

Ewelme Parish Council

Report on Traffic survey in Ewelme, October 7-13 2019

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Introduction

Between October 7 and 13 2019, a traffic survey was conducted by deploying seven automatic traffic counters (ATC) at sites around the village. The aim was to gather information on traffic densities, type, timing and speed, to inform proposals for traffic management within and around the village. The counters were installed by Neo Traffic Data, and they provided the raw data at the end of the week's survey. This note reports on the processed data and its interpretation.



Figure 1. Location of ATC units.

The locations of the seven counters are shown in Figure 1. Counts were taken using paired air tubes laid across the road and fixed exactly one metre apart. The equipment measures the delay between wheels crossing the two tubes to give speed, the order of tubes being affected to indicate direction of movement, and the delay between axles to identify the category of vehicle. Results are provided as totals for each vehicle class, direction and speed for 15-minute periods throughout the deployment of the equipment. All results presented are for the period 00:00 hours on Monday October 7 to 24:00 on Sunday October 13, and the counts were continuous 24 hours a day.

Overall counts

The total of vehicles counted was 54,767 and the allocation by vehicle type is shown in Table 1.

Table 1. Breakdown of vehicle types, all sites. Bicycle count is likely to be a major under-estimate.

Vehicle class	Vehicle type	Number	% of total
1	Car/light van	48,664	88.9%
2	Short, towing	210	0.4%
3	Truck/bus, 2 axle	4224	7.7%
4	Truck/bus, 3 axle	233	0.4%
5	Four axle truck	320	0.6%
14	Motor cycle	330	0.6%
15	Bicycle	670	1.2%
6-12	Other	10	≤ 0.1%
Total		54,767	100.0%

The bicycle count is likely to be a major under-estimate; the equipment is not designed to count cycles, but those which are detected are correctly identified.

Vehicle speeds

All sites except Days Lane were within the 30 mph zone which covers the whole village. Average, 85 percentile and maximum speeds recorded in each direction at each site are shown in Table 2. The maximum speed is given as a range; this is the format in which speeds data were supplied.

Table 2. Traffic speed parameters.

Site number	Site	Speed limit	Northbound mph			Southbound mph		
			Average	85%ile	Fastest	Average	85%ile	Fastest
1	Benson Road	30	30.4	34.6	50-56	31.8	36.5	56-62
2	Eyres Lane	30	27.6	33.2	50-56	26.6	31.7	43-50
3	Green Lane	30	31.3	36.5	56-62	30.1	35.0	68-75
4	Days Lane	60	31.4	36.8	56-62	35.1	41.1	62-68
5	By school	30	20.1	26.1	37-43	19.0	26.3	37-43
6	Cat Lane	30	23.6	29.8	43-50	21.7	26.8	37-43
7	The Street	30	23.4	27.9	43-50	24.0	29.3	50-56
	All sites		Average 26.9 mph, 85 percentile 32.3 mph, fastest 68-75 mph					

The fastest vehicle recorded, at 68-75 mph, was southbound on Green Lane at 19:00 on Sunday. The next four fastest, at 62-68 mph, were all southbound on Days Lane (ie travelling away from the village) at 11:00 on Monday, 09:00 on Wednesday, 20:00 on Thursday and 12:00 on Saturday.

Hourly pattern of traffic flow

Data on numbers of vehicles by class are available for each site and direction of travel in 15-minute intervals. It is neither practicable nor necessary to present this level of detail in this report, but the data are available for anyone interested. Generally the temporal pattern of counts was similar at all locations, so the data are clumped for all sites and both directions of travel to give an overall picture of timing of traffic movements in and around the village. The patterns for weekdays, Saturday and Sunday are shown in Figure 2.

