

Te Ringa Maimoa Traffic Count Estimation Module

EXECUTIVE SUMMARY

Te Ringa Maimoa Transport Excellence Partnership and software specialist Company-X built the world's first national roading quality assurance web portal and added a Traffic Count Estimation (TCE) module. The Transport Insights TCE module will lead to improved evidence-based decision making across the transport sector.

ABOUT TE RINGA MAIMOA

Te Ringa Maimoa is a collaborative initiative between Local Government NZ, Waka Kotahi NZ Transport Agency, and all Road Controlling Authorities (RCAs), targeting business-excellence across the transport sector.

The success of the programme has been the combined partnership of local government and Waka Kotahi promoting a 'for the sector, by the sector' philosophy.

Formerly the Road Efficiency Group, this partnership was formed in 2012 as the authority to implement the recommendations of the Road Maintenance Task Force.

THE CHALLENGES

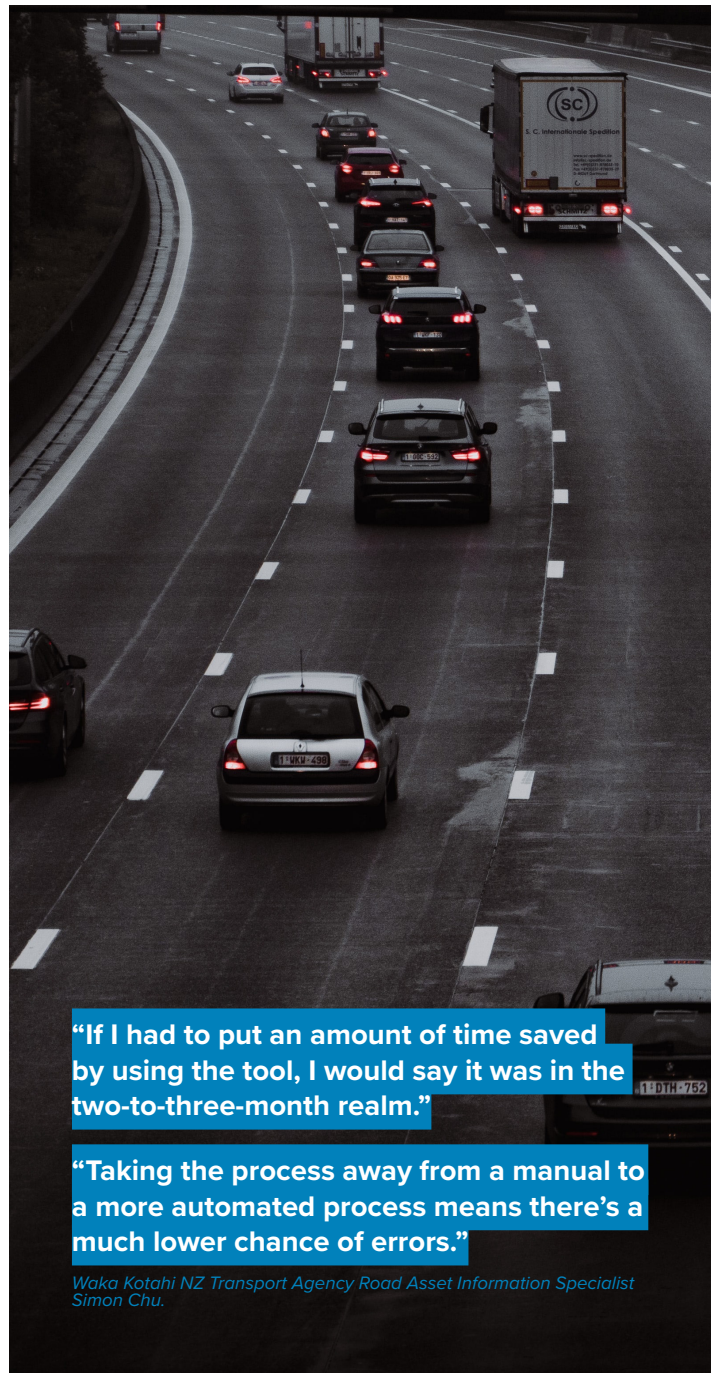
Traffic estimation feeds into various aspects of roading network management and planning. Estimating the traffic count across a roading network was challenging. RCAs used various manual, and thus labour intensive, error-prone processes to estimate traffic counts. Handling thousands of rows of data in one spreadsheet means there is a much higher chance of putting the wrong value in a cell or copying the wrong formula to a cell.

THE SOLUTION

Te Ringa Maimoa and Company-X designed and developed the Transport Insights TCE module for use by RCAs.

The TCE module is based on the Traffic Monitoring Estimation Best Practice Guidelines published by the Institute of Public Works Engineers Australia NZ (IPWEA NZ) Roading Infrastructure Management Support (RIMS) special interest group.

The TCE module is intended to help RCAs calculate estimates for their own networks. It will ensure a consistent and best practice approach across local authority networks.



"If I had to put an amount of time saved by using the tool, I would say it was in the two-to-three-month realm."

"Taking the process away from a manual to a more automated process means there's a much lower chance of errors."

