

# **Towards a National Road Classification**

## **Research into Recommendation 2**

*Refine the existing PSMA Road classification to enable better differentiation of local and State roads through liaison with relevant government representatives.*

### **Executive Summary**

An online survey was conducted where respondents were asked a range of questions to determine what system they hold their road data in and whether they can differentiate between State and local roads within their road system. A range of rural and urban Local Government organisations and State RTAs were contacted throughout Australia and New Zealand, 82 in total and 52 responded to the survey.

The major finding is that 42% of respondents report that a point in the hierarchical classification of their data cannot be used to determine the difference between a State and local road. This indicates that, on an Australasian basis, hierarchical classification alone cannot be used to make this differentiation.

The other major finding from this survey is that 77% of the respondents surveyed reported that they can determine from an attribute or combination of attributes in their data that a road is State or locally owned.

### **Background**

Local versus State road classification represents the area of greatest ambiguity when attempts are made to objectively classify them into discrete categories. Some argue that there is no absolutely rigorous method for classifying roads at the interface between classes. Very politically sensitive issue given classification in a certain category can impact on funding received for road maintenance.

### **Methodology**

An online survey hosted by the Tasmanian Department of Primary Industry and Water (DPIW) Land Information System Tasmania (theLIST) website was developed. This survey asked specific questions that related to the classification that jurisdictions employ to hold their road data information and whether the differentiation was made between State and local roads. A cross-section of rural and urban Local Governments as well as State RTAs across Australia and New Zealand were targeted. See Appendix 1 for the complete survey.

## Results and Analysis

Of the 82 organisations contacted, 52 responded. This represents a 63% response rate.

Question 8 in the survey asked the specific question:

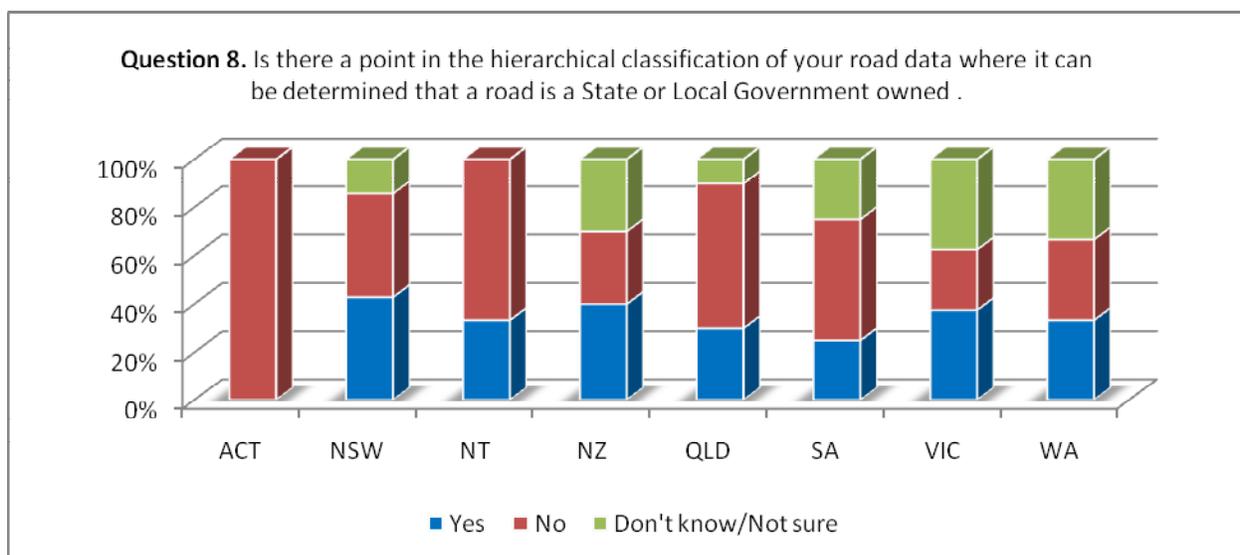
**8. Is there a point in the hierarchical classification of your road data where it can be determined that a road is a State or Local Government owned road? eg: an arterial road and above is always a State (or Federal eg. Defence) owned road?**

No [22](#) (42%)

Not sure / Don't know [9](#) (17%)

Yes, please specify: [18](#) (35%)

*no answer* 3 (6%)



This result also shows that there is a spread across almost all jurisdictions that cannot achieve this distinction by classification alone.

Questions 6 and 7 asked if the difference between a State and local road can be determined by either a discrete attribute or a combination of attributes. 71% of respondents replied that a discrete attribute can determine this difference and 77% said that a combination of attributes could achieve this result.

See Appendix 1 for all survey questions and results

See Appendix 2 for chart representation of all survey questions and results

## **Discussion and Conclusion**

There were 82 Australasian organisations directly contacted initially by phone and then, when they'd agreed to take part, were emailed the URL of the on-line survey. These were a mix of State Authorities and Urban and Rural Local Government organisations. There were 52 responses which represents a 63% response rate.

On advice from the ACT Planning and Land Authority, all roads within the ACT are State owned roads, hence the results show only one response from the ACT.

