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APPENDIX A. LEGISLATIVE AND OTHER REQUIREMENTS AND RELATIONSHIPS WITH OTHER PLANNING DOCUMENTS AND ORGANISATIONS

A.1 Introduction

The purpose of this plan is to outline and to summarise in one place, the Council's strategic and management long-term approach for the provision and maintenance of its transportation network.

The AMP demonstrates responsible management of the District's assets on behalf of customers and stakeholders and assists with the achievement of strategic goals and statutory compliance. The AMP combines management, financial, engineering and technical practices to ensure that the levels of service required by customers is provided at the lowest long term cost to the community and is delivered in a sustainable manner.

The provision of a transportation network and services is considered to be a core function of local government and is something that the Council has always provided. The service provides many public benefits and it is considered necessary and beneficial to the community that the Council undertakes the planning, implementation and maintenance of the network to assist in promoting the economic, social, environment and cultural well-being of the District's communities, by helping to facilitate the safe and efficient movement of people and goods throughout the District.

The front section of this AMP document is produced with the aim of the target audience being Council staff and Councillors. The appendices provide more in depth information for the management of the activity and are therefore targeted at the Activity Managers. The entire document is available within the public domain.

In preparing this AMP the project team has taken account of:

- **National Drivers** – for example the drivers for improving Asset Management through the Local Government Act 2002
- **Local Drivers** – community desire for increased level of service balanced against the affordability
- **Linkages** – the need to ensure this AMP is consistent with all other relevant plans and policies
- **Constraints** – the legal constraints and obligations Council has to comply with in undertaking this activity.

The main Drivers, Linkages and Constraints are described in the following sections.

A.2 Key Legislation and Industry Standards, and Statutory Planning Documents

The Acts below are listed by their original title for simplicity however all Amendment Acts shall be considered in conjunction with the original Act, these have not been detailed in this document. For the latest Act information refer to <http://www.legislation.govt.nz/>

Acts

- The Local Government Act 2002 – especially Schedule 10 and the requirement to consider all options and to assess the benefits and costs of each option, and the consultation requirements
- The Local Government Act 1974 (retained sections)
- The Land Transport Management Act 2003
- The Land Transport Act 1998
- The Transit New Zealand Act 1989
- The Public Works Act 1981
- The Telecommunications Act 1987
- The Electricity Act 1992
- The Railways Act 2005
- The Biosecurity Act 1993
- The Summary Offences Act 1981

- The Bylaws Act 1910
- The Civil Defence Emergency Management Act 2002 (Lifelines)
- The Resource Management Act 1991
- The Local Government Act (Rating) 2002
- The Health and Safety in Employment Act 1992
- The Building Act 2004
- The Transport Act 1962
- The Utilities Access Act 2010
- The Land Drainage Act 1908
- The Construction Contracts Act 2002
- The Climate Change Response Act 2002.

National Policies, Regulations and Strategies

- The New Zealand Coastal Policy Statement 1994 <http://www.rma.co.nz>
- The National Energy Efficiency and Conservation Strategy <http://www.eeca.govt.nz>
- The Heavy Motor Vehicle Regulations 1974 <http://www.legislation.govt.nz/>
- The Building Regulations <http://www.legislation.govt.nz/>
- NZ Transport Agency Specifications, Rules, Policies, Manuals and Guidelines <http://www.nzta.govt.nz>
- Austroads Guidelines and Manuals <http://www.austroads.com.au/>
- Government Policy Statement 2011 <http://www.transport.govt.nz>
- Safer Journeys <http://www.saferjourneys.govt.nz>
- The New Zealand Transport Strategy <http://www.transport.govt.nz>
- Ministry of Transport Statement of Intent <http://www.transport.govt.nz>
- The Government's Sustainable Development Programme of Action <http://www.beehive.govt.nz>
- NAMS Manuals and Guidelines <http://www.nams.org.nz>
- Office of the Auditor General's publications <http://www.oag.govt.nz>

Standards New Zealand (for all refer to <http://www.standards.co.nz>)

- AS/NZS ISO 31000:2009 Risk Management Principals and Guidelines
- NZS 4404:2010 Land Development and Subdivision Infrastructure
- AS/NZS ISO 9001:2008 Quality Management Systems
- AS/NZS 4801:2001 Occupational Health and Safety Management Systems
- SNZ HB 2002:2003 Code of Practice for Working in the Road
- AS/NZS 1158 Lighting for Roads and Public Places Set
- AS/NZS 4676:2000 Structural Design Requirements for Utility Services Poles.

Local Policies, Regulations, Standards and Strategies

- Council's District Plan – Tasman Resource Management Plan (TRMP) <http://www.tasman.govt.nz>
- Tasman Regional Policy Statement (TRPS) <http://www.tasman.govt.nz>
- Tasman District Council Engineering Standards and Policies 2008 <http://www.tasman.govt.nz>
- The Regional Land Transport Strategy – Connecting Tasman 2010 <http://www.tasman.govt.nz>
- Council's Procurement Strategy
- Council's Maintenance Intervention Strategy
- Council's Delineation Policy
- Safety Management Systems
- any existing policies of the Council (outside those contained in this AMP) regarding this activity.

A.3 Links with Other Documents

This AMP is a key component in the Council's strategic planning function. Among other things, this plan supports and justifies the financial forecasts and the objectives laid out in the Long Term Plan (LTP). It also provides a guide for the preparation of each Annual Plan and other forward work programmes.

Figure A-1 depicts the links between Council's activity management plans to other corporate plans and documents.

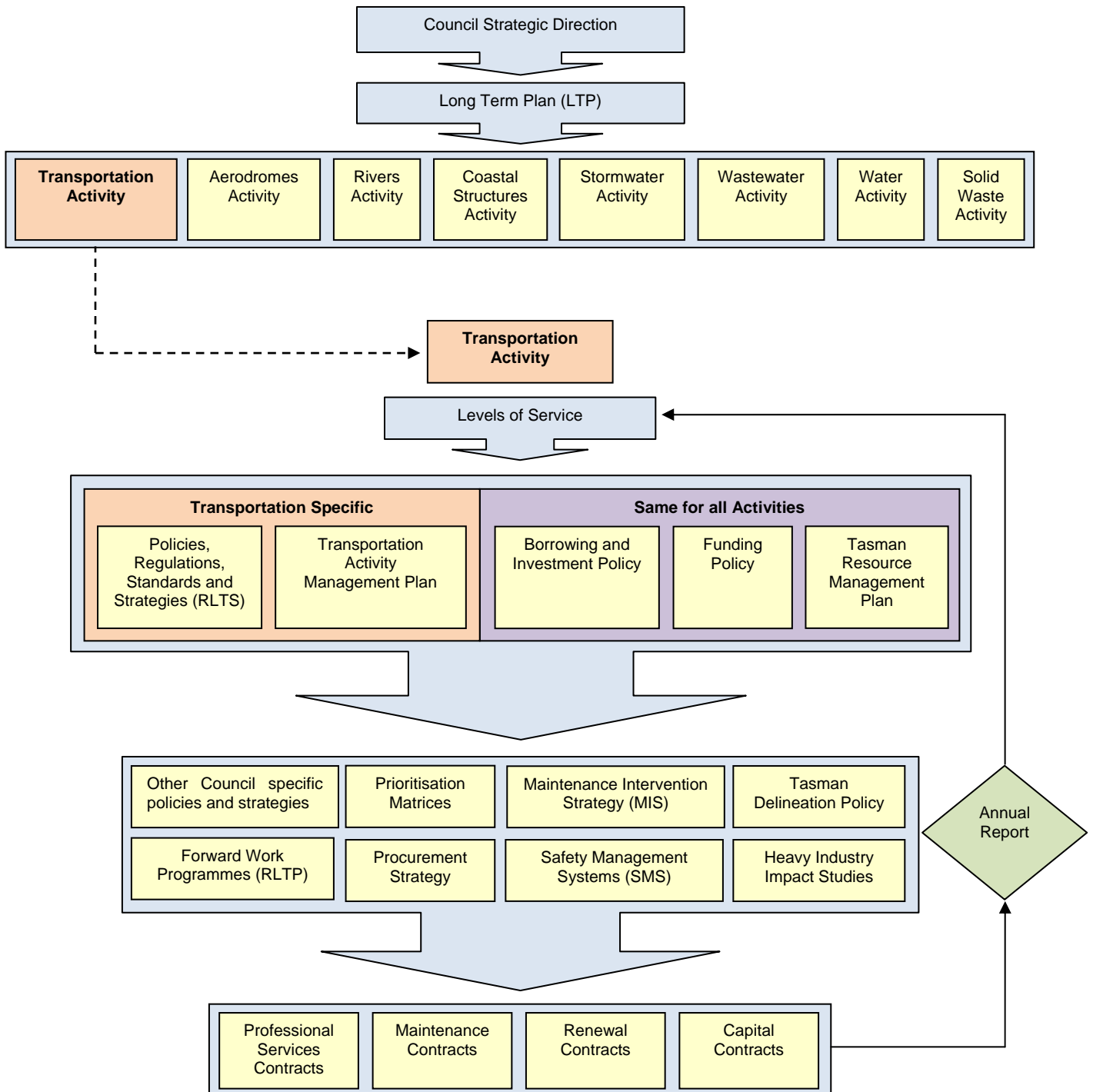


Figure A-1: Hierarchy of Council Policy, Strategy and Planning

A.4 Strategic Direction

Council's Strategic Direction is outlined in the Vision, Mission and Objectives of the Council.

Vision: An interactive community living safely in the garden that is Tasman district.

Mission: To enhance community wellbeing and quality of life.

Objectives: *Objective 1:*

- To implement policies and financial management strategies that advance the Tasman district.

Objective 2:

- To ensure sustainable management of natural and physical resources, and security of environmental standards.

Objective 3:

- To sustainability manage infrastructural assets relating to Tasman district.

Objective 4:

- To enhance community development and the social, natural, cultural and recreational assets relating to Tasman district.

Objective 5:

- To promote sustainable economic development in the Tasman district.

The following table outlines the strategic documents utilised by the Council as part of the planning process.

Table A-1: Strategic Documents Utilised During the Planning Process

Long Term Plan (LTP)	The primary instrument for the Council to report on its intentions on delivering its services to the community. This is the broad strategic direction of Council set in the context of current and future customer requirements. The AMP is the tactical plan with a view to achieving the strategic targets.
Annual Plan	The service level options and associated costs developed in the AMP will be fed into the Annual Plan consultation process. The content of the Annual Plan will feed directly from the short term forecasts in the LTP.
Activity Management Plan (AMP)	The Activity Management Plans provide the framework to recognise and deliver future Levels of service, Operation of Spend and Capital Programmes in a way which is consistent, transparent and integrated with Council's day to day business.
Financial and Business Plans	The financial and business plans requirement by the Local Government Amendment Act (3). The expenditure projections will be taken directly from the financial forecasts in the AMP.
Contracts	The service levels, strategies and information requirements contained in the AMP are the basis for performance standards in the current Maintenance and Professional Service Contracts.
Operational Plans	Operating and maintenance guidelines to ensure that the network operates reliably and is maintained in a condition that will maximise useful service life of assets within the network.
Corporate Information	Quality asset management is dependent on suitable information and data and the availability of sophisticated asset management systems which are fully integrated with the wider corporate information systems (eg. financial, property, GIS, customer service, etc). Council's goal is to work towards such a fully integrated system.

A.4.1. Goal

Council will progressively move towards managing all of its transportation responsibilities in a more sustainable and integrated way.

A.5 Transportation Specific Strategic Direction

A.5.1. Regional Land Transport Strategy – Connecting Tasman – Executive Summary

Vision

The vision of this Regional Land Transport Strategy (RLTS) is:

'To have a land transport system that will support a sustainable and prosperous economy, that is accessible by and serves the whole community, contributing to the better health, safety and wellbeing of those living within and visiting the Tasman region.'

There are a number of issues, that are current now and that will arise in the future, that will impact on the opportunity to realise this vision. This document identifies these issues and provides direction on the outcomes that the Tasman region desires over the next 30 years.

Issues, Opportunities and Targets

The main issues in the Tasman district include:

- rising demand for personal mobility and freight movement is placing the transportation network under increasing strain
- the high number of single occupancy cars having an effect both on the efficiency and sustainability of the transport network
- the unacceptably high number of crashes occurring on the road network
- the lack of alternative transport modes which results in people without access to a private motor vehicle being limited in their ability to participate in social and economic activities in the district.

However, there are also a number of opportunities that the Regional Land Transport Strategy seeks to encourage, including:

- improving public health by changing the way people travel, especially further encouragement of active modes such as walking or cycling
- reducing the need for travel by planning and controlling future land use activities, such as not allowing residential development away from urban areas or community facilities.

A number of targets have been developed to help track how well the Tasman region is progressing towards its vision. These relate directly to the full list of issues identified in the main body of the document. A monitoring regime is proposed to assess the effectiveness of the strategy and the projects and measures implemented. While this strategy seeks to implement as many projects and measures as possible to achieve the targets and the vision, it is recognised that there is limited funding available and therefore not all activities can be implemented.

APPENDIX B. OVERVIEW OF THE ASSETS

B.1 Introduction

This appendix gives an overview of surfacing, pavements, footpaths, walkways, cycleways, bridges, street lights, carparks, service lanes, traffic signs, delineation, road markings, drainage structures, retaining walls, and street furniture throughout the district.

B.1.1. Road Hierarchy

The following list is a summary of each road hierarchy its descriptions from the Tasman Resource Management Plan.

Arterial Roads – primarily roads which form the main traffic routes through and between the urban areas of the district, and provide connections to adjacent districts. Arterial roads include state highways.

Distributor Roads – the secondary network of roads which carries traffic to and from arterial roads.

Collectors – have a more local function and ensure that the traffic movement and property access functions are in balance. The role of these roads is to connect traffic-generating activities with the Arterial and Distributor road network.

Access Roads – generally streets in urban or rural residential areas with connections at each end, but with mostly a property access function. The pedestrian and residential amenity functions of these roads predominate in residential areas and they are not intended to provide access for high traffic-generating non-residential activities.

Access Places – are wholly for property access and offer no through-traffic function.

B.1.2. Special Purpose Roads

Pupu Springs Road and Totaranui Road are classified as access roads under the Council's hierarchy and are also classified as Special Purpose Roads (SPR) by the NZ Transport Agency. This means they are subject to 100% subsidy.

To qualify for consideration for declaration as a special purpose road in terms of Section 104 of the Transit New Zealand Act 1989, a road should:

- cater for a high proportion of tourist traffic
- be of a standard below that currently deemed as being adequate for consideration of state highway status
- pass through an area where the rating potential of the surrounding land is significantly lower than the maintenance costs of the road.

Pupu Springs Road is 1.203km long and Totaranui Road is 10.491km long.

B.2 Surfacing

B.2.1. Asset Overview

There is currently a total of 1,700 km length of road network, of which 947.3 km is sealed surface (Table B-1). Refer to Table B-2 for chip seal and asphaltic concrete lengths on the various roading hierarchies. Approximately 98% of the sealed network is surfaced in chip seal with the remaining surfacing being asphaltic concrete and slurry seal in urban environments.

Table B-1: Network Summary

Hierarchy	Total (km)
Arterial	88.21
Collector	415.64
Distributor	137.76
Access Road	693.08
Access Place	365.9
Total	1700.59

Table B-2: Sealed Network Summary

Hierarchy	Rural		Urban			Total Length % / km
	Chipseal	AC	Chipseal	AC	Other	
Arterial	8.55%	0.02%	0.78%	0.00%	0.00%	9.35%
	80.66 km	0.18 km	7.34 km	0.04 km	-	88.21 km
Collector	31.45%	0.04%	4.35%	0.37%	0.00%	36.20%
	296.82 km	0.34 km	41.02 km	3.47 km	-	341.64 km
Distributor	11.74%	0.01%	2.51%	0.34%	0.00%	14.60%
	110.76 km	0.05 km	23.70 km	3.25 km	-	137.76 km
Access Road	24.35%	0.04%	6.33%	0.21%	0.00%	30.93%
	229.80 km	0.36 km	59.77 km	1.96 km	-	291.88 km
Access Place	5.08%	0.04%	3.41%	0.39%	0.00%	8.92%
	47.94 km	0.38 km	32.19 km	3.68 km	0.01 km	84.20 km
Total Length % (km)	81.17%	0.14%	17.38%	1.31%	0.00%	100.00%
	765.98 km	1.31 km	164.02 km	12.39 km	0.01 km	943.69 km

For completeness the length of unsealed roads is detailed in Table B-3.

Table B-3: Unsealed Network Summary

Hierarchy	Urban Unsealed (km)	Rural Unsealed (km)	Total (km)
Access Place	3.6	278.1	281.7
Access Road	0.7	400.5	401.2
Arterial	0.0	0.0	0.0
Collector	0.0	74.0	74.0
Distributor	0.0	0.0	0.0
Total	4.3	752.6	756.9

B.2.2. Compliance with Levels of Service

The levels of service indicators that can be influenced by the type of surfacing are the Condition Index (CI) and the Smooth Travel Exposure (STE). The CI is a measure of the following fault types on the network; percentage of cracking and areas of scabbing, potholes, pothole patches and flushing. The STE indicator is the percentage of travel undertaken on smooth sealed roads (roughness value < 150 NAASRA counts/km). Currently there are no compliance issues relating to these levels of service.

B.2.3. Asset Condition

There are various methods available to identify and/or measure the surface condition on the network:

- Condition Rating and Roughness Survey undertaken biannually on the sealed network
- High Speed Data (HSD) surveys on selected routes which measures surface texture, skid resistance and roughness
- contractor's inspections and feedback
- drive over inspections by consultant and Council's asset engineers
- Network Deterioration Analysis (dTIMS) now programmed to be undertaken every three years to align with the NZ Transport Agency three year funding round.

Generally chip seal surfaces are resurfaced at a frequency of five to 15 years and asphaltic concrete 12 to 20 years depending on traffic use and stresses.

B.2.4. Resource Consents

There are no specific resource consents relating to surfacing however the increasing use of emulsified bitumen has generated an increased awareness of the likelihood of spillage and the corresponding improvement in health and safety plans.

B.2.5. Current and Future Demand

Council maintains records of traffic counting surveys in its RAMM database. This includes information on the number, type and speed of vehicles traversing numerous points in the network. This information is used as the base demand data.

Council also consults with heavy industry users such as forestry groups to identify the location and extent of future haul routes. This information can then be used to prioritise or future proof these sections to prevent undue damage.

In resurfacing contracts contractors are proposing more treatments using two coats seals. While these treatments are designed to minimise the risk of premature failure there is an added cost compared to the traditional single coat seal. In order to prioritise treatments a treatment selection process is worked through on each site resulting in the most economical solution chosen. This process considers the volume and type of vehicles which use a road section.

The demand to seal gravel roads to mitigate the dust problem is maintained. However, it is now very difficult to meet the NZ Transport Agency criteria for subsidised works due to the direction of the latest Government Policy Statement. Hence projects will generally be funded from the unsubsidised work category. The Council considers on a case by case basis the use of dust suppressant products such as lime chip overlays or chemical agents. Residents can also apply for Oiling Permits for road sections adjacent to their property. The permit and physical application costs are the responsibility of resident and not the Council.

Another aspect to surfacing that could affect the ability to meet future demand is the volatility of the bitumen cost which has the potential to impact on sealed road resurfacing contracts. Individual site priorities will be analysed and sites will be selected to meet available budget.

B.2.6. Strategic Studies

There are no specific strategic studies relating to surfacing, however the studies discussed under Pavements are also applicable to surfacings.

B.3 Pavements

B.3.1. Asset Overview

The RAMM database records go back to the 1960s with some of the pavement records appearing to be estimates, the accuracy and completeness of the RAMM database is discussed in Appendix S.

Generally urban pavements have been constructed with reasonable depths of aggregate (300 mm) and there has been minimal pavement rehabilitation over the last 10 years. Rural roads, however, were developed in the 1960s at low cost with minimal amounts of pavement aggregate (50-100 mm) and then sealed. Where traffic volumes have increased significantly over time, especially the number of heavy commercial vehicles, these are the road sections that are more at risk of requiring rehabilitation or reconstruction.

In the last 10 years there has been considerable Falling Weight Deflectometer (FWD) testing on the network. This is load testing the pavement to measure pavement strength, associated with this test pits are excavated on selected sites to measure the actual layer depths and then compared with what is in the RAMM database. A conclusion from the last five years of test pit information is that generally the test pit measures are showing a greater aggregate depth than shown in RAMM. This conclusion aligns with the low quantity of pavement rehabilitation completed recently and with the NZ Transport Agency representative comments that the "sealed network is in good condition".

B.3.2. Compliance with Levels of Service

The levels of service are the same measures for surfacing discussed in Section B-2.2.

B.3.3. Asset Condition

There are various methods available to identify and/or measure the pavement condition on the network:

- FWD testing and test pit measures on specific road sections
- contractors inspections and feedback
- driver over inspections by consultant and Council's asset engineers
- Network Deterioration Analysis (dTIMS) now programmed to be undertaken every three years to align with NZ Transport Agency three year funding round.

B.3.4. Resource Consents

There are no specific resource consents relating to pavements.

B.3.5. Current and Future Demand

Current and future demand on specific sections has been highlighted in a recent Forest Harvesting report which maps the routes travelled and annual estimates of loading from forest blocks to destination point. Sites along these routes are listed in a potential forward pavement rehabilitation programme.

Also a recent High Productivity Motor Vehicles (HPMV) study has been undertaken between the NZ Transport Agency and local authorities in the top of the south area. This study looked at priority routes for the use of over dimensioned and heavier loaded vehicles. A draft report has been issued by the NZ Transport Agency which is currently under review.

B.3.6. Strategic Studies

Strategic studies complete to date include:

- FWD Testing 2010
- HSD Surveys 2011
- dTIMS Modelling 2007
- dTIMS Modelling 2011
- Forestry Harvesting Report 2011
- High Productivity Motor Vehicle Study 2011.

B.3.7. Strategic Direction

With nearly 65% of all pavements older than 30 years (see Figure B-1) there is a potential issue that these aging pavements may fail over the next five to 20 years especially if there is an extreme wet period compounded by the use of the network by heavy vehicles within the same timeframe. By undertaking the strategic studies at regular intervals we will be able to monitor the deterioration, condition and performance of the network and minimise the risk of sudden widespread failure.

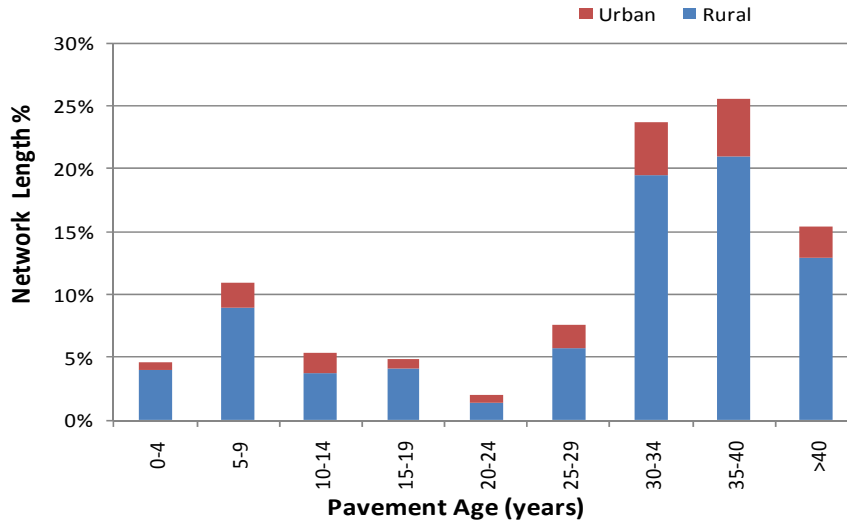


Figure B-1: Pavement Age of the Network

B.4 Footpaths and Walkways

B.4.1. Asset Overview

There are currently about 232 km of formed footpaths and 2 km of walkways in the Tasman district. Refer to Table B-4 and Table B-5 below for a summary of the length of footpaths and walkways by area and type respectively. For detailed inventory data refer to Council's RAMM database. Footpaths are a dedicated pedestrian path with an alignment alongside a carriageway within road reserve. Walkways are a dedicated pedestrian path with an alignment which connects between road reserves. For practicality purposes, walkways and footpaths will be managed as one asset when programming maintenance and renewals. Cycleways are considered separately.

Table B-4: Inventory of Footpaths

	Asphaltic Concrete (m)	Chip Seal (m)	Concrete (m)	Metal (m)	Other (m)	Total (m)
Brightwater	2879	448	7274	161	134	10896
Golden Bay	4027	2597	11635	30	250	18539
Kaiteriteri/Marahau	857	171	4115	1670	115	6928
Motueka	13124	684	33180	1900	496	49384
Murchison	5400	34	329	859	8	6630
Richmond	39305	901	53049	0	714	93969
Ruby Bay/Mapua	4989	1137	4706	0	0	10832
St Arnaud	1331	108	646	91	20	2196
Tapawera	1086	0	2823	0	0	3909
Wakefield	4975	0	7784	27	54	12840
Other	2597	5854	5841	1704	51	16047
Total	80570	11934	131382	6442	1842	232170

Table B-5: Inventory of Walkways

	Asphaltic Concrete (m)	Chip Seal (m)	Concrete (m)	Metal (m)	Other (m)	Total (m)
Brightwater	65	0	0	0	0	65
Golden Bay	85	0	316	0	0	401
Mapua	0	0	50	0	0	50
Motueka	0	0	138	0	0	138
Richmond	308	0	853	0	51	1212
Tapawera	0	0	70	0	0	70
Wakefield	102	0	0	0	0	102
Total	560	0	1427	0	51	2038

B.4.2. Compliance with Levels of Service

The key target for footpath assets is to achieve 55 or less complaints per year relating to footpaths. To date, the complaints are averaging higher than the target but not significantly higher. To address the gap in this level of service the budget for footpath maintenance has significantly increased throughout the entire 20 year forecast. Tasman district has an aging population which increases the importance of safe footpaths to prevent trips and falls.

B.4.3. Asset Condition

The last condition rating on footpaths was completed in 2010. The results are shown below in Figure B-2. Footpaths graded Very Poor or Poor were assessed for maintenance and/or rehabilitation needs and have been included in the Footpath Rehabilitation Matrix where appropriate. This matrix provides the prioritised list of sites for rehabilitation. Condition rating is planned to be undertaken every three years, alternating between a partial survey and a full network survey, where partial surveys are undertaken only the Average to Very Poor sites will be rated. The existing rehabilitation budgets allow for rehabilitation of the Poor and Very Poor sites within five years. This level of funding will need to be reassessed when more deterioration information is available. Sites are reviewed annually from the matrix along with adjacent works and are then included in the rehabilitation schedule for that financial year or deferred based on current condition and/or council decision. Refer to *RAMM Condition Rating for Footpaths, Walkways and Carparks February 2011* for further details.

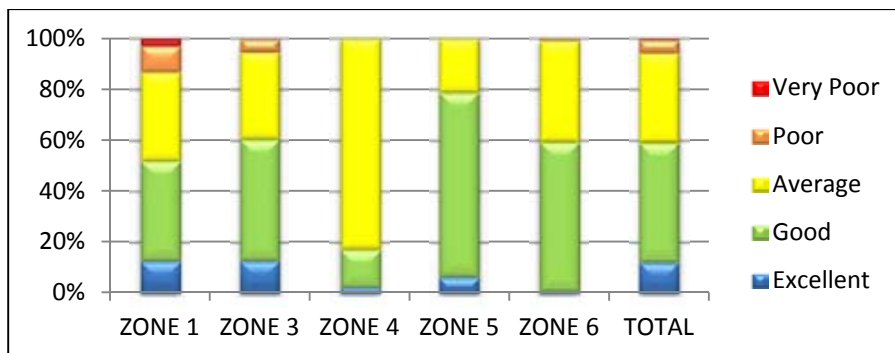


Figure B-2: Footpaths 2010 Condition Summary

B.4.4. Resource Consents

There are no specific resource consents relating to footpaths and walkways. There is a global consent which covers chemical control of all road side areas.

B.4.5. Current and Future Demand

A New Footpath Matrix has been developed and populated which prioritises potential new footpath sites for which there is an existing demand. The matrix considers the following factors and each is given a specific weighting:

- pedestrian numbers (close to school or CBD areas)
- deficiency (eg. missing link or no existing path on either side)
- geometry (availability of wide berms)
- public request (what is the demand)
- vehicle speed (what is the posted speed limit)
- Annual Average Daily Traffic (AADT) (what are the traffic volumes).

No specific growth projects are identified to meet future demand as it is expected developers will be required to construct footpaths in new subdivisions.

B.4.6. Strategic Studies

Strategic studies complete to date include:

- RAMM Condition Rating for Footpaths, Walkways and Cycleways Report 2011
- Tasman Regional Pedestrian Strategy 2010.

B.4.7. Strategic Approach

The key issue for footpath and walkway assets is an unacceptable number of complaints especially injuries due to uneven surfaces. The strategic approach to this issue is to increase the level of funding to allow for an improved level of proactive maintenance.

B.5 Cycleways

B.5.1. Asset overview

Council maintains 10 cycleways throughout the district, some of these are shared use paths which also provide for pedestrian traffic. Refer to Table B-6 below for the summary of cycleways. On street cycleways in urban areas are listed for completeness, however, they are not managed or maintained as standalone assets as they form part of the sealed carriageway between the kerbs and are managed accordingly. The only exception is the remarking of cycle symbols and anti-skid surfacing. On street cycleways in rural areas act as a shared path and although they are connected to the carriageway they are managed separately and will be resurfaced at different frequency from the carriageway due to reduced traffic wear. Off street cycleways act as a shared path and are managed and maintained as standalone assets.

Cycleways are not clearly defined in the RAMM database. Some are listed as footpaths, some walkways, and some (on street urban) not at all. This requires improvement. For completeness all have been listed below, however this will not be consistent with RAMM. If a cycleway is recorded as a footpath or walkway the length has been deducted from the respective tables and included in the cycleway table.

Table B-6: Inventory of Cycleways

	Asphaltic Concrete (m)	Chip Seal (m)	Urban / Rural	On / Off Street	Total (m)
Oxford Street	N/A		Urban	On	
Salisbury Road	N/A		Urban	On	
Wensley Road	N/A		Urban	On	
Richmond Railway Reserve	1550	0	Urban	Off	1550
Richmond Deviation	1500	0	Urban	Off	1500
Lodder Lane	0	1630	Rural	On	1630
Main Road Lower Moutere	0	2700	Rural	On	2700
Queen Victoria Street	0	1240	Rural	On	1240
Abel Tasman Drive	315	0	Rural	On	315
High Street	292	0	Rural	On	292
Total	3657	5570			9227

B.5.2. Compliance with Levels of Service

There are no issues with compliance with levels of service.

