



Austrroads Project CS 1338  
Improving Local Road Expenditure Data Provision

SUPPLEMENTARY SURVEY 2008

# I N S T R U C T I O N S

## 1. BACKGROUND

Austrroads Project CS 1338 is sponsored by the National Transport Commission (NTC) and supported by Australian Local Government Association (ALGA).

The purpose of the project is to improve the quality of local road expenditure data used by the NTC and ALGA.

The NTC is particularly keen to improve the local road expenditure data (currently sourced from the ABS) that it uses in its cost allocation modelling which is used to determine heavy vehicle charges nationally so that efficient road user charges can be estimated.

There is currently significant uncertainty in both the aggregate amount of local road expenditure that is reported in Australia and there is little breakdown of the existing information on a basis that is readily useable for cost allocation modeling by the NTC.

Estimates of the aggregate amount of local road expenditure data have undergone some big changes in recent years with the ABS revising their estimates of annual data since 1998 by around six hundred million dollars per annum following a review of their methodology with annual estimates prior to 1998 on a consistent basis with the more recent data not being available. Despite this latest revision major differences remain in national local road expenditure estimates depending on the data used due to definitional issues and lack of sufficient disaggregation on government financial statistics.

The local road expenditure data available from the ABS is currently split between urban and rural and also current and capital expenditure, and no further segmentation can be confidently made. Currently the NTC derives data for the local road system by road expenditure type by using shares that come from arterial road data supplied by the road authorities. Just how accurate or otherwise this assumption is unknown and this proposed project would provide a basis for answering this question.

Overall this project will aim to improve the provision of local road expenditure data so that there is greater certainty in the aggregate amount reported nationally and a greater disaggregation of the data more suited to cost allocation and road pricing.

## 2. METHODOLOGY

The project is based on data collected for the ALGA National Local Road Data System (NLRDS). ALGA has collected local road expenditure data through and with the co-operation of the State Grants Commissions and Western Australia Local Government Association (WALGA) annual local government data collection surveys of councils. Local road expenditure data collected by the NLRDS includes:

1. Sealed LOCAL (and NSW Regional) Roads
  - a. Sealed road length
  - b. Expenditure on EXISTING assets (excluding depreciation)
    - i. Maintenance
    - ii. Capital Renewal
    - iii. Capital Upgrade
  - c. Expenditure on NEW assets (capital expansion)
  - d. Total expenditure
2. Unsealed LOCAL (and NSW Regional) Roads
  - a. Unsealed road length
  - b. Expenditure on EXISTING assets (excluding depreciation) including maintenance and renewal (resheets)
  - c. Expenditure on NEW assets (capital expansion)
  - d. Total expenditure
3. Bridges & Major Culverts on LOCAL (and NSW Regional) Roads
  - a. Number of bridges & major culverts
  - b. Expenditure on EXISTING assets (excluding depreciation) including maintenance and renewal
  - c. Expenditure on NEW assets (capital expansion)
  - d. Total expenditure
4. Roads Ancillary
  - a. Expenditure on EXISTING roads ancillary assets (excluding depreciation) including maintenance and renewal
  - b. Expenditure on NEW assets (capital expansion)
  - c. Total Expenditure

The NLRDS uses this data for eight performance measures to identify trends in local road performance. The NLRDS performance measures may be viewed at [www.jr.net.au/nlrds](http://www.jr.net.au/nlrds) and are shown below.

1. Sealing of gravel roads
2. State of the asset
3. Expenditure on roads & bridges
4. Expenditure on roads & bridges per km for sealed roads
5. Expenditure on roads & bridges per km for unsealed roads
6. Road asset consumption
7. Road asset sustainability
8. Road safety

The project will undertake a supplementary survey of a 10% sample of councils throughout Australia to develop a finer breakdown of road expenditure that is more consistent with that currently available for arterial roads. This will significantly improve the provision of local road expenditure data so that there is a greater certainty in the aggregate amount reported nationally and a greater disaggregation of the data more suited to cost allocation and road pricing.

### 3. FORM 1 - SUPPLEMENTARY SURVEY

The supplementary survey is a MS Excel spreadsheet with data to be entered in yellow highlighted cells. Help Notes for relevant questions are shown in cell with a red triangle in the upper right corner of the cell.

The completed supplementary is to be returned to [survey@jr.net.au](mailto:survey@jr.net.au) preferably within 4 weeks of your regional workshop or by Friday 9 May 2008 at the latest. Early return of the survey will assist in analysing the data.

Help Desk support is available through JRA.  
 Contact - John Howard, JRA M 0427 949 035 E [johnhoward.jra@bigpond.com](mailto:johnhoward.jra@bigpond.com).



The survey form provides for the 2006/07 NLRDS expenditure for each council and the related NTC cost allocation system categories used in the cost allocation model.