It should be noted that this survey was carried out by the Tasmanian representative of the RWG and that this survey includes no data from Tasmania. The Department of Primary Industries and Water, the Tasmanian State mapping authority, determined a number of years ago that the difference between State and local roads could not be defined at a point within the hierarchical classification within data held in Tasmania. This is because there are a number of State authorities and GBE's within Tasmania that own and maintain roads covering a wide range of classifications. A separate "Authority" field was determined to be the most reliable way of being able to identify the owner of a road and therefore the difference between State and local roads. Advice is regularly sought from State and Local Government agencies to maintain this data as it was determined at the time that other agencies data structures and information could not reliably support this differentiation.

The survey results show that a point in the hierarchical classification of roads cannot be used Australasia wide to determine if a road is State or locally owned – 42% of respondents replied in this way when asked that direct question. 35% of respondents said a point in the classification could be used to determine this difference.

Other questions were asked as to whether this difference could be determined in other ways (a discrete attribute or combination of attributes) within their data, to which 77% replied in the affirmative. This indicates that more than twice the number of respondents can determine this difference using attributes than with a point in the classification. This in turn indicates that a point in the classification may not have been a definitive method to determine the difference for many organisations and a discrete attribute or combination of attributes was adopted to enable this, or a related requirement, that then allows the distinction between State and local roads to be made.

## **Recommendation**

The hierarchical classification of roads is not a conclusive way of defining the difference between State and local roads across all jurisdictions. 77% of respondents can achieve this result using separate attributes. If being able to identify the difference between State and local roads is identified as a significant requirement, going on the results of this survey, a discrete attribute or combination of attributes or expanded use of the Jurisdiction Identifier would be the most conclusive way to achieve this.

## **Acknowledgements**

Thank you to all recipients of the survey and particular thanks to all those who responded.  
Thanks to John Diamond for distributing the survey to Queensland based organisations.  
Thanks to Matt Barwick for advice and direction with regard to the scope of the survey.  
Thanks also to Caroline Palfreyman (ILS Directorate) for assistance and access to theLIST survey website as well as advice with survey design aspects.

## Appendix 1

Complete Survey incorporating the number of responses to each question and the percentage these represent.



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## View Summary

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The survey has 52 entries. [Show details of all entries](#)

# ICSM RWG Rec2 Survey - State/Local roads

ICSM Road Working Group Survey – Local / State roads

Thankyou for taking the time to complete this survey

It has been produced for the Road Working Group (RWG) of the Intergovernmental Committee on Surveying and Mapping (ICSM) and will assist in the assessment of existing transport datasets with the view to head towards nationally consistent transport data.

The purpose of the survey, which should take around 10 minutes to complete, is to obtain feedback on what road classification information is currently in use and if, from this information, it can be determined if a road is a State or Local Government owned road.

When answering this questionnaire please consider “the data” as referring to a road (centreline) and that any ownership/maintenance issues refer to the main trafficable lane(s) and not bus lane or verge and/or kerbing ownership

which may be different to the main lane(s)

#### Completing this survey

Please note that individual survey responses will remain confidential.

You will be asked for your email address but this will be used for survey tracking purposes only.

Please be assured that any responses are non-binding.

Once again, your assistance is greatly appreciated and I thank you for your time.

Need Assistance or would like to complete the survey verbally, please contact:

Steve Sellers on + 61 3 6233 3309

([steve.sellers@dpiw.tas.gov.au](mailto:steve.sellers@dpiw.tas.gov.au))

#### Background

The Intergovernmental Committee of Surveying & Mapping (ICSM) formed the Roads Working Group (RWG) to develop and promote a nationally consistent representation of roads.

In a recent report Assessing the Feasibility of a National Road Classification,

[http://www.icsm.gov.au/icsm/roads/Assessing\\_Feasibility\\_National\\_Road\\_Classification\\_draft3.pdf](http://www.icsm.gov.au/icsm/roads/Assessing_Feasibility_National_Road_Classification_draft3.pdf)

recommendations were made to investigate areas where improvements to existing national road classifications could be made to better meet the requirements of users. Being able to identify the differentiation between State and Local roads was identified as a subject that required additional investigation.

Recommendation 2: Refine the existing PSMA Road classification to enable better differentiation of local and State roads through liaison with relevant government representatives.

#### 1. Where is your organisation based?

ACT	<u>1</u> (2%)
NSW	<u>7</u> (13%)
NT	<u>3</u> (6%)
NZ	<u>10</u> (19%)
QLD	<u>10</u> (19%)

SA 4 (8%)  
 TAS 0 (0%)  
 VIC 8 (15%)  
 WA 9 (17%)  
*no answer* 0 (0%)

**2/. Please specify the type of organisation:**

Local Government 43 (83%)  
 State Transport Authority 3 (6%)  
 Other – please specify 6 (12%)  
*no answer* 0 (0%)

**3. What is the extent of your coverage?**

Local Government area 40 (77%)  
 Statewide 9 (17%)  
 Other – please specify 3 (6%)  
*no answer* 0 (0%)

**4. Do you hold road/transport data spatially?**

Yes 46 (88%)  
 No 4 (8%)  
 Not sure / Don't know 2 (4%)  
*no answer* 0 (0%)

**5. Does the system you employ to classify your road data comply with any of the following?**

NAASRA 11 (21%)  
 PSMA (as per below example) 12 (23%)  
 Other - please specify - could be your own custom classification eg. Urban/Rural, State/Local: 25 (48%)  
*no answer* 4 (8%)

eg. Road classifications assigned within a functional hierarchy (PSMA model).