B.5.3. Asset Condition

Cycleways have not been completely surveyed for condition rating due to the incomplete nature of the inventory. It is expected they will be treated similar to footpaths and surveyed at the same time.

B.5.4. Resource Consents

There are no resource consents relating to cycleways.

B.5.5. Current and Future Demand

A Cycleway Matrix has been produced similar to above and includes the following factors:

- safety (what is the crash history for cyclists)
- AADT (what are the traffic volumes)
- user type (what type of cyclists will use the path eg. commuter or school children)
- vehicle speed (posted speed limit)
- route importance (level of connectivity provided)
- deficiency (missing link or alternative route).

B.5.6. Strategic Studies

Strategic studies complete to date include:

- Tasman Regional Cycling Strategy 2010.

B.5.7. Strategic Direction

Council will focus on the development of the Taste Tasman Trail construction in the short term. Beyond that, projects identified on the Cycleway Matrix may be implemented.

B.6 Bridges

B.6.1. Asset Overview

There are currently 475 bridges and bridge culverts in the RAMM database (see Table B-7). The NZ Transport Agency classifies a bridge or bridge culvert as one which has a waterway area greater than 3.4m²; under this they are classes as culverts. As at August 2011 all except 26 of the bridges meet the Class 1 standard¹. The remaining 26 are restricted to the weights or speed noted in the bridge register (none of these bridges are located on High Productivity Motor Vehicle (HPMV) routes. The list of restricted bridges is advertised on an annual basis. For detailed inventory data refer to Council's RAMM database.

Table B-7: Inventory of Bridges

Bridge Type	No. of Bridges
Concrete Deck	293
Timber Deck	35
Box Culvert	107
Circular Culvert	4
Armco Pipe	18
Footbridge	9
Suspension	3
Concrete Arch	4
Ford	1
Unknown	1
Total	475

B.6.2. Compliance with Levels of Service

The level of service performance measure associated with bridges, has previously been that Council will reduce one weight or speed restricted bridge per year. Council have recently replaced five posted bridges to Class 1 (or higher). Nine of the remaining posted bridges are questionable as to whether Council should be maintaining them as they typically service only one property and in some cases have gates across the bridge. This performance measure can be achieved by methods other than upgrading the remaining posted bridges eg. removal or divesting to the landowner.

B.6.3. Asset Condition

A systematic inspection of bridges is completed as follows:

- routine inspections by the maintenance contractors
- routine inspections by the consultant
- detailed inspections by the consultant's bridge engineer with analysis for posting or structural repairs
- special inspection following event.

A routine bridge inspection is undertaken on all bridges once every two years. In order to manage the workload, half the bridge stock is inspected every year. Inspections are completed in accordance with NZ Transport Agency S6:2011 Bridges and Other Highway Structures Inspection Policy.

Detailed bridge inspections are undertaken every six years on bridges which are of concern or as required by condition reported through routine inspections. Ideally the bridges would be inspected, however, this is avoided due to the high level of routine inspections undertaken.

All inspections are carried out in accordance with the national standard guidelines contained in the NZ Transport Agency bridge manual.

¹ Refer to <http://www.nzta.govt.nz/resources/factsheets/13/vehicle-dimensions-and-mass.html> for the definition of Class 1.

B.6.4. Resource Consents

There is an existing resource consent for the maintenance of bridges which allows for controlled discharge to air and water. The consent expired on 1 August 2011 and renewal is in progress. The last consent was valid for 15 years.

B.6.5. Current and Future Demand

A draft Bridge Renewals matrix has been produced to prioritise bridge renewals. This is still a work in progress due to NZ Transport Agency's unclear funding direction. The matrix will continue to be populated with information as the strategic studies are completed and refined once the HPMV direction is known. There is little to no demand at present for bridge renewals based purely on condition rating.

There are new assets identified to address network growth. It is assumed that developers will construct new assets where required within subdivisions.

B.6.6. Strategic Studies

Strategic studies complete to date include:

- Nelson Tasman Engineering Lifelines Report 2008
- Bridge Seismic and Scour Assessments 2004/05.

B.6.7. Strategic Approach

The key issues for bridge assets are.

- The bridge renewals work category is subsidised by the NZ Transport Agency where their criteria are met. Due to the expected low benefit cost ratio (BCR) for the remaining posted bridges and lack of alignment with the Government Policy Statement (GPS), Council are unlikely to achieve funding.
- The NZ Transport Agency have recently identified a number of routes which may be upgraded to meet HPMV standards. It is unknown at this stage how this work will be rolled out and how this will affect the subsidy and upgrading of Class 1 bridges which do not meet HPMV standards in the coming years.

The strategic approaches to these issues are:

- divest back to landowners suitable bridges, ie. those which are acting as a private bridge
- a nominal budget has been allowed for to enable Council to undertake HPMV upgrades.

B.7 Streetlights

B.7.1. Asset Overview

Council are responsible for 2,871 street lights, this includes 2,723 Engineering and 148 Community Services and Utilities assets (see Table B-7). The non-Engineering assets are not funded by Engineering but for efficiency purposes they are maintained within one maintenance contract managed by Engineering. For the detailed inventory data refer to Council's Confirm database.

Council owns all street lights, pedestrian crossing lights and poles constructed since the early 1970s. Street lights and poles constructed prior to this are owned by Network Tasman Limited who charges Council for operating and maintaining the lights.

Council upgraded all remaining mercury vapour and fluorescent lamps within road reserve to high pressure sodium in 2010 and 2011 to improve energy efficiency of the network.

Table B-8: Inventory of Street Lights within Road Reserve

Bridge Type	No. of Streetlights
Appleby	19
Brightwater	136
Collingwood	40
Hope	21
Kaiteriteri-Marahau	98
Mapua - Ruby Bay	146
Motueka	557
Moutere	30
Murchison	48
Pohara	45
Richmond	1177
Riwaka	25
St Arnaud	27
Takaka	139
Tapawera	41
Tasman	5
Tata Beach	15
Wakefield	136
Other	18
Total	2723

B.7.2. Compliance with Levels of Service

There is no specific street lighting level of service, although there is a level of service which requires faults to be responded to and within the timeframes specified within the maintenance contract. Refer to C844 Street Light Maintenance 2011/13 for the current faults and response times.

B.7.3. Asset Condition

Asset condition data is required to be collected by the maintenance contractor during each visit to an asset and is updated in Confirm using Confirm Mobile software. The condition rating is a subjective grade rather than a measured value. Council does not undertake routine renewals of luminaires or columns.

B.7.4. Resource Consents

There are no applicable resource consents for street lighting.

B.7.5. Current and Future Demand

A Street Lighting Matrix has been developed to prioritise potential sites for upgrade or new assets which is yet to be populated. The matrix will be populated as sites are identified by stakeholders and on the completion of the renewal strategy discussed below. No new street lights have been identified to address future demand.

B.7.6. Strategic Studies

There are no existing strategic studies for street lighting.

B.7.7. Strategic Approach

The key issue for street light assets is:

- the lack of renewal planning to date and an aging network.

The strategic approach to this issue is:

- a strategic study is planned to be undertaken in 2012/13 which will enable Council to effectively plan their column and luminaire renewals to avoid a backlog of aged assets.

B.8 Carparks and Service Lanes

B.8.1. Asset Overview

There are currently 23 carparks and 1,673 m of service lanes in the Tasman district. Refer Table B-9 and Table B-10 below for a detailed summary. For detailed inventory data refer to Council's RAMM database.

Table B-9: Inventory of Carparks

	No. of Carpark Facilities	Total Area (m ²)	Total No. of Marked Parking Spaces
Brightwater	1	1020	6
Kaiteriteri	1	2430	80
Motueka	5	10554	290
Murchison	1	544	24
Richmond	7	20572	625
St Arnaud	1	280	0
Takaka	4	10855	141
Wakefield	2	2455	73
Total	23	48710	1239

Table B-10: Inventory of Service Lanes

	No. of Service Lanes	Total Length (m)
Motueka	4	377
Richmond	7	660
Takaka	3	365
Tapawera	1	161
Wakefield	1	110
Total	16	1673

B.8.2. Compliance with Levels of Service

There are no specific levels of service relating to carparks or service lanes.

B.8.3. Asset Condition

The last condition rating on carparks was completed in 2010. Carparks are rated on the same faults as sealed carriageways. All carparks were added to the Carpark Resurfacing Matrix to prioritise carparks which are past their renewal date. Carparks which are yet to reach their renewal date have been programmed based on their renewal date; this may be amended based on the deterioration of the surface. Condition rating is planned to be undertaken every three years in conjunction with the footpath condition rating surveys for efficiency. Refer to *RAMM Condition Rating for Footpaths, Walkways and Carparks February 2011* for further details.

Service lanes are rated at the same time as sealed carriageways using the same fault types, this is discussed above in B.3, Pavements.

B.8.4. Resource Consents

There are no resource consents relating to carparks or service lanes.

B.8.5. Current and Future Demand

Council has undertaken demand and occupancy surveys of Richmond CBD area including both on street and off street parking areas to assess the existing demand for parking. The results of these surveys indicate there is no current need for new facilities. Future demand will be assessed when the District Car Parking Strategy Review is completed in 2012/13 and again in 2021/22.

There is no plans short term for Council to create new assets as there is no perceived demand. There may be a need for new service lanes due to the construction of new carparks however this would be assessed on a case by case basis during the design of new facilities.

There is no recent demand information for Golden Bay or Murchison areas.

B.8.6. Strategic Studies

Strategic studies complete to date for car parking include:

- Richmond Parking Survey 2006
- Richmond CBD Parking Survey 2009
- Motueka CBD Car Parking Survey 2009.

There are no strategic studies for service lanes.

B.8.7. Strategic Approach

There are no issues for either carpark or service lane assets which need to be addressed. Management of these assets will continue with the status quo.

B.9 Traffic Signs, Delineation and Road Markings

B.9.1. Asset Overview

There are 9,241 signs recorded in the RAMM database, this excludes edge marker posts and culvert markers for which asset data is not captured. The signs inventory data is summarised below in Table B-11.

The RAMM table for road markings is incomplete and does not accurately reflect the road markings throughout the district. To date no asset data for raised pavement markers has been captured.

Council have recently developed a Delineation Policy and Hierarchy. The policy identifies the level of road marking and signage to be applied to the different hierarchy levels. The RAMM database includes a field to identifying the Delineation Hierarchy of a road; note the Delineation Hierarchy is different to the TRMP Road Hierarchy.

Table B-11: Inventory of Signs

Asset Type	Quantity (each)
Guide	35
Hazard markings	2002
Information signs	929
Information general	78
Information miscellaneous	56
Miscellaneous	18
Motorist services	58
Permanent warning	2285
Regulatory general	1764
Regulatory heavy vehicle	51
Regulatory parking	322
Street name	1580
Tourist	33
Temporary warning	22
Warning miscellaneous	8
Total	9241

B.9.2. Compliance with Levels of Service

There are no specific levels of service relating to signage or road marking.

B.9.3. Asset Condition

A Signs Inspection Report is required to be undertaken by the maintenance contractor every year. This information is stored in the RAMM Contractor database and is used to form the basis of a renewals and maintenance programme for signs. Night Inspection Reports are to be delivered six-monthly by the maintenance contractors; this information is input into renewals and maintenance programmes where applicable.

The condition of road markings is assessed by the maintenance contractor each year. It is the maintenance contractor’s responsibility to develop a remarking programme for sites which no longer comply with the contract specification. The Night Inspection Report is an input to the renewal programme and this information is also held in RAMM Contractor.

B.9.4. Resource Consents

There are no resource consents relating to signs or markings.

B.9.5. Current and Future Demand

All sign installations are undertaken in accordance with the Manual of Traffic Signs and Markings (MOTSAM) produced by the NZ Transport Agency. Council are in the process of upgrading the transportation network to comply with the new Delineation Policy. Upon completion of this work, Council will not actively change signage within the network with the exception of issues raised through Customer Service Request (CSRs) which justify action.

Council often receives request for new tourist signs, private right-of-way (ROW) name blade, or general information (yellow finger board) signs.

Tourist Signs – Refer to the Tourist Signage Policy.

Private ROW Signs - The developer or ROW residents shall meet the cost and installation of the first sign, Council will assume responsibility for the sign thereafter. The signs can be installed within the Road Reserve area and the name on the sign shall be approved by Council. Council will arrange for the sign to be installed.

Community Signs – The community group raises a CSR for consideration by the Asset Engineer. They are considered on a case by case basis and only installed on instruction from the Asset Engineer.

The Delineation Policy determines the base level of markings to be applied to road sections based on their hierarchy. Sites are then identified on a case by case basis as candidates for additional markings to address specific safety concerns, eg. poor alignments.

B.9.6. Strategic Studies

Strategic studies complete to date include:

- Council's Delineation Policy.

B.9.7. Strategic Approach

Historically full remarking of the network has been undertaken biannually, with a partial remark in between of high wear locations. Council have changed this during this review and will now undertake partial remarking each year with an aim of smoothing the expenditure as this is funded directly from rates as maintenance.

The key issue for signs and markings is:

- implementing the new Delineation Policy in a safe yet cost effective manner
- improvement of road marking asset data.

The strategic approach to these issues is:

- the upgrade work is to be rolled out over the next three years
- incorporation of road marking data collection in the maintenance contracts.

B.10 Drainage Structures

B.10.1. Asset Overview

There is a total length of 83,395 m of culverts and 1,627 km of surface water channels within the district. The culvert and surface water channel inventory data from RAMM is summarised below in Table B-12 and Table B-14 respectively. A brief summary of other drainage assets has also been included (see Table B-13). For detailed inventory data refer to the RAMM database.

Major drainage was found to be a weakness for Council in the latest NZ Transport Agency's Technical Audit and RISA reports. The report stated that the improvement of drainage will require an increased focus on maintenance items such as high shoulder, and gradual creation and reinstatement of water tables, on both the sealed and unsealed rural networks. It is recognised that good drainage is the most important aspect to preventing early pavement failure. Council has accordingly increased funding to allow for improved maintenance of drainage structures, reforming of unsealed water channels and removal of high shoulder.

Table B-12: Inventory of Culverts

Diameter (mm)	Total (no.)	Armco (m)	Concrete (m)	Steel (m)	Earthenware (m)	PVC (m)	Other (m)	Unknown (m)	Total (m)
0 - 300	587	123.5	35498.4	311.9	1433.4	1311	247.2	44.5	38969.9
301 – 375	5443	0	17625.1	50.6	18.1	75.2	78.4	9.8	17857.2
376 – 450	990	15	9634.3	99.4	83.3	24	113.8	0	9969.8
451 – 600	635	66.1	6382.5	159.4	0	9	17	0	6634
601 – 750	173	0	1661.3	20.2	0	0	0	0	1681.5
751 - 900	451	42.7	4721.9	26.5	0	0	26.1	0	4817.2
901 – 1200	189	0	1931.1	20.6	7	0	11	0	1969.7
1201 – 1800	108	14.8	1170.3	7	7.3	0	0	0	1199.4
1801 +	27	39	247	10	0	0	0	0	296
Unknown	168	0	0	0	0	0	0	0	0
Total	8771	301.1	78871.9	705.6	1549.1	1419.2	493.5	54.3	83394.7

Table B-13: Inventory of Other Drainage Structures

Asset Type	Quantity	Unit
Sumps	1932	ea
Subsoil Drains	1604.2	m
Soak Pits	42	ea
Flumes	12	ea
Catchpits	41	ea
Other	54	ea

Table B-14: Inventory of Surface Water Channels

Asset Type	Quantity (km)
Kerb and Channel (Concrete)	232.69
SWC (Deep, >200 Below Seal Edge)	480.63
SWC (Shallow, <200 Below Seal Edge)	913.53
Total	1626.85

B.10.2. Compliance with Levels of Service

There are no specific levels of service relating to road drainage facilities.

B.10.3. Asset Condition

The maintenance contractors are required to complete a Drainage Inspection Report for the entire network every six months. The reports assess the condition of all drainage structures and provide a base programme for the drainage renewals and monthly programmes. This information is held in RAMM Contractor.

Surface water channels are rated during sealed carriageway condition ratings.

B.10.4. Resource Consents

Currently there are no resource consents relating to the operation and maintenance of drainage assets.

B.10.5. Current and Future Demand

Demand for new culverts generally arises after storm events where network deficiencies are highlighted. Council typically installs culverts to reduce the distance between existing culverts which increases turn out frequency (how often the surface water is directed away from the road formation) and/or capacity. New drainage specific to network growth is generally vested to Council from developments, therefore Council do not programme growth related drainage assets.

B.10.6. Strategic Studies

There are no strategic studies for drainage assets.

B.10.7. Strategic Approach

The key issues for drainage assets are:

- the aging kerb and channel in older subdivisions eg. Motueka and Richmond
- lack of good asset data for culverts
- surface water channel deficiencies.

The strategic approaches to these issues are:

- optimised renewal planning
- refine the scope of inspections to be undertaken by the maintenance contractor's to ensure information is reliable and realistic
- on-going programme of works prioritised by road hierarchy.

B.11 Retaining Walls

B.11.1. Asset Overview

There are 121 retaining walls identified in the RAMM database (see Table B-15).

Historically, the collection of retaining wall inventory data was poor and Council has had to identify the majority of assets post construction. Work is underway to refine and complete this list. For detailed inventory data refer to Council's RAMM database. The retaining wall information is currently held in the Minor Structures table, it is expected this will be shifted to the Retaining Wall table in future.

Table B-15: Inventory of Retaining Walls

Retaining Wall Type	Quantity (each)
Cantilever	30
Gabion	47
Gravity	9
Rock	14
Sheet Pile	6
Single Crib	14
Unknown	1
Total	121

B.11.2. Compliance with Levels of Service

There are no levels of service specific to retaining walls.

B.11.3. Asset Condition

Basic condition data has been collected by the maintenance contractor and has been loaded into RAMM. This requires validation. In future inspections will be undertaken in conjunction with bridges using the same processes.

B.11.4. Resource Consents

There are no resource consents relating to the operations and maintenance of retaining walls.

B.11.5. Current and Future Demand

Retaining walls are generally constructed under Emergency or Preventative Works. Emergency works are not prioritised and are undertaken to reinstate the road formation as soon as possible. Preventive work is identified and prioritised in the Slips Matrix, however it is subject to funding availability.

B.11.6. Strategic Studies

Strategic studies complete to date include:

- Kaiteriteri Roads Geotechnical Risk Assessments 2011
- RP1.855 - RP2.870 Aniseed Valley Road Geotechnical Risk Assessment.

B.11.7. Strategic Approach

The key issue for retaining wall assets is:

- lack of good asset data and planned renewals (if required).

The strategic approach to this issue is:

- refine the scope of inspections to be undertaken by the maintenance contractor to ensure information is reliable and realistic.

B.12 Street Furniture

B.12.1. Asset Overview

The inventory data for street furniture assets requires improvement. Currently the data is stored in separate spreadsheets and the RAMM database; however both data sets are incomplete. An improvement plan item in Appendix V is to improve the inventory data for street furniture assets. The summary of assets from the latest valuation undertaken in 2010 is shown below in Table B-16.

Table B-16: Inventory of Street Furniture

Street Furniture Type	Quantity (each)
Litter Bin - 60 litre	360
Litter Bin - 75 litre	58
Litter Bin - 100 litre	10
Litter Bin - 209 litre	7
Bus Shelters	6
Cycle Stands	24
Drinking Fountains	1
Seats	100
Shade Structures	3
Water Features	1
Total	570

B.12.2. Compliance with Levels of Service

There are no levels of service relating to street furniture.

B.12.3. Asset Condition

Currently condition data is not routinely captured or recorded in a database.

B.12.4. Resource Consents

There are no resource consents relating to street furniture assets.

B.12.5. Current and Future Demand

The demand for current or new assets is not currently analysed. It is expected new assets will be created during town centre/CBD streetscape upgrades and then maintained under street furniture budgets.

B.12.6. Strategic Studies

There are no strategic studies relating to street furniture assets.

B.12.7. Strategic Approach

There are no key issues for street furniture.

Council will continue to install new street furniture in conjunction with streetscaping projects, with the exception of rubbish bins which are renewed based on their condition.

B.13 Traffic Signals

B.13.1. Asset Overview

There are currently two traffic signal controlled intersections within the district which are owned by Council, these are the Talbot Street/Salisbury Road intersection and the Arbor-Lea/Salisbury Road intersection. Between the two intersections there is a total of nine signals. The asset data is held in the Confirm database.

Council has engaged the Nelson City Council to operate the traffic signals along with the Nelson City Council's assets to improve efficiencies. The maintenance of the traffic signals is also undertaken in conjunction with Nelson City Council's assets under their maintenance contract.

B.13.2. Compliance with Levels of Service

There are no levels of service relating to traffic signals.

B.13.3. Asset Condition

The condition of the assets is assumed to be very good as they are all less than five years old.

B.13.4. Resource Consents

There are no resource consents relating to traffic signals.

B.13.5. Current and Future Demand

Future demand for traffic signals is related to improved flow and reducing congestion. Currently there is only one project identified in the 20 year forecast which is the signalisation of the Queen Street/Salisbury Road intersection.

B.13.6. Strategic Studies

There are no strategic studies relating to traffic signals.

B.13.7. Strategic Approach

There are no key issues for traffic signals.

Council will install new traffic signals in conjunction with intersection improvement projects.

APPENDIX C. PRIVATE ROADS AND ACCESSWAYS

C.1 General

The Tasman Resource Management Plan (TRMP) and Council's Engineering Standards and Policies define the acceptable standards for Council owned and privately owned roads. Private roads may be developed as part of approved developments.

Council sets the standards to ensure the appropriate level of service and that in the long term the least cost can be achieved by the future owners together with the least adverse impacts on the adjoining road network.

Council may take over a private road if further development of the road is fully brought up to Council's standards at the developers cost. Council holds a register of some private roads in its RAMM database. Updating of the private roads in RAMM is identified as an improvement plan action in Appendix V.

APPENDIX D. ASSET VALUATIONS

D.1 Background

The Local Government Act 1974 and subsequent amendments contain a general requirement for local authorities to comply with Generally Accepted Accounting Practice ("GAAP").

The Financial Reporting Act 1993 sets out a process by which GAAP is established for all reporting entities and groups, the Crown and all departments, Offices of Parliament and Crown entities and all local authorities. Compliance with the New Zealand Equivalent to International Accounting Standard 16; Property, Plant and Equipment (NZ IAS 16) and IAS 36 (Impairment of Assets) is the one of the current requirements of meeting GAAP.

The purpose of the valuations is for reporting asset values in the financial statements of Tasman District Council.

Council requires its infrastructure asset register and valuation to be updated in accordance with Financial Reporting Standards and the AMP improvement plan.

The valuations summarised below have been completed in accordance with the following standards and are suitable for inclusion in the financial statements for the year ended June 2010.

- NZ Infrastructure Asset Valuation and Depreciation Guidelines – Version 2.0.
- International Accounting Standards 16 and 36.

D.1.1. Depreciation

Depreciation of assets must be charged over their useful life.

- *Depreciated Replacement Cost* is the current replacement cost less allowance for physical deterioration and optimisation for obsolescence and relevant surplus capacity. The *Depreciated Replacement Cost* has been calculated as:

$$\frac{\text{Remaining useful life}}{\text{Total useful life}} \times \text{replacement cost}$$

- *Depreciation* is a measure of the consumption of the economic benefits embodied in an asset. It distributes the cost or value of an asset over its estimated useful life. Straight-line depreciation is used in this valuation.
- *Total Depreciation to Date* is the total amount of the asset's economic benefits consumed since the asset was constructed or installed.
- The *Annual Depreciation* is the amount the asset depreciates in a year. It is defined as the replacement cost minus the residual value divided by the estimated total useful life for the asset.
- The *Minimum Remaining Useful Life* is applied to assets which are older than their useful life. It recognises that although an asset is older than its useful life it may still be in service and therefore have some value. Where an asset is older than its standard useful life, the minimum remaining useful life is added to the standard useful life and used in the calculation of the depreciated replacement value.

D.1.2. Revaluation

The revaluations are based on accurate and substantially complete asset registers and appropriate replacement costs and effective lives.

- (a) The lives are generally based upon NZ Infrastructure Asset Valuation and Depreciation Guidelines – Edition 2. In specific cases these have been modified where in Council's opinion a different life is appropriate. The changes are justified in the valuation report.
- (b) The component level of the data used for the valuation is sufficient to calculate depreciation separately for those assets that have different useful lives.

The recent history of valuations and revaluations of the Transportation assets is as follows.

- Valuation of Infrastructural Assets – June 1998 by Beca Valuations.
- Roothing Asset Revaluation – July 2000 by MWH New Zealand Ltd.
- Roothing Infrastructure Asset Revaluation – March 2004 by MWH New Zealand Ltd.
- Roothing Infrastructure Asset Revaluation – at 30 June 2006 by MWH New Zealand Ltd.
- Roothing Infrastructure Asset Revaluation – at 30 June 2008 by MWH New Zealand Ltd.
- Roothing Asset Revaluation – at 31 March 2010 by MWH New Zealand Ltd.

D.2 Overview of Asset Valuations

The revaluation of the roading network has been completed at a component level. For a more detailed break-down of the asset revaluation to component level, refer to the Roothing Asset Revaluation Report August 2010 prepared by MWH New Zealand Ltd. The general categories within which the road components have been grouped are:

- land
- formation
- pavement (structure and surfacing sealed/unsealed)
- drainage (including culverts)
- surface water channels (including kerb and channel)
- footpaths
- railings
- traffic facilities
- signs
- street lights
- car parks
- walkways
- bridges and major culverts
- miscellaneous street furniture
- retaining walls – still to included when quantity known.

All information for valuing the above components was sourced from Road Assessment and Maintenance Management (RAMM), the Confirm database and the other asset spreadsheets. Enhancements were made to the various tables within the databases during the valuation process. There is a reasonable level of confidence where the completeness and accuracy of the dimensional data held in the databases and spreadsheets. Where the data was missing, assumptions were made to some tables to enable the valuation to be completed. Data confidence level is shown in Table D-1.

Council has utilised the RAMM System Asset Valuation Module (RAVM) for the majority of components for this valuation. The components valued in RAVM are:

- formation
- pavement
- drainage
- surface water channels
- footpaths
- signs
- railings
- bridges and major culverts.

Street lights, traffic facilities, carparks, walkways and miscellaneous street furniture were valued in spreadsheets.

Table D-1: Data Confidence

Asset Description	Confidence	Comments
Formation	B – Reliable	Assumed depths and extra widths.
Sealed Pavement Surface	A – Highly Reliable	No assumptions have been made.
Sealed Pavements	B – Reliable	Assumed depths and extra widths.
Unsealed Pavements	B – Reliable	Assumed depths and extra widths.
Drainage (Culverts, Sumps and Subsoil Drains)	B – Reliable	Assumed construction ages and some culvert lengths.
Surface Water Channels	B – Reliable	Assumed construction ages.
Footpath	B – Reliable	Assumed construction ages.
Traffic Facilities	C – Uncertain	Data provided by others. Actual quantities are unavailable so estimates have been used.
Signs	B – Reliable	Assumed installation dates.
Railings	B – Reliable	Assumed construction ages.
Street Lights	B – Reliable	Data provided by others. Assumed installation dates.
Bridges and Bridge Culverts	B – Reliable	Assumed construction ages.
Carparks and Walkways	B – Reliable	Assumed construction ages and some component types.
Miscellaneous Road Furniture	B – Reliable	Assumed installation dates.

Confidence of assets outside of RAMM. Based on NZ Infrastructure Asset Valuation and Depreciation Guidelines – Version 2.0 Table 4.3.1: Data confidence grading system.

Table D-2: Summary of Asset Valuation as at 31 March 2010

Asset Description	Replacement Cost	Total Accumulated Depreciation	Depreciated Replacement Cost	Annual Depreciation
Formation	\$ 264,061,976	\$ -	\$ 264,061,976	\$ -
Sealed Pavement Surface	\$ 28,527,308	\$ 14,813,734	\$ 13,713,574	\$ 2,500,919
Sealed Pavement Layers	\$ 133,441,076	\$ 25,558,905	\$ 107,882,172	\$ 887,210
Unsealed Pavement Layers	\$ 13,473,586	\$ 650,128	\$ 12,823,458	\$ 306,470
Drainage	\$ 24,931,677	\$ 8,016,824	\$ 16,914,853	\$ 332,286
Surface Water Channels	\$ 15,296,013	\$ 5,726,016	\$ 9,569,997	\$ 309,171
Footpath	\$ 15,846,525	\$ 4,141,167	\$ 11,705,358	\$ 389,670
Traffic Facilities	\$ 839,223	\$ 419,612	\$ 419,612	\$ 83,922
Signs	\$ 2,817,936	\$ 1,276,170	\$ 1,541,765	\$ 281,764
Railings	\$ 552,972	\$ 206,323	\$ 346,649	\$ 30,721
Street Lights	\$ 5,022,665	\$ 2,229,054	\$ 2,793,611	\$ 201,889
Bridges and Major Culverts	\$ 115,744,487	\$ 50,992,637	\$ 64,751,850	\$ 1,253,081
Carparks and Walkways	\$ 2,896,569	\$ 425,310	\$ 2,471,259	\$ 58,011
Miscellaneous Road Furniture	\$ 1,059,077	\$ 529,539	\$ 529,539	\$ 79,073
Total	\$ 624,511,089	\$ 114,985,418	\$ 509,525,671	\$ 6,714,189

N.B Does not include inflation

The lives are generally based upon NZ Infrastructure Asset Valuation and Depreciation Guidelines – Version 2.0. In specific cases these have been modified where in Council’s opinion a different life is appropriate. The component level of the data used for the valuation was sufficient to calculate depreciation separately for those assets that have different useful lives.

The asset life depends upon construction material types and traffic volumes. The total useful life of major classes of assets have been estimated as outlined in Table D-3.

Table D-3: Total Useful Life

Asset Description	Total Useful Life
Formation	Not depreciated
Sealed Pavement Surface	4 – 20 years
Sealed Pavements	65 – 75 years (sub base not depreciated)
Unsealed Pavements	5 years
Drainage (Culverts, Sumps and Subsoil Drains)	15 – 75 years
Surface Water Channels	15 – 50 years
Footpath	5 – 75 years
Traffic Facilities	10 years
Signs	10 years
Railings	18 years
Street Lights	25 years
Bridges and Bridge Culverts	100 years
Carparks and Walkways	Component based, as for above where applicable
Miscellaneous Road Furniture	8 – 25 years

APPENDIX E. MAINTENANCE AND OPERATING ISSUES

E.1 Maintenance Contracts

E.1.1. General

The Council has determined that the most effective way to achieve its objectives is to contract out the professional engineering services and physical maintenance works to commercial consultants and contractors in order to procure this work at true market value. By using a competitive tendering model in accordance with national requirements the Council is eligible to receive financial assistance (currently set at 49% for the three year period 2012-2015) through the NZ Transport Agency on an approved programme of work.