The relationship between the NTC cost allocation system categories and NLRDS dataset is shown in Table 1.

**Table 1. NTC Cost Allocation System and NLRDS Dataset Relationship Matrix.**

Austroads CS1338 Project                      NTC Third Determination Road Construction and Maint Exp / NLRDS Matrix

NTC EXPENDITURE CATEGORY	A Servicing & Operating Expenses		B Road Pavement & Shoulder Maintenance				C Bridges		D Road Rehabilitation		E Low Cost Safety / Traffic Improvements		F Asset Extension / Improvement						G1 Corporate Services		
	Local Urban	Local Rural	Local Urban	Local Rural	Local Urban	Local Rural	Local Urban	Local Rural	Local Urban	Local Rural	Local Urban	Local Rural	F1 Pavement Components		F2 Bridges		F3 Land Acquisition, Earthworks, Other		Local Urban	Local Rural	
1 Sealed Local Roads																					
Sealed_Length																					
Sealed_Maint																					
Sealed_Cap_Renewal																					
Sealed_Cap_Upgrade																					
Sealed_Tot_Expend																					
2 Unsealed Local Roads																					
Unsealed_Length																					
Unsealed_Exist_Expend																					
Unsealed_Cap_Expansion																					
Unsealed_Tot_Expend																					
3 Bridges & Major Culverts																					
Bridges_No																					
Bridges_Exist_Expend																					
Bridges_Cap_Expansion																					
Bridges_Tot_Expend																					
4 Roads Ancillary																					
Ancillary_Exist_Expend																					
Ancillary_Cap_Expansion																					
Ancillary_Tot_Expend																					

Key  Primary linkage  
 Make be linkage in more that one data set

### 4. COMPLETING THE SURVEY

Enter the Council name, contact officer, telephone and e-mail contact details.

#### 4.1 Sealed Local Roads

##### 4.1.1 Sealed Road Maintenance

2006/07 expenditure on sealed local roads maintenance expenditure is to be shown in the light green cell. NLRDS defines sealed local (and NSW regional) road maintenance expenditure as:

*Expenditure on an asset which maintains the asset in use but does not increase its service potential or life, e.g. repairing a pothole in a road, repairing the decking on a timber bridge, repairing a single pipe in a drainage network, repair work to prevent early failure of an asset. (including engineering overheads)*

Show the actual (or estimated) apportionment of the total sealed local roads maintenance expenditure into the NTC cost allocation system categories

ALGA NLRDS		NTC Cost allocation system categories	Urban	Rural
	06/07 Exp		\$	\$
1.1 Sealed Road Maintenance Expenditure (inc engineering overheads)		A Servicing and Operating Expenditure		
		B1. Routine Maintenance		

The NTC cost allocation template defines *A Servicing and Operating Expenditure* as

*All expenditure associated with servicing and operating and monitoring the road system, excluding expenditures on pavements, shoulders and bridges. Eg.*

- *Maintenance, repairs and operating charges for street lighting,*
- *Maintenance, repairs and operating charges for traffic signals,*
- *Cleaning, maintenance and repairs to drains (road crossings),*
- *Servicing of roadside areas,*
- *Roadside and median maintenance, including grass mowing and litter collection,*
- *Pavement sweeping,*
- *Snow clearing,*
- *Maintenance and cleaning of roadside furniture, including signs,*
- *Repainting pavement markings,*
- *Traffic monitoring and recording,*
- *Pavement condition monitoring and recording,*
- *Surveillance and provision of emergency services on major roads and bridges, and*
- *Administrative and supervision costs associated with above types of works.*

*B1 Routine Maintenance* is defined by NTC as:

*All routine costs incurred in maintaining the roadway and shoulders, excluding periodic costs incurred on sealed roads at a frequency of more than one year. Eg.*

- *Pot-hole repairs / minor patching less than 500 square metres,*
- *Crack sealing,*
- *Edge repairs,*
- *Shoulder grading,*
- *Resheeting of unsealed roads and shoulders, and*
- *Administrative and supervision costs associated with above types of works.*

Councils would generally record the majority of this expenditure as recurrent expenditure. Some (heavy) patching may be treated as capital expenditure.

Where no expenditure on the above items is included within the NLRDS expenditure, enter '0' (zero in figures) in the relevant data entry cell.

The NTC cost allocation system category *A Servicing and Operating Expenditure* includes several cost items that may not be included within a council's road maintenance expenditure. These are listed in question 1.1.



ALGA NLRDS				NTC Cost allocation system categories				Urban	Rural
			06/07 Exp				\$	\$	
1.2	Capital Renewal			B2	Periodic Maintenance				
	(inc engineering overheads)								
				D	Road Rehabilitation				

B2. Periodic Maintenance is defined by NTC as:

*Periodic costs associated with maintaining sealed roadways and shoulders incurred at a frequency of more than one year. Eg.*

- Maintenance reseals / enrichments,
- Thin asphalt overlays (less than 25 mm),
- Asphalt retreatment and regulation, and
- Administrative and supervision costs associated with the above types of works.
- Costs associated with the provision of materials and preparation for the above work.