- . National or State Highway
- . Arterial Road
- . Sub-Arterial Road
- . Collector Road

- . Local Road
- . Track – 2 wheel drive
- . Track – 4 wheel drive
- . Footpath
- . Undetermined

**6. Can it be determined from a discrete attribute or value within your data if a road is a State or a Local Government owned road?**

Yes	<u>37</u> (71%)
No	<u>12</u> (23%)
Not sure / Don't know	<u>3</u> (6%)
<i>no answer</i>	<u>0</u> (0%)

**7. Can it be determined from a combination of attributes or values within your data if a road is a State or a Local Government owned road?**

Yes	<u>31</u> (60%)
Yes – with some work and resources	<u>9</u> (17%)
Yes – with a good deal of work and resources	<u>0</u> (0%)
No	<u>10</u> (19%)
Not sure / Don't know	<u>2</u> (4%)
<i>no answer</i>	<u>0</u> (0%)

**8. Is there a point in the hierarchical classification of your road data where it can be determined that a road is a State or Local Government owned road? eg: an arterial road and above is always a State (or Federal eg. Defence) owned road?**

No	<u>22</u> (42%)
Not sure / Don't know	<u>9</u> (17%)
Yes, please specify:	<u>18</u> (35%)
<i>no answer</i>	<u>3</u> (6%)

**9a. Are there any other authorities, other than State (or Federal eg. Defence) or Local Government who own/maintain roads within your jurisdiction? eg. Government Business Enterprises, separate authorities.**

No	<u>18</u> (35%)
Not sure / Don't know	<u>6</u> (12%)
Yes, please specify:	<u>26</u> (50%)
<i>no answer</i>	<u>2</u> (4%)

**9b. Within your data, can you differentiate between the different authorities of ownership?**

No	<u>12</u> (23%)
Not sure / Don't know	<u>5</u> (10%)
Yes, by what method?	<u>32</u> (62%)
<i>no answer</i>	<u>3</u> (6%)

**10. Can it be determined in conjunction with other dataset(s) if a road can be classified as a State or Local Government owned road? – eg. from intersecting the road data with a cadastral or tenure layer?**

Yes	<u>18</u> (35%)
Yes – with some work and resources	<u>11</u> (21%)
Yes – with some work and resources but accuracy may be questionable	<u>5</u> (10%)
Yes – with a good deal of work and resources	<u>2</u> (4%)
Yes – with a good deal of work and resources but accuracy may be questionable	<u>1</u> (2%)
No	<u>7</u> (13%)
Not sure / Don't know	<u>7</u> (13%)
<i>no answer</i>	<u>1</u> (2%)

**11. If you hold data specifying the difference between State & Local Government owned roads, would you be prepared to make this data available to your state transport and/or mapping authority to assist in applying this to a national dataset?**

Yes	<u>34</u> (65%)
Not sure / Don't know	<u>8</u> (15%)
Possibly, with provisos – please note these below	<u>8</u> (15%)
No - please indicate below why you'd object to supplying this information	<u>3</u> (6%)

Please specify provisos or objections: [10](#) (19%)