The majority of the maintenance work undertaken on the roading network is eligible to receive this financial assistance provided it meets the broad criteria set by the funding agency. Exceptions are maintenance of carparks and associated lighting, footpaths, walkways, footbridges, street furniture, some roads which are not considered to be public access roads and several smaller aspects which are considered to be not for the benefit of road users.

E.1.2. Road Network

The district has been divided into four contract areas as shown in the map in Appendix Y.

	<i>Initial Roll Over Date</i>
• Golden Bay Roding Maintenance Contract	1 July 2013 (3+1+1)
• Tasman Roding Maintenance Contract	1 July 2012 (3+1)
• Waimea Roding Maintenance Contract	1 July 2012 (3+1+1)
• Murchison Roding Maintenance Contract	1 July 2013 (3+1+1)

Each of the above contracts include sealed and unsealed pavement maintenance, drainage systems maintenance, routine bridge maintenance (detritus, cleanliness and vegetation), footpath and walkway maintenance, vegetation control, detritus removal, street cleaning, litter removal, signs maintenance, barrier maintenance, and road marking. Work excluded from these contracts is discussed below by asset type.

At the time of preparing this plan, contract areas and scopes are being reviewed to ensure on-going sustainability of costs and service to customers is achieved.

Each contract uses several ways of specifying how work is to be undertaken in order to achieve the best overall result for the network and users. These include the following.

- Performance based Specifies the required level of service and the time frame the contractor has to complete the work. Frequently used on routine works where the contractor can apply innovation and efficiency in undertaking the tasks.
- Scheduled work / unit rate Used where the contractor is best suited to define the unit cost and control their costs, but the total quantity of work to be undertaken during the contract is not known.
- Lump sum or fixed price Used where a package of work is defined and the contractor is able to clearly identify their required resources, materials and risks.
- Hourly rates Typically used for emergency works and where it is not realistic to define the scope of work.

The main activities within the maintenance and operation of local roads are.

- Structural Maintenance – includes sealed and unsealed pavement maintenance, routine drainage maintenance, routine maintenance of bridges, guardrails and retaining walls.
- Corridor Maintenance – includes those items above the pavement and adjacent to the carriageway such as road marking, signs, vegetation, street lighting, street furniture, sweeping and street litter, managing ice and gritting, responding to incidents and minor emergency works. This is referred to as Environmental and Traffic Services.
- Emergency Reinstatement – this covers reinstatement of the road to allow single lane traffic to pass and cleaning up the immediate response to major flood events, wind and snow storms and slips. Where this is a substantial sum, and subject to Council policies and specific approval, this is usually paid for through additional funding requests.
- Network and Asset Management – includes professional engineering services provided by the Council and consultants to programme, monitor and report on the work undertaken by the respective parties.
Special Purpose Roding – includes structural, corridor maintenance and emergency work for the Totaranui Road, Pupu Springs Road and part of the Cobb Valley Road which Council manage but do not provide any of the funding for.
- Non Subsidised Roding – this includes the maintenance, operation and management of those components of the roading network such as carparks and footpaths that are not eligible for subsidy from the NZ Transport Agency.

The implementation of the proactive maintenance work is managed in the following way:

- the contractor undertakes routine inspections to identify faults on the network and produces an All Faults programme
- information from the All Faults programme is used to populate monthly programmes for approval by the Engineer
- the contractor then implements the work according to monthly programmes.

There are two other areas of maintenance; Customer Service Requests (CSR) and Emergency Works.

- CSR response covers reactive maintenance of all aspects of the contract and in some instances requires additional work.
- Emergency Works covers reactive work as described in Emergency Reinstatement above.

The maintenance contract also covers works related to new facilities. These new facilities are usually related to minor improvements and extensions.

E.1.3. Bridges

Separate bridge maintenance contracts are competitively tendered every three years, the existing contract expires in June 2012. This contract includes heavy maintenance of structures over and above the routine maintenance covered above.

A component renewal contract is competitively tendered each year, the work is identified through the inspection regime.

E.1.4. Street Lighting

The streetlight maintenance contract is procured as above for the road network contracts and is of the 3+1+1 format. The current maintenance contract includes the entire network and is due for an initial roll over on 1 July 2014. The maintenance contract is of a similar nature to the road maintenance contract and allows for both proactive and reactive maintenance by means of inspections and CSRs.

Council has shifted from the traditional maintenance methodology of “fix when fail” to a proactive method of programmed lamp replacements. The maintenance contract now requires that all high pressure sodium lamps be replaced on a three year cycle with the workload balanced across three years and metal halide lamps be replaced every two years. This new strategy recognises that although lamps may last up to eight years before ultimate failure, the light output does deteriorate over time and may not achieve the lighting standard it was originally designed for beyond three years.

Electricity costs are paid directly by the Council.

E.1.5. Retaining Walls

Historically, retaining walls have been poorly managed and maintained by Council. Work is currently underway developing an asset register which includes condition rating. In future, retaining walls will be subject to the same inspection and maintenance regime as bridges. Routine maintenance will be included in the Road Network contracts. Structural maintenance will be included in the bridges contract.

E.2 Maintenance Standards

E.2.1. General

Maintenance standards vary according to the road hierarchy but must comply with the NZ Transport Agency standards and guidelines where subsidised funds are involved.

The maintenance and operation standards for all work activities are specified in the maintenance contracts, with performance measures including response times. The Asset Manager may vary these depending on changes to the level of service or budgeting constraints.

The contracts are written to comply with:

- this Activity Management Plan
- Council's Engineering Standards and Policies 2008
- the NZ Transport Agency Standards and Guidelines.

E.2.2. Maintenance Intervention Strategy (MIS)

A Maintenance Intervention Strategy (MIS) is a detailed statement of the type of maintenance or renewal activity that should be targeted to the treatment lengths identified in the Forward Work Programme.

It is the principal method of conveying the appropriate activities to all parties involved in the maintenance of an asset.

Maintenance Intervention Strategies are designed to provide.

1. The optimum use of maintenance/renewal funding by ensuring that routine activities are appropriate given the forward programmed treatments.
2. Reactive maintenance treatments specific to the period prior to the implementation of any proposed treatments in the Forward Work Programme. Each treatment length requires the nomination of a type of maintenance intervention strategy.

Below is a summary of the different strategies to be implemented, for further details refer to the *Maintenance Intervention Strategy (Pavements) May 2010*.

P	Pre-Resurfacing Repair Strategy
R	Resurfacing Strategy
N	Normal Maintenance Strategy
H	Holding Strategy (Pavement Rehabilitation, Reconstruction, Capital Works Projects)
S	Sealed Road Pavement Rehabilitation Strategy
G	Gravel Road Remetalling Strategy
GR	Gravel Road Pavement Rehabilitation Strategy
SE	Seal Extension Strategy

E.2.3. Deferred Maintenance

Deferred maintenance is:

- The shortfall in rehabilitation or refurbishment work required to maintain the service potential of the asset, or
- Maintenance and renewal work that was not performed when it should have been, or when it was scheduled to be and which has therefore been put off or delayed for a future period.

The current budget levels are believed to be sufficient to provide the proposed level of service and therefore no maintenance work has been deferred. This however is subject to the changes in levels of service and expectations of customers.

E.2.4. Increase in Network Size through Development

When new developments such as subdivisions are constructed, there are two types of road works that may be required:

- construction of new roads inside the subdivision or development
- upgrading of roads outside the subdivision to service the new demand.

Once vested as Council assets they are included in the road network and routine maintenance is undertaken through the respective contract.

The maintenance contract's risk profiles identify network growth as a risk the contractor is required to manage. This is applicable for scheduled lump sums. Work of a measure and value nature will inherently be a direct cost to Council. The maintenance budgets have some allowance for network growth where applicable.

E.2.5. Database

The four transportation network maintenance contracts are managed using RAMM Contractor and Pocket RAMM, this allows for all asset data to be stored within one system.

Streetlight maintenance is an exception to the above which is managed using the Confirm database and Confirm Mobile.

E.3 Engineering Studies

A number of studies have been allocated to the operations and maintenance budget. These are summarised in Table E-1 below.

Table E-1: Summary of Engineering Studies included in this Activity Management Plan

Study Name	Brief Description
System Use Study	A study of walking, cycling and system use within the district every three years.
Heavy Industry Impact Strategy	Full review completed every three years in order to project forestry harvesting, horticulture, dairy and other heavy industry loadings on the network and timing of forward work programmes. Update for exceptions to be completed every other year.
District Car Parking Strategy Review	Assess the demand and options for car parking in the urban areas.
Regional Transport Studies	A study of passenger transport within the district every three years.

E.4 Forecast Operations and Maintenance Expenditure

Figure E-1, Table E-2 and Table E-3 shows the projected Non Subsidised and Subsidised Operations and Maintenance costs for the next 20 years.

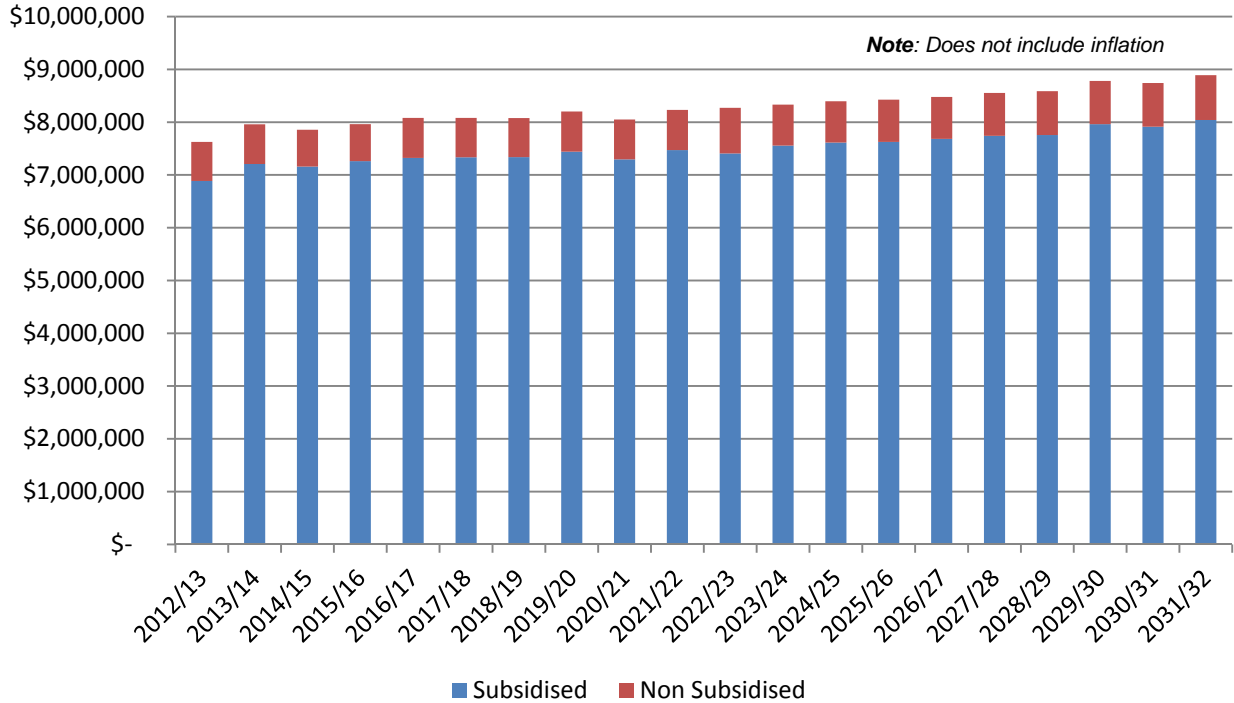


Figure E-1: 2012 – 2032 Transportation Operating and Maintenance Expenditure

Table E-2: 2012 – 2032 Transportation Non Subsidised Operations and Maintenance Expenditure

Item	Project Name	Work Category No.	Work Name Category	GL Code	Total Project Cost	Total O&M	2012/13 Year 1	2013/14 Year 2	2014/15 Year 3	2015/16 Year 4	2016/17 Year 5	2017/18 Year 6	2018/19 Year 7	2019/20 Year 8	2020/21 Year 9	2021/22 Year 10	2022/23 Year 11	2023/24 Year 12	2024/25 Year 13	2025/26 Year 14	2026/27 Year 15	2027/28 Year 16	2028/29 Year 17	2029/30 Year 18	2030/31 Year 19	2031/32 Year 20
64	Cobb Road Maintenance - Upper	g	Cobb Road - Upper	0506240101	609,000	609,000	30,450	30,450	30,450	30,450	30,450	30,450	30,450	30,450	30,450	30,450	30,450	30,450	30,450	30,450	30,450	30,450	30,450	30,450	30,450	30,450
68	Roading Policy Documents	a	Network & Asset Management (unsubsidised)	0500220311	40,000	40,000	10,000	0	0	0	0	10,000	0	0	0	0	10,000	0	0	0	0	10,000	0	0	0	0
69	Carpark Maintenance	b	Carparking	05012401	800,000	800,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000
92	CBD Footpath Cleaning	c	Footpaths	0502240101	1,080,000	1,080,000	30,000	30,000	30,000	30,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000
94	Footpath Maintenance	c	Footpaths	05022401	2,000,000	2,000,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000
96	Footpaths Condition Surveys	c	Footpaths	0502220302	118,100	118,100	0	13,400	0	0	21,500	0	0	13,400	0	0	21,500	0	0	13,400	0	0	21,500	0	0	13,400
99	Lighting Electricity	d	Lighting	05032505	210,000	210,000	10,500	10,500	10,500	10,500	10,500	10,500	10,500	10,500	10,500	10,500	10,500	10,500	10,500	10,500	10,500	10,500	10,500	10,500	10,500	10,500
100	Lighting Maintenance	d	Lighting	05032401	95,000	95,000	5,300	5,100	4,700	4,700	4,700	4,700	4,700	4,700	4,700	4,700	4,700	4,700	4,700	4,700	4,700	4,700	4,700	4,700	4,700	4,700
103	Kerb and Channel Maintenance	e	Kerb & Channel	05042401	400,000	400,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000
106	District Street Cleaning	f	Street Cleaning (unsubsidised)	05052401	6,803,264	6,803,264	280,000	285,600	291,312	297,138	303,081	309,143	315,325	321,632	328,065	334,626	341,318	348,145	355,108	362,210	369,454	376,843	384,380	392,068	399,909	407,907
107	Footbridge Maintenance	h	Bridges Pedestrian	05072401	300,000	300,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000
108	Footbridge Removal	h	Bridges Pedestrian	0507240101	90,000	90,000	45,000	45,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
110	Backblock Road Access - Graham Valley	j	Back Block Roads	0508240101	200,000	200,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
129	Bridge Removal	p	Bridges Non Sub	0507240102	50,000	50,000	10,000	10,000	10,000	10,000	10,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
132	Street Furniture Maintenance	q	Street Furniture	05152401	500,000	500,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000
133	Environmental Control	r	Environmental Control	0500240102	400,000	400,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000
134	Landscape Maintenance	s	Roadside Landscaping	05162401	1,805,000	1,805,000	90,250	90,250	90,250	90,250	90,250	90,250	90,250	90,250	90,250	90,250	90,250	90,250	90,250	90,250	90,250	90,250	90,250	90,250	90,250	90,250
166	Golden Bay Route Study	u	Road Construction Non Sub	0556220301	65,000	65,000	0	0	0	0	0	0	0	0	0	0	65,000	0	0	0	0	0	0	0	0	0
TOTALS					15,565,364	15,565,364	741,500	750,300	697,212	703,038	760,481	745,043	741,225	760,932	753,965	760,526	863,718	774,045	781,008	801,510	795,354	812,743	831,780	817,968	825,809	847,207

N.B Does not include inflation

Table E-3: Transportation Subsidised Operations and Maintenance Expenditure

Item	Project Name	Work Category No.	Work Category Name	GL Code	Total Project Cost	Total O&M	2012/13 Year 1	2013/14 Year 2	2014/15 Year 3	2015/16 Year 4	2016/17 Year 5	2017/18 Year 6	2018/19 Year 7	2019/20 Year 8	2020/21 Year 9	2021/22 Year 10	2022/23 Year 11	2023/24 Year 12	2024/25 Year 13	2025/26 Year 14	2026/27 Year 15	2027/28 Year 16	2028/29 Year 17	2029/30 Year 18	2030/31 Year 19	2031/32 Year 20	
1	Regional Land Transport Planning	001	Regional Land Transport Planning Management	04002203	640,000	640,000	20,000	20,000	60,000	20,000	20,000	60,000	20,000	20,000	60,000	20,000	20,000	60,000	20,000	20,000	60,000	20,000	20,000	60,000	20,000	20,000	
2	Heavy Industry Impact Studies	002	Studies and Strategies	0400220302	170,000	170,000	5,000	15,000	5,000	5,000	15,000	5,000	5,000	15,000	5,000	5,000	15,000	5,000	5,000	15,000	5,000	5,000	15,000	5,000	5,000	15,000	
3	Regional Transport Studies	002	Studies and Strategies	0401220306	35,000	35,000	0	5,000	0	5,000	0	0	5,000	0	0	5,000	0	0	5,000	0	0	5,000	0	0	5,000	0	
5	System Use Studies	002	Studies and Strategies	0401220302	70,000	70,000	0	10,000	0	10,000	0	0	10,000	0	0	10,000	0	0	10,000	0	0	10,000	0	0	10,000	0	
4	District Car Parking Strategy Review	002	Studies and Strategies	0400220301	50,000	50,000	0	30,000	0	0	0	0	0	0	0	20,000	0	0	0	0	0	0	0	0	0	0	
7	LTP/AMP Review	003	Activity Management Plans	0400220310	598,000	598,000	0	46,000	46,000	0	46,000	46,000	0	46,000	46,000	0	46,000	46,000	0	46,000	46,000	0	46,000	46,000	0	46,000	
9	dTIMs Modelling	003	Activity Management Plans	0400220312	166,250	166,250	0	23,750	0	0	23,750	0	0	23,750	0	0	23,750	0	0	23,750	0	0	23,750	0	0	23,750	
8	Road Asset Valuation	003	Activity Management Plans	04002205	255,000	255,000	25,500	0	25,500	0	25,500	0	25,500	0	25,500	0	25,500	0	25,500	0	25,500	0	25,500	0	25,500	0	
10	Sealed Pavement Maintenance	111	Sealed Pavement Maintenance	04012401	25,356,608	25,356,608	1,189,202	1,189,202	1,189,202	1,216,161	1,216,161	1,216,161	1,243,730	1,243,730	1,243,730	1,271,924	1,271,924	1,271,924	1,300,758	1,300,758	1,300,758	1,330,245	1,330,245	1,330,245	1,350,273	1,350,273	
11	SPR - Sealed Pavement Maintenance	111	Sealed Pavement Maintenance	04202401	57,800	57,800	2,100	2,100	2,100	2,100	2,100	2,100	2,100	2,100	2,100	10,000	2,100	2,100	2,100	2,100	2,100	2,100	2,100	2,100	2,100	2,100	10,000
12	Unsealed Pavement Maintenance	112	Unsealed Pavement Maintenance	04012402	7,865,188	7,865,188	357,200	360,772	364,380	368,024	371,704	375,421	379,175	382,967	386,796	390,664	394,571	398,517	402,502	406,527	410,592	414,698	418,845	423,034	427,264	431,537	
13	SPR - Unsealed Pavement Maintenance	112	Unsealed Pavement Maintenance	04202402	240,000	240,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	
14	Routine Drainage Maintenance	113	Routine Drainage Maintenance	04072403	12,906,398	12,906,398	543,000	552,600	562,379	572,342	582,490	592,829	603,361	614,091	625,022	636,158	647,503	659,061	670,837	682,834	695,056	707,509	720,197	733,123	746,293	759,712	
15	SPR - Routine Drainage Maintenance	113	Routine Drainage Maintenance	04202403	96,000	96,000	4,800	4,800	4,800	4,800	4,800	4,800	4,800	4,800	4,800	4,800	4,800	4,800	4,800	4,800	4,800	4,800	4,800	4,800	4,800	4,800	
16	Structures Maintenance	114	Structures Maintenance	04082401	6,600,000	6,600,000	330,000	330,000	330,000	330,000	330,000	330,000	330,000	330,000	330,000	330,000	330,000	330,000	330,000	330,000	330,000	330,000	330,000	330,000	330,000	330,000	
17	Environmental Maintenance	121	Environmental Maintenance	04162401	26,718,627	26,718,627	1,300,000	1,302,750	1,305,637	1,308,669	1,311,853	1,315,195	1,318,705	1,322,390	1,326,260	1,330,323	1,334,589	1,339,069	1,343,772	1,348,711	1,353,896	1,359,341	1,365,058	1,371,061	1,377,364	1,383,982	
18	SPR - Environmental Maintenance	121	Environmental Maintenance	04202404	1,000,000	1,000,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	
19	Traffic Services Maintenance	122	Traffic Services Maintenance	04142401	13,277,464	13,277,464	568,500	574,920	577,028	587,307	597,785	608,465	619,352	630,450	641,762	653,294	665,049	677,032	689,247	701,699	714,393	727,334	740,526	753,974	767,684	781,661	
20	SPR - Traffic Services Maintenance	122	Traffic Services Maintenance	04202405	42,000	42,000	2,100	2,100	2,100	2,100	2,100	2,100	2,100	2,100	2,100	2,100	2,100	2,100	2,100	2,100	2,100	2,100	2,100	2,100	2,100	2,100	
21	Operational Traffic Management	123	Operational Traffic Management	04182401	114,000	114,000	4,000	4,000	4,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	
22	Cycle Path Maintenance	124	Cycle Path Maintenance	04102401	576,000	576,000	28,800	28,800	28,800	28,800	28,800	28,800	28,800	28,800	28,800	28,800	28,800	28,800	28,800	28,800	28,800	28,800	28,800	28,800	28,800	28,800	
24	Emergency Reinstatement	141	Emergency Reinstatement	0401240198	14,000,000	14,000,000	700,000	700,000	700,000	700,000	700,000	700,000	700,000	700,000	700,000	700,000	700,000	700,000	700,000	700,000	700,000	700,000	700,000	700,000	700,000	700,000	
35	Procurement of New Professional Services Contract(s)	151	Network and Asset Management	0401220323	350,000	350,000	50,000	0	0	0	0	50,000	50,000	0	0	0	0	50,000	50,000	0	0	0	0	50,000	50,000	0	
27	General Maintenance Management	151	Network and Asset Management	0401220318	10,088,362	10,088,362	440,000	444,400	498,844	453,332	507,866	462,444	467,069	521,740	476,457	531,222	486,034	490,894	545,803	500,761	555,769	510,826	515,935	571,094	526,305	581,568	
28	Customer Service Request Investigations	151	Network and Asset Management	0401220319	1,100,950	1,100,950	50,000	50,500	51,005	51,515	52,030	52,550	53,076	53,607	54,143	54,684	55,231	55,783	56,341	56,905	57,474	58,048	58,629	59,215	59,807	60,405	
30	Overweight Permits	151	Network and Asset Management	0401220321	1,100,950	1,100,950	50,000	50,500	51,005	51,515	52,030	52,550	53,076	53,607	54,143	54,684	55,231	55,783	56,341	56,905	57,474	58,048	58,629	59,215	59,807	60,405	
32	Slip Investigation, Reporting and Remediation	151	Network and Asset Management	0401220324	1,100,950	1,100,950	50,000	50,500	51,005	51,515	52,030	52,550	53,076	53,607	54,143	54,684	55,231	55,783	56,341	56,905	57,474	58,048	58,629	59,215	59,807	60,405	
33	Traffic Counting	151	Network and Asset Management	0401220325	2,160,900	2,160,900	40,000	120,000	102,010	103,030	104,060	105,101	106,152	107,214	108,286	109,369	110,462	111,567	112,682	113,809	114,947	116,097	117,258	118,430	119,615	120,811	
34	dTIMs Calibration Sites and Licence Fee	151	Network and Asset Management	0401220326	550,475	550,475	25,000	25,250	25,502	25,758	26,015	26,275	26,538	26,803	27,071	27,342	27,616	27,892	28,171	28,452	28,737	29,024	29,314	29,608	29,904	30,203	
29	Traffic and Safety Investigations, PFRs	151	Network and Asset Management	0401220322	3,302,851	3,302,851	150,000	151,500	153,015	154,545	156,091	157,652	159,228	160,820	162,429	164,053	165,693	167,350	169,024	170,714	172,421	174,145	175,887	177,646	179,422	181,216	

Item	Project Name	Work Category No.	Work Category Name	GL Code	Total Project Cost	Total O&M	2012/13 Year 1	2013/14 Year 2	2014/15 Year 3	2015/16 Year 4	2016/17 Year 5	2017/18 Year 6	2018/19 Year 7	2019/20 Year 8	2020/21 Year 9	2021/22 Year 10	2022/23 Year 11	2023/24 Year 12	2024/25 Year 13	2025/26 Year 14	2026/27 Year 15	2027/28 Year 16	2028/29 Year 17	2029/30 Year 18	2030/31 Year 19	2031/32 Year 20
26	Forward Works Programmes and Asset Management	151	Network and Asset Management	0401220317	9,940,337	9,940,337	380,000	494,200	428,442	503,426	437,054	512,831	445,838	522,418	454,800	532,190	463,941	542,151	473,267	552,306	482,779	562,656	492,483	573,208	502,382	583,964
36	SPR - Network and Asset Management	151	Network and Asset Management	04202203	236,000	236,000	11,800	11,800	11,800	11,800	11,800	11,800	11,800	11,800	11,800	11,800	11,800	11,800	11,800	11,800	11,800	11,800	11,800	11,800	11,800	11,800
38	SMS Implementation	151	Network and Asset Management	0400220304	1,400,000	1,400,000	70,000	70,000	70,000	70,000	70,000	70,000	70,000	70,000	70,000	70,000	70,000	70,000	70,000	70,000	70,000	70,000	70,000	70,000	70,000	70,000
115	Road Legalisation	151	Network and Asset Management	0512220302	1,400,000	1,400,000	70,000	70,000	70,000	70,000	70,000	70,000	70,000	70,000	70,000	70,000	70,000	70,000	70,000	70,000	70,000	70,000	70,000	70,000	70,000	70,000
39	Utility Service Management	151	Network and Asset Management	0401220328	270,000	270,000	-	50,000	50,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
128	Bridge Rating Assessments	151	Network and Asset Management	0401220329	400,000	400,000	80,000	80,000	80,000	80,000	80,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
37	SMS Update	151	Network and Asset Management	0401220330	140,000	140,000	20,000	-	-	20,000	-	-	20,000	-	-	20,000	-	-	20,000	-	-	20,000	-	-	20,000	-
130	Bridge Seismic Assessments	151	Network and Asset Management	0401220331	500,000	500,000	-	-	-	100,000	100,000	100,000	100,000	100,000	-	-	-	-	-	-	-	-	-	-	-	-
6	Identify Critical Assets	151	Network and Asset Management	0401220332	10,000	10,000	10,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
55	Road Studies	311	Road Studies	0401220315	210,000	210,000	-	30,000	-	30,000	-	-	30,000	-	-	30,000	-	-	30,000	-	-	30,000	-	-	30,000	-
63	Cobb Road Maintenance - Lower	111	Sealed Pavement Maintenance	04042401	507,500	507,500	25,375	25,375	25,375	25,375	25,375	25,375	25,375	25,375	25,375	25,375	25,375	25,375	25,375	25,375	25,375	25,375	25,375	25,375	25,375	25,375
65	Cobb Powerhouse Bridge Maintenance	114	Structures Maintenance	0404240101	30,450	30,450	1,523	1,523	1,523	1,523	1,523	1,523	1,523	1,523	1,523	1,523	1,523	1,523	1,523	1,523	1,523	1,523	1,523	1,523	1,523	1,523
66	State Highway Street Cleaning	113	Routine Drainage Maintenance	0405240101	60,000	60,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000
25	Community Programmes - Subsidised	432	Community Programmes	05382526	1,520,000	1,520,000	76,000	76,000	76,000	76,000	76,000	76,000	76,000	76,000	76,000	76,000	76,000	76,000	76,000	76,000	76,000	76,000	76,000	76,000	76,000	76,000
124	Community Programmes - Wages	432	Community Programmes	0	2,800,000	2,800,000	140,000	140,000	140,000	140,000	140,000	140,000	140,000	140,000	140,000	140,000	140,000	140,000	140,000	140,000	140,000	140,000	140,000	140,000	140,000	140,000
TOTALS					150,014,060	150,014,060	6,884,900	7,208,342	7,157,453	7,260,637	7,320,916	7,334,524	7,337,375	7,441,691	7,295,039	7,471,989	7,406,823	7,557,305	7,614,083	7,625,532	7,681,768	7,739,519	7,755,382	7,963,565	7,914,926	8,042,290

N.B Does not include inflation.

APPENDIX F. DEMAND AND FUTURE NEW CAPITAL REQUIREMENTS

F.1 Growth Demand and Supply Model

F.1.1. Model Summary

A comprehensive Growth Demand and Supply Model (GDSM or growth model) has been developed to provide predictive information for population growth and business growth, and from that, information about dwelling and building development across the district and demand for infrastructure services. The GDSM underpins the Council's long term planning through the Activity Management Plans, Long Term Plans and supporting policies (eg. Development Contributions Policy).

This 2011 GDSM is a third generation growth model with previous versions being completed in 2005 and 2008.

In order to understand how and where growth will occur, the GDSM is built up of a series of Settlement Areas (SA) which contain Development Areas (DA). A SA is defined for each of the main towns and communities in the district. There are 17 SA for the present version of the GDSM. Each SA is sub-divided into a number of DA. Each DA is defined as one continuous polygon within a SA that if assessed as developable, is expected to contain a common end-use and density for built development.

The GDSM organises and integrates the assessments of demand and supply of built development. The development is categorised as either residential or business demand and supply.

For residential demand and supply:

- the 'demand' for residential buildings (dwellings) is assessed from population and household growth forecasts
- the 'supply' of lots for future dwellings is assessed from analysis of the DAs in each SA and how many lots could feasibly be developed for residential end use, after accounting for a number of existing characteristics of the DA.

For business demand and supply:

- the 'demand' for business premises is assessed from economic and employment growth forecasts, and associated land requirements
- the 'supply' of lots for future business premises is assessed from analysis of the DAs in each SA in a similar way as that for future dwellings.

The DA and SA are the building blocks that allow the GDSM to spread demand for new dwellings and business premises, and assess where there is capacity to supply that demand.

The GDSM is not just an isolated tool that calculates a development forecast. It is a number of linked processes that involve assessment of base data, expert interpretation and assessment, calculation and forecasting. The key input data, assessment and computational processes, and outputs of the GDSM are captured in a database called the Growth Model Database.

