

“ The following examples are blurry, if you are having trouble seeing the detail - have a look at the original WDC Transportation AMP 2018-2048 document (page 120-121) on the main page of this example tool. ”

6.16 Data Quality

Whangarei’s RAMM data quality used in the ONRC Performance Reporting Tool has been assessed as follows. This data indicates that there may be some issues with Whangarei’s traffic count, surfacing, crash and treatment length data. This will be included in the Improvement Plan for action in the 2018/21 period.

REG | THE ROAD EFFICIENCY GROUP

Data Quality Project - 2016/17 Whangarei District Data Quality Report

Introduction

The quality of the RAMM data being used by the ONRC Performance Measures Reporting Tool has recently been assessed by REG.

This third data quality report is the result of REG’s assessment of RCAs 2016/17 data quality. It details your network based on a framework of 30 indicators and 35 data quality metrics. These metrics interrogate your RAMM data for completeness, accuracy and timeliness.

What this report tells me

The intention is for the results to identify opportunities for improvement in the way both an individual RCA and the industry collects, manages and uses data to support our decision-making processes. The report shows, for each metric, how you are positioned against what’s considered good (the expected standard) and where the industry sits.

Background behind the metrics

The metrics have been grouped into categories and sub-categories. Each has several metrics interrogating data completeness, accuracy and timeliness. Each metric has a graded result on a scale of 1 to 3. Metrics graded 2 or 3 means a reduced confidence in the data quality.

Grade	Definition
Grade 1	Data quality to expected standard
Grade 2	Minor data quality issues present
Grade 3	Major data quality issues present

What is the source of the data being used?

This third version of the report uses RAMM data from the snapshot loaded to the ONRC PMRT for 2016/17. This is a change from the previous two reports which used the NZTA data warehouse as the data source. This has allowed additional metrics to be included that were previously excluded due to restrictions in the source data. The scripts used to generate the results are available on the REG website.

What indicators and metrics have changed?

Metrics "TL3a" and "TL3b" have been replaced by "Ca4". Metric "TL5" has been replaced by "TL5.1". New metrics "Ro3", "TC4", "TC5", "TE4" have been added. Metric "MA3" has been temporarily removed. Please refer to the indicator and Metric Change log on the REG website for details of all changes made.

What's next?

REG will be expecting RCAs to improve their data quality to achieve the expected standard by December 2018, shifting the RCA and national result into the "green zone" for each metric.

We suggest each RCA considers their results and incorporates improvements in their 2018/21 AMP improvement plan and work programmes through to December 2018.

REG has considered the three sets of results and has developed an improvement programme to help RCAs to address the data quality issues. The improvement programme is available on the REG website.

For further information go to <https://www.nzta.govt.nz/roads-and-rail/road-efficiency-group/data-2/data-quality-project/>

Send any questions or feedback to roadefficiencygroup@nzta.govt.nz

My Results Overall

My Results by Dimension

Completeness

Accuracy

Timeliness

My Results by Sub-Category

Carriageway

Treatment Length

Surfacing

Maintenance Activity

Roughness

Traffic Counts

Traffic Estimates

Crash

How to interpret the results

The below figure provides an overview on how to interpret the results provided on the following page:

The metric description - My result coloured by the corresponding grade achieved for your network

Relative change in my results - between the 2016/16 and 2016/17 reports

The ONRC Performance Measures (O) reported by the data interrogated by the quality metrics

The data dimension tested by the metrics (Completeness, Accuracy, Timeliness)

The distribution of results for all RCAs shown against the grade ranges (The traffic light colours reflect the grade ranges for this metric)

