



One Network Framework

National Moderation Summary

1 March 2022

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Summary

The One Network Framework (ONF) is the new national classification system for roads and streets. It replaces the One Network Road Classification (ONRC) which has been in use since 2012.

The ONF uses the movement and place framework to determine the function of all roads and streets, acknowledging that roads and streets perform two functions – they help move people and goods and are places where people spend time.

We're implementing the ONF into Waka Kotahi processes and systems in time for the development of the 2024-27 National Land Transport Programme (NLTP).

The first implementation step was a New Zealand-wide current state classification of the road, street and state highway network using the ONF movement and place categories. This process required moderation to ensure that the ONF had been applied consistently across the country and any issues with the framework or guidance was identified and resolved.

This current state network classification and moderation was completed in November 2021. This report provides an overview of the moderation process and results and summarises the actions to be taken by the ONF programme team to resolve any issues and update the guidance.

The National Moderation Group¹ concluded that the ONF current state network is fit for purpose² and provides a baseline to complete the next implementation stages including classifying the modal networks (public transport routes, freight, walking and cycling paths and general traffic), alongside a future function view of the network.

Background

The ONRC was developed by the Road Efficiency Group (REG) following recommendations from the Road Maintenance Taskforce in 2012 to improve prioritisation of investment by using a national road classification with levels of service.

The One Network Framework (ONF) evolves the ONRC to a two-dimensional classification focused on movement and place³. Acknowledging the 'place' function within the transport network reflects that roads and streets are destinations for people, as well as transport corridors that have been traditionally planned for vehicles.

The ONF will also provide an easy-to-understand common language that all transport, land use and urban planners can use, providing a mechanism to have richer conversations about competing demands, strategic objectives and potential investment. The ONF is not designed to provide transport solutions but can set the context for nationally consistent conversations.

Including the place function in strategic planning and investment decision-making for the 2024-27 NLTP recognises shared, integrated planning approaches between transport and land-use planners and will result in better outcomes. When fully implemented, the ONF can be used to benchmark performance and align performance measures and outcomes.

The ONF introduces modal layers of walking, cycling, public transport, and freight, recognising that our roads and streets have different functions for different modes. These are to be classified during 2022.

¹ The National Moderation Group was a group of 60 people from Waka Kotahi and representation from REG champions and a consultant from Just Add Lime.

² This does not include Auckland Transport's ONF classification, due to the size and complexity of their network this is ongoing.

³ The ONF was signed off by the Waka Kotahi Board in February 2021

ONF moderation

Introduction

A national moderation process was conducted over two online sessions in late November 2021. Its purpose was to review the results of the moderation workshops from a national perspective. It aimed to assess whether the application of the ONF was fit-for-purpose and consider any issues with the ONF framework and classification guidance raised during moderation.

The following diagram sets out a high-level process and timeline of the moderation process that was implemented in 2021.

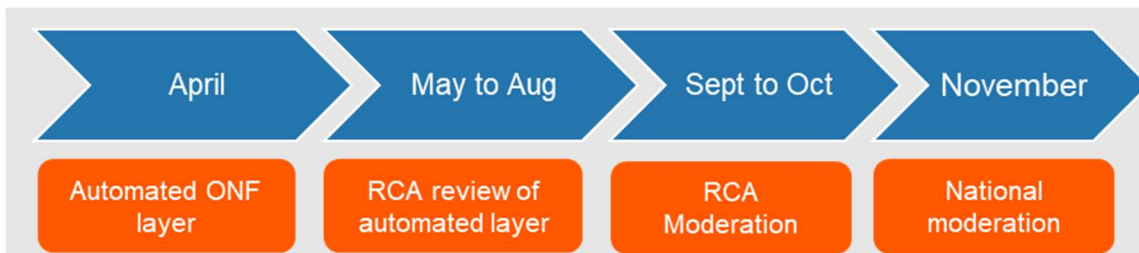


Figure 1: Moderation process/timeline

Classification and review of networks using ONF

The classification process began in April 2021 with the creation of an automated ONF layer in RAMM - a database of road information used by RCAs to manage their road network assets. The purpose of the automation was to support RCAs in the classification process – it was estimated that the automation would be around 80% accurate depending on the size and complexity of RCA networks. The automation was based on:

- Current ONRC classifications
- Annual Average Daily Traffic (AADT) as a proxy for the level of movement
- Generalised adjacent land-use based on the Infrastructure Risk Rating Manual to determine place value.