**12. For survey tracking purposes only, please provide your email address**

**50 responses** [view this question](#) [view all questions](#)

**13/. Please offer any additional comments you might like to make:**

**28 responses** [view this question](#) [view all questions](#)

Once again, thank you very much for taking the time to complete this survey

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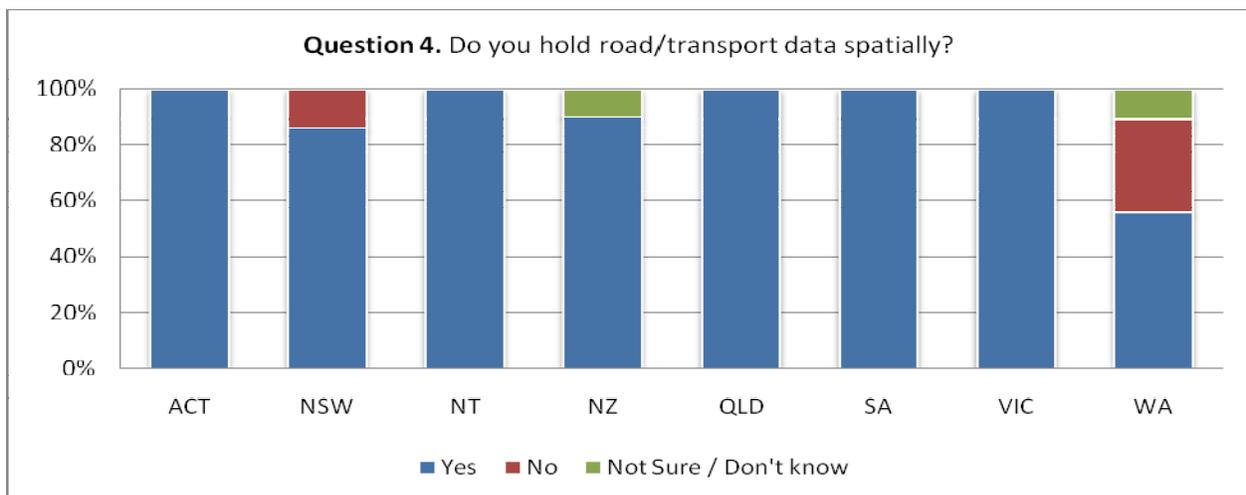
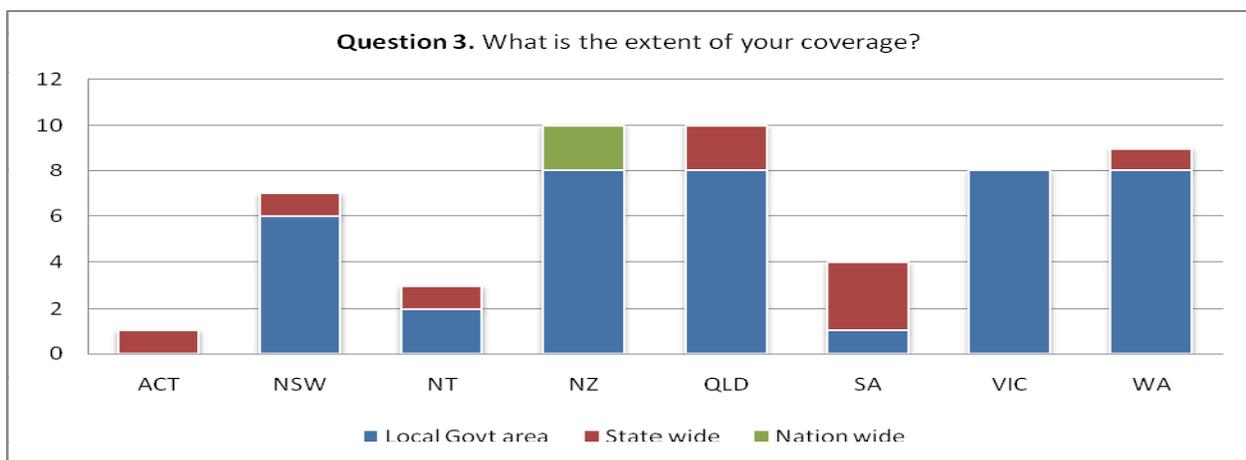
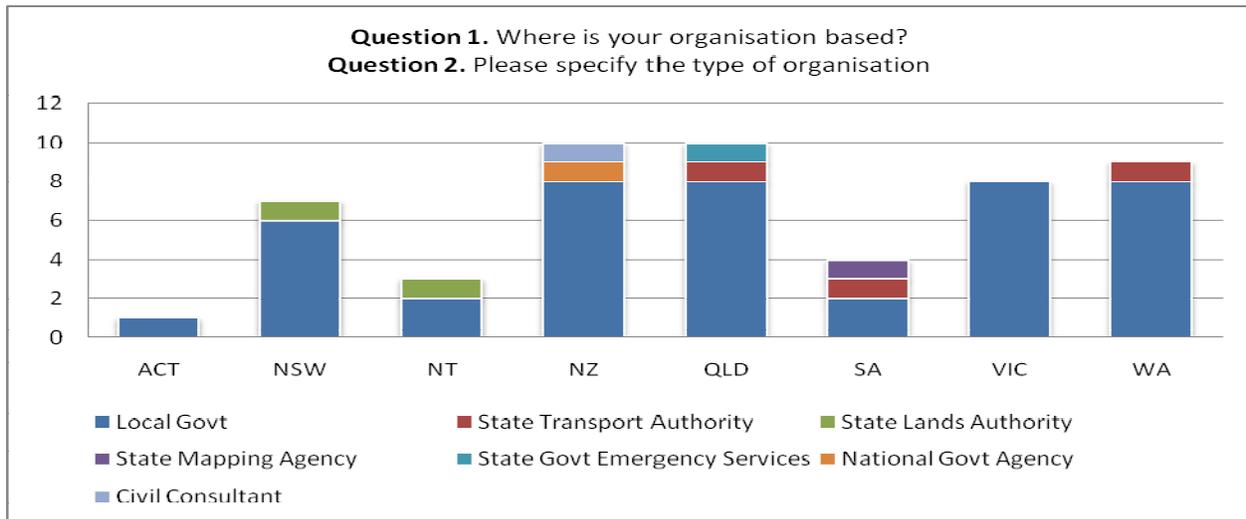
**Putting it all together.**

