

Traffic Counts

www.trafficcounts.co.nz





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Quality Assurance Information

Prepared for: Abley Transportation Consultants Limited
Job Number: 0000 Traffic Counts
Prepared by: Shane Ingley, Graduate Transportation Engineer
Reviewed by: Courtney Groundwater, Senior Transportation Engineer

Date issued	Status	Approved by
		Name
30 May 2014	Final	Steve Abley
17 December 2015	Final – Revised Website	Steve Abley
19 January 2016	Final – Revision 1	Paul Durdin

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T +64 9 974 9820 (Akl)

T +64 3 377 4703 (Chch)

F +64 3 377 4700

E office@abley.com

Auckland

Level 8, 57 Fort Street
 PO Box 911336
 Auckland 1142
 New Zealand

Christchurch

30a Carlyle Street
 PO Box 25350
 Christchurch 8144
 New Zealand

www.abley.com

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1. *Map data*

This website provides traffic count data from multiple sources across New Zealand. This website will be of use to transport professionals and any other users who wish to access traffic count data spatially in a centralised location. We recommend that the latest version of Mozilla Firefox or Google Chrome is used to view the website.

The count data currently provided on the website is sourced from:

- New Zealand Transport Agency
- Auckland Transport
- Tauranga City Council
- Hamilton City Council
- New Plymouth District Council
- Queenstown Lakes District Council

The data provided by each authority differs. All of the relevant data can be accessed in a pop-up window when clicking on a data point. The range of data provided varies between sources. The information available includes:

- 5-Day ADT
- 7-Day ADT
- % HCV Total

A grey data point is displayed where the relevant data is not included in the received dataset.

2. *Helpful definitions*

7-day ADT and 5-day ADT

These are raw average daily traffic (ADT) counts across either a Monday-Friday (5-day) or Monday-Sunday (7-day) period. Generally these are obtained by local authorities from a traffic count survey of a fixed period and are not adjusted for seasonal and daily variations

AADT

Annual average daily traffic (AADT) represents a 7-day average traffic volume adjusted for seasonal variations¹. On the website AADT figures are displayed in the 7-day ADT layer for ease of comparison between count sites. AADT figures are reported separately in the individual pop-up boxes for each count site. AADT figures are generally provided for State Highway count sites only.

% HCV Total

This is the sum of %MCV, % HCV I and % HCV II². This represents vehicles with a mass greater than 3.5 tonnes and is consistent with the %Heavy Vehicles reported in the NZ Transport Agency State Highway Traffic Data Booklets.

¹ Transit NZ (1994) *A guide on estimating AADT and traffic growth, and a traffic count monitoring programme basis*. Retrieved from <http://www.lpcb.org/index.php/documents/data-collection/traffic-and-weigh-in-motion/11027-2000-nz-guide-to-estimation-and-monitoring-of-traffic-counting-and-traffic-growth/file>

² To align with the NZTA definition of 'Heavy' as being a vehicle greater than 3.5 tonnes: <https://www.nzta.govt.nz/assets/resources/state-highway-traffic-volumes/docs/SHTV-2010-2014.pdf>

3. *Data sources and notes*

New Zealand Transport Agency

Data available at <http://nzta.govt.nz/resources/state-highway-traffic-volumes/>³

Auckland Transport

Data available at <https://at.govt.nz/about-us/reports-publications/traffic-counts/>⁴

Please note that the most recent count data on the AT website is not yet included in www.trafficcounts.co.nz. This will be incorporated shortly.

Tauranga City Council

Sourced directly from Tauranga City Council. Two data sets; 'recent' and 'historic', were provided. The historic data set is shown in grey on the web map. Data for individual points can be accessed in the same way as for the 'recent' data set by clicking on the point of interest. Where recent and historic points are in the same location, data can be accessed by scrolling through the pop-up boxes using the arrows at the top right of the box.