NTC's definition of D. Road Rehabilitation is:

*Costs associated with reinstating failed pavements to existing standards to improve ride quality and/or correct pavement shape, including the provision of a wearing course. These costs will normally improve the riding quality of pavements without improving the design standard. Eg.*

- Major patching in excess of 500 square metres,
- Resheeting of sealed roads,
- Reconstruction of failed pavements,
- Asphalt overlays over 25 mm, and
- Administrative and supervision costs associated with the above types of works.

*Where an improvement in the design standard was made in conjunction with rehabilitating a pavement, eg pavement widening and reconstructing a existing pavement, only the costs associated with rehabilitating the pavement to the existing standard should be included in this category. The cost of the improvement should be included under Category F1.*

#### 4.1.3 Capital Upgrade on Sealed Local (and NSW Regional) Roads

2006/07 expenditure on sealed local roads capital upgrade is to be shown in the light green cell. This is defined by NLRDS as:

*Expenditure on upgrading the standard of an existing asset or infrastructure network to provide a higher level of service to users, e.g. widening the pavement and sealed area of an existing road, sealing an existing gravelled road, replacing drainage pipes with pipes of a greater capacity, replacing an existing bridge with one having a greater carrying capacity, etc. (includes engineering overheads)*

*Where there is an upgrade component in a project, use your best estimate to allocate the proportion costs to renewal and upgrade. For example, for the reconstruction and widening of an existing sealed road from 5 m to 8m, 5/8th is renewal and 3/8th is upgrade.*

If there is a capital upgrade from an unsealed to a sealed standard, the expenditure is to be allocated to the existing unsealed asset category.

Show the actual (or estimated) apportionment of the total sealed local roads capital upgrade expenditure into the NTC cost allocation system categories.

ALGA NLRDS				NTC Cost allocation system categories				Urban	Rural	
								\$	\$	
				06/07 Exp						
1.3	Capital Upgrade			E	Low Cost Safety / Traffic Improvements					
	(inc engineering overheads)									
				F1	Pavement Components					
				F3	Land Acquisition, Earthworks, Other Extension / Improvement Exp.					

E Low Cost Safety / Traffic Improvements are defined by NTC as:

Costs associated with minor improvements primarily undertaken to improve road safety or traffic flow. Eg.

- Installation or relocation of road furniture,
- Provision of new painted road markings,
- Installation of new traffic signals, including provision of new traffic signal linking systems,
- Installation of new traffic signals, including provision of new traffic signal linking systems,
- Installation of new pedestrian crossings,
- Installation of new raised pavement markers,
- Installation of rail crossing boom barriers,
- Installation of new street lighting,
- Junction improvements,
- Blackspot safety improvements, and
- Administrative and supervision costs associated with the above types of works.

Expenditures in this category relate to isolated minor works not part of a wider road improvement project. Where safety or traffic improvement expenditure is made as part of a wider road improvement project, it should be shown under category F3.

F Pavement Components are defined as:

Pavement costs associated with improving the design standard of an existing roadway or the provision of new roadways. Eg.

- The pavement components of
  - Pavement widening,
  - Road realignments,
  - New auxiliary lanes,
  - Road duplications,
  - Sealing of unsealed roads,
  - New routes, and
  - Administrative and supervision costs associated with the above types of works.

*F3 Land Acquisitions, Earthworks, Other Extension / Improvement Expenditure* comprises:

*Land acquisition costs associated with road improvements, including:*

- *Land acquisition costs associated with future road improvement projects,*
- *Maintenance costs of acquired land for future road improvements projects, and*
- *Administrative and supervision costs associated with acquiring land for road projects, less*
- *Revenue from the rental of acquired properties or the sale of surplus land acquired for road projects.*

*Earthworks costs associated with road improvements, including plant costs for earthworks:*

- *Plant hire,*
- *Plant depreciation,*
- *Maintenance and repairs to plant, and*
- *Administrative and supervision costs associated with earthworks.*

*Expenditure associated with road project improvements but excluding expenditure associated with road pavements, bridges, land acquisition and earthworks. Eg.*

- *Project planning and design costs including public consultation costs,*
- *Survey costs,*
- *Project site establishment costs, including clearance of the site and establishment of project site offices and depots,*
- *Provision of drainage facilities,*
- *Installation of street lighting,*
- *Installation of traffic signals,*
- *Provision of road furniture,*
- *Provision of rest areas,*
- *Provision of pedestrian facilities,*
- *Noise attenuation,*
- *Landscaping, and*
- *Administrative and supervision costs associated with road improvement projects.*