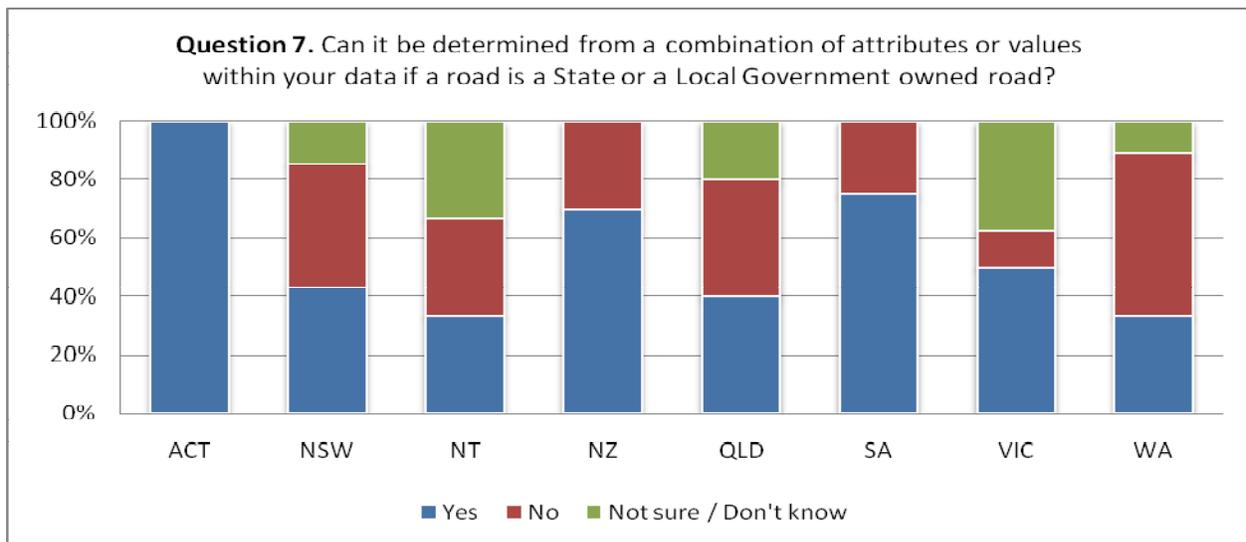
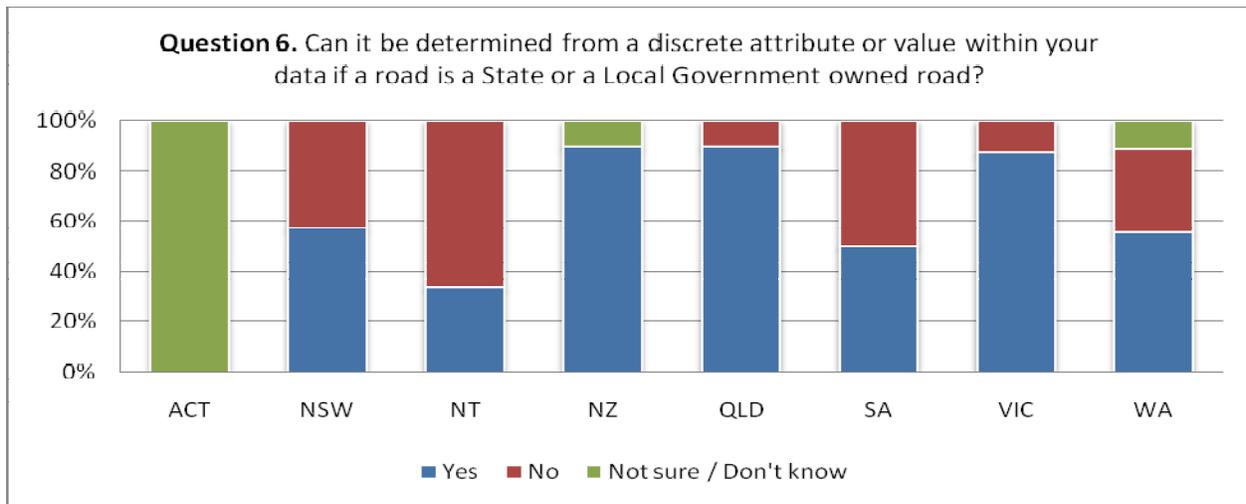
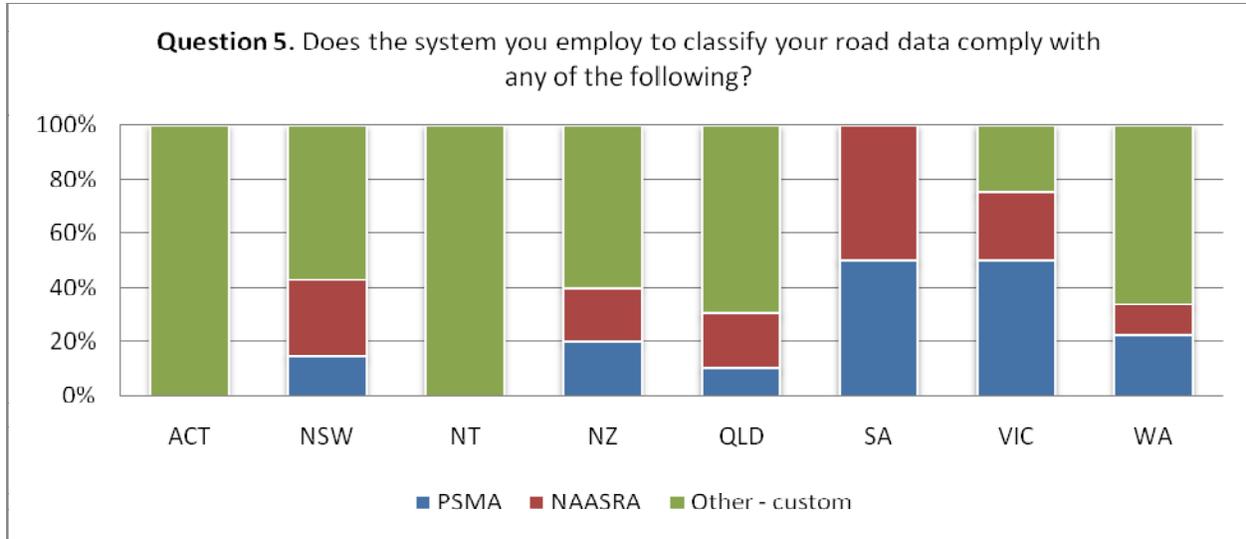