The outputs of the GDSM are located on a shared browser site that all Council staff have access to. The browser contains:

- all the various input data sets and calculated outputs
- maps defining the SA and DA
- a model description describing the model working in detail, assumptions and planned improvements
- a peer review by a qualified urban planner and designer.

F.1.2. Population Projection

The population projection in the GDSM has been taken from Statistics New Zealand 2009 population projections derived from the 2006 census data. As a result of the recession and general slowdown in development since 2008, Council has adopted the Statistics NZ “medium” projection for all SAs (in 2008 the Statistics NZ “high” projection was used for Motueka and Richmond). The population projections for each Settlement Area and the district as a whole are shown in Table F-1.

Table F-1: Population Projection Used in the GDSM

Settlement Area	Population Adjusted 2006	2009	2012	2016	2021	2031
Brightwater	1,931	2,016	2,097	2,195	2,327	2,581
Coastal Tasman Area	2,032	2,096	2,157	2,228	2,308	2,438
Collingwood	203	207	211	216	220	225
Kaiteriteri	320	323	326	332	336	332
Mapua Ruby Bay	1,911	1,981	2,049	2,135	2,242	2,427
Marahau	120	121	123	125	127	125
Motueka	6,309	6,417	6,510	6,600	6,660	6,634
Murchison	414	409	404	398	382	366
Pohara/Tata/Ligar/Tarakohe	558	570	581	594	606	619
Richmond	13,173	3,612	14,039	14,577	15,179	16,305
Riwaka	562	577	591	606	619	625
St Arnaud	81	81	81	81	80	77
Takaka	1,154	1,160	1,164	1,164	1,144	1,054
Tapawera	299	311	323	334	341	355
Tasman	168	173	177	182	187	194
Upper Moutere	147	152	156	162	169	181
Wakefield	1,911	1,992	2,067	2,152	2,258	2,499
Ward Remainder (Golden Bay)	3,244	3,315	3,381	3,455	3,523	3,600
Ward Remainder (Lakes Murchison)	2,475	2,538	2,596	2,659	2,738	2,870
Ward Remainder (Motueka)	3,313	3,417	3,516	3,632	3,763	3,975
Ward Remainder (Moutere, Waimea)	3,988	4,114	4,232	4,372	4,530	4,785
Ward Remainder (Richmond)	1,487	1,522	1,588	1,756	1,966	2,405
Total for District	45,800	47,104	48,369	49,955	51,705	54,672

The population projections are used to determine a demand for new dwellings in each SA.

F.1.3. Business Forecast

In the GDSM 2008 for the LTP 2009–2019, three economic demand assessments were used to build a quantitative picture of business growth in terms of employment growth and linked growth in demand for business space. Each study provided different datasets, but an aggregate picture of estimated business land demand in the Tasman district, including, Motueka and Environs, Golden Bay, and Tasman district balance including Richmond.

For the GDSM 2011, a high level consideration of business growth opportunities showed that in the two main demand areas (Richmond as part of the eastern sub regional demand catchment of Nelson-Tasman, and at Motueka as the centre of the western sub regional demand catchment), there is a large business land supply capacity becoming available for business development. This includes the current deferred business zonings in both the Richmond West Development Area, and draft deferred zonings in Motueka West Development Area. It was considered this amount of supply capacity will meet the expected needs of business growth for at least 50 years (well beyond the 20 year projection). On this basis the 2011 review of the GDSM simply adopted the data and assumptions in the 2008 GDSM but updated the datasets by extrapolation for a further three years (2029 to 2032).

Looking ahead, there are three main difficulties with relying on the historical demand assessments as the basis for business growth demand forecasts:

- the economic modelling by the consultants' assessments used two different sets of now-dated census data for economic and employment growth
- the demand assessment methods have yielded results of limited reliability at the level of individual SAs, as the areas assessed yielded aggregate results from an undisclosed simulation economic modelling routine, that have then been apportioned and subject to a number of simplifying assumptions
- the consultant work done is not in a Council managed information system and does not provide a confident results in a regional (Nelson-Tasman) context especially for future Nelson-Richmond urban area forecasting.

What is required is the development of a regional (Nelson-Tasman) economic simulation model capable of yielding results at the SA level, and suitably populated with current data, to yield more reliable segmented business land demand estimates, for each SA. This is a strategic priority for further work after the completion of the GDSM 2011 review.

F.1.4. Rollout Assessment

Once the analysis of demand for residential dwellings and buildings in each SA has been completed, and when the supply potential for new subdivision and dwelling/building construction has been assessed for each DA. The rollout analysis is done. This seeks to forecast when and if the demand for dwelling and business premises will be met and if so where and when. This results in a forecast for each DA of:

- the number of new residential dwellings that will be created through subdivision or building on vacant lots
- the number of new business buildings that will be created through subdivision or building on vacant lots.

This information can then be used to plan how and where network infrastructure needs to be developed and to what capacity.

F.2 Projection of Demand for Transportation Services

F.2.1. Effect of Population Growth on the Transportation Network

The growth is around established urban centres and along the coastal margins. As the population increases it is expected to have a direct relationship with the growth of traffic volumes within the district.

The measure of access to motor vehicles (refer Statistics NZ) indicates access to motor vehicles per household has increased. The pattern of vehicle ownership is likely to continue, though it may decrease in the medium to longer term as increases in the real costs of vehicle transport are transferred to the vehicle owners. Also in the Government Policy Statement (GPS) key objectives include less single occupancy vehicles on the network and encouragement for additional walking and cycling facilities.

The Tasman average Annual Traffic Growth Rate for 10 years from 1992 to 2002 is 3.5%. As the traffic steadily grows, this will erode the Level of Service provided by individual routes, potentially decreasing the efficiency of the entire network and will lead to an increased level of expenditure on assets to maintain the level of service.

However, it is considered that.

- The roads at a network level generally have a large capacity compared to present demand and increased traffic volume will not significantly affect the capacity Levels of service. There are some localised networks in the Coastal Tasman Area and the main urban areas of Richmond however which will reach capacity.
- The rate of wear caused by the increased traffic will be similar, or even lower than the rate of traffic growth, therefore asset maintenance and renewal expenditure will grow at a similar rate to population growth.

As a result of this projected growth, Council has included within the forward projections the following projects listed in Table F-2. This is a summary of the major growth projects, other a complete list is included in Table F-3.

Table F-2: Summary of Major Growth Projects

Project Name	Description
Maisey Road	Seal widening of 1.4kms of sealed road.
Tasman View Road	Construction of new sealed road from SH60 to School Road (Lower Moutere).
Dominion Road	Seal widening of 2.0kms of sealed road.
Seaton Valley Road	Seal widening of 3.3kms of sealed road.
Lower Queen Street	Full reconstruction of Lower Queen Street from Gladstone Road to Lansdowne Road to improve arterial route and allow for Richmond West development.
Paton Road	Widening and vertical alignment improvements to allow for future traffic from growth areas.
Edward Street	Widening and upgrade of existing cross section including shared use path to allow for future traffic from growth areas.
Wensley Road	Ring route improvements from Oxford Street to Bateup Road.
Hill Street / Champion Road Intersection	Construction of a roundabout to service future traffic from growth areas.

F.2.2. Implications of Community Expectations

Forecasting how road usage may change is related to forecasting development in the district and is derived by considering the best indicators available at the time of writing this plan.

Council does however play a proactive role in applying drivers and controls to ensure that development is progressed with some consideration of the wider issues of the environment and the impact of development on the Council's infrastructure.

The intended Levels of service detailed in Appendix R are considered to be representative of the service demands of the current and the future community:

- future communities may call for more sealing of rural unsealed roads
- future communities may want to reduce the ownership of low trafficked roads.

These types of issues can be contentious and policies change with time.

The following assumptions have been made relating to the current community expectations:

- all road construction activities use best practice in the use of the district's natural resources
- the network of roads, footpaths, cycleways and carparks are accessible, safe and uncongested
- urban communities have a means of travel for pedestrians and cyclist which is safe and efficient.

F.2.3. Implications of Industrial Demand

The effect of tourism growth, industry expansion and the residential expansion is reflected in vehicle growth rates on the arterial and local road networks.

The potential growth of the key primary industries in the district is noted in the areas of:

- forestry
- farming
- tourism
- horticulture
- seafood and agriculture.

It has been assumed that this will generally have little effect on new infrastructure. However the effect on maintenance and renewals standards, and costs is expected to be more significant as discussed in Appendix E and I respectively.

F.2.4. Implications of Legislative Change

Changes to transportation policies may be driven from a number of directions. They could be internally driven (for example the 2008 Tasman District Council Engineering Standards and Policies) or externally driven (for example, changes driven by national organisations like NZ Transport Agency and the Government Policy statement). Monitoring internal and external environments enables the impacts of such changes to be anticipated and predicted. While there is no certainty to these predictions, it is important to consider them when developing asset management forecasts and strategies.

A current and important issue in the transportation environment is the impact of the Council's shift towards a more integrated approach to Tasman road management. Within Tasman district, NZ Transport Agency manages and maintains the 335 km of state highways while the Council is responsible for the maintenance and management of the 1700 km of local roads.

F.3 Assessment of New Capital Works

During May to July 2011, a number of workshops with the project team (including asset managers, consultants, and operations and maintenance staff) were held to identify new works requirements.

New works were identified by:

- reviewing levels of service and performance deficiencies
- reviewing risk assessments
- reviewing previously completed investigation and design reports
- using the collective knowledge and system understanding of the project team.

Each project identified was developed with a scope and a project cost estimate. Common project estimating templates were developed to ensure consistent estimating practices and rates were used. This is described in Appendix Q.

The project estimate template includes:

- physical works estimates
- professional services estimates
- consenting and land purchase estimates
- contingencies for unknowns.

All estimates are documented and filed in an Estimates file to be held by Council. The information from the estimates has then been entered into the Capital Forecast spreadsheet/database that enables listing and summarising of the Capital Costs per project, per scheme, per project driver and per year. This has been used as the source data for input into Council's financial system for financial modelling.

F.4 Determination of Project Drivers and Programming

All expenditure must be allocated against at least one of the following project drivers.

- Operation and Maintenance: operational activities which have no effect on asset condition but are necessary to keep the asset utilised appropriately and on-going day-to-day work required to keep assets operating at required service levels².
- Renewals: significant work that restores or replaces an existing asset towards its original size, condition or capacity³.
- Increase Level of Service: works to create a new asset to upgrade or improve an existing asset beyond its original capacity or performance to improve the level of service provided to existing customers.
- Growth: works to create a new asset to upgrade or improve an existing asset beyond its original capacity or performance to provide for the anticipated demands of future growth.

This is necessary for two reasons as follows.

- a) Schedule 13(1) (a) of the Local Government Act requires the local authority to identify the total costs it expects to have to meet relating to increased demand resulting from growth when intending to introduce a Development Contributions Policy.
- b) Schedule 10(2)(1)(d)(i)-(iv) of the Local Government Act requires the local authority to identify the estimated costs of the provision of additional capacity and the division of these costs between changes to demand for, or consumption of, the service, and changes to service provision levels and standards.

All new works have been assessed against these project drivers. Some projects may be driven by a combination of these factors and an assessment has been made of the proportion attributed to each driver. A guideline was prepared to ensure a consistent approach to how each project is apportioned between the drivers.

Some projects may be driven fully or partly by needs for renewal. These aspects are covered in Appendix I. The projects have been scheduled out across the 20 year period, primarily based on their drivers. They were then loaded into Mapinfo along with projects from all other engineering activities to allow programme managers to assess any programme clashes or optimisation opportunities.

F.5 Project Prioritisation

All projects identified as potential solutions to meet future demand, increase levels of service, or as renewal were discussed in workshops during May to July 2011. These workshops were attended by key council staff, key members of the MWH New Zealand Ltd team, and representatives from Council's contractors.

Each project identified was assigned an initial project priority of either non-discretionary or discretionary where:

A non-discretionary investment is one that relates to:

- a critical asset, that without investment is likely or almost certain to fail within the next three years, with a medium, major or extreme impact
- any asset that has a regulatory requirement to make the proposed investment.

A discretionary investment is one that relates to:

- a non-critical asset with no regulatory requirement to make the proposed investment
- a critical asset where asset failure is possible, unlikely or very unlikely to occur within the next three years with no regulatory requirement to make the proposed investment
- a critical asset where asset failure has only a negligible or minor impact with no regulatory requirement to make the proposed investment.

² Definition from International Infrastructure Management Manual – Version 3.0, 2006, pg 3.114

³ Definition from International Infrastructure Management Manual – Version 3.0, 2006, pg 3.114

Council is currently reviewing the way that they prioritise their work programmes; the outcome of this review will be further developed over the coming year to be implemented for the next AMP update.

F.6 Developer Created Assets

Private developers generally construct new subdivisions with consent from the Council. It is very seldom that the Council itself constructs subdivisions to service growth. Council is normally responsible for the upgrading/upsizing of existing assets to provide for increased volumes associated with growth.

Council does oversee the subdivision process, from consenting through to construction and handover to the Council. Council’s engineers inspect design plans and finished works to ensure the assets meet the required standards and are in an acceptable condition to be accepted as a Council owned asset. Should any work not meet the required standards the Council will require the developer to remedy the issue prior to accepting ownership.

F.7 Forecast of New Capital Work Expenditure

The capital programme that has been forecast for this activity where the primary driver is classed as New Works (ie. growth or levels of service) is shown in the following tables.

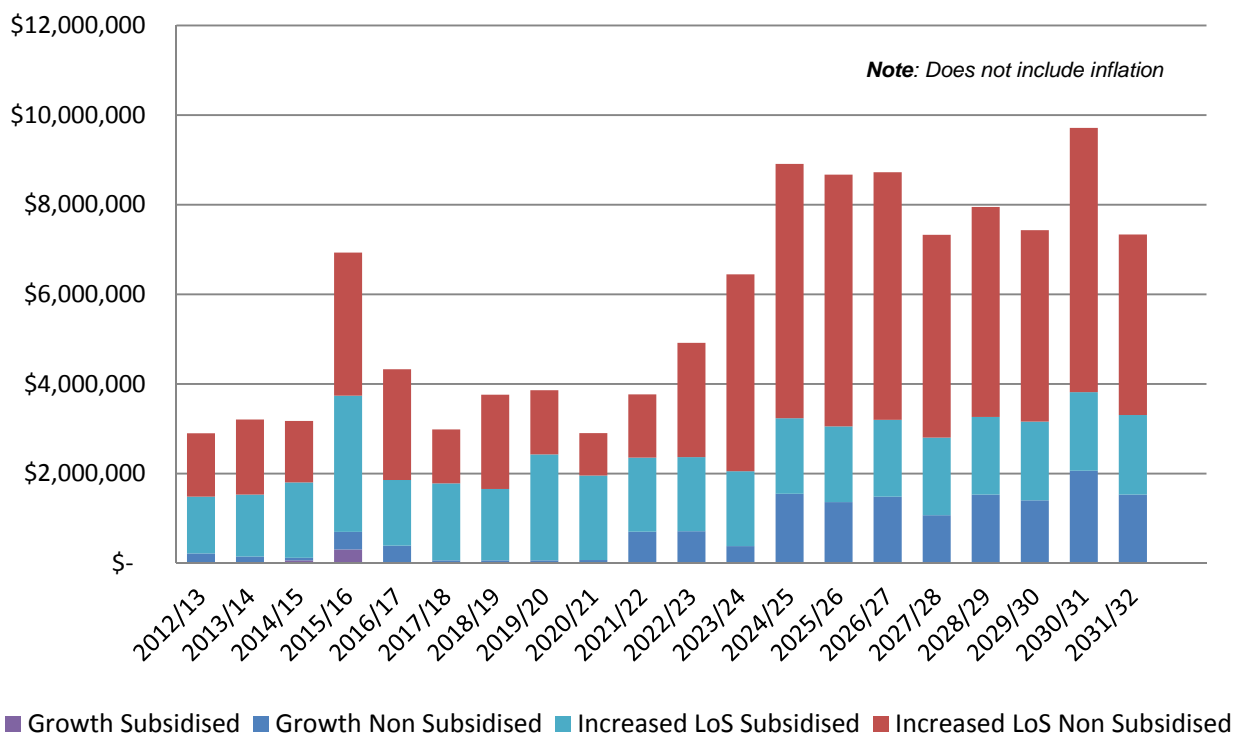


Figure F-1: 2012 – 2032 Transportation New Capital Expenditure

APPENDIX G. DEVELOPMENT CONTRIBUTIONS / FINANCIAL CONTRIBUTIONS

Information on Development Contributions Policy can be found in Part 5 of the Council's Long Term Plan (LTP). The Policy is adopted in conjunction with the LTP and will come into effect on 1 July 2012.

The Policy sets out the development contributions payable by developers, how and when they are to be calculated and paid, and a summary of the methodology and rationale used in calculating the level of contributions.

The key purpose of the Development Contribution Policy is to ensure that growth, and the cost of infrastructure to meet that growth, is funded by those who cause the need for and benefit from the new or additional infrastructure, or infrastructure of increased capacity.

There is one Transportation Development Contribution in place (as shown in Table G-1 below).

Table G-1: Current Development Contributions

Activity	Development Contribution per HUD \$ (incl GST)*
Water	6,596
Wastewater	8,118
Transportation	894
Stormwater	5,149
TOTAL	20,756

HUD = Household Unit of Demand

* The value of the Development Contribution shall be adjusted on 1 July each calendar year.

A forecast of the income from Transportation development Contributions expected over the 10 year period of the LTP has been prepared by Council's Corporate Services based on the forecast residential and business growth projections of the Growth Demand and Supply Model (GDSM refer to Appendix F). The forecast income is included as a line item in the Cost of Service Statement included in Appendix L.

APPENDIX H. RESOURCE CONSENTS AND PROPERTY DESIGNATIONS

H.1 Introduction

The statutory framework defining what activities require resource consent is the Resource Management Act (RMA) 1991. The RMA deals with:

- the control of the use of land
- structures and works in river beds and in the coastal marine area
- the control of the taking, use, damming and diversion of water, and the control of the quantify, level and flow of water in any water body
- the control of discharges or contaminants onto land and into water, and discharges of water into water.

The RMA is administered locally by Tasman District Council, a Unitary Authority, through the Tasman Resource Management Plan (TRMP) which sets out Policies, Objectives and Rules controlling activities to ensure they meet the Purpose and Principles of the RMA.

The districts network of public roads generally has existing use rights or permitted activity status in land use terms. Bridges and other structures in or across rivers, or along the coast, were generally authorised prior to the RMA being enacted.

Control of roadside vegetation by spraying of herbicides, and the spreading of Calcium Magnesium Acetate (CMA) for road de-icing purposes both require discharge permits. Other resource consents are also typically required where there are significant changes to existing structures or new structures in and over waterways, or significant earthworks or changes to stormwater drainage associated with road re-alignments. Works modifying stream beds usually require a resource consent.

Stormwater discharges, whether open channels or reticulated systems, introduce a significant risk of quickly conveying contaminants into highly valued environments. Cumulative adverse effects of the build-up of contaminants in stormwater run-off (eg. heavy metals) are important environmental considerations. It is expected that in the future, there will be more pressure to improve stormwater quality.

Subdivision and urban developments generally involve new roads or extensions to the existing roading network that Council will become responsible for when the new assets are transferred from the developer to Council.

A roading hierarchy is set out in the TRMP for each individual road in the district; comprising Arterial, Distributor, Collector and Access Roads, and Access places.

Designations are a way provided by the RMA of identifying and protecting land for future public works. Council has designated several road widening requirements in the TRMP, mainly in urban areas of the district, to ensure that improvements can be made to the roading network to serve traffic demands and environmental considerations such as urban amenity and treatment of stormwater.

Council will ensure that the process for lodging applications for resource consents (where required) will be undertaken in a timely manner; and that monitoring and reporting performance against conditions of consent will be carried out where applicable.

H.2 Resource Consents

A detailed register of transportation resource consents is listed in Table H-1 below. It should be noted that the list is an accurate reflection of NM2 at the time of compilation (September 2011), and is subject to change.

Table H-1: Schedule of Current Resource Consents Relating to the Transportation Activity

Location	Consent No.	Consent Type	Effective Date (ER)	Expiry Date
District Wide	RM030343	Discharge To Land Permit	06/06/2006	30/06/2013
District Wide	RM080624	Discharge To Land Permit	24/02/2009	01/03/2024
Bridge Maintenance	NN960296	Discharge To Water Permit	13/09/1996	01/08/2011
Abel Tasman Drive	RM031345	Discharge To Water Permit	12/05/2009	12/05/2039
Abel Tasman Drive	RM090570	Land Use Consent (other)	20/10/2009	20/10/2014
Wainui Falls Road	RM070131/ RM070132/ RM070133	Land Use Consent (other)	02/04/2007	02/04/2042
Unknown	RM090569	Land Use Consent (other)		14/01/2020
Aniseed Valley Road	RM090583	Land Use Consent (other)		20/01/2020
Riwaka-Kaiteriteri Road	RM090584	Land Use Consent (other)		16/02/2020
Pupu Springs Road	RM090571	Land Use Consent (other)		08/03/2020
Unknown	RM090455	Land Use Consent (other)	27/10/2009	27/10/2029
Old Wharf Road	RM090891	Land Use Consent (other)		05/02/2043
Collingwood-Bainham Road	RM090788	Land Use Consent (use of the beds of lakes and rivers)		18/01/2045
Seaton Valley Road	RM080112/ RM080113/ RM080260/ RM080261/ RM080262	Land Use Consent (use of the beds of lakes and rivers)	29/07/2009	29/07/2044

Source: NM2

The above list is not believed to be 100% complete as the register is still under development. There are some obvious errors which will be addressed as the database is improved. This action is identified in the Improvement Plan, refer to Appendix V.

Consent NN960296 is approved for use while the application for the new resource consent is being processed.

Where discharge permits, or consents for structures in river beds or along the coast are required, the RMA restricts those consents to a maximum term of 35 years only. Hence there needs to be an on-going programme of "consent renewals" for those components of the Council's road network, as well as a monitoring programme for compliance with the conditions of permitted activities or resource consents.

H.3 Resource Consent Reporting and Monitoring

Council aims to achieve minimum compliance with all consents and / or operating conditions. The achievement of transportation activities to meet consent requirements is reported on in a number of different ways as detailed below.

H.3.1. Environmental Reporting and Monitoring

Environmental monitoring conditions are reported on quarterly, six monthly and/or annually as determined by the consent conditions. Any non-compliance incidents are recorded, notified to Council's Compliance Officer, and mitigation measures put in place to minimise any potential impacts.

H.3.2. NM2

MWH New Zealand Ltd has developed a database (NM2) of all refuse, rivers, transportation, stormwater, water, and wastewater resource consents. The management of this database allows the accurate programming of all actions required by the consents including renewal prior to consent expiry. NM2 is actively updated to ensure all consent conditions are complied with and that all relevant reporting requirements are adhered to.

H.3.3. Council Annual Report

The extent to which the Council has been able to meet all of the conditions of each permit is reported in its Annual Report each year.

H.4 Property Designations

Council has made the following designations for road-widening purposes:

- Brightwater Ellis Street
Waimea West Road
- Motueka Pah Street
Queen Victoria Street
Green Lane
Grey Street
- Kaiteriteri Martin Farm Road
- Wakefield Pitfure Road
- Richmond Wensley Road
Hill Street
Queen Street
Oxford Street
Beach Road
Lower Queen Street
McShane Road.

Council has made one car parking designation on High Street, Motueka (Whitwell Carpark).

All designations have a duration of 10 years, with the exception of Lower Queen Street and McShane Road.

Details of these designations are listed in Appendix 1 to Part II of the TRMP.

Council undertook a project to identify new designations for road widening in the Richmond area in May 2011. The sites listed below have been nominated for inclusion in the TRMP and are awaiting finalisation.

- Richmond Swamp Road
Hart Road
Paton Road
Bateup Road
Hill Street (extended)
Wensley Road (extended).

Council has allocated funds under District Land Purchase to enable purchase of the land as required.

APPENDIX I. CAPITAL REQUIREMENTS FOR FUTURE RENEWALS

I.1 Introduction

Renewal expenditure is major work that does not increase the asset's design capacity but restores, rehabilitates, replaces or renews an existing asset to its original capacity. Work over and above restoring an asset to original capacity is new capital works expenditure.

I.2 Renewal Strategy

Assets are considered for renewal as they near the end of their effective working life or where the cost of maintenance becomes uneconomical and when the risk of failure of critical assets is sufficiently high.

The main renewal activities that attract an annual subsidised budget from NZ Transport Agency are Pavement Rehabilitation, Sealed Road Resurfacing, Unsealed Road Metalling, Traffic Services, Drainage Renewals and Structures Component Replacements (includes Bridge Renewals).

Renewal work is identified by a combination of:

- results of RAMM condition rating and roughness surveys
- outputs from dTIMS pavement deterioration modelling and validation process
- contractor inspections and feedback
- analysis of ratepayer service requests
- results from Falling Weight Deflectometer (FWD) testing and selected test pit analysis
- results from SCRIMM and High Speed Data (HSD) testing on specific routes
- detailed bridge inspections and analysis
- drive-over inspections by Area Engineers and Council's Asset Engineers.

The renewal programme is stored in the forward work programme module in RAMM and is reviewed and updated at least annually.

To attract subsidy from NZ Transport Agency economic evaluations are required for specific activities to ensure that the chosen option is the long term least cost solution. Examples of renewal activities which do not attract subsidy are carparks, footpaths, walkways and urban street furniture.

I.3 Delivery of Renewals

Minor renewal projects are typically carried out by the relevant maintenance contractor. Contracts for larger value renewal projects are tendered in accordance with the Procurement Strategy. Prior to the asset being renewed, the maintenance contractor or consultant will inspect these assets to confirm whether renewal is actually necessary. In the event it does not need to be renewed, a recommended date of renewal is then entered back into the RAMM database. This new date will then be included in the next AMP update.

I.4 Renewal Standards

For roads, the main parameter that signals the need for road renewals is the road condition. A measure of this roughness is the NAASRA roughness counts that are a measure of the number of vertical axle movements (relative to the chassis of the vehicle).

Other measures of road condition developed by NZ Transport Agency are the Surface Condition Index (SCI), Smooth Travel Exposure (STE) and the Pavement Integrity Index (PII). The base information required to calculate these measures is collected during the Condition Rating and Roughness surveys undertaken on the roading network.

The renewal standards are based around measuring and forecasting the deterioration of the asset and scheduling investment in renewals when the level of deterioration becomes unacceptable. This is evident by above average maintenance costs.

A measure of what level of deterioration is acceptable is described in Appendix R, Levels of Service.

The forecasting of the deterioration of the road surfaces is determined by using a combination of RAMM condition rating surveys, road roughness surveys, dTIMS pavement deterioration modelling and engineering judgement.

Condition rating and roughness surveys are programmed regularly (full sealed network assessment every two years). Survey information is stored in the RAMM database and is used as base data for the generation of road condition forecasts, dTIMS and included in the Forward Works Programme.

The RAMM system can also produce short term work programmes for example Treatment Selection Programme which is produced from Condition Rating and Historical Cost Information. For the longer term programming needs now required and with the introduction of three year Land Transport programmes, Council has built on the use of pavement deterioration modelling (dTIMS), since the first model was run in 2001. This is a specialist application that utilises a variety of information from the RAMM database to forecast the rate of pavement deterioration over time.

A high level of data integrity (asset inventory, condition, cost and traffic data) is required in order to give confidence of the quality of dTIMS modelling predictions for long term planning. Since 2006 there have been improvements to existing data and the addition of pavement strength values (SNP), pavement layer depth, SCRIM and texture data into RAMM which assists in producing a more robust model and a more accurate Forward Works Programme.

dTIMS modelling was undertaken August 2011, for which the results have been used to validate the initial budgets prepared during this AMP update. A future improvement item will be to verify the relationship between rutting, strength and pavement depth for the network. As on-going confidence is being developed Forward Work programmes will combine dTIMS modelling predictions, engineering judgement and knowledge of the network by Council's Asset Engineers, Professional Services Consultant and the Maintenance Contractors.

I.4.1. Pavement Rehabilitation

Pavement rehabilitation provides for the replacement of, or restoration of strength, to pavements where other forms of maintenance and renewal are no longer economic. Examples of work type are granular overlays, rip and relay, pavement stabilisation using recycled materials and asphaltic overlays.

The financial forecasts are based on sections produced out of dTIMS model and are then validated in the field. All sections are provisional only, until the economics for the section is completed and meets NZ Transport Agency funding criteria as the long term least cost option.

An estimated length of 6 to 8 km of pavement rehabilitation on the sealed network per annum is forecast over the next 20 years.

I.4.2. Unsealed Road Metalling

This activity provides for the planned periodic renewal of pavement layers, including top surface metal, on unsealed roads. This may be for the purpose of either replacing wearing course aggregate or restoring pavement strength. A rule of thumb figure for aggregate loss per annum is 7 mm depending on loadings, climate and topography.

An estimated quantity of 40,000m³ per annum is forecast to be applied to the unsealed road network over the next 20 years.

Long term sustainability of unsealed road metalling is being investigated to determine whether practical ways of reducing metal loss (and therefore metal use) are available. In particular alternative products and maintenance practices, such as stabilisation, compaction methods, are being considered.

I.4.3. Sealed Road Resurfacing

Sealed road resurfacing provides for the planned periodic resurfacing of existing sealed roads. Examples of resurfacing treatment are maintenance chip seals including second coat seals, void filling seal coats, texturising seals, thin asphaltic surfacing and milling old surface and resurfacing, not exceeding 40mm average depth.

Site selection may also give consideration to site with high loss of control crash rates based on SCRIM data.

The financial forecasts are based on sections produced out of the dTIMS model and validated in the field along with maintenance contractor input. The Forward Works Programme, which shows all sections over a 20 year period is reviewed and updated on an annual basis and is used to develop annual and forward budgets.

An estimated quantity of 450,000 m² or between 65-70 km is calculated to be resurfaced annually over the next 20 years. This length also includes the growth to the sealed network by approximately 1% annually through asset creation principally Council taking over subdivision roads. The overall length of resurfacing equates to an average reseal cycle of 13 to 14 years.

I.4.4. Drainage Renewals

Drainage renewals provide for the renewal of drainage facilities that is not routine in nature. Examples of drainage renewals include renewal of culverts less than 3.4 m² and repair and replacement of kerb and channel.

The forecasted budget takes into account the theoretical total useful life of the asset, historical performance of the asset and results of field inspections undertaken. Also included is reconstruction of 25 km of surface water channels per year to address current identified drainage deficiencies on rural roads.

I.4.5. Structures Component Replacements

This activity provides for the renewal of components of road bridges, retaining structures, guardrails, stock access structures. This work is identified through the routines inspection regime, detailed in Appendix E - Operations and Maintenance.