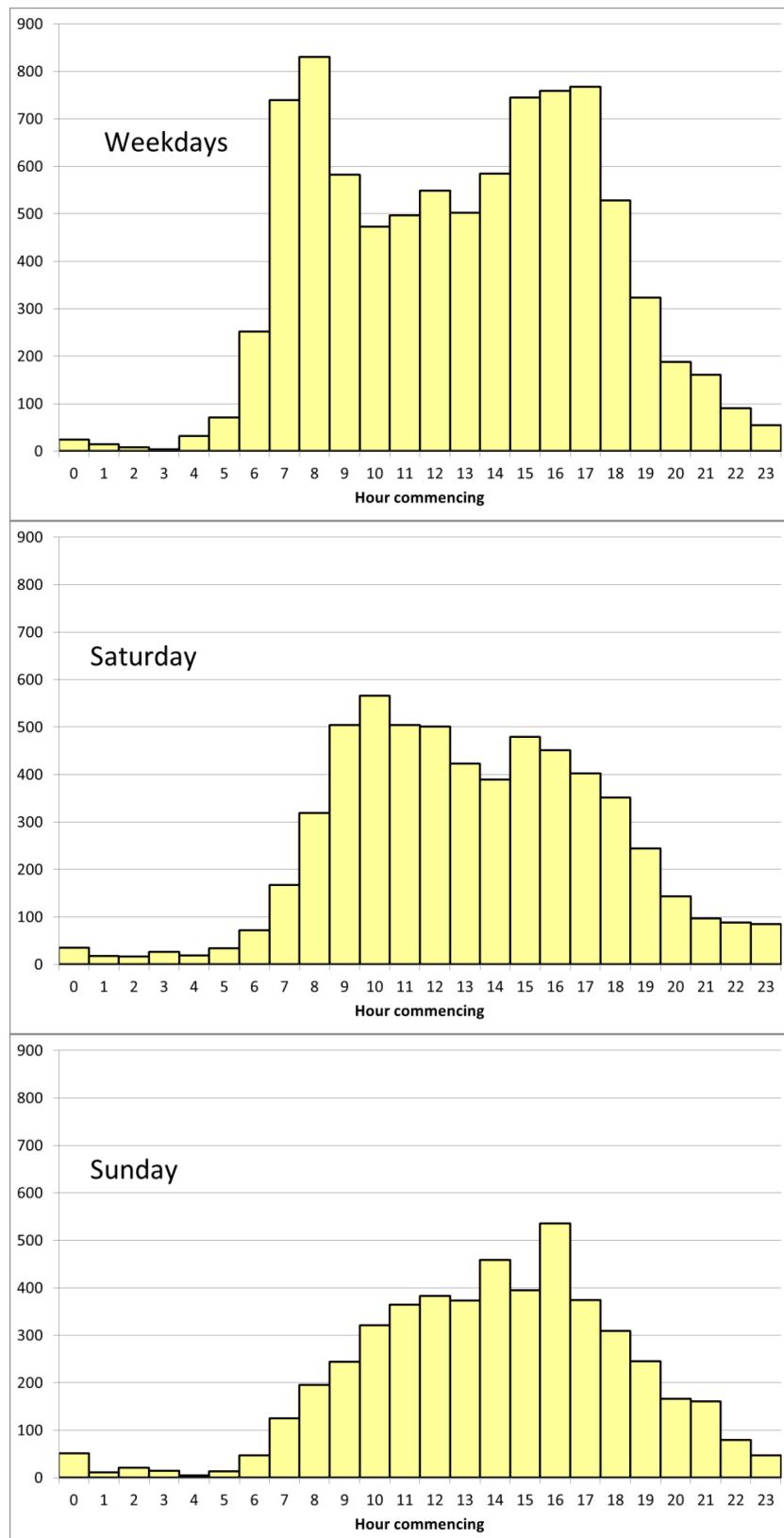


Figure 2. Hourly distribution of counts, all sites and both directions combined.

Counts by ATC location

The total numbers of vehicles counted at each ATC site, both directions combined, are shown in Table 3.

Table 3. Traffic statistics for the seven sites.

Site	1	2	3	4	5	6	7
Site name	Benson Road	Eyres Lane	Green Lane	Days Lane	Outside School	Cat Lane	The Street
Weekday mean	1884	1409	2646	898	308	776	862
Saturday	1457	839	1662	602	218	544	614
Sunday	1177	778	1445	393	276	344	528
Daily mean	1772	1237	2334	784	286	681	779
Weekly total	12056	8662	16337	5485	2004	4769	5454
Peak hour (M-F)	17-18	8-9	7-8	8-9	15-16	8-9	15-16

Conclusions and discussion

The main aim of the exercise was to inform proposals for management of traffic in and around Ewelme. Availability and applicability of some of the options are dependent upon certain levels of traffic and average speeds.

One of the most attractive options is adopting a 20 mph speed limit in parts of the village. The Department for Transport suggests that 20 mph limits are only suitable for locations where the average speed is already no more than 24 mph, or where they are coupled with additional traffic calming measures. The sites by the School (site 5), in Cat Lane (6) and in The Street (7) satisfy this speed criterion; the remaining sites do not. Additional traffic calming measures may well be part of a future management plan which may mean that a 20 mph limit could be considered more widely.

One scheme for traffic management is the "Quiet Lane" designation. One of the requirements for this is a traffic flow of the order of 1000 vehicles or less per day. The sites at Day's Lane (site 4), The School (5), Cat Lane (6) and The Street (7) satisfy this criterion. At the sites at The School (site 5), Cat Lane (6) and The Street (7), most traffic travels within the 30 mph speed limit, with 85 percentiles below this limit. The Days Lane site was outside the 30 mph limit, and the 60 mph national speed limit applies. There appears to be something of a speeding issue at the other three sites. Green Lane appears to represent a particular problem, being a residential area with 85% percentiles of 35.0 and 36.5 mph for the two directions. At all 30 mph sites a small minority of traffic appears to be travelling at reckless speed, with one vehicle being recorded passing at well over twice the legal limit. The next stage in this initiative would appear to be consultation with residents and with Oxfordshire County Council to consider what aims and goals are desirable, and what potential measures are available, appropriate and realistic.