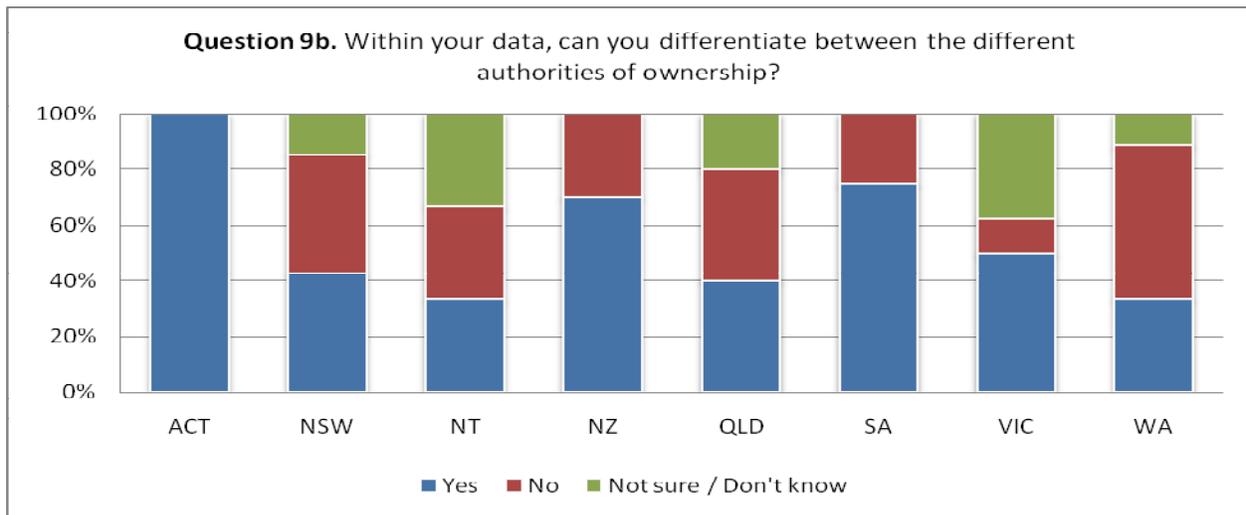
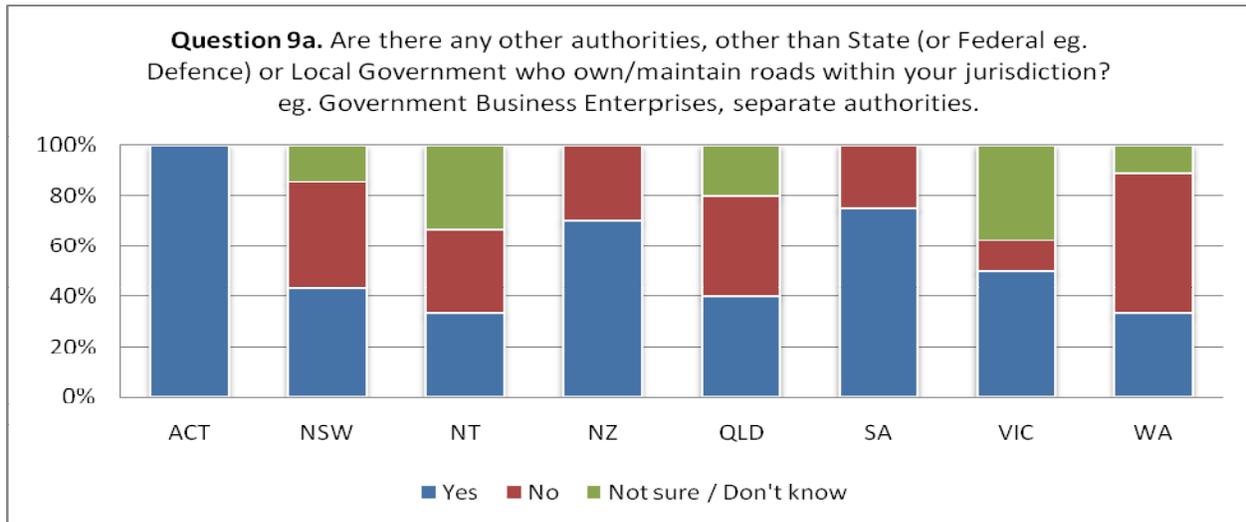
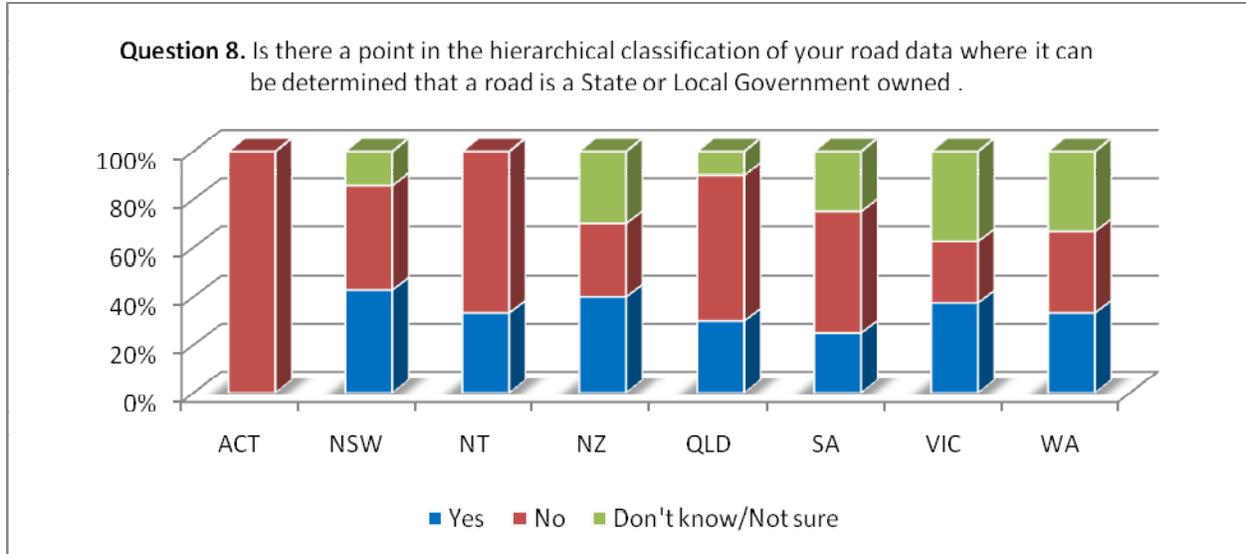