*Other road related costs not directly affecting road pavements or bridges and not part of wider road improvement projects. Eg.*

- *Expenditure associated with:*
  - *Noise attenuation,*
  - *Roadside vegetation and/or landscaping,*
  - *Installation of emergency telephones,*
  - *Provision of drainage control structures,*
  - *Concrete of footbridges, and*
  - *Administrative and supervision costs associated with works in this category.*

## 4.2 Unsealed Local Roads

### 4.2.1 Expenditure on Existing Unsealed Local (and NSW Regional) Road Assets

2006/07 expenditure on existing unsealed local (and NSW regional) roads is to be shown in the light green cell. This is defined by NLRDS as:

*Expenditure on EXISTING assets (excluding depreciation) includes maintenance and renewal (resheeting) of unsealed roads. (includes engineering overheads)*

*If there is a capital upgrade from an unsealed to a sealed standard, the expenditure is to be allocated to the existing unsealed asset category.*

Show the actual (or estimated) apportionment of the total unsealed existing local roads expenditure into the NTC cost allocation system categories.

ALGA NLRDS			NTC Cost allocation system categories					Urban	Rural
2 Unsealed Local Roads							\$	\$	
		06/07 Exp							
2.1	Expenditure on Existing Assets		A	Servicing & Operating Expenditure					
	(excl depreciation)								
	(inc engineering overheads)		B1	Routine Maintenance					
			F1	Pavement Components					

*A Servicing & Operating Expenditure and B1 Routine Maintenance are defined in Section 4.1.1 above.*

The NTC cost allocation system category, *B1 Routine Maintenance* includes routine maintenance and resheeting of unsealed roads. Category *F1 Pavement Components* includes sealing of unsealed roads.

### 4.2.2 Expenditure on New Unsealed Local (and NSW Regional) Road Assets

2006/07 expenditure on new unsealed local (and NSW regional) roads (maintenance & renewal) is to be shown in the light green cell. This is defined by NLRDS as:

*Expenditure on extending an infrastructure network to a new group of users, e.g. extending a drainage or road network, etc at the same standard as currently enjoyed by residents. This expenditure is generally limited to new links in the network. Do not include the value of donated/contributed assets. (includes engineering overheads).*

Show the actual (or estimated) apportionment of the total unsealed new local roads expenditure into the NTC cost allocation system categories.

ALGA NLRDS			NTC Cost allocation system categories					Urban	Rural
		06/07 Exp					\$	\$	
2.2	Expenditure on New Assets		F1	Pavement Components					
	(inc engineering overheads)								
			F3	Land Acquisition, Earthworks, Other Extension / Improvement Exp.					

F1 Pavement Components and F3 Land Acquisitions, Earthworks, Other Extension / Improvement Expenditure are defined in Section 4.1.3 above.

#### 4.3 Bridges & Major Culverts

##### 4.3.1 Expenditure on Existing Bridges & Major Culverts Assets

2006/07 expenditure on existing bridges & major culverts (maintenance & renewal) is to be shown in the light green cell. Expenditure on existing assets is defined by NLRDS as:

*Expenditure on EXISTING assets (excluding depreciation) includes maintenance and renewal (replacement) of bridges. (includes engineering overheads).*

Where an existing bridge is renewed or replaced to a higher standard, ie timber replaced with concrete, single lane replaced with double lane, the expenditure is to be allocated to the existing bridge asset category.

Show the actual (or estimated) apportionment of the total expenditure on existing bridges & major culverts into the NTC cost allocation system categories.

##### 4.3.2 Expenditure on New Bridge & Major Culvert Assets

2006/07 expenditure on new bridges & major culverts is to be shown in the light green cell. This is defined by NLRDS as:

*Expenditure on extending an infrastructure network to a new group of users, e.g. extending a drainage or road network, etc at the same standard as currently enjoyed by residents. This expenditure is generally limited to new links in the network. Do not include the value of donated/contributed assets. (includes engineering overheads)*

Show the actual (or estimated) apportionment of the total expenditure on existing and new bridges & major culverts into the NTC cost allocation system categories.

Bridge renewal and upgrade expenditures shown in NLRDS expenditure on existing assets is to be allocated to NTC cost category F2 Bridge Extension / Improvement.