This automated ONF layer was then made available to RCAs through the RAMM system.

From May to August 2021 each RCA reviewed (checked, verified and updated) their area's automated ONF layer. Guidance documentation was provided to RCAs by the Waka Kotahi ONF team to support this process.⁴

The objective of the review was to use local network knowledge to update the ONF classification categories where necessary, for each section of street or road. RCAs completed this process and confirmed to Waka Kotahi when finalised. The output of the review process was an updated set of RAMM data containing the current state ONF network for each RCA.

RCA moderation

To prepare for the moderation of the current state the ONF team held online moderation pilots with Waikato⁵ and Waimakariri District Councils⁶ to test and finalise the process. Following this a high-level analysis was conducted across all RCAs.

From mid-September to mid-October the moderation of all RCAs' current state ONF network was conducted in a series of online workshops. This involved:

⁴ <https://www.nzta.govt.nz/roads-and-rail/road-efficiency-group/one-network-framework/guidance-for-onf-classification/>

⁵ 27 August 2021

⁶ 2 September 2021

- Nine regional Road Efficiency Group (REG) moderation workshops attended by representatives of RCAs.⁷
- A moderation workshop with the Department of Conservation⁸ on 6 October.
- A 'metro' moderation workshop with Auckland Transport and Wellington and Christchurch city councils on 8 October⁹.
- Five regional sessions on the State Highway network with REG Champion input and a wide range of Waka Kotahi staff.¹⁰

The objectives of the workshops were:

- To assess whether there was a consistent application of the ONF to the current RCA (including State Highway and Department of Conservation) networks across the country.
- To identify any issues with the ONF framework or guidance that would need to be resolved prior to RCAs moving to classify their future state network.

National moderation

The national moderation process was conducted over two online sessions on 25 and 26 November 2021. Attendees were primarily from Waka Kotahi with representation from the REG champions and a consultant from Just Add Lime who was part of the initial design of the ONF and provided technical support to the process.¹¹

The purpose of national moderation was to review the results of the moderation workshops from a national perspective. It aimed to:

- Assess whether the application of the ONF to the current road and street network was fit for purpose.
- Consider any issues with the ONF framework and classification guidance raised during the moderation process.

The outcomes sought from national moderation were:

- Agreement that the current state ONF road/street network is fit for purpose, providing a baseline for comparison against future state ONF networks developed by RCAs.
- Agreement on any actions required to resolve issues with the ONF framework and classification guidance raised through the moderation process.

The moderation process revealed that:

- Automation accurately classified around 80% of the network. This was reflected in a series of national level breakdowns that showed a small change of sections of street and road categories between the automation and current state (see Appendix)¹². In councils with a predominately rural network the percentage of roads and streets correctly classified by the automation process was higher.

⁷ 20 September: Wellington; 21 September: morning - Waikato, afternoon - Northland/Auckland; 22 September: morning - Canterbury, afternoon - Bay of Plenty; 23 September: morning - Top of the South/West Coast, afternoon - Hawke Bay/Gisborne; 24 September: morning - Otago/Southland, afternoon - Taranaki/Horowhenua/Manawatu/Tararua.

⁸ The Department of Conservation is also a Road Controlling Authority but is not included under the Local Government Act.

⁹ The purpose of this workshop was to discuss the classification of Civic Spaces, City Hubs and Main Streets in a metro session to ensure consistency between Auckland, Wellington and Christchurch.