I.4.6. Sealed Footpaths

Council policy is to install concrete and asphaltic concrete surfacing because of their higher durability and lower long term cost.

The most recent condition rating was undertaken in 2010. Based on this information and community priorities a footpath rehabilitation matrix has been developed to prioritise sites. Sites will be reviewed annually with final decisions dependent on available level of funding.

Renewal of footpaths does not attract an NZ Transport Agency subsidy.

I.4.7. Bridges

Bridge renewals provide for the complete replacement of existing bridges and other road structures including culverts having a waterway greater than 3.4 m². Examples of work type are replacing a structurally inadequate bridge, replacing a bridge for non-structural reasons such as inadequate width or waterway, modifying an existing bridge to increase its structural capacity to a level higher than originally provided, widening an existing bridge and replacing retaining walls supporting a road.

Bridge renewal or strengthening is generally undertaken when part of a structure has reached the end of its economic life and is often not replaced in its entirety.

The strengthening of the low trafficked bridges to maintain them at a serviceable level will continue even if this requires posting below Class I. Further upgrading may be programmed where the heavy traffic demands exist, eg. High Productivity Motor Vehicle (HPMV) routes.

Historically bridge renewals have been carried out depending on economic evaluation analysis and following natural disasters or specific failures.

Council policy is to specify high quality reinforced (and possibly pre-stressed) concrete wherever practical as the material to be used for new or bridge renewals.

Bridge renewals will generally not proceed unless funding from the NZ Transport Agency is secured.

I.4.8. Streetlights

Replacement of streetlight assets occurs when:

- faulty or damaged lanterns cannot be repaired because of obsolescence
- when replacement is more economic than continuing repair
- when columns have reached the end of their useful life.

I.4.9. Traffic Services

Pavement Marking

- repainting existing road markings where deterioration and wear has caused them to fade
- restoring existing markings to roads that have been resurfaced or reconstructed
- creating new road markings on roads that have previously had no marking.

Road Signs

- sign repairs (after damage by accidents or by vandalism)
- replacement of signs that need replacement because of condition, to improve the standard of the sign or to update the information displayed by the sign
- erect new signs.

I.5 Deferred Renewals

Deferred renewals is the shortfall in renewals required to maintain the service potential of the assets. This can include:

- renewal work that is scheduled but not performed when it should have been and which is has been put off for a later date (this can often be due to cost and affordability reasons)
- an overall lack of investment in renewals that allows the asset to be consumed or run-down, causing increasing maintenance and replacement expenditure for future communities.

I.5.1. Assessment of Deferred Renewals

The extent of deferred renewals can be identified by comparing the accumulated investment in renewals with the accumulated annual depreciation. This information then forms the basis for a renewals strategy.

MWH have prepared a draft renewals strategy for Council which is summarised below. For further information refer to Tasman District Transportation Renewals Strategy Draft Report – November 2011. Sealed pavement layers, and bridges (including major culverts) account for 37 and 32 percent of the total transportation asset value respectively. The purpose of the report was to review the knowledge Council has about these two significant asset groups to:

- determine whether Council is maintaining the service potential of the asset or whether the asset is being consumed
- develop an improvement programme to improve Council's renewal management knowledge and processes.

Figure I-1 and Figure I-2 show a comparison of the amount being spent on sealed pavement layer renewals and bridge renewals respectively with the amount of depreciation recognised annually. If the renewals expenditure starts falling behind the accumulative depreciation then the asset is not being replaced or renewed at the rate at which they are being consumed. If this continues unchecked for too long, future communities will inherit a run-down asset, high maintenance costs and high capital costs to renew failing infrastructure.

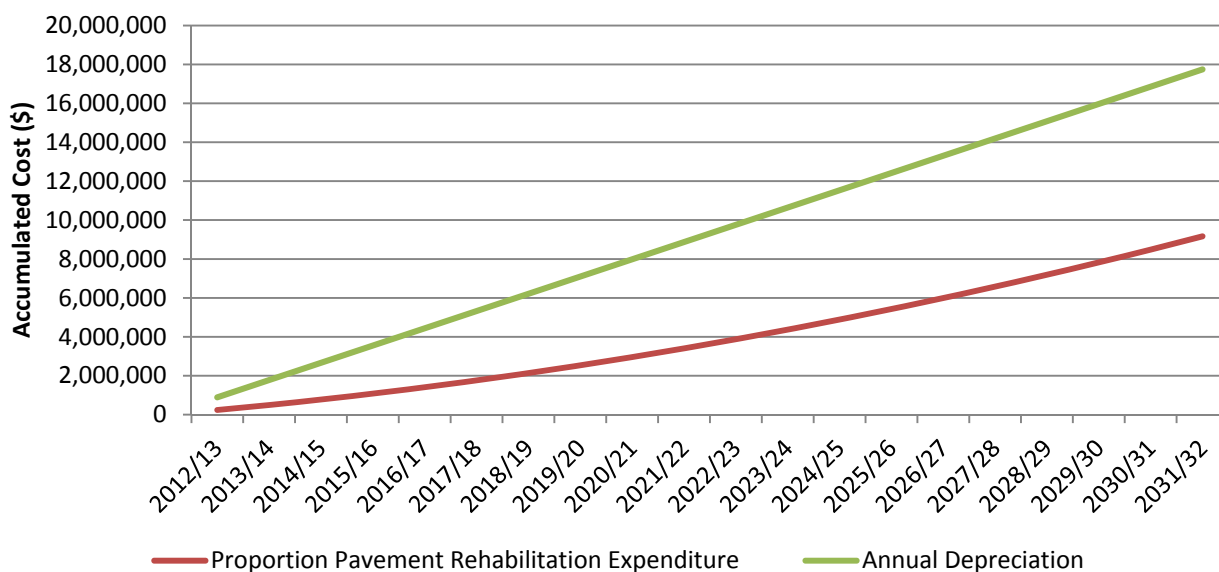


Figure I-1: Sealed Pavement Layers – Comparison of Accumulated Renewals Expenditure versus Annual Depreciation

Figure I-1 shows Council is investing in sealed pavement layer renewals at a rate which is consuming the assets and is therefore deferring renewals.

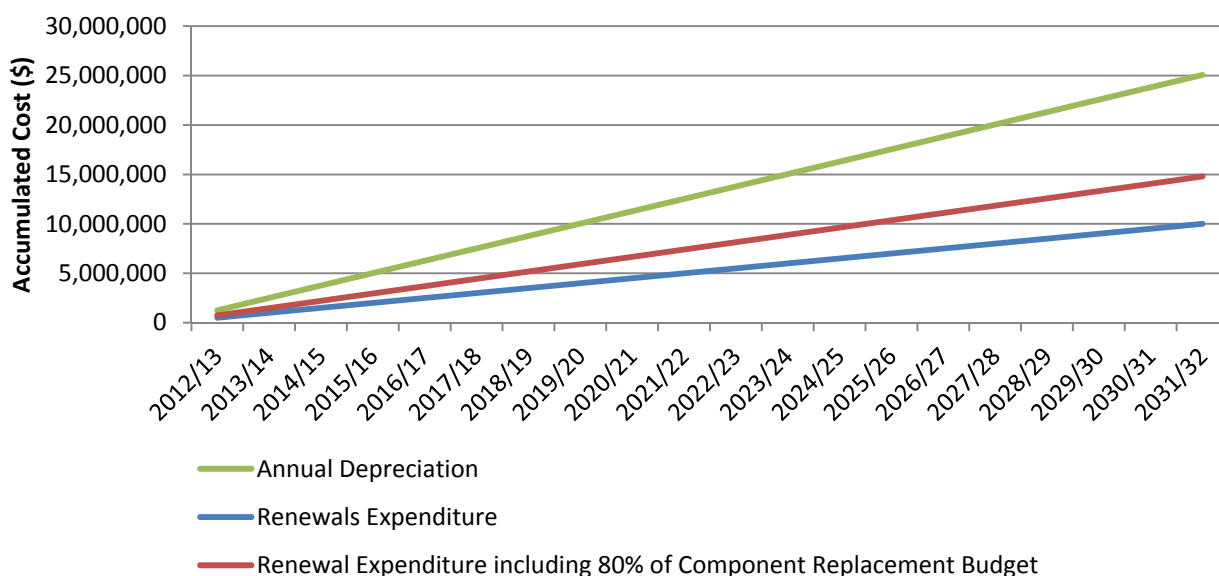


Figure I-2: Bridges – Comparison of Accumulated Renewal Expenditure versus Annual Depreciation

Figure I-2 shows Council is investing in bridge renewals at a rate which is consuming the asset and therefore deferring renewals.

The above figures represent a high level analysis of deferred renewals based on database records, and financial and condition assumptions. It does not give an accurate representation of the physical assets.

Further work is required to understand the apparent gap between the investments in renewals and accumulated annual depreciation. Potential causes may be:

- annual depreciation is too high due to incorrect remaining life assumptions,
- Council is under investing in renewals.

I.5.2. Management and Mitigation of Deferred Renewals

Council routinely undertake condition rating of both bridges and sealed pavement treatment lengths. This information is used to optimise the replacement of these assets. It is expected that a significant proportion of the asset groups can be deferred without impacting on the levels of service. This is modelled and assessed using dTIMS for sealed pavement layers.

To improve the information base for the renewals strategy and replacement programme, Council should focus on the following improvements:

- more critically assess remaining life of sealed pavement layers to reflect different deterioration rates of urban streets and rural roads
- further develop renewals strategy.

I.6 Forecast of Renewal Expenditure

Figure I-3 and Table I-1 shows the projected Subsidised and Non Subsidised Renewals costs for the next 20 years.

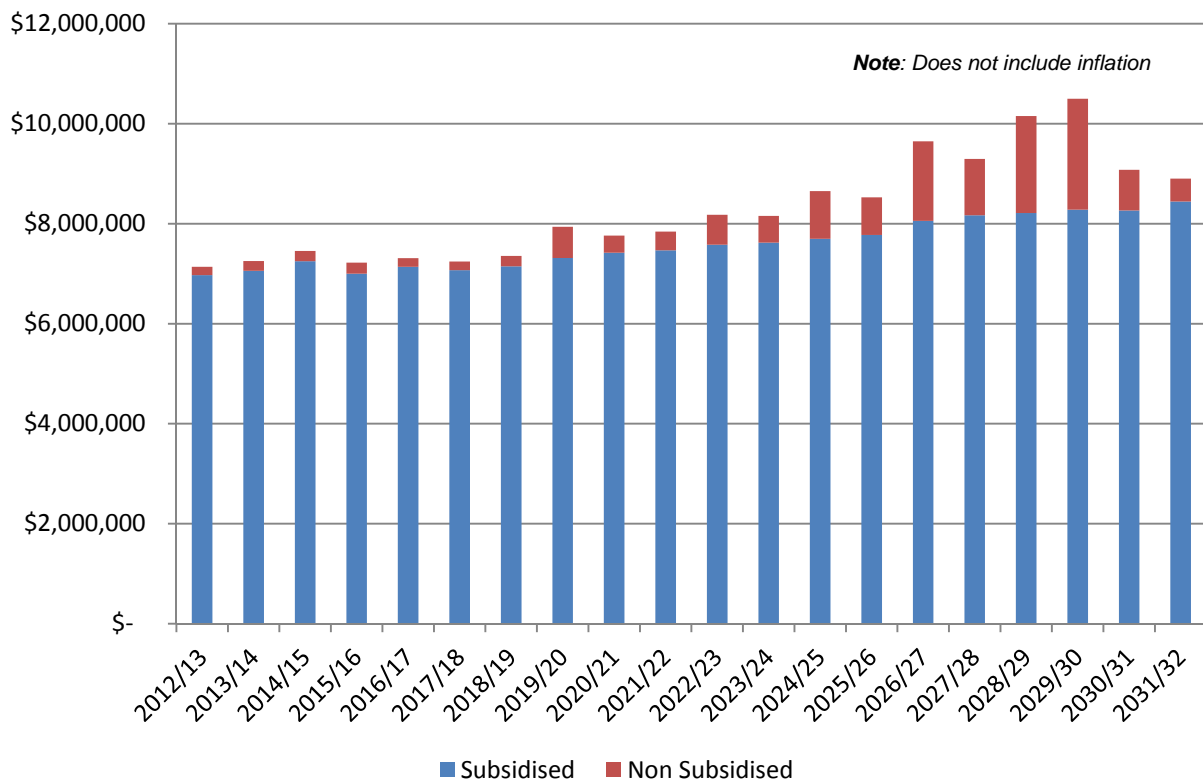


Figure I-3: 2012 – 2032 Transportation Renewals Expenditure

Table I-1: 2012 – 2032 Transportation Renewals Expenditure

Item	Project Name	Work Cat. No.	Work Category Name	GL Code	Total Project Cost	Total Renewals	2009/10 Year 1	2010/11 Year 2	2011/12 Year 3	2012/13 Year 4	2013/14 Year 5	2014/15 Year 6	2015/16 Year 7	2016/17 Year 8	2017/18 Year 9	2018/19 Year 10	2019/20 Year 11	2020/21 Year 12	2021/22 Year 13	2022/23 Year 14	2023/24 Year 15	2024/25 Year 16	2025/26 Year 17	2026/27 Year 18	2027/28 Year 19	2028/29 Year 20	Beyond Year 20	
23	Cycle Path Resurfacing	124	Cycle Path Maintenance	0410620001	289,000	289,000	35,400	0	94,100	0	0	0	0	0	30,000	0	0	0	0	0	0	35,400	0	94,100	0	0	0	
40	Unsealed Road Metalling	211	Unsealed Road Metalling	0401620001	16,000,000	16,000,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000	0
41	SPR - Unsealed Road Metalling	211	Unsealed Road Metalling	0420620001	500,000	500,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	0
42	Sealed Road Resurfacing	212	Sealed Road Resurfacing	0401620002	51,717,244	51,717,244	2,632,200	2,632,200	2,632,200	2,632,200	2,632,200	2,489,200	2,489,200	2,531,520	2,531,520	2,531,520	2,531,520	2,531,520	2,531,520	2,531,520	2,531,520	2,626,452	2,626,452	2,626,452	2,626,452	2,626,452	2,724,944	0
43	SPR - Sealed Road Resurfacing	212	Sealed Road Resurfacing	0420620002	72,000	72,000	36,000	0	0	0	0	0	0	0	0	0	36,000	0	0	0	0	0	0	0	0	0	0	0
44	Drainage Renewals	213	Drainage Renewals	0401620003	31,025,015	31,025,015	1,443,817	1,453,817	1,464,017	1,474,421	1,485,033	1,495,857	1,506,898	1,518,159	1,529,646	1,541,363	1,553,314	1,565,504	1,577,937	1,590,620	1,603,556	1,616,751	1,630,209	1,643,937	1,657,940	1,672,222	0	
45	SPR - Drainage Renewals	213	Drainage Renewals	0420620003	240,000	240,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	0
46	Pavement Rehabilitation	214	Pavement Rehabilitation	0401620004	22,620,000	22,620,000	580,000	638,000	696,000	754,000	812,000	870,000	928,000	986,000	1,044,000	1,102,000	1,160,000	1,218,000	1,276,000	1,334,000	1,392,000	1,450,000	1,508,000	1,566,000	1,624,000	1,682,000	0	
47	Structures Component Replacements	215	Structures Component Replacements	0401620005	6,000,000	6,000,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	0
48	Traffic Services Renewals	222	Traffic Services Renewals	0414620004	9,159,561	9,159,561	397,600	403,220	408,952	414,799	420,763	426,847	433,052	439,381	445,836	452,421	459,137	465,988	472,976	480,103	487,374	494,789	502,353	510,068	517,937	525,964	0	
49	SPR - Traffic Services Renewals	222	Traffic Services Renewals	0420620004	50,000	50,000	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	0
50	District Power Undergrounding - Lighting	222	Traffic Services Renewals	0414620003	650,000	650,000	0	0	0	0	0	0	0	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	0
54	Preventative Works	241	Preventive Works	0401620006	2,925,000	2,925,000	100,000	130,000	210,000	85,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	0
56	Bridge Renewals	322	Bridge Renewals	0408620001	10,000,000	10,000,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	0
60	Cobb Road Power House Bridge	322	Bridge Renewals	0408620004	53,700	53,700	0	53,700	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
61	Cobb Road Reseal - Lower	212	Sealed Road Resurfacing	0401620029	640,560	640,560	106,760	106,760	106,760	0	0	0	0	0	0	0	0	0	0	0	0	106,760	106,760	106,760	0	0	0	0
62	Cobb Road Reseal - Upper	g	Cobb Road - Upper	0506620001	98,600	98,600	0	0	0	0	0	0	0	0	0	0	0	98,600	0	0	0	0	0	0	0	0	0	0
75	Motupipi Street Carpark Reconstruction	b	Carparking	0501620016	562,000	22,480	0	0	0	0	0	0	0	0	0	0	2,248	20,232	0	0	0	0	0	0	0	0	0	0
83	TDC Office Carpark (Motueka)	b	Carparking	0501620004	36,000	11,880	0	11,880	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
89	Will Watch Carpark	b	Carparking	0501620022	20,400	6,732	0	6,732	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
79	Salvation Army Carpark	b	Carparking	0501620014	16,500	5,445	0	5,445	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
85	Town Hall Carpark	b	Carparking	0501620023	13,650	4,505	0	4,505	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
91	Work Centre Carpark	b	Carparking	0501620018	16,800	5,544	0	0	5,544	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
84	TDC Office Carpark (Richmond)	b	Carparking	0501620009	54,000	54,000	0	0	0	54,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
80	Starveall Street Carpark	b	Carparking	0501620024	7,650	2,525	0	0	0	0	2,525	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
78	Saltwater Baths Carpark	b	Carparking	0501620003	24,000	7,920	0	0	0	0	0	0	7,920	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
74	Kaiteriteri Beach Carpark	b	Carparking	0501620021	72,600	72,600	0	0	0	0	0	0	0	72,600	0	0	0	0	0	0	0	0	0	0	0	0	0	0
70	Decks Reserve Carpark	b	Carparking	0501620005	140,520	46,372	0	0	0	0	0	0	0	0	46,372	0	0	0	0	0	0	0	0	0	0	0	0	0
87	Washbourn Garden Carpark	b	Carparking	0501620011	25,500	25,500	0	0	0	0	0	0	0	0	0	25,500	0	0	0	0	0	0	0	0	0	0	0	0
72	Harkness/Petrie Carpark	b	Carparking	0501620007	181,350	181,350	0	0	0	0	0	0	0	0	0	0	0	181,350	0	0	0	0	0	0	0	0	0	0
90	Willow Street Carpark	b	Carparking	0501620017	44,100	44,100	0	0	0	0	0	0	0	0	0	0	0	0	0	44,100	0	0	0	0	0	0	0	0
81	Sundial Square Carpark	b	Carparking	0501620008	36,000	36,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	36,000	0	0	0	0	0	0
88	Whitby Way Carpark	b	Carparking	0501620020	54,000	54,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	54,000	0	0	0	0	0	0
73	Hickmott Place Carpark	b	Carparking	0501620025	106,410	106,410	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	106,410	0	0	0	0	0
76	Papps Carpark	b	Carparking	0501620026	89,910	89,910	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	89,910	0	0	0	0	0
71	Fairfax Street Carpark	b	Carparking	0501620006	16,800	16,800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16,800	0	0	0	0
82	Takaka Library Carpark	b	Carparking	0501620027	94,950	94,950	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	94,950	0	0	0	0
86	Warring Carpark	b	Carparking	0501620010	165,600	165,600	0	0	0	0	0	0	0	0	0	0	165,600	0	0	0	0	0	0	0	0	0	0	0
95	Footpath Rehabilitation	c	Footpaths	0502620002	2,620,000	2,620,000	131,000	131,000	131,000	131,000	131,000	131,000	131,000	131,000	131,000	131,000	131,000	131,000	131,000	131,000	131,000	131,000	131,000	131,000	131,000	131,000	131,000	0
93	CBD Paver Resealing	c	Footpaths	0502620019	206,400	206,400	0	0	30,600	0	0	0	0	30,600	0	0	42,000	0	30,600	0	0	42,000	0	30,600	0	0	0	0
101	Lighting Renewal	d	Lighting	0503620001	100,000	100,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	0

Item	Project Name	Work Cat. No.	Work Category Name	GL Code	Total Project Cost	Total Renewals	2009/10 Year 1	2010/11 Year 2	2011/12 Year 3	2012/13 Year 4	2013/14 Year 5	2014/15 Year 6	2015/16 Year 7	2016/17 Year 8	2017/18 Year 9	2018/19 Year 10	2019/20 Year 11	2020/21 Year 12	2021/22 Year 13	2022/23 Year 14	2023/24 Year 15	2024/25 Year 16	2025/26 Year 17	2026/27 Year 18	2027/28 Year 19	2028/29 Year 20	Beyond Year 20		
105	District Litter Bins	f	Street Cleaning (unsubsidised)	0505620001	300,000	300,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	0		
113	Community Signs	l	Community Signs	0510620001	80,000	40,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	0	
131	District Street Furniture Renewals	q	Street Furniture	0515620001	300,000	300,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	0	
143	Motueka Valley Construction - McLean's Corner Realignment	u	Road Construction Non Sub	0556620059	372,800	141,664	0	0	0	0	0	0	4,180	10,412	127,072	0	0	0	0	0	0	0	0	0	0	0	0	0	
145	Motueka Valley Construction - Narrow Bridge Realignment	u	Road Construction Non Sub	0556620061	1,255,700	376,710	0	0	0	0	0	4,530	29,790	342,390	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
163	Richmond Construction - Wensley Road	u	Road Construction Non Sub	0556620064	5,828,500	874,275	0	0	0	0	0	0	0	0	0	181,725	190,605	26,655	237,645	237,645	0	0	0	0	0	0	0	0	
168	Wakefield Construction - Edward Street Reconstruction	u	Road Construction Non Sub	0556620051	1,208,500	314,210	0	0	0	0	0	0	0	0	0	0	0	0	30,264	34,294	249,652	0	0	0	0	0	0	0	
152	Richmond Construction - Lower Queen Street	u	Road Construction Non Sub	0556620065	13,238,400	2,118,144	0	0	0	0	0	0	0	0	0	0	0	0	199,184	199,184	199,184	380,148	380,148	380,148	380,148	0	0	0	
158	Richmond Construction - Paton Road	u	Road Construction Non Sub	0556620066	4,117,300	452,903	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24,684	24,684	18,997	0	192,269	192,269	0	0	
157	Richmond Construction - Oxford Street	u	Road Construction Non Sub	0556620067	968,100	232,344	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	63,960	70,368	98,016	0	0	
173	Collingwood Streetscape	w	Streetscaping	0571620002	248,300	24,830	0	0	0	0	0	0	0	0	0	0	24,830	0	0	0	0	0	0	0	0	0	0	0	
174	Collingwood Streetscape Renewal	w	Streetscaping	0571620011	173,810	173,810	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	173,810	
182	Richmond Streetscape Renewal	w	Streetscaping	0571620015	3,150,000	3,150,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	315,000	1,260,000	1,575,000	0	0	0	
172	Brightwater Streetscape Renewal	w	Streetscaping	0571620016	1,071,070	1,071,070	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,071,070	
176	Mapua Streetscape Town Centre Renewal	w	Streetscaping	0571620018	1,145,830	1,145,830	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,145,830	
180	Motueka Streetscape Renewal	w	Streetscaping	0571620019	714,100	714,100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	714,100	
184	Takaka Streetscape Renewal	w	Streetscaping	0571620008	409,400	409,400	0	0	0	0	0	0	0	0	0	0	0	0	0	40,940	368,460	0	0	0	0	0	0	0	
109	Kaiteriteri Construction - Martin Farm Road Upgrade	u	Road Construction Non Sub	0556620070	1,129,100	282,275	-	-	-	-	-	-	-	-	-	-	-	12,075	13,875	-	256,325	-	-	-	-	-	-	0	
150	Kaiteriteri Construction - Turners Bluff to Tapu Bay	u	Road Construction Non Sub	0556620071	1,213,200	303,300	-	-	-	-	-	-	-	-	-	-	5,700	30,225	267,375	-	-	-	-	-	-	-	-	-	
155	Kaiteriteri Construction - Tapu Bay to Cederman Drive	u	Road Construction Non Sub	0556620072	1,076,900	269,225	-	-	-	-	-	-	-	-	-	-	-	-	7,450	27,700	234,075	-	-	-	-	-	-	-	
23	Cycle Path Resurfacing	124	Cycle Path Maintenance	0410620001	289,000	289,000	35,400	0	94,100	0	0	0	0	0	30,000	0	0	0	0	0	0	35,400	0	94,100	0	0	0	0	
							194,746,830	168,715,791	7,139,277	7,253,758	7,455,673	7,221,920	7,310,021	7,243,934	7,356,539	7,938,562	7,761,946	7,842,029	8,178,454	8,157,649	8,652,326	8,527,606	9,646,021	9,295,804	10,152,169	10,497,765	9,076,614	8,902,915	3,104,810

N.B Does not include inflation

APPENDIX J. DEPRECIATION AND DECLINE IN SERVICE POTENTIAL

J.1 Depreciation of Infrastructural Assets

Depreciation is provided on a straight line basis on all infrastructural assets at rates which will write off the cost (or valuation) of the assets to their estimated residual values, over their useful lives.

The total useful lives for the transportation infrastructure has been summarised in Appendix D – Asset Valuations. However, the following transportation assets are not depreciated:

- formation
- sub base.

J.2 Decline in Service Potential

The decline in service potential is a decline in the future economic benefits (service potential) embodied in an asset.

It is Council policy to operate the transportation activity to meet a desired level of service. Council will monitor and assess the state of the transport infrastructure and upgrade or replace components over time to counter the decline in service potential at the optimum times.

Council's borrowing policy is that it only funds capital and renewal expenditure through borrowing, normally for 20 years, but shorter or longer terms are used for some assets depending on how long they are expected to last before they need to be replaced. Council has adopted this approach instead of setting aside funds to replace assets as they wear out, ie. funding depreciation. By the time the asset needs to be replaced, Council would normally have repaid the loan for the original asset and can borrow for the replacement asset.

This method of funding capital expenditure provides intergenerational equity, this means that those people that receive the benefit from the asset generally pay for the asset. Notwithstanding this, Council is investigating whether other means of funding assets is more appropriate. Any change is likely to result in an increase in rates and charges in the immediate time period, but might provide longer term benefits.

APPENDIX K. PUBLIC DEBT AND ANNUAL LOAN SERVICING COSTS

K.1 General Policy

The Council borrows as it considers prudent and appropriate and exercises its flexible and diversified funding powers pursuant to the Local Government Act 2002. The Council approves, by resolution, the borrowing requirement for each financial year during the annual planning process. The arrangement of precise terms and conditions of borrowing is delegated to the Corporate Services Manager.

The Council has significant infrastructural assets with long economic lives yielding long term benefits. The Council also has a significant strategic investment holding. The use of debt is seen as an appropriate and efficient mechanism for promoting intergenerational equity between current and future ratepayers in relation to the Council's assets and investments. Debt in the context of this policy refers to the Council's net external public debt, which is derived from the Council's gross external public debt adjusted for reserves as recorded in the Council's general ledger.

Generally, the Council's capital expenditure projects with their long term benefits are debt funded. The Council's other district responsibilities have policy and social objectives and are generally revenue funded.

The Council raises debt for the following primary purposes:

- capital to fund development of infrastructural assets
- short term debt to manage timing differences between cash inflows and outflows and to maintain the Council's liquidity
- debt associated with specific projects as approved in the Annual Plan or LTP. The specific debt can also result from finance which has been packaged into a particular project.

In approving new debt, the Council considers the impact on its borrowing limits as well as the size and the economic life of the asset that is being funded and its consistency with Council's long term financial strategy.

The Borrowing Policy is found in Volume 2 of Council's LTP.

K.2 Loans

Loans to fund capital projects over the next 10 years add up to the following detailed in Table K-1.

Table K-1: Projected Capital Works Funded by Loan for Next 10 years

Transportation	2012/13 Year 1	2013/14 Year 2	2014/15 Year 3	2015/16 Year 4	2016/17 Year 5	2017/18 Year 6	2018/19 Year 7	2019/20 Year 8	2020/21 Year 9	2021/22 Year 10
Subsidised										
Loans Raised (x 1,000)	4,032	4,246	4,521	5,112	4,918	5,098	5,317	6,113	6,169	6,396
Opening Loan Balance (x 1,000)	17,227	19,948	22,619	25,288	28,249	30,699	33,017	35,232	37,897	40,249
Non Subsidised										
Loans Raised (x 1,000)	1,395	1,859	1,426	3,548	3,075	1,273	2,663	2,539	1,729	2,499
Opening Loan Balance (x 1,000)	7,859	8,640	9,809	10,479	13,131	15,171	15,318	16,762	17,957	18,257

Note: Figures do not include for inflation and are in thousands of dollars (ie. x 1000)

K.3 Cost of Loans

Council funds the principal and interest costs of past loans and these are added to the projected loan costs for the next 10 years as shown in Table K-2.

Table K-2: Projected Annual Loan Repayment Costs for Next 10 Years

Transportation	2012/13 Year 1	2013/14 Year 2	2014/15 Year 3	2015/16 Year 4	2016/17 Year 5	2017/18 Year 6	2018/19 Year 7	2019/20 Year 8	2020/21 Year 9	2021/22 Year 10
Subsidised										
Loan Interest (x 1,000)	1,115	1,298	1,509	1,767	2,004	2,230	2,525	2,596	2,852	3,021
Loan Principal (x 1,000)	1,311	1,574	1,852	2,153	2,466	2,780	3,102	3,449	3,817	4,138
Non Subsidised										
Loan Interest (x 1,000)	495	563	639	779	962	1,067	1,187	1,233	1,322	1,369
Loan Principal (x 1,000)	615	690	757	875	1,034	1,126	1,219	1,345	1,428	1,493

Note: Figures do not include for inflation and are in thousands of dollars (ie. x 1000)

APPENDIX L. SUMMARY OF FUTURE OVERALL FINANCIAL REQUIREMENTS

Table L-1 presents a summary of the overall future financial requirements for the transportation activity in the Tasman district.