Source: Whangarei District Council Transportation AMP 2018-2048

New Zealand Government

Road Controlling Authority		Whangarei District					Key Issues		
Category	Sub-Category	PM Influenced/Affected	Sub	Metric Descriptions	Type	My Metric Result	Trend ¹	Sub-Cat	
Network	Config/Type	Safety Accessibility Low Emissions	Sub	Ca1a	Rural number of lanes match width Percentage of Rural sealed network length with alignment between carriageway width and no. of lanes (No. lanes=1 & width=10m, No. lanes=2 & width=14m or <17m, No. lanes=3 & width=18m) (excludes pavement type 'bridge')	Completeness	98.1	↔	Config/Type
				Ca1b	Urban number of lanes match width Percentage of Urban sealed network length with alignment between carriageway width and no. of lanes (No. lanes=1 & width=10m, No. lanes=2 & width=14m or <17m, No. lanes=3 & width=18m) (excludes pavement type 'bridge')	Completeness	99.4	↔	
				Ca2	ONRC categories are assigned Proportion of carriageway section records with an assigned ONRC category (where road type = "1" and owner type "1") (excludes pavement type 'bridge')	Completeness	99.8	↔	
				Ca3a	Rural carriageways are generally not short Proportion of Rural sealed carriageway records greater than 50m in length (ie. not short) (excludes pavement type 'bridge')	Accuracy	82.7	↔	
				Ca3b	Urban carriageways are generally not short Proportion of Urban sealed carriageway records greater than 50m in length (ie. not short) (excludes pavement type 'bridge')	Accuracy	99.0	↔	
				Ca4	Sealed/unsealed network correctly defined Percentage of sealed network length with a surface record, or unsealed network with no surface record. (excludes pavement type 'bridge')	Accuracy	99.0	New	
				T11a	Treatment lengths are generally not short Proportion of sealed Treatment Length records that are not very short (<20m Urban and 300m Rural) (excludes disabled T1a and pavement type 'bridge')	Accuracy	85.1	↔	
				T11b	Treatment lengths are not too long Proportion of sealed Treatment Length records (excludes disabled T1a) that are not exceptionally long (>600m Urban and 400m Rural) (excludes disabled T1a and pavement type 'bridge')	Accuracy	89.0	↔	
Treatment Length	Availability	Sub	T12	Treatment lengths match major surfacing Proportion of Treatment Length records with >= title coverage of the major surfacing (excludes disabled T1a and pavement type 'bridge')	Accuracy	89.0	↔	Treatment Length	
			T16	Network with STB reading Proportion of sealed Treatment Length records with a Smooth Travel Exposure (STF) value (excludes disabled T1a and pavement type 'bridge')	Completeness	92.9	↔		
			T15.1	Treatment lengths match resurves Proportion of Treatment Length records with >= title coverage of the major surfacing with a surface date in the reported financial year (excludes disabled T1a and pavement type 'bridge')	Timeliness	43.9	↔		
			Sa1	Cost group records as recorded in tables Percentage of sealed network length surfaced and cost group recorded for the reported financial year (excludes pavement type 'bridge')	Timeliness	13.1	↔		
			Sa2	Surface records correctly located Proportion of surface records located in reported financial year that are within the limits of the road and have a width no more than 1m wider than the carriageway width (excludes pavement type 'bridge')	Accuracy	90.5	↔		
			Sa3	Surface records with original cost Proportion of surface records with a surface date greater than 30 June 2014 with a cost recorded (excludes pavement type 'bridge')	Completeness	0.0	↔		
			Sa4	Surface records with works origin Proportion of surface records with a surface date greater than 30 June 2014 with a works origin/category recorded (excludes pavement type 'bridge')	Completeness	0.0	↔		
			Sa5	Surface records newer than pavement Percentage of top surface length newer than underlying pavement layers in the last 15 years (excludes pavement type 'bridge')	Completeness	47.9	↔		
Maintenance Activity	Availability	Cost (STB) Entry	MA1	Complete maintenance activity Number months with at least one pavement (PA) or surfacing (SA) cost group record on sealed network in reported financial year	Timeliness	11	↔	Maintenance Activity	
			MA2	Correctly located maintenance activity Proportion of pavement (PA) and surfacing (SA) cost group records recorded at appropriate location on sealed network (Proportion of records not at the start of the road)	Accuracy	99.7	↔		