¹⁰ This was structured as per the Waka Kotahi Regional Leadership Structure – 20 October: morning - Wellington and Top of the South, afternoon - Auckland/Northland; 21 October: morning - Waikato/Bay of Plenty, afternoon - Taranaki/Gisborne/Hawke Bay/Manawatu-Whanganui; 22 October: West Coast/Canterbury/Otago/Southland

¹¹ Waka Kotahi attendees included representation from Maintenance and Operations, Urban Design and Place, Strategic System Planning, Local Government Partnerships, Speed Management and Road Safety and Regional Leadership teams.

¹² Note, the automation didn't classify stopping places and these had to be added manually by RCAs.

- In general, RCAs had been very thorough with reviewing, and updating where necessary, road and street classifications from the automation to reflect their local network knowledge.¹³
- The moderation analysis picked up minor inconsistencies. Many of these were resolved during the sessions, in particular several cross-boundary differences and the occasional human error.

There were some general themes across the country that were common to councils, state highways and the Department of Conservation. These related to the following:

1. Peri-urban category

The Peri-urban category is broad – RCAs used it to classify roads on the outskirts of urban areas, in rural settlements and on roads with sub-divisions and life-style blocks. This was consistent with the guidance, but it did result in some inconsistent applications across the country, particularly when classifying roads in rural settlements¹⁴. The review of the State Highway network revealed that there were significant numbers of rural settlements with low population density where urban connectors, an urban street category, were used as the default street category¹⁵. This was considered counter-intuitive given the rural look and feel of these settlements and their location in rural areas.

2. Stopping Places, City Hubs and Civic Spaces

Most RCAs used the Stopping Place category to classify short sections of road outside a significant rural destination such as a school, marae, or community hall in line with the guidance. However, some also classified long sections of road along the side of a lake or river to reflect drivers pulling off the road at random places to enjoy the view, camp etc, particularly at peak times of the year

Moderation revealed inconsistent application of the City Hubs and Civic Spaces categories. This was due to either an incorrect use of the high place threshold of P1 or the future function of the road had been considered rather than the current function.

3. Main Streets and Activity Streets

During the moderation meetings some RCAs noted that they had difficulty differentiating between the classification of Main streets and Activity streets as the threshold between the two categories was often blurred, particularly in small rural towns.

It was reported from the State Highway moderation that it was sometimes difficult to determine the level of activity required for a change in classification from Urban Connector to an Activity Street for sections of state highway running through small rural towns and settlements.

4. On and off ramps

During the State Highway moderation sessions there were questions raised about how to classify on and off ramps from motorways in large urban areas. Often these were classified as Urban Connector (reflecting the reduced movement function) when the motorway they were providing access to or from were classified as Transit Corridors.

¹³ As at the end of November 2021 all RCAs except Napier City Council had completed their ONF current state classification. Further discussions were had with Wellington City Council and Auckland Transport over aspects of their classification up to the end of 2021. As of February 2022, Napier City Council have completed their current state and further conversations are continuing with Auckland Transport due to the size and complexity of their network.

¹⁴ For example, one RCA classifying the roads in their coastal settlements as local streets while an adjoining RCA classified the roads in their coastal settlements as Peri-urban.

¹⁵ For example, Mangaweka in the Rangitikei district, Kuaotunu in Thames-Coromandel district and Riwaka in Tasman District.

Actions from national moderation

The national moderation group agreed that the current state ONF road/street network is fit for purpose and provides a baseline to compare with the future state ONF networks which will be developed by RCAs.

The following actions will be addressed in the revision of the classification guidance:

1. Peri-urban category:
 - For the current state, rural settlements will continue to be included in the Peri-urban category.
 - Further analysis will be conducted of the use of the Peri-urban category and the issue of rural settlements for the future state work in 2022.
2. For Stopping Places the guidance will be expanded to clarify that Stopping places should only be used for rural destinations that are directly using the road for access and where some type of intervention is required.
3. For City Hubs the guidance will be reviewed to highlight the high place threshold of P1 while clarifying that high car or truck movement will reduce the place function as people will not want to spend time lingering in these roads or streets.
4. For Civic Spaces the guidance will be expanded to clarify the importance of place to the category and highlight the main characteristics - in particular, that Civic spaces have little or no through movement for cars or trucks.
5. The guidance will be clarified to:
 - highlight the difference in density between Main Streets (which have businesses close together and more pedestrians) and Activity Streets (businesses spread out with driveways in between and more vehicles).
 - determine a method for determining the level of activity required for a change in classification from Urban Connector to an Activity Street.
6. Photos will be used to illustrate the characteristics of all categories but in particular City Hubs and Civic Spaces and the difference between Main and Activity Streets.
7. State Highway on and off ramps will be classified the same as the State Highway they are providing access to or from.