Table L-1: Summary of Projected Costs and Income for Next 10 years

Roading and Footpaths	2011/2012	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	2017/2018	2018/2019	2019/2020	2020/2021	2021/2022
	Budget \$	Budget \$	Budget \$	Budget \$	Budget \$	Budget \$	Budget \$	Budget \$	Budget \$	Budget \$	Budget \$
SOURCES OF OPERATING FUNDING											
General rates, uniform annual general charges, rates penalties	8,945,518	8,893,954	9,793,236	10,558,441	11,560,526	12,618,221	13,759,173	14,613,538	15,623,312	16,505,390	17,501,007
Targeted rates (other than a targeted rate for water supply)	5,733	5,733	5,733	5,733	5,733	5,733	5,733	5,733	5,733	5,733	5,733
Subsidies and grants for operating purposes	3,545,207	3,320,720	3,478,018	3,441,048	4,151,414	4,321,088	4,469,091	4,623,639	4,844,296	4,922,877	5,236,224
Fees, charges and targeted rates for water supply	-	-	-	-	-	-	-	-	-	-	-
Internal charges and overheads recovered	-	-	-	-	-	-	-	-	-	-	-
Local authorities fuel tax, fines, infringement fees, and other receipts	1,448,436	1,149,675	1,175,895	1,279,782	1,299,704	1,207,022	1,352,457	1,379,910	1,275,854	1,302,824	1,330,714
TOTAL OPERATING FUNDING	13,944,894	13,370,082	14,452,882	15,285,004	17,017,377	18,152,064	19,586,454	20,622,820	21,749,195	22,736,824	24,073,678
APPLICATIONS OF OPERATING FUNDING											
Payments to staff and suppliers	7,986,088	7,899,654	8,362,880	8,396,637	9,333,243	9,780,228	10,092,507	10,423,648	10,941,786	11,133,216	11,794,267
Finance costs	1,596,327	1,610,259	1,861,020	2,148,170	2,545,802	2,966,453	3,297,195	3,712,197	3,828,584	4,174,117	4,390,069
Internal charges and overheads applied	1,836,857	1,868,064	1,862,914	1,922,817	1,945,108	2,005,286	2,090,710	2,114,036	2,194,930	2,295,575	2,332,918
Other operating funding applications	-	-	-	-	-	-	-	-	-	-	-
TOTAL APPLICATIONS OF OPERATING FUNDING	11,419,272	11,377,977	12,086,814	12,467,624	13,824,153	14,751,967	15,480,412	16,249,881	16,965,300	17,602,908	18,517,254
SURPLUS (DEFICIT) OF OPERATING FUNDING	2,525,622	1,992,105	2,366,068	2,817,380	3,193,224	3,400,097	4,106,042	4,372,939	4,783,895	5,133,916	5,556,424

Roading and Footpaths

	2011/2012	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	2017/2018	2018/2019	2019/2020	2020/2021	2021/2022
	Budget \$	Budget \$	Budget \$	Budget \$	Budget \$	Budget \$	Budget \$	Budget \$	Budget \$	Budget \$	Budget \$
SOURCES OF CAPITAL FUNDING											
Subsidies and grants for capital expenditure	7,034,566	4,367,802	4,295,735	4,693,685	6,455,683	5,260,644	5,715,752	5,852,931	6,757,915	6,736,592	6,854,352
Development and financial contributions	793,068	128,597	135,265	132,407	174,320	166,699	172,415	166,699	168,605	168,605	171,462
Increase (decrease) in debt	5,139,162	3,501,074	3,840,856	3,337,918	5,611,580	4,491,689	2,465,148	3,658,879	3,859,131	2,652,723	3,263,636
Gross proceeds from sale of assets	-	-	-	-	-	-	-	-	-	-	-
Lump sum contributions	-	-	-	-	-	-	-	-	-	-	-
TOTAL SOURCES OF CAPITAL FUNDING	12,966,796	7,997,473	8,271,856	8,164,010	12,241,583	9,919,032	8,353,315	9,678,509	10,785,651	9,557,920	10,289,450
APPLICATIONS OF CAPITAL FUNDING											
Capital expenditure											
- to meet additional demand	528,250	-	-	-	-	-	-	-	-	-	1,776,011
- to improve the level of service	4,985,357	2,971,337	3,407,874	3,410,135	7,969,709	5,158,099	3,691,883	4,885,619	5,645,525	4,310,976	4,010,618
- to replace existing assets	9,716,970	7,158,448	7,374,120	7,743,417	8,305,630	8,706,560	8,953,201	9,408,116	10,176,249	10,638,014	11,232,632
Increase (decrease) in reserves	261,841	(140,207)	(144,070)	(172,162)	(840,532)	(545,530)	(185,727)	(242,287)	(252,228)	(257,154)	(1,173,387)
Increase (decrease) in investments	-	-	-	-	-	-	-	-	-	-	-
TOTAL APPLICATIONS OF CAPITAL FUNDING	15,492,418	9,989,578	10,637,924	10,981,390	15,434,807	13,319,129	12,459,357	14,051,448	15,569,546	14,691,836	15,845,874
SURPLUS (DEFICIT) OF CAPITAL FUNDING	(2,525,622)	(1,992,105)	(2,366,068)	(2,817,380)	(3,193,224)	(3,400,097)	(4,106,042)	(4,372,939)	(4,783,895)	(5,133,916)	(5,556,424)
FUNDING BALANCE	-	-	-	-	-	-	-	-	-	-	-

N.B. Figures do include inflation.

APPENDIX M. FUNDING POLICY, FEES AND CHARGES

M.1 Funding Strategy

The Council's strategy is to maximise the funding sourced through the NZ Transport Agency, for all works qualifying for subsidies.

The current NZ Transport Agency Funding Assistance Rates (FAR) and local share proportions for subsidised works are detailed below in Table M-1.

Table M-1: Funding Assistance Rates

Activity Type	NZ Transport Agency FAR	Council Share
Operations, maintenance and renewals	49%	51%
Improvement projects and studies	59%	41%
Regional Land Transport Planning	50%	50%

The Council share of the operations and maintenance works is funded from General Rate. The Council share of the renewal and capital improvement works is to be loan funded.

All work not receiving a NZ Transport Agency subsidy (non subsidised) is funded from a General Rate for maintenance and loans for capital works. For capital improvements part of the funding is from development contributions where growth impacts are justified.

The provision of most road maintenance services on the existing roading network currently receives a NZ Transport Agency subsidy of 49% for all roads except Totaranui and Pupu Springs Roads. These roads (12 km) are designated Special Purpose Roads because of their national significance and attract a 100% maintenance subsidy. Council also receives funding from the Department of Conservation and Trust Power towards maintenance of part of the Cobb Road.

Some projects such as safety, seal extension and bridge renewal projects, which can demonstrate set benefits will also be subsidised at a higher rate, up to 59%. Private developers generally meet the full cost of new roads, or contribute to the upgrade of existing roads through Development Impact Levies (DILs). For minimum standard, non-subsidised, rural seal extensions, direct contributions are made by benefiting landowners. The balance of funding requirements is paid out of Council's general rating base.

Under current Council policy, this activity is funded from the following sources:

- sundry income
- fees and recoveries
- loans raised
- general rate
- targeted rate
- NZ Transport Agency subsidy.

M.2 Schedule of Fees and Charges

Fees and charges are set to recover the full administration costs of new development. Other fees and charges for road accesses, road openings, structures on roads, are set at a level to recover part of the management cost such that applicants are encouraged to apply and meet the standard conditions and to protect the road asset.

Table M-2: Schedule of Fees and Charges

Permit Fees	Charges Proposed from 1 July 2012 including GST
Vehicle Access Crossing (urban)	\$129.00
Vehicle Access Crossing (rural)	\$129.00
Road Opening Permit – perpendicular to road	No longer applicable. Replaced by Corridor Access Request (CAR).
Road Opening Permit – parallel to road	No longer applicable. Replaced by CAR.
Corridor Access Request (CAR) – in accordance with the Utilities Access Act 2010 and as part of a Code for the Management of a Road Corridor.	\$230.00
Water Tanker Permit (to comply with Council's Water Supply Bylaw 2009)	\$1,123.00 pa plus the current water rate per cubic metre for water consumed
Fencing on road reserve (also gates, other structures)	\$316.00 plus inspection costs
License to Occupy Road Reserve Application Fee plus actual Tasman District Council legal costs	\$245.00
Parking permit	\$35.00/day
Application for Tourist Facility Sign (\$100 refunded if consent refused)	\$185.00 plus actual costs
Fencing between private and Tasman District Council reserves land (subject to a case by case basis)	Half actual cost per linear meter or \$46.00 per metre (inclusive of GST) whichever is the lower
Road Closure (events, parades)	\$327.00 (or actual costs for inspections and public notifications) plus \$2,000.00 bond plus insurance and public liability cover
Officer's Inspection Fees	\$138.00/hr
Engineering Standards	\$101.00

Council also has a targeted rate for the purpose of funding loan repayment costs for the sealing of Hamama Road as follows:

Rate	2011/2012	2012/2013
Hamama Road sealing rate (dollars per rating unit)	\$659.30	\$659.30

APPENDIX N. DEMAND MANAGEMENT

N.1 Introduction

The objective of demand management (sometimes called non-asset solutions) is to actively seek to modify customer demands for services in order to:

- optimise utilisation/performance of existing assets
- reduce or defer the need for new assets
- meet the organisation’s strategic objectives (including social, environmental and political)
- delivery of a more sustainable service
- respond to customer needs.

The future growth and demand projections are discussed in Appendix F – Demand and Future Capital Requirements. The Land Transport Management Act requires demand management to be addressed in the Land Transport Programme and Regional Land Transport Strategies.

Recently the district’s population growth has been due to substantial net migration greater than the national average. This will both decrease the level of service on the existing network and make more sustainable alternative forms of transport, such as public buses more desirable to the road users.

N.2 Council’s Approach to Demand Management

Connecting Tasman the Regional Land Transport Strategy (RLTS) was updated in 2010 and includes the following strategies:

- Tasman Regional Land Transport Strategy
- Tasman Regional Cycling Strategy
- Tasman Regional Pedestrian Strategy
- Tasman Passenger Transport Strategy
- Tasman Travel Demand Strategy.

The Council has adopted policies within the Travel Demand Strategy that will encourage and facilitate the reduction in motorised road traffic, these are summarised below in Table N-1. The policies and indicative time frames are discussed in more detail in the RLTS.

Table N-1: Summary of Travel Demand Management Policies

<p>Travel Behaviour Change Policy TDM1</p>	<ul style="list-style-type: none"> • Promote School Travel Plans (walking school buses). • Promote alternative forms of travel. • Promote Workplace Travel Plans. • Provide incentives to employers to support alternative forms of transport. • Implement a carpooling scheme and promotion campaign.
<p>Land-use and Transportation Planning TDM2</p>	<ul style="list-style-type: none"> • Review TRMP to promote residential and employment land-use development around transportation hubs. • Review TRMP design guides to ensure that planning proposals cater for mobility impaired transport users and help to provide improved accessibility for the more sustainable transport modes. • Review engineering guidelines to ensure that designs are required to provide for convenient bus services and high standard walking and cycling networks. • Develop accessibility planning guidelines and standards to be applied to all key community facilities in order to maximise the proportion of the community with ready access to those

	facilities by affordable, sustainable transport modes.
Support of Active Travel Modes TDM3	<ul style="list-style-type: none"> • Ensure that all key infrastructure programmes for transportation and community facilities are subjected to Non-Motorised Road User Reviews and Audits. • Provide a clearly definable network of walking and cycling routes to the destinations (such as schools, shopping areas etc.). • Provide maps showing walking and cycling routes, facilities and services, and promote with publicity campaigns. • Implement the Tasman Regional Walking and Cycling Strategy.
Parking Management TDM4	<ul style="list-style-type: none"> • Develop central business district parking strategies for Richmond and Motueka, to address the anticipated demand for all day parking. • Consider parking strategies for other townships. • Review the TRMP parking provisions to be consistent with policies in this strategy and the proposed CBD parking strategy.

N.2.1. Demand Management Data Collection and Analysis

The following surveys are undertaken to collect base demand data.

Traffic Counting – The Council engages a traffic counting consultant using the competitive tender process to undertake routine and special counts throughout the district. The contract is a 3 + 1 +1 format. The contract requires all roads are counted a minimum of once every five years with exception of the compulsory count sites which are required to be counted six-monthly or annually. Council recently adopted the MetroCount system which enables classified and speed counts to be undertaken at all sites (with the exception of unsealed roads). This data is stored and managed by Council's consultants MWH New Zealand Ltd. The data is analysed to determine average daily traffic (ADT) and annual average daily traffic (AADT) and then input into RAMM. This information is then used as an input to dTIMS modelling.

Cycle Counting – The traffic counting contractor is also engaged to undertake routine cycle counts in Richmond on a six-monthly basis. The results from these counts is summarised and stored by Council's consultants MWH New Zealand Ltd. The data has been used to calculate growth rates to support funding applications for new cycle facilities.

Car Parking Surveys – Council has undertaken car parking surveys to determine to the demand and occupancy of both on street and off street parking within the CBD areas of Motueka and Richmond. The results are summarised by street or parking area, however no further interpretation has been undertaken.

N.2.2. Demand Management Projects

A summary of the demand management related projects for the transportation activity are listed in Table N-2 following.

Table N-2: Summary of Demand Management Related Projects

Study Name	Brief Description
System Use Study	A study of walking, cycling and system use within the district every three years.
Heavy Industry Impact Strategy	Full review completed every three years in order to project forestry harvesting, horticulture, dairy and other heavy industry loadings on the network and timing of forward work programme. Update for exceptions to be completed every other year.
District Car Parking Strategy Review	Assess the demand and options for car parking in the urban areas.
Regional Transport Studies	A study of passenger transport within the district every three years.
New Footpaths	Construction of new footpaths to expand the pedestrian network.
New Cycleways (shared use paths)	Construction of new cycleways/shared use paths to expand the walking and cycling network. Includes construction of the Taste Tasman Trails.
Community Programmes	Includes community education and school travel plans.

N.3 Sustainable Development Issues

New roads and rehabilitation of existing roads relies on the use of large volumes of aggregate. Council wishes to encourage and facilitate the use of river gravels only for high end use products such as concrete products and sealing chip. Council is facilitating the use of lower quality products for road aggregate by allowing stabilisation methods, alternative pavement designs and a mix of aggregates in the pavements.

Chip sealing designs are continually monitored to ensure the optimal size and life is chosen for long term cost and least use of the high quality product.

N.4 Climate Change

N.4.1. Changing Climatic Patterns

The RMA 1991 states, in Section 7, that a local authority shall take account of the effects of climate change when developing and managing its resources. To assist local authorities, the Ministry for the Environment (MfE) prepared a report⁴ to support councils' assessing expected effects of climate change, and to help them prepare appropriate responses when necessary.

This section summarises information presented in the MfE report and a report by NIWA on Climate Change and Variability in the Tasman district. This section aims to explore the impacts of expected climate changes for the Tasman-Nelson region and will conclude with anticipated impacts on this activity.

N.4.2. Temperature Change

Table N-3 shows that the mean annual temperatures in Tasman-Nelson are expected to increase in the future.

Table N-3: Projected Mean Temperature Change (Upper and Lower Limits) in Tasman-Nelson (in °C)

	Summer	Autumn	Winter	Spring	Annual
Projected changes 1990-2040	0.2 - 2.2	0.2 - 2.3	0.2 - 2.0	0.1 - 1.18	0.2 – 2.0
Projected changes 1990-2090	0.9 – 5.6	0.6 – 5.1	0.5 – 4.9	0.3 – 4.6	0.6 – 5.0

Source: Climate Change and Variability – Tasman District (NIWA, June 2008)

⁴ Climate Change Effects and Impacts Assessment A Guidance Manual for Local Government in NZ (MfE, May 2008)

It is the opinion of NIWA⁵ scientists that the actual temperature increase this century is very likely to be more than the 'low' scenario given here. Under the mid-range scenario for 2090, an increase in mean temperature of 2.0°C would represent annual average temperature in coastal Tasman in 2090.

N.4.3. Rainfall Patterns

Table N-4 shows an expected increase in mean annual precipitation in Tasman-Nelson from 1990 to 2090.

Table N-4: Projected Mean Precipitation Change (Upper and Lower Limits) in Tasman-Nelson (in %)

	Summer	Autumn	Winter	Spring	Annual
Projected changes 1990-2040	-14, 27	-2, 19	-4, 9	-8, 9	-3, 9
Projected changes 1990-2090	-13, 30	-4, 18	-2, 19	-20, 19	-3, 14

Source: Climate Change and Variability – Tasman District (NIWA, June 2008)

N.4.4. Heavy Rainfall

A warmer atmosphere can hold more moisture (about 8% more for every 10C increase in temperature), so there is an obvious potential for heavier extreme rainfall under climate change.

More recent climate model simulations confirm the likelihood that heavy rainfall events will become more frequent.

N.4.5. Evaporation, Soil Moisture and Drought

From their report, NIWA conclude that there is a risk that the frequency of drought (in terms of low soil moisture conditions) could increase as the century progresses, for the main agriculturally productive parts of Tasman district.

N.4.6. Climate Change and Sea Level

NIWA report that a revised guidance manual for local government on coastal hazards and climate change is currently in preparation. For the interim, NIWA's report suggests:

1. For planning and decision timeframes out to the 2090s (2090-2099) use.

A base mean sea-level rise of 0.5m relative to the 1980-1999 average.

An assessment of the sensitivity of the issue under consideration to possible higher mean sea-levels taking account of possible additional contributions. This level is currently under discussion, but is likely to be no less than 0.8m.

2. For planning and decision timeframes beyond 2100 where, as a result of the particular decision, future adaptation options will be limited, an allowance for mean sea-level rise of 10mm/year beyond 2100 is recommended (in addition to the above recommendation).

These projections are for mean sea levels. Less information is available on how extreme storm sea levels will change with climate change.

⁵ Climate Change and Variability – Tasman District (NIWA, June 2008)

N.4.7. Potential Impacts on Council's Infrastructure and Services

Table N-5 lists the potential impacts on Council's infrastructure and services.

Table N-5: Local Government Functions and Possible Climate Change Outcomes

Function	Affected Assets or Activities	Key Climate Influences	Possible Effects
Water supply and irrigation.	Infrastructure.	Reduced rainfall, extreme rainfall events and increased temperature.	Reduced security of supply (depending on water source) Contamination of water supply.
Wastewater.	Infrastructure.	Increased rainfall.	More intense rainfall (extreme events) will cause more inflow and infiltration into the wastewater network. Wet weather overflow events will increase in frequency and volume. Longer dry spells will increase the likelihood of blockages and related dry weather overflows.
Stormwater.	Reticulation. Stopbanks.	Increased rainfall. Sea-level rise.	Increased frequency and/or volume of system flooding. Increased peak flows in streams and related erosion. Groundwater level changes. Saltwater intrusion in coastal zones. Changing flood plains and greater likelihood of damage to properties and infrastructure.
Roading.	Road network and associated infrastructure (power, telecommunications, drainage).	Extreme rainfall events, extreme winds, high temperatures.	Disruption due to flooding, landslides, fallen trees and lines. Direct effects of wind exposure on heavy vehicles. Melting of tar.
Planning/policy development.	Management of development in the private sector. Expansion of urban areas. Infrastructure and communications planning.	All.	Inappropriate location of urban expansion areas. Inadequate or inappropriate infrastructure, costly retro-fitting of systems.
Land management.	Rural land management.	Changes in rainfall, wind and temperature.	Enhanced erosion. Changes in type/distribution of pest species. Increased fire risk. Reduction in water availability for irrigation. Changes in appropriate land use. Changes in evapotranspiration.
Water management.	Management of watercourses/ lakes/wetlands.	Changes in rainfall and temperature.	More variation in water volumes possible Reduced water quality. Sedimentation and weed growth. Changes in type/distribution of pest species.

Function	Affected Assets or Activities	Key Climate Influences	Possible Effects
Coastal Management.	Infrastructure. Management of coastal development.	Temperature changes leading to sea-level changes. Extreme storm events.	Coastal erosion and flooding. Disruption in roading, communications. Loss of private property and community assets. Effects on water quality.
Civil defence and emergency management.	Emergency planning and response, and recovery operations.	Extreme events.	Greater risks to public safety, and resources needed to manage flood, rural fire, landslip and storm events
Bio security.	Pest management.	Temperature and rainfall changes.	Changes in the range of pest species
Open space and community facilities management.	Planning and management of parks, playing fields and urban open spaces.	Temperature and rainfall changes. Extreme wind and rainfall events.	Changes/reduction in water availability Changes in biodiversity Changes in type/distribution of pest species Groundwater changes Saltwater intrusion in coastal zones Need for more shelter in urban spaces
Transport.	Management of public transport. Provision of footpaths, cycleways etc.	Changes in temperatures, wind and rainfall.	Changed maintenance needs for public transport infrastructure. Disruption due to extreme events
Waste management.	Transfer stations and landfills.	Changes in rainfall and temperature.	Increased surface flooding risk. Biosecurity changes. Changes in ground water level and leaching.
Water supply and irrigation.	Infrastructure.	Reduced rainfall, extreme rainfall events and increased temperature.	Reduced security of supply (depending on water source). Contamination of water supply.

Source: Climate Change Effects and Impacts Assessment (MfE, May 2008)

Council have incorporated the potential impacts of climate change in the 2008 update of the Engineering Standards and Policies.

APPENDIX O. NOT RELEVANT TO THIS ACTIVITY

APPENDIX P. SIGNIFICANT EFFECTS

Potential significant negative effects and the proposed mitigation measures are listed below in Table P-1.

Table P-1: Potential Significant Negative Effects

Effect	Council's Mitigation Measure
Vehicle use within the network produces noise. The level of noise generated generally depends on the speed of vehicles, and the type of road and tyre surface.	<p>Council addresses noise generation using different surfacing materials such as chip seal or asphaltic concrete during the treatment selection for resurfacing programmes. In the urban areas, smaller size sealing chips or asphalt surfacing may be used to reduce noise. Asphalt is the most effective; however it is also the most expensive but does provide a longer surface life.</p> <p>Council can also reduce noise by encouraging slow streets, implementing street calming and ensuring the hierarchy of roads is followed in accordance with the Council's Engineering Standards.</p>
<p>Council installs lighting in public areas and along roads to improve the safety and amenity of the area. This can have an adverse affect on neighbouring properties due to light spill.</p> <p>Upward light spill can adversely affect user groups by 'polluting' the night skies.</p>	<p>Council aims to reduce or prevent light spill through the use of shields or cut-off luminaries. It is also possible where upgrading light fittings to install units which have improved design and that target light on the road, minimising light spill (including upward waste light).</p> <p>Council has planned to develop a street lighting strategy in 2012/13 which will include mitigation measures.</p>
<p>Vehicle use of roads produces emissions which can effect air and water quality.</p> <p>Discharges from motor vehicles have the potential to diminish water quality in adjacent streams from run-off from roads.</p> <p>Air quality can be affected by dust generation from vehicles travelling on unsealed roads.</p>	<p>Compliance with vehicle emission standards is targeted at a national level with requirements for all vehicles to meet at warrant/certificate of inspection checks.</p> <p>Vehicle emissions are increased under times of acceleration and braking, Council can reduce the effect of this by the use of traffic engineering design which allows smooth flow of traffic on the main routes.</p> <p>Council has a seal extension matrix identifying potential sites for upgrade (subject to funding approval).</p>
Increasing traffic volumes may result in congestion of urban arterial links.	Council has identified a number of capital projects such as intersection upgrades and the Richmond Ring Route to provide for future traffic flows.
Road users face potential crashes and associated injury or death.	The detrimental impact of crashes can be reduced through undertaking design of new roads and improvement to existing roads in accordance with best practise design. The Council undertakes works so that the effect of the crashes are minimised, eg. through the use of protective barriers, clear zones, recovery areas, signs, road marking and inspections and safety audits. Council also aims to prevent crashes by undertaking road and intersection alignment improvements, along with road safety education programmes.
The costs of providing the services.	Council uses competitive tendering processes to achieve best value for money for works it undertakes. It also uses priority matrices to prioritise funding allocations.
The provision of roads and transportation services has the potential to affect historic and wahi tapu sites.	Council undertakes consultation with affected parties prior to undertaking works. Council also maintains a record of known heritage sites.

Policies and strategies for mitigation, monitoring and reporting of those effects are at various stages of development. Where specific resource consent is applicable, reporting is part of the consent process.

Safety is addressed at a national and local level of reporting through the location, severity, number and type of crashes in the NZ Transport Agency's CAS database.

P.1 Significant Positive Effects

Potential significant positive effects are listed below in Table P-2.

Table P-2: Potential Significant Positive Effects

Effect	Description
Economic development.	Provision of an efficient road network allows for the movement of freight between key hubs and markets, therefore allowing economic growth and prosperity.
Safety and personal security.	Council aims to improve the safety of the transportation network for all modes of travel, for example this includes the implementation of the minor improvements programme and provision of lighting for pedestrians.
Access and mobility.	Council aims to provide a transport system that is integrated with land use planning, optimising access and mobility for all. Providing access also allows emergency services to access the majority of the community with ease.
Public health.	Council's management of the transport network encourages active modes of travel e.g. walkways and cycleways which can enhance people's health and well-being.
Environmental sustainability.	Council aims to achieve environmental sustainability whilst managing the transportation activity. This is generally managed by the resource consent process and the TRMP.
Economic efficiency.	Council's management of the transportation activity uses best practice and competitive tendering to provide value for money for the ratepayers and provides jobs for contractors.

APPENDIX Q. SIGNIFICANT ASSUMPTIONS, UNCERTAINTIES AND RISK MANAGEMENT

Q.1 Assumptions and Uncertainties

This AMP and the financial forecasts within it have been developed from information that has varying degrees of completeness and accuracy. In order to make decisions in the face of these uncertainties, assumptions have to be made. This section documents the uncertainties and assumptions that Council consider could have a significant effect on the financial forecasts, and discusses the potential risks that this creates.

Q.1.1. Financial Assumptions

The following assumptions have been made:

- all expenditure is stated in dollar values as at 1 July 2011, with no allowance made for inflation over the planning period
- all costs and financial projections are GST exclusive.

Q.1.2. Asset Data Knowledge

While the Council has asset registers and many digital systems, processes and records, Council does not have complete knowledge of the assets it owns. To varying degrees the Council has incomplete knowledge of asset location, asset condition, remaining useful life and asset capacities. This requires assumptions to be made on the total value of the assets owned, the time at which assets will need to be replaced and when new assets will need to be constructed to provide better service.

Notwithstanding this, Council considers these assumptions and uncertainties constitute only a small risk to the financial forecasts because:

- significant amounts of asset data is known
- asset performance is well known from experience
- there are plans to upgrade significant extents of poorly performing assets.

The assumptions that have been made that are considered significant include.

- The majority of the roading network is in a satisfactory condition. Known exceptions are that not all roads or sections of roads meet the current Engineering Standards. These are considered for upgrades depending on the required level of service. Road restricted bridges (approximately 7%) some of which will not be replaced because of the low level of service required.
- The road pavement data used in the planning models (such as dTIMS) is substantially estimated. However there has been detailed pavement testing (Falling Weight Deflectometer) since 2006.
- The condition rating survey is completed for the sealed network only (approximately 50% of network). The condition rating survey for footpaths, walkways and carparks was completed in 2010.
- Condition rating has yet to be established for street furniture and unsealed roads.
- Forward planning to accommodate heavy traffic particularly forestry uses the Heavy Industry Impact Studies (previously Forest Harvesting Impact Strategy) developed in conjunction with the industry. This however is market driven and significant changes can occur in the 10 year period. Closer liaison and improved relationships with the main owners is encouraged.
- Road condition is susceptible to extreme natural events, particularly the rural pavements and metal surfaces.

- The current location of transportation assets inventory is detailed below:
 - RAMM database for roads, minor structures, drainage structures, bridges, footpaths, carparks, walkways and service lanes
 - Confirm database for street lights
 - a combination of separate Excel spreadsheets and RAMM for street furniture.

Q.1.3. Growth Forecasts

Growth forecasts are inherently uncertain and involve many assumptions. The growth forecasts also have a very strong influence on the financial forecasts, especially in Tasman district where population growth is higher than the national average. The growth forecasts underpin and drive:

- the asset creation programme
- Council income forecasts including rates and development contributions
- funding strategies.

Thus the financial forecasts are sensitive to the assumptions made in the growth forecasts.

The significant assumptions in the growth forecasts are covered in the explanation on method and assumptions in Appendix F: Demand and Future New Capital Requirements.

Q.1.4. Network Capacity

The Council has a growing knowledge and understanding of network capacity, however the knowledge is not complete. Council is collecting asset data such as traffic counts and modelling specific areas such as Richmond CBD and Richmond West (Lower Queen Street) where capacity is affecting or likely to affect the levels of service.

Carpark surveys have been completed in some areas to assess existing capacity.

Cycling and walking strategies (last reviewed in 2008) have included public consultation to assess the demand.

Council has participated in strategic studies (such as Nelson-Brightwater Study 2005-07) including capacity modelling for the state highways and these have included the likely impacts on the Tasman District Network. The majority of the local road network is at a satisfactory level of service for capacity.

Q.1.5. Timing of Capital Projects

The timing of many capital projects can be well defined and accurately forecast because there are few limitations on the implementation other than the community approval through the LTP/Annual Plan processes. However, the timing of some projects is highly dependent on some factors which are beyond the Council's ability to fully control.

These include factors like:

- obtaining resource consent, especially where community input is necessary
- obtaining the community consent
- obtaining a subsidy from central government
- securing land purchase and / or land entry agreements.

Where these issues may become a factor, allowances have been made to complete in a reasonable timeframe, however these plans are not always achieved. The effect of this will be to defer expenditure. The impact of this on the forward projections is not considered significant.

Q.1.6. Funding of Capital Projects

Funding of capital projects is crucial to a successful project. When forecasting projects that will not occur for a number of years, a number of assumptions have to be made about how the scheme will be funded.

Funding assumptions are made about:

- whether projects will qualify for subsidies
- whether major beneficiaries of the work will contribute to the project
- whether and how much should be funded from development contributions
- whether Council will subsidise the development of the project.

The correctness of these assumptions has major consequences on the affordability especially of new assets or substantial increases in the level of service such as for seal extensions. The funding strategy will form one part of the consultation process as the projects are advanced toward construction.

Some decisions have been made to remove some projects from the 10 year forecast. These decisions will mean that some problems may continue to exist. No remedial works or other financial provisions have been made to address these consequences.

Q.1.7. Council's Disaster Fund Reserves

The Council has assumed for the purposes of preparing this AMP that the level of funding in these budgets and held in Council's disaster fund reserves will be adequate to cover reinstatement following emergency events.

Funding levels are based on historic requirements. The risk of requiring additional funding is moderate and may have a moderate effect on planned works due to reprioritisation of funds.

Q.1.8. Accuracy of Capital Project Cost Estimates

The financial forecasts contain many projects, each of which has been estimated from the best available knowledge. The level of uncertainty inherent in each project is different depending on how much work has been done in defining the problem and determining a solution. In many cases, only a rough order cost estimate is possible because little or no preliminary investigation has been carried out. It is not feasible to have all projects in the next 20 years advanced to a high level of estimate accuracy. However, it is preferable to have projects in the next three years advanced to a level that provides reasonable confidence about the accuracy of the estimate.