ALGA NLRDS				NTC Cost allocation system categories				Urban	Rural
<b>3</b>	<b>Bridges &amp; Major Culverts on LOCAL Roads</b>								
			06/07 Exp				\$	\$	
3.1	Expenditure on existing assets			C	Bridge Maintenance & Rehabilitation				
	(excl depreciation)								
	(inc engineering overheads)								
3.2	Expenditure on NEW assets			F2	Bridge Extension / Improvement				
	(capital expansion)								
	(inc engineering overheads)								

C Bridge Rehabilitation & Rehabilitation is defined by NTC as:

*All costs associated with the maintenance and rehabilitation of bridges and culverts. Eg.*

- *Bridges maintenance, including painting,*
- *Bridge repairs, including replacement of bridge railings and decking, and*
- *Administrative and supervision costs associated with the above types of work.*

F2 Bridge Extensions / Improvements are defined as:

*Provision costs for new bridges and culverts and/or costs for improving existing bridges and culverts to a higher design standard. Eg.*

- *Construction of new and replacement bridges,*
- *Bridge duplications,*
- *Bridge widenings, and*
- *Administrative and supervision costs associated with the providing new or improved bridges.*

*Include any costs associated with the provision, fabrication, placement and erection of materials*

#### 4.4 Roads Ancillary

##### 4.4.1 Expenditure on Existing Roads Ancillary Assets

Roads Ancillary is defined by NLRDS as:

*Ancillary items include all items other than the roadway, bridges and culverts that are within the road reserve and part of the road asset. They include but are not limited to roadside furniture and signs, kerb and guttering, footpaths, traffic signals, chicanes for traffic calming, cattle grids, etc. Expenditure on roadside lighting could also be included as an expenditure against ancillary items.*

2006/07 expenditure on existing roads ancillary assets (maintenance & renewal) is to be shown in the light green cell. Expenditure on existing assets is defined by NLRDS as:

*Expenditure on EXISTING assets (excluding depreciation). (includes engineering overheads)*

Show the actual (or estimated) apportionment of the total expenditure on existing road ancillary assets into the NTC cost allocation system categories.

ALGA NLRDS		NTC Cost allocation system categories							
4	Roads Ancillary							Urban	Rural
		06/07 Exp						\$	\$
4.1	Expenditure on existing assets		A	Servicing & Operating Expenditure					
	(excl depreciation)								
	(inc engineering overheads)								

A *Servicing & Operating Expenditure* is defined in Section 4.1.1 above.

The NTC cost allocation system categories *A Servicing and Operating Expenditure* and *E Low Cost Safety / Traffic Improvements* includes several cost items that may not be included within a council's roads ancillary expenditure. These are listed in question 4.1.

Where the roads ancillary expenditure recorded above **includes** any of the NTC's Servicing & Operating and Low Cost Safety / Traffic Improvements expenditures, **show the expenditure** for 2006/07 under the relevant Urban or Sealed cell.

Where any of the NTC's Servicing & Operating and Low Cost Safety / Traffic Improvements expenditures are **not included** within the roads ancillary expenditure recorded above, leave the cells blank and move down to Q 4.2.

Servicing & operating expenditure <b>INCLUDED</b>				A	Servicing & Operating Expenditure	Urban Roads		Rural Roads
in Roads Ancillary expenditure above.						\$		\$
					Street Lighting			
					Traffic Signals			
					Road related drainage			
					Roadside and median maintenance			
					Pavement (street) sweeping			
					Roadside Furniture including signs			
					Traffic monitoring & recording			
					Pavement condition measurement			
Low Cost Safety/traffic Improvements exp. <b>INCLUDED</b>				E	Low Cost Safety / traffic Improvements	Urban Roads		Rural Roads
in Roads Ancillary expenditure above.						\$		\$
					Installation or relocation of road furniture			
					New painted road markings			
					New traffic signals			
					New pedestrian crossings			
					New raised pavement markers			
					New rail crossing boom barriers			
					New street lighting			
					Junction improvements			
					Blackspot safety improvements			

#### 4.4.2 Expenditure on New Road Ancillary Assets

2006/07 expenditure on new road ancillary assets is to be shown in the light green cell. This is defined by NLRDS as:

*Expenditure on extending an infrastructure network to a new group of users, e.g. extending a drainage or road network, etc at the same standard as currently enjoyed by residents. This expenditure is generally limited to new links in the network. (includes engineering overheads) Do not include the value of donated/contributed assets. (includes engineering overheads)*

Show the actual (or estimated) apportionment of the total expenditure on new roads ancillary assets into the NTC cost allocation system categories.

ALGA NLRDS		NTC Cost allocation system categories						Urban	Rural
		06/07 Exp					\$	\$	
4.2	Expenditure on NEW assets (capital expansion) (inc engineering overheads)		E	Low Cost Safety / Traffic Improvements					
			F3	Land Acquisition, Earthworks, Other					

*E Low Cost Safety / Traffic Improvements* is defined in Section 4.1.1 above.

*F3 Land Acquisition, Earthworks, Other* is defined in Section 4.1.1 above. Where new kerb and gutter/channel and footpath construction is included within Roads Ancillary Capital expenditure, show this under F3. 'Other' includes concreting of footpaths and road related drainage facilities.

#### 5. ROAD RELATED EXPENDITURE NOT INCLUDED IN NLRDS

There may be road related expenditure of Councils that is not recorded as road maintenance and construction expenditure and not included in ALGA NLRDS expenditure data. Enter the data against the relevant expenditure category in Section 5.