Hamilton City Council

Sourced directly from Hamilton City Council, some data available at <http://www.hamilton.govt.nz/our-services/transport/maintainingimproving/Pages/Traffic-Counts.aspx>⁵

Please note, Hamilton City Council states: "data has been derived from limited counting data and is an estimate only of the average daily traffic for each year." The 2014 count type is identified for each data point as 'programmed' (actual count) or 'interpolated' (estimate only).

New Plymouth District Council

Sourced directly from New Plymouth District Council, some data available at <http://www.newplymouthnz.com/CouncilAtoZ/Roads/TrafficCounts.htm>⁶.

Counts classified as "not latest" in the New Plymouth dataset (see link above) have been moved to a "historic" database, similar to the Tauranga City Council counts.

Queenstown Lakes District Council

Counts sourced directly from Queenstown Lakes District Council <http://www.qldc.govt.nz/>

Historic data

For some Road Controlling Authorities historic data sets, or count sites that do not include the latest information are included on the website. This data is included for interest only but is not shown in colour when the 'Symbolise by...' options are chosen. Historic data can be viewed in the same way as for current data points by selecting the count site on the map and viewing the information in the pop-up box.

³ <http://nzta.govt.nz/resources/state-highway-traffic-volumes/>

⁴ <https://at.govt.nz/about-us/reports-publications/traffic-counts/>

⁵ <http://www.hamilton.govt.nz/our-services/transport/maintainingimproving/Pages/Traffic-Counts.aspx>

⁶ <http://www.newplymouthnz.com/CouncilAtoZ/Roads/TrafficCounts.htm>

4. *Spatial quality*

Where coordinates for traffic count sites are not included in the available data set a georeferencing process has been undertaken. This process varies between sources. Accuracy of the count site location (spatial quality) is dependent on the location information included in the dataset. Spatial quality is categorised using a scale from A (most accurate) to E (least accurate), see Appendix A. For some sites the quality of spatial information is not sufficient to include them on the web site.

Please Note: Differences in spatial quality do not imply a difference in the quality of the traffic count data.

Despite our best efforts to ensure that traffic count sites are located in the correct locations Abley Transportation Consultants cannot guarantee that sites are shown in the correct position. Location descriptions within the pop-up should always be double checked before use.

If you find a site that is located incorrectly, please use the 'Report Traffic Count as inaccurate' button in the pop-up and include a brief description of the problem. This will allow us to fix these errors and improve the data. The 'Type of Locator' attribute in the pop-up provides an indication of the spatial accuracy of the data.

New Zealand Transport Agency

Data located based on the State Highway RS/RP values, using Esri's [Linear Referencing toolkit](#)⁷ and the Auckland Motorways LRMS site.

Auckland Transport

Data located from the traffic count site description fields using a variety of methods. Data that could not be located this way was manually processed. Please note, following the amalgamation of Auckland's seven district councils into a single authority there are multiple streets with the same name in the district. This may have resulted in some errors in the electronic location of traffic count sites and should be checked in the pop-up before use.

Tauranga City Council

Data provided in a georeferenced format (NZTM X and Y coordinates).

Hamilton City Council

Data provided in a spreadsheet with a corresponding map. Traffic count sites were manually located using this information.

New Plymouth District Council

Data provided in a spatial (Esri Shapefile) format.

Queenstown Lakes District Council

Data provided in a spatial (Esri Shapefile) format.

⁷ <http://resources.arcgis.com/EN/HELP/MAIN/10.1/index.html#//003m0000002000000>

5. *Terms and conditions*

Abley Transportation Consultants does not accept any responsibility regarding the traffic count information that has been sourced and adapted from the sources listed in Section 3.

The terms of use for the Auckland Transport data are as follows: *“While all due care has been taken in the preparation and provision of this service, Auckland Transport does not give any warranty that the information contained is accurate, and accepts no liability whatsoever for any loss or damage arising from the use of the data. People using the traffic count data should apply and rely upon their own skill and judgement when using the information, and consider the consequences arising from its use. The data should not be used in isolation from other sources of advice and information.*

Please note that traffic flow counts are variable due to various external factors, e.g. sensitivity of equipment, counting methods used, congestion effects and seasonal variations. The traffic flow data is intended to be used as an approximate indication of traffic volumes at counting sites.”