To get consistency and formality in cost estimating, the following practices have been followed:

- all expenditure is stated in dollar values as at 1 July 2011, with no allowance made for inflation over the planning period
- all costs and financial projections are GST exclusive
- a project estimating template has been developed that provides a consistent means of preparing estimates
- where practical, a common set of rates has been determined
- specific provisions have been included to deal with non-construction costs like contract preliminary and general costs, engineering costs, Council staff costs, resource consenting costs and land acquisition costs
- specific provisions have been included to deal with estimate accuracy.

These are described as follows:

A 15% provision has been included to get a “Base Project Estimate” to reflect the uncertainties in the unit rates used. A further provision has been added to reflect the uncertainties in the scope of the project – ie. is the solution adopted the right solution? Often detailed investigation will reveal the need for additional works over and above that initially expected. The amount added depends on the amount of work already done on the project.

Each project has been assessed as being at the project lifecycle stage as detailed in Table Q-1 below, and from this an estimate accuracy assessed. The estimate accuracy is added to the Base Project Estimate to get the Total Project Estimate – the figure that is carried forward into the financial forecasts.

Table Q-1: Life Cycle Estimate Accuracies

Stage in Project Lifecycle	Estimate Accuracy
Concept / Feasibility	± 30% (±25% for projects >\$1m)
Preliminary Design / Investigation	± 20% (±15% for projects >\$1m)
Detailed Design	± 10%
Construction	± 5%
Commissioning	± 0%

Q.1.9. Significant Assumptions and Uncertainties for Projects Assigned over the Next Three Years

Table Q-2 details significant uncertainties and percentage accuracies for all major projects due in the next three years of the AMP.

Table Q-2: Significant Project Estimate Accuracies

Project	Project Stage and Estimate Accuracy	Project Value in First Three Years	Factors that could Affect Estimate Accuracy
High Street Undergrounding	Preliminary Design / Investigation	\$666,400	Ability to secure land. Network Tasman commitment to the project. No consultation undertaken as yet.
Richmond Gateways	Concept	\$381,600	Level of service agreed during consultation. Extent of the effect on existing utilities.
Richmond Streetscaping	Preliminary Design / Investigation	\$630,000	Level of service agreed during consultation. Extent of the effect on existing utilities.
Queen / Salisbury Intersection	Preliminary Design / Investigation	\$1,019,200	No subsurface investigation or consultation undertaken to date.
Lower Queen / Lansdowne Road Intersection	Concept	\$631,300	Known archaeological site nearby. Geometric fit with existing bridge. No site inspections.

Q.1.10. Changes in Legislation and Policy

The legal and planning framework under which local government operates is ever changing. This can significantly affect the feasibility of projects, how they are designed, constructed and how they are funded. The Government has reviewed its New Zealand Transport Strategy (2008) and provided a Government Policy Statement (2011) to update their objectives and targets with respect to transportation. This AMP is based on these directions as they relate to the Tasman region.

Q.2 Risk Management

Council has adopted an Integrated Risk Management (IRM) framework and process as the means for managing risk within the organisation. The process integrates with the LTP process as illustrated in Figure Q-1.

The strategic goal of integrated risk management is: *“To integrate risk management into Council’s organisational decision making so that it can achieve its strategic goals cost effectively while optimising opportunities and reducing threats.”*

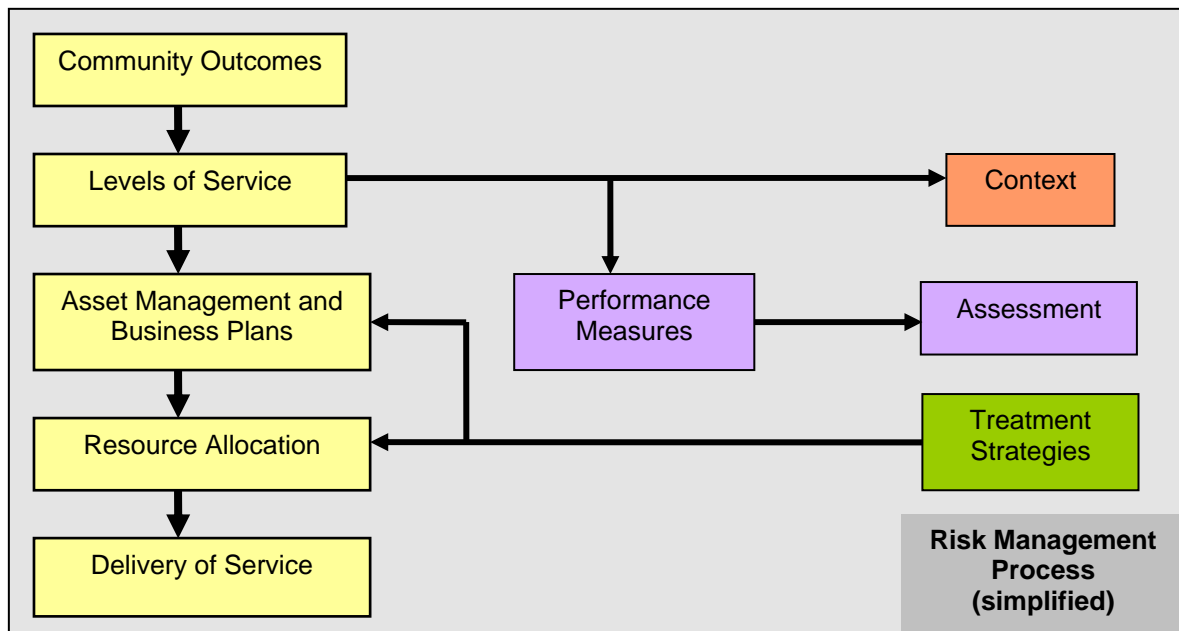


Figure Q-1: Integration of Risk Management Process into LTP Process

The IRM process and framework is intended to:

- demonstrate responsible stewardship by Council on behalf of its customers and stakeholders
- act as a vehicle for communication with all parties with an interest in Council’s organisational and asset management practices
- provide a focus within Council for on-going development of good management practices
- demonstrate good governance
- meet public expectations and compliance obligations
- manage risk from an organisational perspective
- facilitate the effective and transparent allocation of resources to where they will have most effect on the success of the organisation in delivering its services.

The risk management framework adopted by Council is consistent with AS/NZS 4360:2004 Risk Management and assesses risk exposure by considering the consequence and likelihood of each risk which is identified as having an impact on the achievement of organisational objectives (Figure Q-2).

Whilst the IRM framework has been adopted within Council, it is primarily used as a process within the individual activities. Council are working towards developing it into a more formally integrated process throughout the whole organisation.

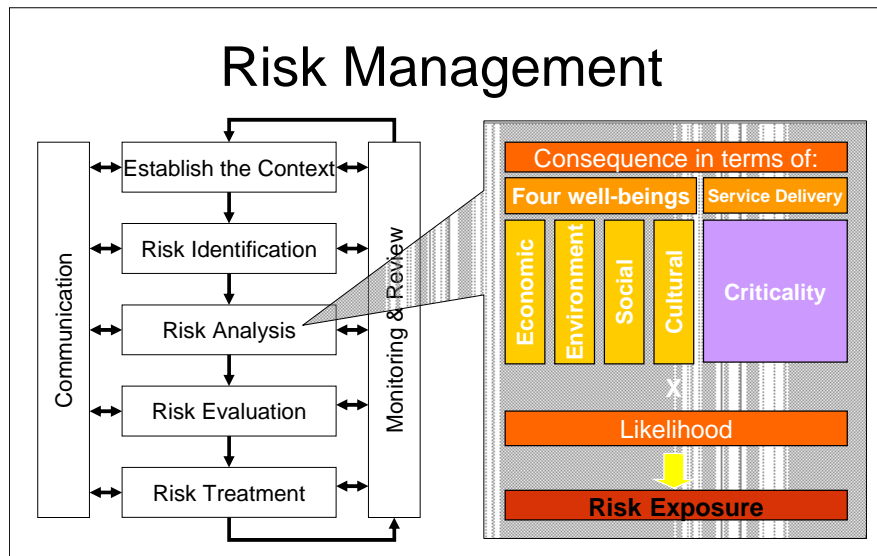


Figure Q-2: Integrated Risk Management Process

Consequence categories (see Table Q-3) have been developed to reflect the impact of risk events on the four well-beings and each consequence category is scored as either “extreme”, “major”, “medium”, “minor”, or “negligible”. These categories address common consequences across any asset or project, however, they do not specifically account for the differences in assets. Therefore an additional category “Service Delivery” is used to reflect the essential reason for the ownership or management of any asset within the local authority – the delivery of a service. This means that the consequence of failure to deliver the service in question (the criticality of the service) can be used to weight the consequences to reflect the relative importance of the asset to the community and in turn to Council.

Table Q-3: Consequence Categories

Category		Description
Service Delivery		Assessment based on the asset's compliance with Performance Measures and value in relation to outcomes and resource usage.
Social/ Cultural	Health and Safety	Assessment of impact as it relates to death, injury, illness, life expectancy and health.
	Community Safety and Security	Assessment of impact based on perceptions of safety and reported levels of crime.
	Community / Social / Cultural	Assessment of impact based on damage and disruption to community services and structures, and effect on social quality of life and cultural relationships.
	Compliance / Governance	Assessment of effect on governance and statutory compliance of Council.
	Reputation / Perceptions of Council	Assessment of public perception of Council and media coverage in relation to Council.
Environment	Natural Environment	Effect on the physical and ecological environment, open space and productive land.
	Built Environment	Effect on the amenity, character, heritage and cultural, and economic aspects of the built environment and level of satisfaction with the amenity of the built environment.
Economic	Direct Cost / Benefit	Direct cost (or benefit) to Council.
	Indirect Cost / Benefit	Indirect cost (or benefit) to wider community.

Similarly, the likelihood of the risk occurring is scored on a scale from “almost certain” to “unlikely” with associated probabilities and frequencies provided for guidance.

The risk exposure is then determined for each identified risk by multiplying the consequence and likelihood, and is presented using semantic descriptions ranging from “extreme” to “negligible”.

Treatment strategies, or strategic plans, that mitigate each risk can then be identified, and prioritised based on the risk exposure.

The consequence, likelihood scoring and risk matrix tables are all located in a separate report⁶. This document also contains the outputs from the Level 1 and Level 2 Risk Assessments.

There are essentially three levels of risk assessment that should be considered for each activity within Council:

- Level 1 - Organisational Risk Assessment
- Level 2 - Activity Management Risk Assessment
- Level 3 - Critical Asset Risk Assessment.

⁶ Integrated Risk Management, Risk Registers.

Q.2.1. Level 1 - Organisational Risk Assessment

Organisational Risk Assessment focuses on identification and management of significant operational risks that will have an impact beyond the activity itself and will affect the organisation as a whole. This approach allows the Integrated Risk Management framework to address risks at the organisational level, as well as at both the management and operational levels within the particular Council activities.

During the process of developing the integrated risk management process, Council identified a number of risk events and issues at organisational level. These are relatively generic across all activities, but have been reviewed against each particular activity to ensure relevance and adjusted to suit. The decision to implement the treatment measures identified will be at an organisational level, not activity level.

Q.2.2. Level 2 - Asset Group Risk Assessment

Activity Management Risk Assessment uses the same principal and consequence tables, but the focus has been at more detailed level. During this process, specific risk events were identified which would affect the operational ability or management of the activity as a whole. If an individual system within the activity was identified as being at a greater risk or would need to be managed in a different way to the rest of the systems, then it was highlighted for separate consideration.

The outcome from this process is summarised below. Figure Q-3 shows the Current Risk Profile of the transportation activity. By undertaking the Asset Management Activities and projects detailed, Council will reduce their risk profile to that shown in Figure Q-4.

Proposed controls falling under the Operational Project, Capital Project or Strategic Study categories have been included within the Financial Forecasts. Those identified as Asset Management Activities will need to form part of the Council's general asset management and have been included in the Improvement Plan to ensure they are not overlooked.

RISK MATRIX - TRANSPORTATION CURRENT RISK						
		CONSEQUENCE				
		Negligible (+/-1)	Minor (+/-10)	Medium (+/-40)	Major (+/-70)	Extreme (+/-100)
LIKELIHOOD	Almost Certain (5)		2			
	Likely (4)		5			
	Possible (3)	2	26	9		
	Unlikely (2)		11	2		
	Very Unlikely (1)		1	5	6	

Figure Q-3: Current Risk Profile

By undertaking the projects and asset management activities detailed below, Council can reduce its risk profile to that shown in Figure Q-4.

Asset Management Activity

- Improve training
- Carry out desktop exercises
- Include Tasman District Council and consultants in TREIS notification system
- Improve use of TRIFECTA
- Forestry forum
- Road safety education

Operational Project

- Remove trees presenting a danger and prone to windfall

Strategic Study

- Identify critical assets
- Modelling of sea level rise effects on coastal assets

Capital Project

- Seismic testing and strengthening of bridges

RISK MATRIX - TRANSPORTATION TARGET RISK						
		CONSEQUENCE				
		Negligible (+/-1)	Minor (+/-10)	Medium (+/-40)	Major (+/-70)	Extreme (+/-100)
LIKELIHOOD	Almost Certain (5)		1			
	Likely (4)		5			
	Possible (3)	2	22	4		
	Unlikely (2)		16			
	Very Unlikely (1)		1	12	6	

Figure Q-4: Reduced Risk Profile

During the risk assessment process, it was noted that there are some risk events which will remain with a Target Risk of High (detailed in Table Q-4). This is a result of either no proposed controls identified, or those that are identified would not achieve the requisite reduction in risk. The Risk Events remaining with a High Target Risk need to be monitored to determine either; that Council remain comfortable with the Target Risk Level or; if there are any additional proposed controls which could be implemented to reduce the Target Risk Level further.

Table Q-4: Target Risk Level Remaining High

Risk	Risk Description	Scope	Current Control	Current Risk Level	Proposed Control	Target Risk Level
Integration						
Emergency Services	Ineffective communication and planning of maintenance and renewal works impacts all emergency services.	District.	Contract documents ensure that contractors inform emergency services of closures.	HIGH	Review communication structure.	HIGH
Landowners	Inadequate access agreements to access infrastructure (orphan bridges and access to culverts).	District.	Ad-hoc co-ordination.	HIGH	Divest assets.	HIGH
Natural Hazards						
Earthquake (1:400)	Significant damage to bridges.	District.	Implementation of Lifelines Bridges Report recommendations. Design standards. Seismic testing.	HIGH	Seismic testing and strengthening. Review planning.	HIGH
Earthquake (1:400)	Significant damage to critical routes.	District.	Life Lines Report has identified critical routes.	HIGH	Review Civil Defence strategy.	HIGH
Earthquake (1:400)	Significant damage to retaining structures.	District.	Design standards.	HIGH	Develop contingency plan.	HIGH
Earthquake (1:400)	Significant damage to sealed roads.	District.		HIGH		HIGH
Extreme Weather (Rain)	Surface water impacts road safety.	District.	Contractor response and resources. Road hierarchy. Maintenance programme.	HIGH		HIGH
Technological Hazards						
Contamination (Land)	Accident results in chemical spill on network.	District.	Emergency services response. Response part of maintenance contracts.	HIGH	Review response plans.	High

Security						
Terrorism (Political)	Incident.	District.	Monitor.	HIGH		HIGH
Terrorism (Issue)	Incident.	District.	Monitor.	HIGH		HIGH

Q.2.3. Level 3 – Critical Assets Risk Assessment

Critical assets and those assets considered to be significant within the transportation network have been identified. A high level risk assessment was undertaken to determine the issues arising from each asset group that may prevent delivering of the required service. Treatment strategies that mitigate each risk for the asset groups were then identified.

Individual risk assessments have not been carried out for each of the assets; however, they have been assessed against the set of mitigation measures. At this level of risk assessment, the risk events considered are physical events only as the management and organisational risk events formed part of the earlier stages of risk assessment.

Table Q-5 lists the critical and significant assets for the transportation network. Where a mitigation measure is felt to be necessary, a capital or operational project has been identified and included in the financial forecasts.

Table Q-5: Significant Assets Level 3 Risk Assessment

Project ID	Project Details	Mitigation Measure														Key														
		Alternative Routes	Communication Plan	Drainage Systems	Preventative Maintenance	Increase Monitoring	Crash Investigation Studies	Address Known Black Spots	Skid Resistant Surfaces	Route Hazard Identification	Seismic Analysis	Structural Analysis	Weight Restrictions	Road Classification	Waterway Management	Temporary Traffic Management	Emergency Response Plan	Vulnerability Checks	Measure to be considered											
																			Measure in place				No measure in place - not necessary				No measure in place - Project needed			
Carriageway Arterial & Tourist																														
	<i>Motueka Valley Highway</i>																													
	<i>SH60</i>																													
	<i>Moutere Highway</i>																													
	<i>Abel Tasman Drive</i>																													
	<i>Korere Tophouse</i>																													
	<i>Waimea West</i>																													
	<i>Collingwood - Puponga</i>																													
	<i>Collingwood - Bainham</i>																													
	<i>Riwaka - Kaiteriteri</i>																													
	<i>Kaiteriteri - Sandy Bay</i>																													
	<i>Riwaka - Sandy Bay</i>																													
	<i>Sandy Bay - Marahau</i>																													
Carriageway Local																														
	<i>Cobb Valley Road</i>																													
	<i>All Others</i>																													
	Bridges Arterial																													
	Bridges Local																													
	Footpaths & Walkways																													
	Cycleways																													
	Carparks & Service Lanes																													
	Streetlights																													
	Traffic Services																													
166	Study into alternative route for Abel Tasman Drive																													
14 / 44	District wide improvements for drainage renewal and maintenance																													
54	Prioritised by Slips Matrix																													
32 / 54	Links in with the Preventative Maintenance and Slips Matrix																													
26	Skid resistance policy to be developed																													
48 / 57	Delineation upgrades and Minor Improvements Matrix																													
6 / 130	Seismic analysis of critical assets not on arterial or tourist routes																													
	Action pending HPMV policy																													
	Ensure linkage with Rivers Activity																													

Q.2.4. Projects to Address Risk Shortfalls

The specific risk mitigation measures that have been planned within the 20 year transportation programme include:

- an allowance for emergency funds
- a preventative maintenance programme, particularly in relation to drainage structures and retaining structures
- bridge seismic assessments upgrade programme
- detailed structural bridge assessments.

Q.2.5. Asset Insurance

Tasman District Council has various mechanisms to insure assets against damage. These include:

1. Tasman District Council insures its above ground assets, like buildings, through private insurance which is arranged as a shared service with Nelson City and Marlborough District Councils.
2. Tasman District Council is a member of the Local Authority Protection Programme (LAPP) which is a mutual pool created by local authorities to cater for the replacement of some types of infrastructure assets following catastrophic damage by natural disasters like earthquake, storms, floods, cyclones, tornados, volcanic eruption, tsunami. These infrastructure assets are largely stopbanks along rivers and underground assets like water and wastewater pipes and stormwater drainage.
3. Tasman District Council has a Classified Rivers Protection Fund, which is a form of self-insurance. The fund is used to pay the excess on the LAPP insurance, when an event occurs that affects rivers and stopbank assets.
4. Tasman District Council has a General Disaster Fund, which is also a form of self-insurance. Some assets, like roads and bridges, are very difficult to obtain insurance for or it is prohibitively expensive if it can be obtained. For these reasons Council has a fund that it can tap into when events occur which damage Council assets that are not covered by other forms of insurance. Some of the cost of damage to these assets is covered by central government, for example the New Zealand Transport Agency covers around half the cost of damage to local roads and bridges.

Q.2.6. Civil Defence Emergency Management

The Civil Defence Emergency Management Act 2002 was developed to ensure that the community is in the best possible position to prepare for, deal with, and recover from local, regional and national emergencies. The Act requires that a risk management approach be taken when dealing with hazards including natural hazards. In identifying and analysing these risks the Act dictates that consideration is given to both the likelihood of the event occurring and its consequences. The Act sets out the responsibilities for Local Authorities. These are to:

- ensure you are able to function to the fullest possible extent, even though this may be at a reduced level, during and after an emergency
- plan and provide for civil defence emergency management within your own district.

Tasman District Council and Nelson City Council deliver civil defence on a joint basis as the Nelson Tasman Civil Defence Emergency Management (CDEM) Group. The vision of the CDEM Group is to build "A resilient Nelson Tasman community".

Civil Defence services are provided by the Nelson Tasman Emergency Management Office. Other council staff are also heavily involved in preparing for and responding to civil defence events. For example, Council monitors river flows and rainfall, and has a major role in alleviating the effects of flooding.

At the time of writing the Nelson Tasman Civil Defence Emergency Management Group released its Draft Regional Plan for community consultation. The Plan sets out how Civil Defence is organised in the region and describes how the region prepares for, responds to and recovers from emergency events.

Q.2.7. Engineering Lifelines

Nelson Tasman Engineering Lifelines (NTEL) project commenced in 2002 and concluded in 2009 with a report and risk assessments titled *Limiting the Impact*. The purpose of the report was:

- to help the Nelson Tasman region reduce its infrastructure vulnerability and improve resilience through working collaboratively
- to assist Lifeline Utilities with their risk reduction programmes and in their preparedness for response and recovery
- to provide a mechanism for information flow during and after an emergency event.

The project was supported and funded by the two controlling authorities, Nelson City Council and Tasman District Council. Following the initial start-up forum in 2002, a Project Steering Group was formed and initial project work was completed. In 2008, the NTEL Group was formed. The initial work to investigate risks and assess vulnerabilities from natural hazard disaster events was divided amongst five task groups:

- Hazards Task Group
- Civil Task Group
- Communications Task Group
- Energy Task Group
- Transportation Task Group.

These groups were then tasked with assessing the risk and vulnerability of segments of their own networks against the impacts of major natural hazard disaster events. These natural hazards included:

- earthquake
- landslide
- coastal / flooding.

The Nelson Tasman region is geotechnically complex with high probabilities of earthquake, river flooding and landslides.

By identifying impacts that these hazards may have on the local communities, NTEL aim to have processes in place to allow the community to return to normal functionality as quickly as possible after a major natural disaster event.

To date the project has identified the impacts of natural hazards and the critical lifelines of the regions service networks including communication, transportation, power and fuel supply, water, sewerage, and stormwater networks.

The initial NTEL assessment work is the first stage of an on-going process to gain a more comprehensive understanding of the impacts of natural hazards in the Nelson Tasman region.

The review date of the NTEL assessments is not rigidly set in place, but it is envisaged that a five-yearly on-going review period is appropriate with more frequent reviews and updates necessary and beneficial as new or updated relevant information becomes available.

Q.2.8. Recovery Plans

These plans are designed to come into effect in the aftermath of an event causing widespread damage and guide the restoration of full service.

The Recovery Plan for the Nelson Tasman Civil Defence and Emergency Management Group (June 2008) identifies recovery principles and key tasks, defines recovery organisation, specifies the role of the Recovery Manager, and outlines specific resources and how funds are to be managed.

Information about welfare provision in the Nelson-Tasman region is contained in a Welfare Plan (December 2005), which gives an overview of how welfare will be delivered during the response and recovery phases of an emergency.

The plan is a coordinated approach to welfare services for both people and animals in the Nelson Tasman region following an emergency event.

Q.2.9. Business Continuance

Council has a number of processes and procedures in place to ensure minimum impact to transportation services in the event of a major emergency or natural hazard event.

- Council have limited business continuity plans that were developed around influenza pandemic planning in 2006.
- Council's transportation contractors have up to date Health and Safety Plans in place
- Council's professional services consultant (MWH New Zealand Ltd) have an Emergency Response and Business Continuity Plan as part of their Branch Guide August 2011.

APPENDIX R. LEVELS OF SERVICE, PERFORMANCE MEASURES, RELATIONSHIP TO COMMUNITY OUTCOMES

R.1 Introduction

A key objective of this AMP is to match the level of service provided by the transportation activity with agreed expectations of customers and their willingness to pay for that level of service. The Levels of service provide the basis for the life cycle management strategies and works programmes identified in the AMP.

The Levels of service for transportation have been developed to contribute to the achievement of the stated Community Outcomes that were developed in consultation with the community, but taking into account:

- the Council's statutory and legal obligations
- the Council's policies and objectives.

R.2 How Do Our Transportation Activities Contribute to the Community Outcomes?

Through consultation, the Council identified eight Community Outcomes. These Community Outcomes are linked to the four wellbeings and Council Objectives as shown in Table R-1.

Table R-1: Community Wellbeings, Outcomes, Council Objectives, Groups and Activities

Community Outcomes	Council Objectives	Council Groups of Activities	Council Activities
Community Wellbeing - Environmental			
Our unique natural environment is healthy and protected	To ensure sustainable management of natural and physical resources and security of environmental standards.	Environment and Planning	<ul style="list-style-type: none"> • Resource Policy • Environmental Information • Resource Consents and Compliance • Environmental Education, Advocacy and Operations • Regulatory services • Rivers and Flood Management
Our urban and rural environments are pleasant, safe and sustainably managed.			
Our infrastructure is safe, efficient and sustainably managed.	To sustainably manage infrastructural assets relating to Tasman district.	Transportation	<ul style="list-style-type: none"> • Regional Cycling and Walking Strategy • Land Transportation • Coastal Structures • Aerodromes
		Sanitation, drainage and water supply	<ul style="list-style-type: none"> • Solid Waste • Wastewater • Stormwater • Water Supply

Community Outcomes	Council Objectives	Council Groups of Activities	Council Activities
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Community Wellbeing - Social and Cultural

Our communities are healthy, resilient and enjoy their quality of life.	To enhance community development and the social, natural, cultural and recreational assets relating to Tasman district.	Cultural services and grants.	<ul style="list-style-type: none"> Cultural services and community grants
Our communities respect regional history, heritage and culture.		Recreation and leisure	<ul style="list-style-type: none"> Community recreation Camping grounds Libraries Parks and Reserves
Our communities have access to a range of cultural, social, educational and recreational services.		Community support services	<ul style="list-style-type: none"> Community facilities Emergency management Community housing Governance
Our communities engage with Council's decision-making processes.			

Community Wellbeing - Economic

Our developing and sustainable economy provides opportunities for us all.	To implement policies and financial management strategies that advance. To promote sustainable development in the Tasman district.	Council Enterprises	<ul style="list-style-type: none"> Forestry Property Council controlled organisations.
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The table below (Table R-2) describes how the transportation activities contribute to the community outcomes.

Table R-2: How the Transportation Activity Contributes to Community Outcomes

Community Outcomes	How Our Transportation Activity Contributes to the Community Outcomes
Our urban and rural environments are pleasant, safe and sustainably managed.	Our network of roads, footpaths, cycleways and carparks are safe, uncongested and maintained cost effectively.
Our infrastructure is safe, efficient and sustainably managed.	Our urban communities have a means of travel for pedestrians, cyclists and commuters that is safe and efficient. Our rural communities have safe and effective access to our transportation network.

R.3 Level of Service

Levels of service are attributes that Tasman District Council expects of its assets to deliver the required services to stakeholders.

A key objective of this plan is to clarify and define the levels of service for the transportation assets, and then identify and cost future operations, maintenance, renewal and development works required of these assets to deliver that service level. This requires converting user's needs, expectations and preferences into meaningful levels of service.

Levels of service can be strategic, tactical, operational or implementation and should reflect the current industry standards and be based on.

- **Customer Research and Expectations:** Information gained from stakeholders on expected types and quality of service provided.
- **Statutory Requirements:** Legislation, regulations, environmental standards and Council By-laws that impact on the way assets are managed (ie. resource consents, building regulations, health and safety legislation). These requirements set the minimum level of service to be provided.
- **Strategic and Corporate Goals:** Provide guidelines for the scope of current and future services offered and manner of service delivery, and define specific levels of service, which the organisation wishes to achieve.
- **Best Practices and Standards:** Specify the design and construction requirements to meet the levels of service and needs of stakeholders.

R.3.1. Industry Standards and Best Practice

The AMP acknowledges Council's responsibility to act in accordance with the legislative requirements that impact on Council's transportation activity. A variety of legislation affects the operation of these assets, as detailed in Appendix A.

R.3.2. Prioritisation related to available resources

With transportation assets, there are often higher levels of maintenance and renewal requirements proposed (increased Levels of Service etc) than the resources allow for. Tradeoffs then have to be made as to what impacts on the ability of an asset to provide a service against the nice to have aspects.

R.4 What Level of Service Do We Seek to Achieve?

There are many factors that need to be considered when deciding what level of service the Council will aim to provide. These factors include:

- Council needs to aim to understand and meet the needs and expectations of the community
- Council must meet its statutory obligations
- the services must be operated within Council policy and objectives and
- the community must be able to fund the level of service provided.

Two tiers of levels of service are outlined, Strategic and Operational.

The operational levels of service and performance measures are used to ensure the service and facilities are able to achieve the strategic levels of service and Councils objectives.

Level of services need to be reviewed and upgraded on a continuous basis in line with legislative and regulatory changes and feedback from customers, consultation, internal assessments, audits and strategic objectives.

The Levels of service that the Council has adopted for this AMP have been developed from the Levels of service prepared in the July 2006 and July 2009 AMP's. They take in account feedback from various parties, including Audit New Zealand, industry best practice and ease of measuring and reporting of performance measures.

Council has decided to reduce the number of levels of service reported in the LTP, showing only those that are considered to be Customer Focussed. The AMP extends the levels of service and performance measures to include the more technical, measures associated with the management of the activity.

Table R-3 details the levels of service and associated performance measures for the transportation activity. Those shaded are the customer focussed measures which are included in the LTP. The table sets out Councils' current performance and the targets they aim to achieve within the next three years and by the end of the next 10 year period.

The levels of service and performance measures are consulted on and adopted as part of the LTP consultation process.

R.5 What Plans Have Council Made to Meet the Levels of Service

In preparing the future financial forecasts, Council have included specific initiatives to meet the current or intended future Levels of service.

Council is making a capital works investment of \$98 million over the next 20 year period to upgrade existing transportation assets and improve Levels of service. This includes the following projects:

- district wide land purchase for road improvements
- Richmond Town Centre streetscape upgrade
- various seal extensions
- various intersection and road improvements
- Tasman Great Taste Trail construction
- associated improvements
- minor improvements.

In addition to the capital works, Council has allocated a budget of \$165 million over the 20 year period for the operation and maintenance of its current and future transportation assets. This allocation includes for professional services for investigative work and studies such as:

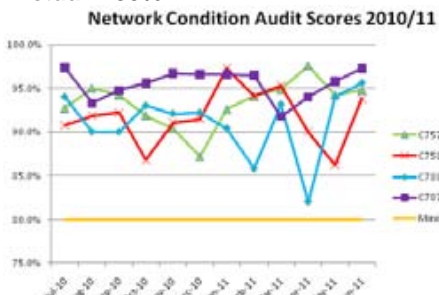
- heavy impact industry studies
- regional transport studies
- system use studies
- district carparking studies
- crash reduction studies.