*Waka Kotahi NZ Transport Agency Road Asset Information Specialist
Simon Chu.*

TRANSPORT INSIGHTS
Te Ringa Maimoa
Transport Excellence Partnership

Dunedin City Council 2022/23

Search... Bryan R

Traffic Count Estimation for 2022/23 #2594

1 2 3 4 5

Check Traffic Counts Add Missing AADT Estimates Assign Traffic Groups Calculate Estimates Results

Filter by road name... Traffic Group ONRC Category Cway Hierarchy Urban & Rural

250 Per Page 1-250 of 4848

Road ID	Road Name	Cway No	Cway Start (m)	Cway End (m)	Estimate Date	Derived From	AADT Estim...	Indicator	%Car	%LCV	%MCV	%HCV
187	ABBEYHILL RD (NORTH)	2034	0	111	30/06/2023	Local Knowledge	57		96.000	1.000	2.000	1.0
1467	ABBOTSFORD RD (GI)	5164	0	100	30/06/2023	Derived from counts on one side	4450		88.300	4.900	2.300	4.0
1467	ABBOTSFORD RD (GI)	2725	100	190	30/06/2023	Measured Flow and Trend Analysis	4450		88.300	4.900	2.300	4.0
1467	ABBOTSFORD RD (GI)	2726	190	264	30/06/2023	Derived from counts on one side	4450		88.300	4.900	2.300	4.0
1467	ABBOTSFORD RD (GI)	2727	264	435	30/06/2023	Local Knowledge	4813		96.000	1.000	2.000	1.0
4301	ABBOTSFORD/NEILL ST SLI...	6326	0	61	30/06/2023	Local Knowledge	51		96.000	1.000	2.000	1.0
2194	ABBOTTS HILL RD (GI/SH)	4183	0	246	30/06/2023	Measured Flow and Default Growth	302	Significant change	87.800	9.300	1.400	1.5
2194	ABBOTTS HILL RD (GI/SH)	4736	246	635	30/06/2023	Measured Flow in Current Financial Year	123		87.900	11.700	0.100	0.3
2194	ABBOTTS HILL RD (GI/SH)	3967	635	1426	30/06/2023	Derived from counts on one side	95		87.900	11.700	0.100	0.3
2151	ABERAFON ST (ST)	3934	0	123	30/06/2023	Measured Flow in Current Financial Year	243	Significant change	79.200	17.100	0.900	2.0

Previous Step Include Traffic Groups in CSV? Download Results

TRANSPORT INSIGHTS
Te Ringa Maimoa
Transport Excellence Partnership

Dunedin City Council 2022/23

Search... Bryan R

Traffic Count Estimation for 2021/22 #2570

1 2 3 4 5

Check Traffic Counts Add Missing AADT Estimates Assign Traffic Groups Calculate Estimates Results

Filter by road name... Traffic Group ONRC Category Cway Hierarchy Urban & Rural

Only show carriageways with zero or no AADT

250 Per Page 1-250 of 4835

Road ID	Road Name	Cway Number	Cway Start (m)	Cway End (m)	AADT Estim...	ONRC Category	Traffic Group	Cway Hierarchy	Urban ...
187	ABBEYHILL RD (NORTH)	2034	0	111	56.000	Low Volume	Urban - Residential Low B	LOCAL	U
1467	ABBOTSFORD RD (GI)	5164	0	100	3729.000	Primary Collector	Urban - Residential High B	COLLECTOR	U
1467	ABBOTSFORD RD (GI)	2725	100	190	3729.000	Primary Collector	Urban - Residential High B	COLLECTOR	U
1467	ABBOTSFORD RD (GI)	2726	190	264	3729.000	Primary Collector	Urban - Residential High B	COLLECTOR	U
1467	ABBOTSFORD RD (GI)	2727	264	435	4999.000	Primary Collector	Urban - Residential High B	COLLECTOR	U
4301	ABBOTSFORD/NEILL ST SLI...	6326	0	61	51.000	Access	Urban - Residential Low A	LOCAL	U
2194	ABBOTTS HILL RD (GI/SH)	4183	0	246	201.000	Access	Rural - Low A	LOCAL	R
2194	ABBOTTS HILL RD (GI/SH)	4736	246	635	111.000	Access	Rural - Low A	LOCAL	R
2194	ABBOTTS HILL RD (GI/SH)	3967	635	1426	86.000	Access	Rural - Low A	LOCAL	R
2151	ABERAFON ST (ST)	3934	0	123	500.000	Secondary Collector	Urban - Residential Mediu...	LOCAL	U
2151	ABERAFON ST (ST)	3935	123	244	500.000	Secondary Collector	Urban - Residential Mediu...	LOCAL	U

Previous Step Next: Assign Traffic Groups

THE RESULTS

RCA's import processed traffic count data into Transport Insights from Road Asset Maintenance and Management (RAMM). Invalid traffic counts and mixes can be corrected in Transport Insights. Missing Annual Average Daily Traffic (AADT) and Traffic Groups estimates are assigned. The Traffic Count Estimation is run in Transport Insights, exported, and reviewed, before being imported back into RAMM.

The TCE module removes manual analysis, resulting in a more consistent result across the network.

The traffic count estimate is more fit for purpose than ever before.

SERVICES PROVIDED

- Business analysis
- Database design
- Help and support desk
- User interface design
- Web app development

TECHNOLOGIES USED

- HTML/CSS
- JavaScript
- ASP.Net
- Microsoft Azure