5	Road Related Expenditure	A	Servicing & Operating Expenditure	Urban Roads	Rural Roads
NOT INCLUDED in NLRDS expenditure data				\$	\$
	Sealed Roads		Street lighting O&M (inc power costs)		
	- maintenance, capital renewal & upgrade exp.				
	Unsealed Roads		Traffic signals O&M (inc power costs)		
	- exp on existing & new assets				
	Bridges & Major Culverts		Road related drainage		
	- exp on existing & new assets				
	Roads Ancillary		Roadside and median maintenance		
	- exp on existing & new assets				
			Pavement (street) sweeping		
			Roadside Furniture including signs		
			Traffic monitoring & recording		
			Pavement condition measurement		



	Road Related Expenditure			G	Corporate Services						
	<b>NOT INCLUDED</b> in NLRDS expenditure data										\$
	Sealed Roads				Corporate public / community services						
	- maintenance, capital renewal & upgrade exp.										
	Unsealed Roads				Corporate support / direction / services						
	- exp on existing & new assets										
	Bridges & Major Culverts				Corporate information & computer services						
	- exp on existing & new assets										
	Roads Ancillary				Corporate human resources management						
	- exp on existing & new assets										
					Corporate financial services						
					Provision and maintenance of corporate buildings						
					Strategic road planning at State/regional level						
					Accident / Safety research						
					Corporate administrative service not associated with specific work activities						

G1 Corporate Services is defined by NTC as:

*Non-road related costs associated with the provision of corporate services. Eg*

- *Corporate public/ community services programs,*
- *Corporate support / corporate direction / corporate services programs,*
- *Corporate information and computer services,*
- *Corporate human resource management,*
- *Corporate financial management,*
- *Cost of provision and maintenance of corporate buildings,*
- *Strategic road planning at a State or regional level,*
- *Accident / safety research, and*
- *Corporate administrative and overhead costs not associated with specific work activities (A to F).*

Enter the estimated proportion of Council's corporate services costs for road related services in the appropriate data entry cell for *G Corporate Services*. If you can only estimate corporate services costs for road related services in total, show this figure as *Corporate administrative services not associated with specific work activities* (the last item).

## 6. REVENUE FROM STATES/TERRITORIES

The NTC cost allocation system recognised grants and contract payments paid by State Road Authorities to councils under State expenditures.

Enter the amounts received from State/Territory governments under question 6.

**6 Revenue from States/Territories**

H1 Financial Assistance to Councils for Work on Council Managed Arterials

Total value of grants and assistance received from State governments to fund work on any council managed roads classified as arterial roads.

\$

H2 Payments to Councils for Contract Work on State Managed Roads

Total value of payments by State/Territory government to councils for contract work carried out on State managed roads of all classifications (inc State managed local access roads, State managed arterial roads or Auslink roads).

\$

**7. DONATED ROAD ASSETS**

The NTC's cost allocation system considers the value of assets constructed by the private sector (generally for developments) and donated to councils.

Enter the length and value of donated road assets received during 2006/07.

**7 Donated Road Assets**

<p>Donated road assets are those roads constructed as part of development works.</p>	<p>Length of donated road assets</p> <p>Length of donated sealed roads</p> <p>Length of donated unsealed roads</p> <p>Value of donated road assets</p> <p>Value of donated sealed roads</p> <p>Value of donated unsealed roads</p>	<p>Urban km</p> <input type="text"/> <input type="text"/>  <p>\$</p> <input type="text"/> <input type="text"/>	<p>Rural km</p> <input type="text"/> <input type="text"/>  <p>\$</p> <input type="text"/> <input type="text"/>
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## 8. LOCAL ROAD USAGE MODEL

Form 2 – Road collects data to calculate the activity life cycle cost associated with the various uses of the local road system: residential, business/commercial and high mass vehicles.

Form 2 requests data for the following:

- Names of hierarchy categories of sealed and unsealed roads.
- Cost and performance data for each hierarchy for:
  - Road length
  - Maintenance expenditure 2006/07
  - Reseal/resurfacing expenditure 2006/07
  - Reseal/resurfacing unit cost (\$/km)
  - Reseal/resurfacing useful (service) life (yrs)
  - Sealed pavement renewal (reconstruction/ rehabilitation) expenditure 2005/06
  - Sealed pavement unit cost (\$/km)
  - Sealed pavement useful (service) life (yrs)
  - Unsealed pavement resheets expenditure 2006/07
  - Unsealed pavement resheet unit costs (\$/km)
  - Unsealed pavement resheets useful (service) life (yrs)
- Estimated percentage of traffic volume for each hierarchy related to:
  - Residential use,
  - Business / commercial use
  - Use by high mass vehicles

The following sections take you through the survey form showing sample data.