6. *Contact Us*

If you have a dataset that you would like to add to this website please get in contact using the details below.

If you have any questions or need further assistance, please contact us:

Abley Transportation Consultants

Phone: 03 377 4703

Email: trafficcounts@abley.com

Appendix A: Spatial Data Quality

Count sites were spatially located, using different methods depending on the type and quality of data received. Sites are ranked A through F as an indicator of the spatial quality of the location.

The location quality is specified in popups, under 'Type of Locator'.

Differences in spatial quality do not imply a difference in the quality of the traffic count data.

Spatial Quality	Description	Spatial Accuracy	Example
A	Coded outside an address or at a specified offset from an intersection	Very high	An address is identified in the site description. The address is stripped of flat numbers (so '54/2', '54-2' and '54B' all become 54). If the address number cannot be located it is rounded down to the nearest whole ten number (so 54 becomes 50) and is re- checked. If matches are found the count site point is placed on the corresponding address.
B	Halfway between two cross-streets	High, as the traffic flow will not change greatly between the cross-streets	No address is identifiable but the main street and the two cross streets are identified. The count site is placed on the main street halfway between the two cross streets. This can only occur if the main street intersects the cross streets.
C	Midway along a street < 1km long	Within 500m – depending on the road length and number of cross streets.	No address or intersection with cross streets is identified and the main road is less than 1km long. The count site is placed midway along the road.
D	Midway along a street > 1km long and < 3km long	Within 1500m – depending on the road length and number of cross streets	No address or intersection with cross streets is identified, and the main road is between 1 and 3km long. The count site is placed midway along the road.
E	Midway along a street > 3km long	Variable – depending on the road length and number of cross streets.	No address or intersection with cross streets is identified, and the main road is greater than 3km long. The count site is placed midway along the road.
F	Sites not located	N/A	Sites which have not been located within a reasonable degree of accuracy are not shown in the website.

Manually Located Sites: The majority of the count sites were located automatically; however, some were located manually. These sites can be identified with an 'M' after the spatial quality code.

For example, a site manually located at an address would have a spatial quality of 'AM'.

Appendix B: Data Explanation

Information provided for each site is slightly different depending on the level of detail of data collected at the site and the source of the data

All Sources

Spatial quality: (described in detail in Appendix A)

Auckland Transport Count Site (definitions sourced from Auckland Transport):

Description: the exact location of where on the road that the traffic count was placed

Direction: movement direction of vehicles included in count

Road Name: the road the traffic count was carried out on

Displacement: distance from indicated cross-road

Road Start Name: first cross-road

Road End Name: second cross-road

Start Date: the date that the 7 day count started

5-Day ADT: the Average Daily Traffic (vehicles per day) based on a Monday – Friday week

7-Day ADT: the Average Daily Traffic (vehicles per day) based on a Monday – Sunday week

Saturday: the total number of vehicles that were counted on Saturday

Sunday: the total number of vehicles that were counted on Sunday

AM Peak: the volume of traffic counted in the morning peak hour

AM Peak Hour: time of day of morning peak

Mid Peak: the volume of traffic counted in the midday peak hour

Mid Peak Hour: time of day of midday peak

PM Peak: the volume of traffic counted in the afternoon peak hour

PM Peak Hour: time of day of afternoon peak

Car %: percentage of vehicles that were cars

LCV %: percentage of vehicles that were LCVs

MCV %: percentage of vehicles that were MCVs

HCV I %: percentage of vehicles that were HCV I

HCV II %: percentage of vehicles that were HCV II

HCV Total %: sum of HCV I and HCV II⁸

NZ Transport Agency Count Site (definitions sourced from the NZ Transport Agency):