			MA3	Maintenance activity has a valid location Proportion of pavement (PA) and surfacing (SA) cost group records on sealed network for the reported financial year located within the extent of the road as defined in the carriageway table	Accuracy	100.0	↔		
Crack/Seal	Availability	Sub	Ru1	Roughness survey within 2.5 years Percentage of sealed network length with a latest roughness reading less than 2.5 years old (from 30 June of reported financial year) (excludes pavement type 'bridge')	Timeliness	98.1	↔	Roughness	
			Ru2	RSD Roughness survey within 2.5 years Percentage of the sealed network length with latest RSD roughness data less than 2.5 years old (from 30 June of reported financial year) (excludes pavement type 'bridge')	Accuracy	99.0	↔		
			Ru3	Roughness data has valid location All latest roughness readings located within the extent of the road as defined in the carriageway table (excludes pavement type 'bridge')	Accuracy	100.0	New		
			T1C	Real targeted traffic count programme Proportion of sealed network VMT with latest traffic count less than 5 years old (from 30 June of reported financial year) (excludes pavement type 'bridge')	Timeliness	98.2	↔		
Traffic Count	Availability	Cost (STB) Entry	T1C	Network count data coverage Proportion of sealed network VMT with traffic count records (excludes pavement type 'bridge')	Completeness	10.4	↔	Traffic Count	
			T1C	Traffic count programme activity Proportion of sealed network VMT with traffic count record with a count date in reported financial year (excludes pavement type 'bridge')	Timeliness	39.9	↔		
			T1E	Traffic loading underwood Proportion of network VMT with classified traffic count records less than 5 years old (from 30 June of reported financial year) (excludes pavement type 'bridge')	Accuracy	25.4	New		
			T1C	Network traffic loading coverage Proportion of network VMT with classified traffic count records (excludes pavement type 'bridge')	Accuracy	88.3	New		
			T1E	Network has traffic estimates Proportion of sealed carriageway records having a traffic estimate (excludes pavement type 'bridge')	Completeness	98.1	↔		
Traffic Estimates	Availability	Low (Primary)	T1Ea	Traffic estimates are maintained (High Volume to Arterial) Proportion of traffic estimate records less than 1 year old on sealed High Volume, National, Regional and Arterial network (from 30 June of reported financial year) (excludes pavement type 'bridge')	Timeliness	99.4	↔	Traffic Estimates	
			T1Ea	Traffic estimates are maintained (Primary and Secondary Collectors) Proportion of traffic estimate records less than 1 year old on sealed Primary and Secondary Collector network (from 30 June of reported financial year) (excludes pavement type 'bridge')	Timeliness	98.1	↔		
			T1Ea	Traffic estimates are maintained (Access including low volume) Proportion of traffic estimate records less than 5 years old on sealed Access including Low Volume Access network (from 30 June of reported financial year) (excludes pavement type 'bridge')	Timeliness	96.5	↔		
			T1E	Traffic estimates updated following counts Proportion of estimate records newer than count records (excludes pavement type 'bridge')	Accuracy	83.9	↔		
Crash	Availability	Sub	C21	Crash data is recent Age (in months) of crash data in terms of time difference between AMM field and date loaded to the PMIS	Timeliness	0	↔	Crash Data	
			C22	Crash records with valid location Proportion of crash records located within the extent of the road for the five year period up to the end of the reported financial year	Accuracy	99.6	↔		

Notes:
 1 - Metric references denoted with a letter at the end are subsets of the same indicator (ie Ca1a and Ca1b). Their results are aggregated to report as a single indicator on the charts on page 1.
 2 - Some metrics may not be applicable to a network, in these cases do not contribute to the results on page 1.
 3 - The works origin & title field is a recent addition to the data.
 4 - The trend indicator shows the relative change in proportion of all metrics, and is a change indicator if reported.

“ The REG produce an annual assessment of each road controlling authority's (RCA) ONRC-related performance measure data plus asset management and decision support systems data.
 - REG annual data quality reports

Source: Whangarei District Council Transportation AMP 2018-2048