The survey form incorporated HELP NOTES. There are in cells with a red triangle in the upper right corner. Move the mouse onto these cells and the Help Notes will appear.

2.3 Resurfacing/Reseals		2006/07 Exp.		Avg Useful life
2.3.1 Regional Roads			km	yrs
2.3.2 Local Roads				
Main		\$310,000	km	15 yrs
Feeder			km	15 yrs
Local			\$20,000 \$/km	15 yrs
Minor			\$20,000 \$/km	15 yrs

**HELP NOTES:**  
Enter your council's resealing/resurfacing expenditure for 2006/07 for each hierarchy category.

### 8.1 Road Hierarchy

Enter the names of your road hierarchy in the yellow cells. Part of the survey form showing sample data is shown below

Road Hierarchies		Insert data into yellow cells			
Use this section to record you local road hierarchy					
			Sealed	Unsealed	
Hierarchy Category	1	Main	Main	Formed & sheeted	
Hierarchy Category	2	Feeder	Feeder	Formed & sheeted	
Hierarchy Category	3	Local	Local	Formed & sheeted	
Hierarchy Category	4	Minor	Minor	Formed & sheeted	
Hierarchy Category	5			Formed	
Hierarchy Category	6				

You may either enter data for each hierarchy category or in the first hierarchy category for your sealed and unsealed road network.

## 8.2 Road Lengths

Enter the length of each hierarchy category shown above. Note that the hierarchy category names are reproduced to indicate where the data is to be entered.

The survey form provided for NSW Councils to enter separate data for Regional Roads.

2.1 Road length		at 1 July 2007	(excluding unformed roads)		Unsealed
			km		km
2.1.1 Regional Roads					
2.1.2 Local Roads					
Main			100	Main	75
Feeder			50	Feeder	150
Local			120	Local	179
Minor			21	Minor	80
Total Local Roads			291		484

## 8.3 Road Maintenance Expenditure

This sections collected road maintenance expenditure for each hierarchy category. Expenditure may be entered in two methods.

a) If you have expenditure data for each hierarchy category, enter the expenditure into the light yellow cell adjacent to each hierarchy category as shown in the example below.

2.2 Road Maintenance Expenditure (2006/07)		Sealed	Unsealed
2.2.1 Regional Roads			
2.2.2 Local Roads		Total	Total
Main		\$109,966	Main \$105,372
Feeder		\$54,983	Feeder \$210,744
Local		\$131,959	Local \$251,488
Minor		\$23,093	Minor \$112,397
		\$0	\$0
		\$0	
Total Local Roads		\$320,000	\$680,000

b) If you do not have maintenance expenditure for hierarchy categories, enter the total expenditure for sealed roads and for unsealed roads in the bright yellow cells. The form will apportion the maintenance expenditures to hierarchy categories in proportion to hierarchy category length.

2.2 Road Maintenance Expenditure (2006/07)								
				Sealed				Unsealed
2.2.1 Regional Roads								
2.2.2 Local Roads				Total	\$320,000		Total	\$680,000
	Main			\$109,966		Main		\$105,372
	Feeder			\$54,983		Feeder		\$210,744
	Local			\$131,959		Local		\$251,488
	Minor			\$23,093		Minor		\$112,397
				\$0				\$0
				\$0				
Total Local Roads					\$320,000			\$680,000

#### 8.4 Sealed Road Resurfacing

Enter the 2006/07 resurfacing (resealing) expenditures for each hierarchy category if available, or in total against the first hierarchy category.

Enter the average cost of resurfacing for each hierarchy category. This may be determined by:

- Multiplying the average cost per square metre by the average sealed road width and by 1000 (eg \$5.00 x 6 m x 1,000 = \$30,000/km). or
- Dividing the total expenditure on resurfacing in 2006/07 by the total length resurfaced (not the total length of the hierarchy category).

Enter the estimated useful life of resurfacing for each hierarchy category.

2.3 Resurfacing/Reseals									
				2006/07 Exp.			Avg Cost	Avg Useful life	
2.3.1 Regional Roads							\$/km		yrs
2.3.2 Local Roads									
	Main			\$310,000		\$20,000	\$/km	15	yrs
	Feeder					\$20,000	\$/km	15	yrs
	Local					\$20,000	\$/km	15	yrs
	Minor					\$20,000	\$/km	15	yrs
							\$/km		yrs
							\$/km		yrs
Total Local Roads					\$310,000				

#### 8.5 Sealed Pavement Renewal

Enter the 2006/07 sealed pavement renewal (reconstruction, rehabilitation) expenditures for each hierarchy category if available, or in total against the first hierarchy category.