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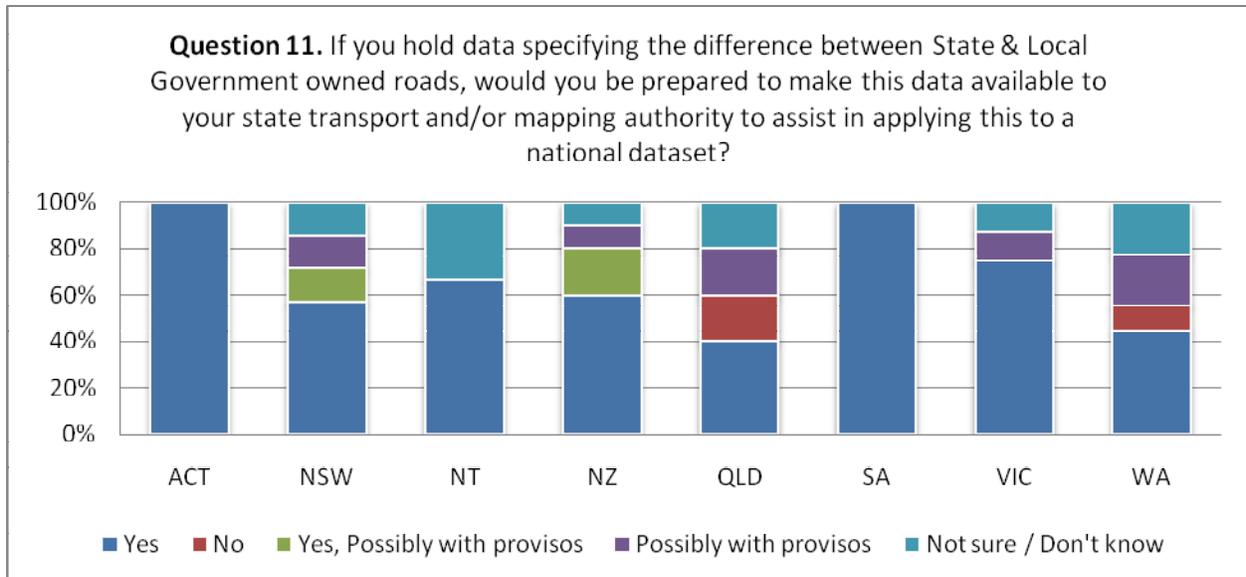
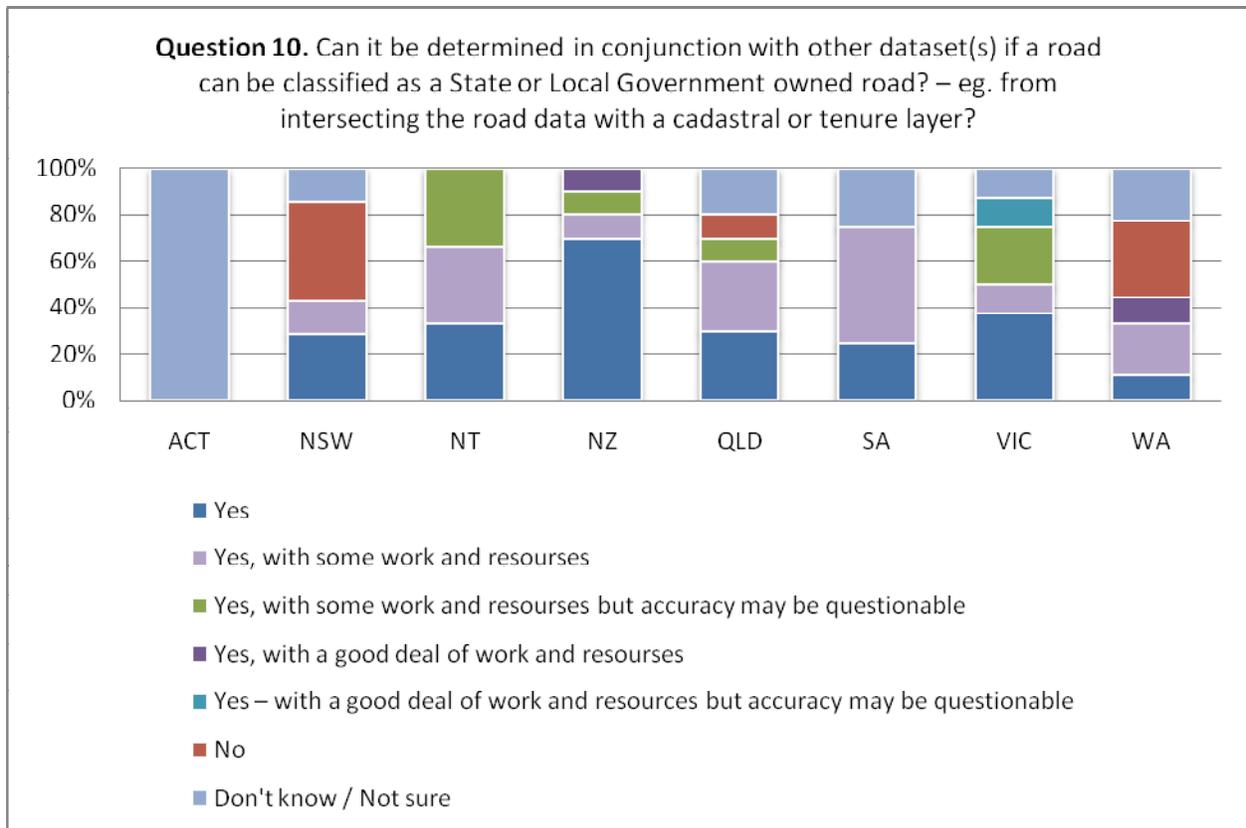
## Appendix 2