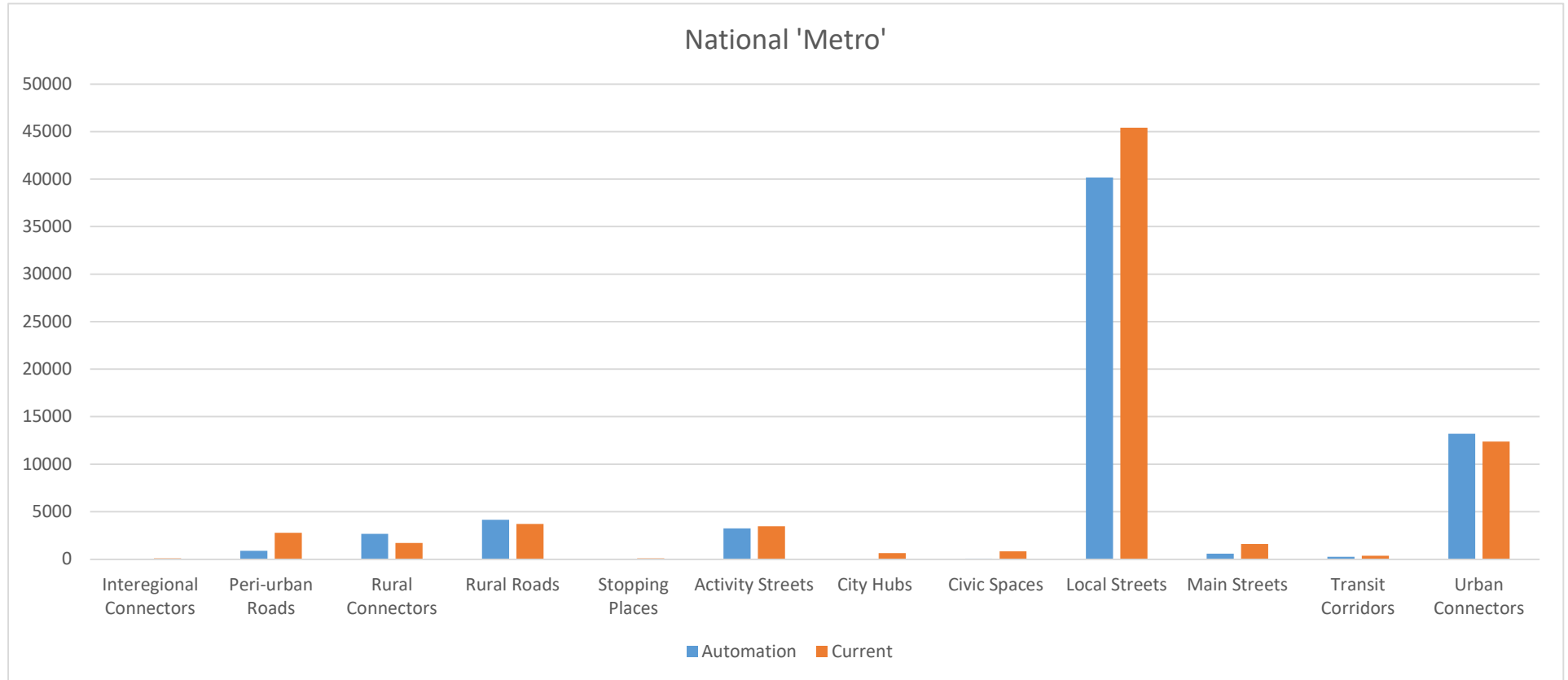
Conclusion

The One Network Framework (ONF) is the new national classification system for the New Zealand land transport system that will improve the integration of land use and transport planning and investment and support more strategic and informed decision-making.

