |

- When speed is reduced to 5 mph the combined contribution of Rigid and Artic HGVs significantly increases, from **23%** (at 30 mph) to **39%**

- However, the combined contribution of Diesel Cars and LGVs is still greater

Legend:
- Petrol Cars (%)
- Diesel Cars (%)
- Petrol LGVs (%)
- Diesel LGVs (%)
- Rigid HGVs (%)
- Artic HGVs (%)
- Buses/Coaches (%)
- Hybrid Cars (%)

Average of all weekday data collected between 31 October and 13 November 2017

# Weekend at 30 mph



| | % Contribution to $NO_x$ emissions |
|---|---|
| All Light Vehicles | 87 |
| All Heavy Vehicles | 13 |

- Noticeable differences in vehicle composition at the weekend – significantly less HGVs and less vehicles overall.

- Diesel Cars are the largest contributor at **51%**

Pie chart labels: 0%, 8%, 3%, 4%, 6%, 26%, 1%, 51%

Legend:
- Petrol Cars (%)
- Diesel Cars (%)
- Petrol LGVs (%)
- Diesel LGVs (%)
- Rigid HGVs (%)
- Artic HGVs (%)
- Buses/Coaches (%)
- Hybrid Cars (%)

Average of the data collected on the weekend of 11/12 November 2017

# Weekend at 5 mph
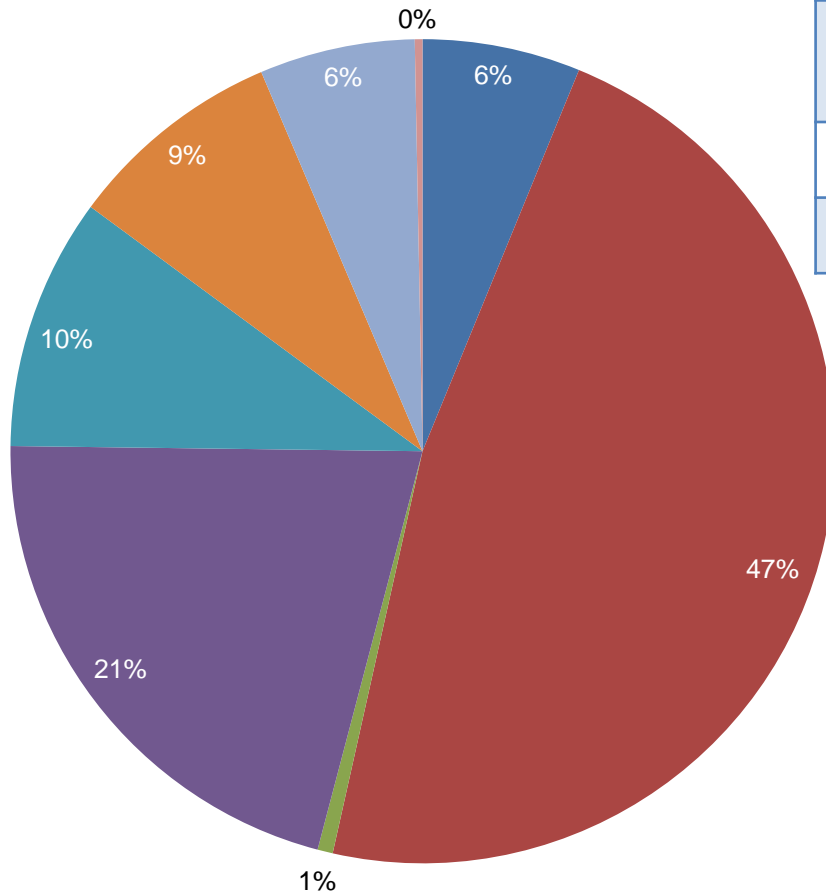


| | % Contribution to $NO_x$ emissions |
|---|---|
| All Light Vehicles | 75 |
| All Heavy Vehicles | 25 |

- Diesel cars remain the largest % contributor

- However, the % contribution of HGVs and Buses/Coaches does noticeably increase when speed decreases to 5 mph

Pie chart values: 0%, 6%, 6%, 9%, 10%, 21%, 1%, 47%

■ Petrol Cars (%)   ■ Diesel Cars (%)   ■ Petrol LGVs (%)   ■ Diesel LGVs (%)
■ Rigid HGVs (%)   ■ Artic HGVs (%)   ■ Buses/Coaches (%)   ■ Hybrid Cars (%)

Average of the data collected on the weekend of 11/12 November 2017