### Survey Results – chart format









## Appendix 2

### Organisations contacted for the survey

1. ACT Planning and Land Authority
2. NSW - Lands
3. NSW - Forbes Shire Council
4. NSW - Bathurst Regional Council
5. NSW - Murray Shire Council
6. NSW - Murrumbidgee Shire Council
7. NSW - Bega Valley Shire Council
8. NSW - Eurobodalla Shire Council
9. NSW - Upper Lachlan Shire Council
10. NSW - Bogan Shire Council
11. NSW - Upper Hunter Shire Council
12. NSW - Bourke Shire Council
13. NSW - Tenterfield Shire Council
14. NSW - Maitland City Council
15. NSW - Newcastle City Council
16. NSW - Gosford City Council
17. NSW - Parramatta City Council
18. NT Dept Planning & Infrastructure
19. NT - Maningrida Council Inc
20. NT - West Arnhem Shire
21. NT - Palmerston City
22. NT - Darwin City Council
23. NZ - Transit NZ
24. NZ - Kaipara District Council
25. NZ - Papakura District Council
26. NZ - Gisborne District Council
27. NZ - Wairoa District Council
28. NZ - Grey District Council
29. NZ - Mackenzie District Council
30. NZ - Auckland City Council
31. NZ - Tauranga City Council
32. NZ - Napier City Council
33. NZ - Upper Hutt City Council
34. NZ - Christchurch City Council
35. NZ - Dunedin City Council
36. NZ - Duffill Watts (contractor)
37. QLD Dept Main Roads
38. QLD State Emergency Service
39. QLD - Goondiwindi Regional Council
40. QLD - Somerset Regional Council
41. QLD - Carpentaria Shire Council
42. QLD - Southern Downs Regional Council
43. QLD - Central Highlands Regional Council
44. QLD - Gold Coast City Council
45. QLD - New Townsville City
46. QLD - Logan City Council
47. SA Dept Transport, Energy and Infrastructure
48. SA - Tatiara District Council
49. SA - Wakefield Regional Council
50. SA - District Council of Mallala
51. SA - City of Salisbury
52. SA - City of Marion
53. Vic Roads
54. Vic - Northern Grampians Shire Council
55. Vic - Swan Hill Rural City Council
56. Vic - Benalla Rural City Council
57. Vic - Bass Coast Shire Council
58. Vic - Mildura Rural City Council
59. Vic - Wyndham City Council
60. Vic - Moreland City Council
61. Vic - Whitehorse City Council
62. Vic - Frankston City Council
63. Vic - Cardinia Shire Council
64. Vic - Wodonga City Council
65. WA Dept Planning and Infrastructure
66. WA - Broome Shire
67. WA - Upper Gascoyne Shire
68. WA - Northampton Shire
69. WA - Laverton Shire
70. WA - Dundas Shire
71. WA - Manjimup Shire
72. WA - Mount Marshall Shire
73. WA - Gingin Shire
74. WA - Waroona Shire
75. WA - Kojonup Shire
76. WA - Albany City
77. WA - Nedlands City
78. WA - Fremantle City
79. WA - Belmont City
80. WA - Mandurah City
81. WA - Gosnells City
82. WA - Bunbury City