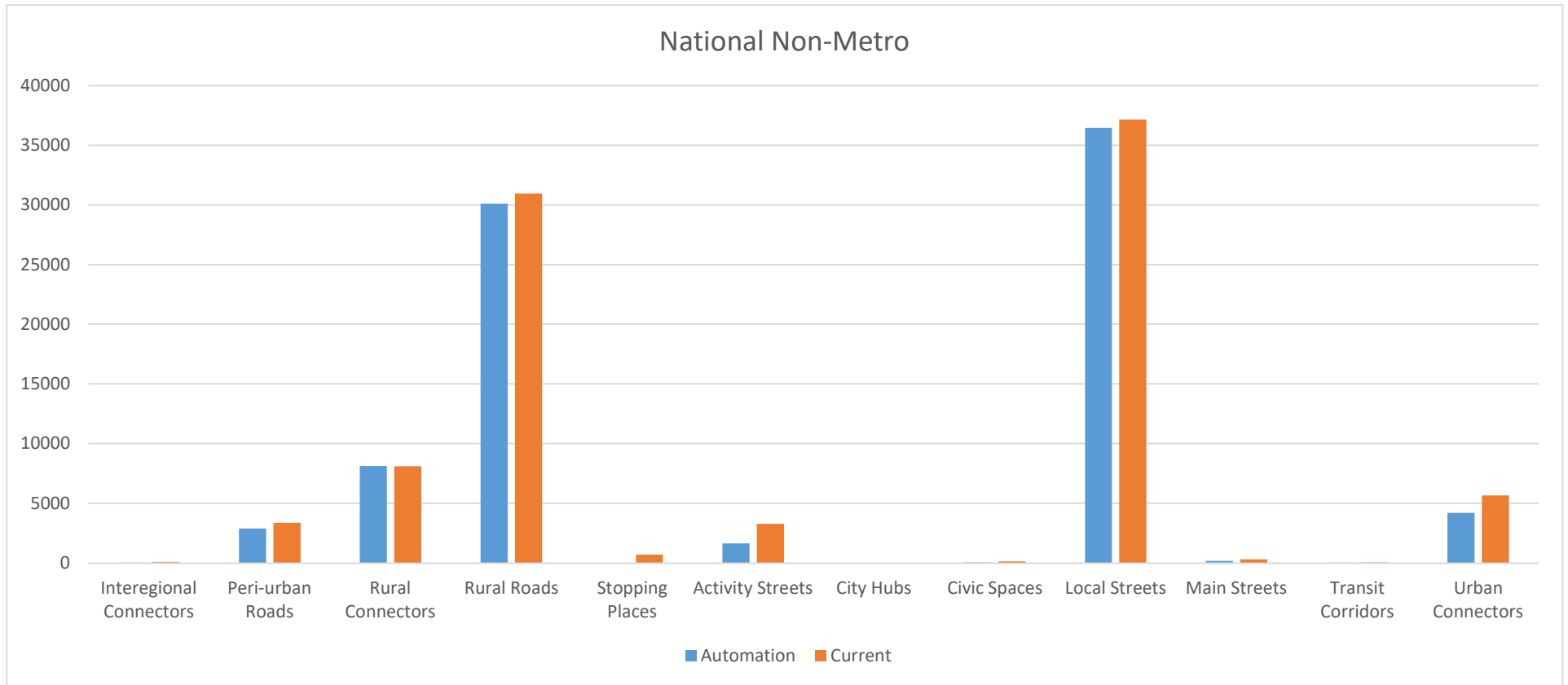
The focus of ONF implementation has been on developing a New Zealand-wide current state classification of the road, street and state highway network using the ONF. This process required moderation to ensure that the ONF has been applied consistently across the country and any issues with the framework and/or classification guidance identified and resolved before RCAs can classify their future state network.