Description: the traffic count site location description

Direction: the direction that the count site records (increasing, decreasing or both)

State Highway (SH): the State Highway on which the site is located

Reference Station (RS): fixed points on the state highway

Route Position (RP): the distance from the last reference station (RS) to the specific location in kilometres

Equipment: the primary equipment type being used to collect traffic data at the specific location

AADT: See 'Helpful Definitions' above

% Heavy: an estimate of the proportion of the AADT which is deemed a heavy vehicle: i.e. greater than 3.5 tonnes for the current year (equivalent to HCV Total %)

Accepted Days: the number of days for which valid traffic counts were accepted at the specific location during the year

Tauranga City Council Count Site

Site Number: Site identification number

Road Name: The road the traffic count was carried out on

Site Description: Site location

Date: Count Date

7 Day: the Average Daily Traffic (vehicles per day) based on a Monday – Sunday week

5 Day: the Average Daily Traffic (vehicles per day) based on a Monday – Friday week

Tauranga City Council (Historic) Count Site

Site Number: Site identification number

Old Site Number:

Road Name: The road the traffic count was carried out on

Site Description: Site location

Date: Count Date

⁸ Through the data cleaning process it was discovered that the HCV Total % field in the Auckland Transport data is not calculated using a consistent method across all sites. This has been corrected on TrafficCounts.co.nz. The method used to calculate HCV total on this website is consistent with the definitions of HCV in the New Zealand Transport Agency's 'Traffic Monitoring for State Highways' Manual, see <http://www.nzta.govt.nz/resources/traffic-monitoring-state-hways/traffic-monitoring-state-hways.html>.

7 Day: the Average Daily Traffic (vehicles per day) based on a Monday – Sunday week

5 Day: the Average Daily Traffic (vehicles per day) based on a Monday – Friday week

Peak Hour: Hour showing highest traffic volume (24-hr time)

Peak Volume: Traffic volume during peak hour

HCV: Percentage of vehicles classified as heavy

85th %ile Speed (kph): 85th percentile of vehicle speeds

Hamilton City Council Count Site

Site Reference: Site identification number

Description: Site location

(Year) ADT: an estimation of the average daily traffic during a specified calendar year.

(Year) Count Type: Count mechanism. Refer to Hamilton City Council's website⁹ for further details.

New Plymouth District Council & NPDC (Historic) Count Site

Road Name: Road count was taken on

Location: Site location

Is Latest?: Whether site has a more recent count

Count Date: Date of traffic count

Direction: Direction of traffic count

Peak Traffic: Traffic volume during peak hour

Peak Hour: Hour showing highest traffic volume (24-hr time)

ADT: Average daily traffic during count

Queenstown Lakes District Council Count Site

Road Name: Name of survey road

Displacement: Offset from side road

Count Date: Date of survey

Count Type: Count mechanism

Survey Type: Further details, for some count types only

Peak Hour: Hour of peak traffic movement

⁹ <http://www.hamilton.govt.nz/our-services/transport/maintainingimproving/Pages/Traffic-Counts.aspx>

ADT: 7Average Daily Traffic (equivalent to 7-day ADT)

Peak Traffic: Volume of traffic at peak hour

% Car: Percentage of vehicles classified as cars

% LCV: Percentage of vehicles classified as LCV

% MCV: Percentage of vehicles classified as MCV

% HCV I: Percentage of vehicles classified as HCV I

% HCV II: Percentage of vehicles classified as HCV II

% Bus: Percentage of vehicles that are buses

% Heavy: Percentage of vehicles classified as heavy¹⁰

¹⁰ This was originally the sum of MCV, HCV I, and HCV II. This has been re-adjusted to be the sum of HCV I and HCV II, in order to align the data with the NZTA definition of 'Heavy'.

T +64 9 974 9820 (Akl)

T +64 3 377 4703 (Chch)

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Auckland

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New Zealand

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