Enter the average cost of sealed pavement renewal for each hierarchy category. This may be determined by:

- Multiplying the average cost per square metre by the average sealed road width and by 1000 (eg \$25.00 x 10 m x 1,000 = \$250,000/km). or
- Dividing the total expenditure on sealed pavement renewal in 2006/07 by the total length renewed (not the total length of the hierarchy category).

Enter the estimated useful life of sealed pavements for each hierarchy category.

2.4 Sealed pavement renewals							
		2006/07 Exp.		Avg Cost		Avg Useful life	
2.4.1 Regional Roads					\$/km		yrs
2.4.2 Local Roads							
Main		\$750,000		\$240,000	\$/km	35	yrs
Feeder				\$240,000	\$/km	35	yrs
Local				\$240,000	\$/km	35	yrs
Minor				\$240,000	\$/km	35	yrs
					\$/km		yrs
					\$/km		yrs
Total Local Roads		\$750,000					

## 8.6 Unsealed Resheets

Enter the 2006/07 unsealed road resheeting expenditures for each hierarchy category if available, or in total against the first hierarchy category.

Enter the average cost of unsealed road resheeting for each hierarchy category.

Enter the estimated useful life of unsealed road resheets for each hierarchy category.

2.5 Unsealed road resheets							
		2006/07 Exp.		Avg Cost		Avg Useful life	
2.5.1 Regional Roads					\$/km		
2.5.2 Local Roads							
Main		\$1,200,000		\$24,660	\$/km	7	
Feeder				\$24,660	\$/km	10	
Local				\$21,300	\$/km	12	
Minor				\$17,900	\$/km	15	
					\$/km		
Total Local Roads		\$1,200,000					

## 8.7 Local Road Usage

Enter the estimate percentage use of the local road system by transport use categories; residential, business/commercial and high mass vehicles. Estimate the percentage use by traffic volumes.

2.6 Local Road Usage							
		Percentage of traffic use by Transport Use Categories					
		Residential		Business/ Commerce		Higher Mass Vehicles	
2.6.1 Sealed Regional Roads							
2.6.2 Sealed Local Roads							
	Main	30%		30%		40%	
	Feeder	50%		30%		20%	
	Local	80%		20%		0%	
	Minor	90%		10%		0%	
2.6.3 Unsealed Regional Roads							
2.6.4 Unsealed Local Roads							
	Main	60%		40%		0%	
	Feeder	80%		20%		0%	
	Local	95%		5%		0%	
	Minor	100%		0%		0%	

## 9. FORM 3 – ROAD MODEL

Form 3 calculates the Activity Life Cycle Costs for your local road network. The activity life cycle cost is the annual cost of operating a service on average over its life cycle, which can be up to 100 years.

It does mean that the activity life cycle costs needs to be spent in each and every year. This depends on many factors including the average age of the assets.

The Activity Life Cycle Cost for sample data used in these guidelines is shown below.

LOCAL ROADS			Activity Life Cycle Cost	2006/07 Expenditure
<b>Sealed Roads</b>	length	\$ / km/ yr	Total	
Routine Maintenance	291	\$1,100	\$320,000	\$320,000 (assumed adequate)
Reseals	291	\$1,333	\$388,000	\$310,000
Renewal	291	\$6,857	\$1,995,429	\$750,000
Subtotal	291	\$9,290	\$2,703,429	\$1,380,000
<b>Unsealed Roads</b>				
Routine Maintenance	484	\$1,405	\$680,000	\$680,000 (assumed adequate)
Resheeting	484	\$2,164	\$1,047,306	\$1,200,000
Subtotal	484	\$3,569	\$1,727,306	\$1,880,000
				<b>Funding Gap</b>
<b>Total Local Roads</b>	<b>775</b>	<b>\$5,717</b>	<b>\$4,430,735</b>	<b>\$3,260,000</b>
				<b>\$1,170,735</b>
<b>Grand Total (LCC)</b>	<b>775</b>	<b>\$5,717</b>	<b>\$4,430,735</b>	<b>\$3,260,000</b>
				<b>\$1,170,735</b>

The model also calculates the activity life cycle cost than is estimated to be attributable to the various use of the local road system.

Activity Life Cycle Cost Apportioned to Usage	Usage	Activity Life Cycle Cost (\$/yr)	
	Residential	\$3,013,276	68%
	Business/Commercial	\$952,952	22%
	High Mass vehicles	\$464,507	10%
	Total	\$4,430,735	

## 10. SUMMARY

Thank you for your cooperation in completing this supplementary survey.

Please return the completed survey form to [survey@jr.net.au](mailto:survey@jr.net.au) preferably within 4 weeks of your regional workshop or by Friday 9 May 2008 at the latest. Early return of the survey will assist in analysing the data.

Your cooperation in completing and returning the supplementary survey as soon as possible after the regional workshop is greatly appreciated.

Help Desk support is provided by Jeff Roorda & Associates ([www.jr.net.au](http://www.jr.net.au))

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