The actioning of the decisions agreed by the National Moderation group will help support the next stage in the implementation of the ONF – classifying modal networks for multi-modal network planning and RCA classification of their future networks.

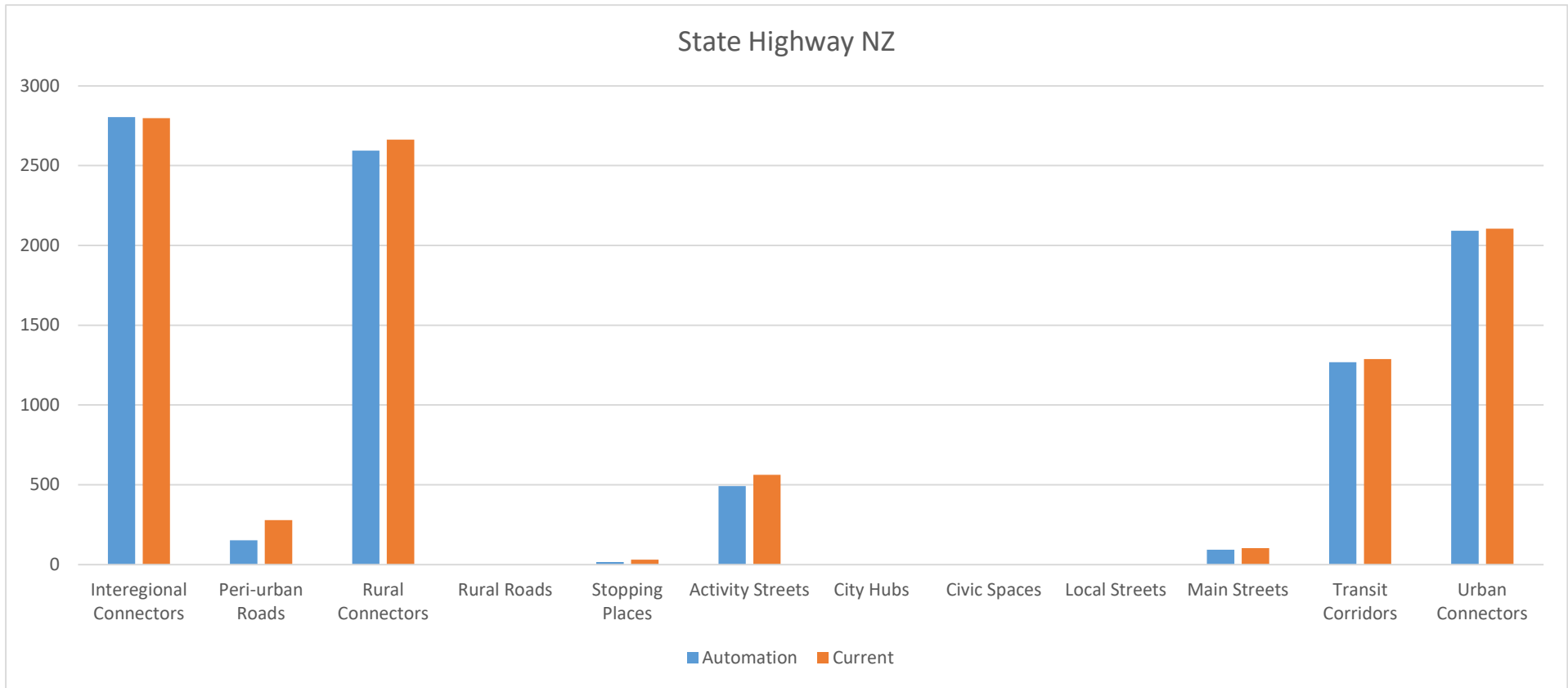
Appendix: National level breakdown



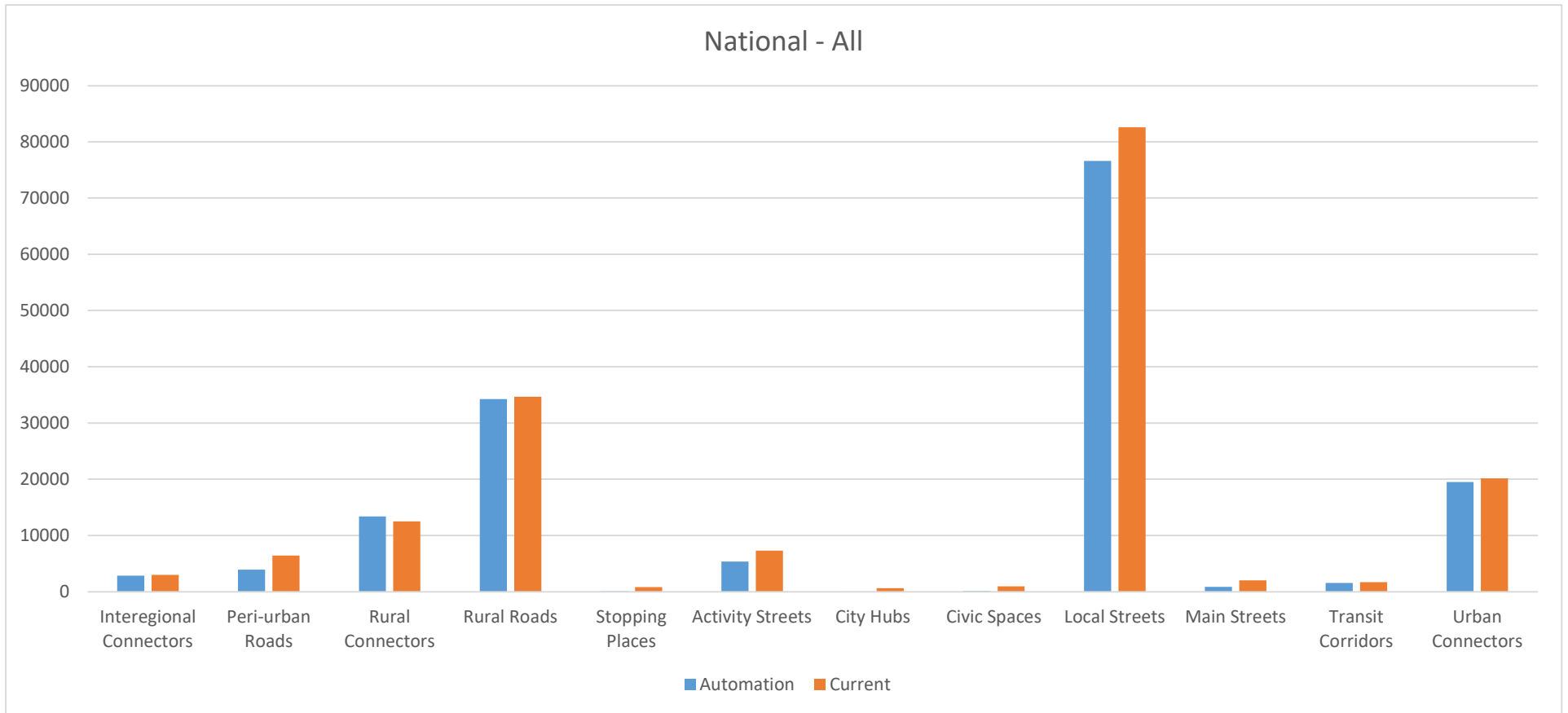
Note, 'Metros' in this context reflects the Tier 1 and 2 urban areas from the National Policy Statement on Urban Development and includes Auckland, Hamilton, Tauranga, Napier-Hastings, Palmerston North, Wellington, Nelson-Tasman, Christchurch and Dunedin-Invercargill. This grouping of urban areas reflects the approach used for the analysis to support the moderation of council networks by regional area.



Note, this is all the remaining RCAs (including the Department of Conservation) except the Metros referred to above.



Note, this is just the State Highway network.



Note, this is all RCAs – including the Metros, Department of Conservation and State Highways.