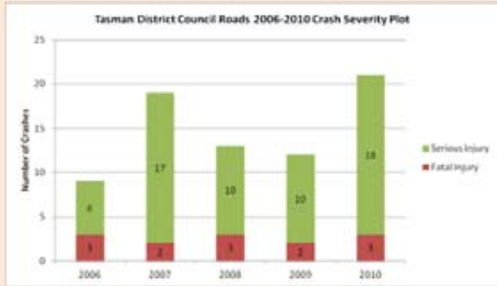
R.6 Levels of Service Linked to Legislation

Whilst Council are required to comply with various legislation and regulations when managing the transportation activity, no specific levels of service are included which relate to legislation.

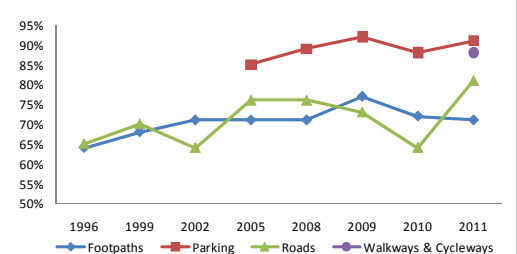
Table R-3: Performance against Current Levels of Service, and Intended Future Performance

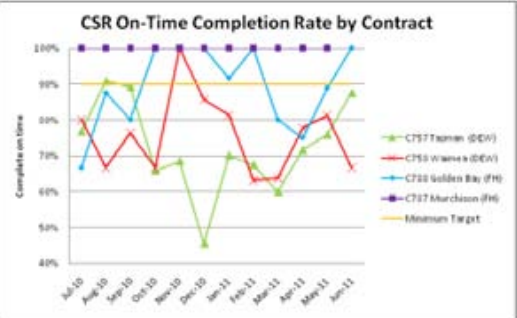
Table R-3 summarises the levels of service and performance measures for the transportation activity. Development of the levels of service is discussed in detail in Appendix R. Shaded rows are the levels of service and performance measures to be included in the Long Term Plan.

ID	Levels of Service (we provide)	Performance Measure (We will know we are meeting the level of service if.....)	Current Performance	Future Performance			Future Performance (targets) by Year 10 2021/22
				Year 1	Year 2	Year 3	
				2012/13	2013/14	2014/15	
Community Outcome: Our urban and rural environments are pleasant, safe and sustainably managed.							
1	Our network of roads, bridges, footpaths, cycleways and carparks are safe, uncongested and maintained cost effectively.	<i>Number of Customer Service Request complaints relating to the maintenance of footpaths. As measured through records held in Council's databases.</i>	Actual = 61	<70	<80	<90	<60
2		Council keeps its Condition Index (CI) for sealed roads at or below current levels. As measured and recorded through contracts.	Actual = 2.1 CI As reported by RAMM reports at the end of June.	2.1	2.1	2.0	2.0
3		Council keeps its Pavement Integrity Index (PII) at or below 3.7. As measured and recorded through contracts.	Actual = 3.8	3.7	3.7	3.7	3.7
4		Council's roads are maintained in accordance with the requirements in Council's road maintenance contracts. As measured through contract audits.	Actual = 93% 	>80%	>85%	>90%	>90%

ID	Levels of Service (we provide)	Performance Measure (We will know we are meeting the level of service if.....)	Current Performance	Future Performance			Future Performance (targets) by Year 10 2021/22									
				Year 1	Year 2	Year 3										
				2012/13	2013/14	2014/15										
5		<p>There is a downward trend in the number of serious and fatal crashes (excludes state highways). As analysed by interrogating the NZ Transport Agency Crash database system.</p>	<p><i>Actual = 3 Fatal and 18 Serious, increasing trend</i></p> 	Downward trend in serious and fatal crashes	Downward trend in serious and fatal crashes	Downward trend in serious and fatal crashes	Downward trend in serious and fatal crashes									
6		<p>The Crash rate in the Tasman district is lower than the National Average. As measured by the Tasman Nelson Marlborough Road Safety Report (produced annually).</p>	<p>Actual = Lower than the national average <i>Crashes per 100 million vehicle kilometres travelled</i></p> <table border="1"> <thead> <tr> <th></th> <th>Urban</th> <th>Rural</th> </tr> </thead> <tbody> <tr> <td>Tasman</td> <td>35</td> <td>22</td> </tr> <tr> <td>All NZ</td> <td>37</td> <td>29</td> </tr> </tbody> </table>		Urban	Rural	Tasman	35	22	All NZ	37	29	Lower than the national average	Lower than the national average	Lower than the national average	Lower than the national average
	Urban	Rural														
Tasman	35	22														
All NZ	37	29														
7		<p>The average quality of the ride on sealed roads experienced by motorists is maintained at current levels. As measured by the Smooth Travel Exposure index (STE)⁷.</p>	<p>Actual = 96% This information is taken from the New Zealand Transport Agency's RAMM report and covers all roads urban/rural.</p>	94%	94%	94%	94%									
8		<p>Critical Freight Routes are identified and restrictions reduced. As measured by the reduction of weight and speed posted bridges on.</p>	<p>Actual = Currently there are eight speed or weight restricted bridges remain on high productivity motor vehicle routes (restricted to high productivity motor vehicles only). Seven bridges are unknown due to lack of data.</p>	8	7	7	5									

⁷ STE is a key national indicator of the effectiveness of road maintenance expenditure. It represents the proportion of travel undertaken each year on all sealed roads with acceptable surface roughness that provides comfortable travel conditions for passenger car users.

ID	Levels of Service (we provide)	Performance Measure (We will know we are meeting the level of service if.....)	Current Performance	Future Performance			Future Performance (targets) by Year 10 2021/22
				Year 1	Year 2	Year 3	
				2012/13	2013/14	2014/15	
Community Outcome: Our infrastructure is safe, efficient and sustainably managed.							
9	Our roads and footpaths are managed at a level that satisfies the community.	<p>Residents are satisfied with the Council's roads and footpaths in the District.</p> <p>As measured through the annual residents survey.</p>	<p>Actual = From Communitrak™ residents' survey undertaken in May/June 2011: Footpaths =71%, Roads = 81% Parking = 91% Walkway & cycleways = 88%</p> 	<p>Footpaths =70%, Roads = 75% Parking = 85% Walkway and cycleways = 80%</p>	<p>Footpaths =65%, Roads = 70% Parking = 80% Walkway and cycleways = 80%</p>	<p>Footpaths =60%, Roads = 70% Parking = 75% Walkway and cycleways = 80%</p>	<p>Footpaths =60%, Roads = 70% Parking = 75% Walkway and cycleways = 80%</p>
10		Road maintenance and renewals expenditures are managed to within the range ± 2% of budgets.	<p>Actual = + 0.05% Variance of + 0.05% across the subsidised maintenance, reseals and pavement rehabilitation budgets.</p>	+/-2%	+/-2%	+/-2%	+/-2%

ID	Levels of Service (we provide)	Performance Measure (We will know we are meeting the level of service if.....)	Current Performance	Future Performance			Future Performance (targets) by Year 10 2021/22
				Year 1	Year 2	Year 3	
				2012/13	2013/14	2014/15	
11	Faults in the transportation network are responded to and fixed promptly.	<i>Customer Service Request complaints relating to the maintenance of roads, footpaths and related activities are completed on time in accordance with the requirements in Council's road maintenance contracts. As measured through contract audits.</i>	<p>Actual = 75.0% of Customer Service Requests were completed within the specified timeframes.</p> <p>Tasman = 87.5%</p> <p>Waimea = 66.7%</p> <p>Golden Bay = 100%</p> <p>Murchison = 100%</p> 	>90%	>90%	>90%	>90%
12	Following emergency events our community is provided with a road network that is accessible.	<i>All unplanned road closures are responded to as outlined in Council's Emergency Procedures Manual. As reported in the Contract Operations Report.</i>	<p>Actual = This is not currently being measured.</p> <p>An Emergency Procedures Manual for road closures is being developed in 2011/12.</p>	100%	100%	100%	100%

APPENDIX S. COUNCIL'S DATA MANAGEMENT, ASSET MANAGEMENT PROCESS AND SYSTEMS

S.1 Introduction

This Activity Management Plan has been developed as a tool for Council to describe how they intend to manage their assets, meet the levels of service agreed with the community and to explain the expenditure and funding requirement. It forms part of Council's Asset Management Process which is in general alignment with the International Infrastructure Management Manual (IIMM) as shown below in Figure S-1.

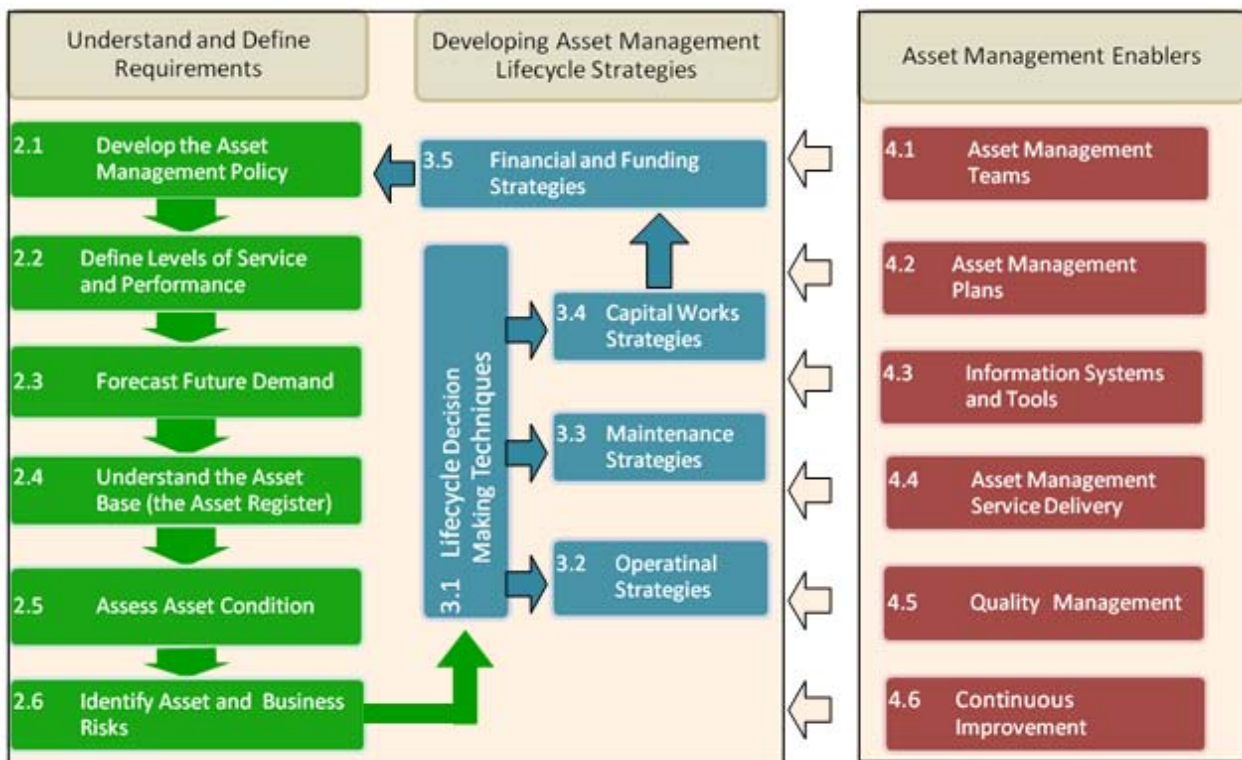


Figure S-1: The Asset Management Process

S.2 Understanding and Defining Requirements

S.2.1. Develop the Asset Management Policy

S.2.1.1 Selecting the Appropriate Level of Asset Management

The Asset Management Policy provides the direction as to the level of Asset Management expected and can differ between activities. Council underwent a process in 2010 with asset management consultants Waugh Infrastructure Management Ltd in which they identified the appropriate level of asset management to target for their engineering activities. During this process, Council and consultant staff assessed a range of parameters to establish the base level of asset management to provide the community for each activity including:

- district and community populations
- issues affecting the district and each activity
- the costs and benefits to the community
- legislative requirements
- the size, condition and complexity of the assets

- the risk associated with failures
- the skills and resources available to the organization
- customer expectation.

IIMM (2006) identified two levels of asset management; Core and Advanced. Waugh Infrastructure Management Ltd classed the transition between the two as being Core Plus. Core Plus is above Core asset management but below being fully compliant with Advanced asset management and can vary between Core with one or two Advanced categories, through to being substantially or fully compliant with most of the Advanced categories.

Upon completion of the process, Council has set **CORE PLUS**, renamed as **INTERMEDIATE** in the 2011 IIMM as the target level at which they want to be managing the transportation activity. The detail of required category compliance is under separate cover (Selecting the Appropriate Asset Management Level, Waugh August 2010).

S.2.1.2 Performance Review of Transportation Activity Management Practices

Council underwent a process at the end of the 2009 AMP to undertake a high level review of the AMPs and associated activity management processes against good practice asset management as described in the IIMM and in accordance with the Office of Auditor General. During this process, the AMP and associated practices were scored to give a snap shot of the current status and then set targets as to where Council wished to head. The 2009 AMP Improvement Plan was assessed in its effectiveness to close the gap between actual and target compliance levels and new items added to the Improvement Plan where gaps were identified.

The results of the review are detailed under separate cover (Performance Review of Transportation Activity Management Processes, MWH New Zealand Ltd, February 2010).

The two reviews described above were carried out independently of each other, however the outputs from both were compared to ensure consistency of recommendations. Whilst both reviews focused on slightly different aspects of asset management practices, there was no conflict between the recommendations made. The table (Table S-1) below shows analysis undertaken to link the two reviews to identify the compliance gaps and actions that should be undertaken to address them.

Table S-1: Asset Data Accuracy Grade

	Transportation		
	CORE PLUS	Compliance Status	Compliance Gaps to address to meet CORE:PLUS
Description of Assets	Advanced	Substantially Compliant	Action: Improve description of assets in the AMP.
Levels of Service (LoS)	Core (plus Evaluated LoS Options)	Higher level of compliance than suggested	There is substantial communication of LoS with the public. However, the LoS options are not evaluated. This is unlikely to be taken further.
Managing Growth	Advanced	Substantially Compliant	Action: A study should be undertaken to determine the impacts of growth on the roading activity. This has already been recommended.
Risk Management	Core Plus	Compliant	Action: Identify critical assets in AMP document.
Lifecycle Decision Making	Advanced	Compliant	Action: Additional information on decision making processes to be included in AMP document.
Financial Forecasts	Advanced (with the exception of sensitivity testing of forecasts)	Compliant	No plans to undertake sensitivity testing of forecasts.
Planning Assumptions and Confidence Levels	Advanced	Compliant	No further action required.
Outline Improvement Programmes	Advanced	Substantially Compliant	Action: Identify timeframes and resources for Improvement Plan actions.
Planning by Qualified Persons	Advanced	Substantially Compliant	Action: Peer reviews of AMP to be arranged.
Commitment	Advanced	Substantially Compliant	Action: More emphasis and commitment needed to Improvement Plan.

S.2.2. Defined Level of Service and Performance

Levels of Service have been reviewed since the 2009 AMP, taking account of Community Outcomes, Legislative Requirements, financial constraints and knowledge of asset performance. Community Outcomes, Levels of Service, Performance Measures and current performance are detailed in Appendix R of this AMP.

S.2.3. Forecast Future Demand

Population and demand forecasting has been updated since the 2009 AMP and is described in Appendix F.

Demand Management has been undertaken as described in Appendix N.

S.2.4. Understand the Asset Base

Council has a wealth of information on their assets which is collected, recorded and stored through a number of different systems. Data is graded for accuracy and completeness as shown in Table S-2.

Table S-2: Asset Data Accuracy and Completeness Grades

Grade	Description	Accuracy	Grade	Description	Completeness
1	Accurate	100%	1	Complete	100%
2	Minor inaccuracies	± 5%	2	Minor Gaps	90 – 99%
3	50% estimated	± 20%	3	Major Gaps	60 – 90%
4	Significant Data estimated	± 30%	4	Significant Gaps	20 – 60%
5	All data estimated	± 40%	5	Limited Data Available	20% or less

Table S-3 summarises the various data types, data source and how they are managed within Council. It also provides a grading on data accuracy and completeness where appropriate. Council is constantly improving the accuracy and completeness of their data.

Council’s Asset Management System (AMS) for Transportation assets is RAMM (hosted by CJN Technologies). The Engineering Department uses RAMM to record and track customer enquiries, maintain its asset register and for tracking non-routine maintenance of assets. Valuation of assets is also run from RAMM.

The Asset Information team, Asset Managers, Council’s consultants and contractors all have access to the system with levels of access appropriate to their needs.

Council’s RAMM system is the primary asset management system and data management tool for the transportation activity. RAMM is a modular system and is a powerful tool used for the storage, interrogation and reporting of asset and maintenance data.

Table S-3: Council Asset Data Types and Confidence

Information Systems	Data Type	Management Strategy	Data Confidence		
			Accuracy	Completeness	
Confirm (street lights and traffic signals)	Asset Location (point data)	Point data is provided in Confirm. All spatial data will be migrating to GIS in 2011/12 so will no longer be held in Confirm.	2	2	
	Asset Description	Council's Asset Register is held in Confirm. It contains information on asset extent, age, remaining life, condition, hierarchy etc.	2	2	
	Customer Service	All customer enquiries and service requests are logged and can be assigned, tracked and analysed. The Customer Service Requests help drive the day to day reactive maintenance programme.	2	2	
	Asset Condition Data	Condition data on all street light assets is collected/validated through the maintenance contractor when undertaking works or installing an asset.	2	2	
	Historical Data	Confirm holds data on jobs and maintenance for approximately five years. This allows the interrogation of the system for historical data on specific assets.	2	2	
	Critical Assets	The critical assets have been identified as part of the Activity Management Plan process and are shown in Appendix Q. These assets have not yet been separately identified within Councils Confirm system. There is an item in the Improvement Plan to ensure that the critical assets are separately identified with Confirm to allow easier assessment and reporting.	n/a	0	
	Valuation	Council now undertakes it Asset Valuations through the Confirm system.	2	2	
	Maintenance Information	All newly collected maintenance information is recorded in Confirm. The contractor is now able to collect and record all maintenance information in the field through the use of mobile devices which link to Confirm. Historical information sits with CMS and also with the Contractors SETI system. Council intend to migrate this historical data into a SQL database accessible from Confirm. Tracking repairs and response times is carried out and reported to ensure key performance measures are being achieved.	3	3	
RAMM (all assets except street lights and traffic signals)	Asset Location and Inventory	All spatial data relevant to roads (with the exception of streetlights) is held in RAMM. RAMM is a nationwide database owned and operated by CJN Technologies Ltd. Council, its consultants and contractors have licences to allow access and interrogation of the information. RAMM also records the hierarchy of each road section.	Surfacing	2	2
			Pavements	2	2
			Footpaths	2	2
			Walkways	2	2
			Cycleways	2	3
			Bridges	2	2
			Carparks	2	1
			Service Lanes	2	2

			Signs	2-3	3
			Road Markings	3	4
			Drainage Structures	2	2
			Retaining Walls	2	2
			Street Furniture	2	3
	Asset Valuation	RAMM contains information on asset extent, age, remaining life, condition etc. Asset Valuations are undertaken through RAMM.		2	2
	Asset Condition	Condition data is held in the RAMM database (with the exception of street lights); this is linked with the inventory data. Condition data is collected by the maintenance contractor or consultants (as described in Appendix B).		2	2
	Asset Performance	Traffic count results and other performance surveys such as High Speed Surveys are held in the RAMM database.		2	2
	Maintenance Information	Historic maintenance costs are held in RAMM.		2	2
	Forward Works Programmes	NOMAD forward works tool is linked to the RAMM database and uses information within the database to develop forward works programmes.		2	2
	Valuation	Council undertakes asset valuations through RAMM.		2	2
RAMM Contractor	Customer Service	All customer enquiries and service requests are logged through the Confirm system and then transportation specific issues are input into RAMM Contractor. RAMM Contractor is used to assign, track and analyse the status of dispatches. The Customer Service Requests help drive the day to day reactive maintenance programme.		2	2
	Maintenance Management	RAMM Contractor is a tool linked to the RAMM database which provides for maintenance management including claim processing, inspections, programming and field updating. Tracking repairs and response times is carried out and reported to ensure key performance measures are being achieved.		2	2
NM2	Resource Consents	NM2 is owned and managed by Council's consultants, MWH New Zealand Ltd. It holds all resource consents for water, wastewater, stormwater, solid waste and roading. NM2 is used to manage the accurate programming of actions required by the consents.		2	2
NCS	Financial Information	Council Accounting and Financial systems are based on Napier Computer Systems (NCS) software and GAAP Guidelines. Long term financial decisions are based on the development of 20-year financial plans.		2	2
GIS	Asset location	GIS is compiled from as-built information and should be the first port of call for asset location. However, there is a short time delay with importing the data into GIS so it is sometimes necessary to refer to the as-builts.		2	2
SilentOne	As BUILTS	As-builts are the primary source of asset location data. As-built plans of all new assets are scanned and incorporated into SILENTONE. This allows digital		2	2

		retrieval of as-builts from the GIS system. Early as-builts are to a lesser quality, however in recent years as-builts quality has been significantly improved and are now prepared to specific standards and reviewed/audited on receipt.		
Growth Model Database	Growth and Demand Supply Model (GDSM)	The GDSM underpins Council's long term planning. It is not an isolated tool that calculates a development forecast, it is a number of linked processes that involve assessment of base data, expert interpretation and assessment, calculation and forecasting.	2	2
Trifecta	Road Corridor forward programmes	Council uploads their forward programme for Council activities, along with other service providers such as Telecom in order to identify programme clashes and opportunities.	2	3
Tenderlink	Tenders	Council upload all Request for Tender documents onto the Tenderlink system which allows Contractors to download for tender. The system also holds key information for tenderers. Tenderlink is a national database.	1	1
CAS	Crash statistics	The Crash Analysis System (CAS) is a national database operated by the NZ Transport Agency which records all Police crash reports. CAS provides outputs such as crash location maps, crash reports and crash statistics.	2	2
Various	Other Data Types	A large amount of information is not yet stored centrally within Council and is held and updated by Council's consultants or contractors. Council are moving towards Confirm being the primary source for all asset information, so these data sources will eventually migrate to Confirm.	3	3
Silent One	Asset Photos	Council has a library of asset photos stored within SilentOne (street lights only).	2	2

S.2.5. Assess Asset Condition

Council undertakes routine condition rating of the transportation assets. This is discussed in detail in Appendix B.

S.2.6. Identify Asset and Business Risks

Council have adopted an Integrated Risk Management framework to manage risks, both at corporate and activity level. This is detailed further in Appendix Q.

S.3 Developing Asset Management Strategies

There are many different types of decision making techniques that have been applied by Council during the development of the management plans. These are better described in relevant appendices, but are summarised here.

The outputs of the prioritisation matrices and forward works programme tools are assessed and validated by Council staff and their consultants. The initial programmes may be amended using their engineering judgment and network knowledge to avoid clashes or identify opportunities.

Procurement of capital, maintenance or renewal work is undertaken in accordance with Council's procurement strategy.

Table S-4: Asset Management Strategies Summary

Strategy	Processes and Systems
Renewals Management (Appendix I)	<ul style="list-style-type: none"> • Renewals first identified from RAMM or Confirm – when remaining life expires. • dTIMS pavement deterioration outputs are validated in the field in order to provide draft short term programmes for resurfacing and pavement rehabilitation. Operations and asset management staff have input into determining final programmes. • Optimising review in order to finalise renewals programme: <ul style="list-style-type: none"> ○ “bundling” with other projects – across assets and services – eg. water, wastewater, power, telecom ○ optimised renewal, ie. where budget doesn't allow all renewal sections eg. resurfacing to be completed within programme requires prioritising of sections to be completed while minimising the risk of delaying renewals. ○ smoothing of expenditure. • On an annual basis renewal work is programmed for implementation and managed as a programme – either through the Operations and Maintenance contract, or through specific tendered capital projects. • Priority Matrices <ul style="list-style-type: none"> ○ recently Council have developed matrices to prioritise renewals of walkways, footpaths and carparks. The matrices generally take into account condition, volume of use, material type and safety factors. The factors are scored and weighted to produce an overall value which is used to prioritise projects of similar nature against each other. ○ for these asset types the cost estimates are based on a standard unit rate which is incorporated in the matrices. An estimate for the asset type renewals (eg. footpath rehabilitation) can then be estimated from the quantity of work identified in the matrices and the target level of service. ○ on completion of these processes the renewals are addressed as above.

Strategy	Processes and Systems
Asset Creation Management (Appendix F)	<ul style="list-style-type: none"> • Asset creation forecasts are developed every three years when updating this AMP. • For assets which do not have a priority matrix (eg. Coastal Tasman growth projects and streetscaping) the 10 year forecast from the last update of the AMP is taken as a starting point, and then the outcomes of growth and demand forecasts, level of service and performance review, the risk management and a workshop with asset managers are used to identify upgrade projects needed. • All capital projects identified are listed and a cost estimate developed. For consistency, a cost estimating spreadsheet has been developed and a series of base rates developed after consultation with suppliers and recent contract prices for the more common work elements. The cost estimating spreadsheets require: <ul style="list-style-type: none"> ○ assessment of construction and non-construction costs (ie. engineering, consenting costs, land costs) ○ an assessment of contingency needed – on a consistent basis between estimates ○ an evaluation of the project drivers – increased level of service, growth or renewal. ○ an evaluation of a programme of implementation – spanning years to ensure appropriate time allowed for developing the project ○ a statement of the scope of the upgrade and a statement of risks and assumptions made in preparing the estimate. • Priority Matrices <ul style="list-style-type: none"> ○ recently Council have developed matrices to prioritise asset creation. The matrices generally take into account safety, demand, strategic fit, scale and economic efficiency factors for each individual project. The factors are scored and weighted to produce an overall value which is used to prioritise projects of similar nature against each other. A cost estimate is produced as above and included in the matrices where applicable to assess economic efficiency. • Once estimated the forecasts are combined in a capital expenditure forecast database that records the outcomes of the estimate in a manner that allows summation of the work value against various criteria – scheme, project driver (growth, increased LoS or renewal), year or project. It is also used as an input into Council's financial system. • The funding of the capital forecast is modelled in Council's financial system NCS, and the implications for the forecast review at Council officer level and Councillor level. Any changes made to the projection in terms of deferring, adding or deleting projects is recorded and the implications on risk, growth or level of service stated. • The records of the individual project estimate sheets and the overall capital forecast spreadsheet are filed and retained.
Operational and Maintenance (Appendix E)	<ul style="list-style-type: none"> • Operations and maintenance procedures and specifications are detailed in the specific contracts. • Includes Strategic Studies such as Car Parking Strategy Reviews, System Use Studies etc.

S.4 Asset Management Enablers

The Asset Management Enablers are the aspects that underpin the whole asset management decision making at each stage of the Asset Management Process. These are summarised here, but detailed further throughout this AMP.

- Asset Management Teams – consists of Asset Managers and their consultants.
- Asset Management Plans – this AMP is a key part of the asset management process and is updated on a regular basis.
- Information Systems and Tools – these are detailed in Table S-3.
- Asset Management Service Delivery – include the procurement strategies that ensure Council delivers the asset management activities in the most cost-effective way. This is primarily managed through a professional services contract with MWH New Zealand Ltd for consultation services, operation and maintenance contracts and through a special procurement and tender process for construction work.
- Quality Management – there are a variety of rigorous quality assurance processes involved in management of the transportation activity.
- Continuous Improvement – Covered by Appendix V. The Improvement Programme shown in this document is a snapshot of the programme in its current state. The Improvement Programme is reviewed and updated on a regular basis.

APPENDIX T. BYLAWS

The following bylaws have been adopted by Council:

- **Consolidated Bylaws 2006 – Introduction***
- Control of Liquor in Public Places 2007
- Dog Control Bylaw 2009
- Freedom Camping Bylaw 2011
- Navigation Safety Bylaw 2006
- **Speed Limits Bylaw 2004***
- **Stock Control and Droving Bylaw 2005***
- Trade Waste Bylaw 2005
- **Trading in Public Places Bylaw 2010***
- **Traffic Control Bylaw 2005***
- Water Supply Bylaw 2009

In accordance with the Local Government Act 2002, these bylaws will be reviewed no later than 10 years after they was last reviewed.

***Bylaws of direct relevance in to this activity.**

APPENDIX U. STAKEHOLDERS AND CONSULTATION

U.1 Stakeholders

There are many individuals and organisations that have an interest in the management and / or operation of Council's assets. Council underwent a process whereby they identified an extensive list of these stakeholders and what aspects they value in the activity. The outcomes of that process are summarised below in Table U-1.

A full list is detailed under separate cover in Levels of Service Gap Analysis MWH New Zealand Ltd, December 2010.

Table U-1: Stakeholders

Stakeholder Group	Core Values
Customers / users	Accessibility Affordability Environmental sustainability Health and safety Quality Reliability / responsiveness
Regulator and auditors	Compliance Customer service
Service providers / suppliers	Affordability Compliance Reliability / responsiveness
Elected members	Affordability Customer service
Media	Customer service
Approval authority (funding) / funder	Affordability Compliance Customer service
Others (industry bodies, lobby groups, government departments, other affected parties)	Customer service

U.2 Consultation

U.2.1. Purpose of Consultation and Types of Consultation

Council consults with the public to gain an understanding of customer expectations and preferences. This enables Council to provide a level of service that better meets the community's needs.

The Council's knowledge of customer expectations and preferences is based on:

- feedback from surveys
- public meetings
- feedback from elected members, advisory groups and working parties
- analysis of customer service requests and complaints
- consultation via the Annual Plan and LTP process.

Council commissions customer surveys on a regular basis, usually every three years, from the National Research Bureau Ltd⁸, but more recently on an annual basis. These Communitrak™ surveys assess the levels of satisfaction with key services, including transportation services, and the willingness across the community to pay to improve services.

⁸ Communitrak™: Public Perceptions and Interpretations of Council Services / Facilities and Representation, NRB Ltd May/June 2011.

Council at times will undertake focussed surveys to get information on specific subjects or projects.

U.2.2. Consultation Outcomes

The most recent NRB Communitrak™ survey was undertaken in May/June 2011. This asked whether residents were satisfied with roads, footpaths and parking in their local town.

U.2.1.1 Roads

Figure U-1 shows that 81% of residents are satisfied with roading in the district. This shows a general increasing trend in satisfaction. This level of satisfaction is higher than the Peer Group average (73%), and slightly above the National Average (79%).

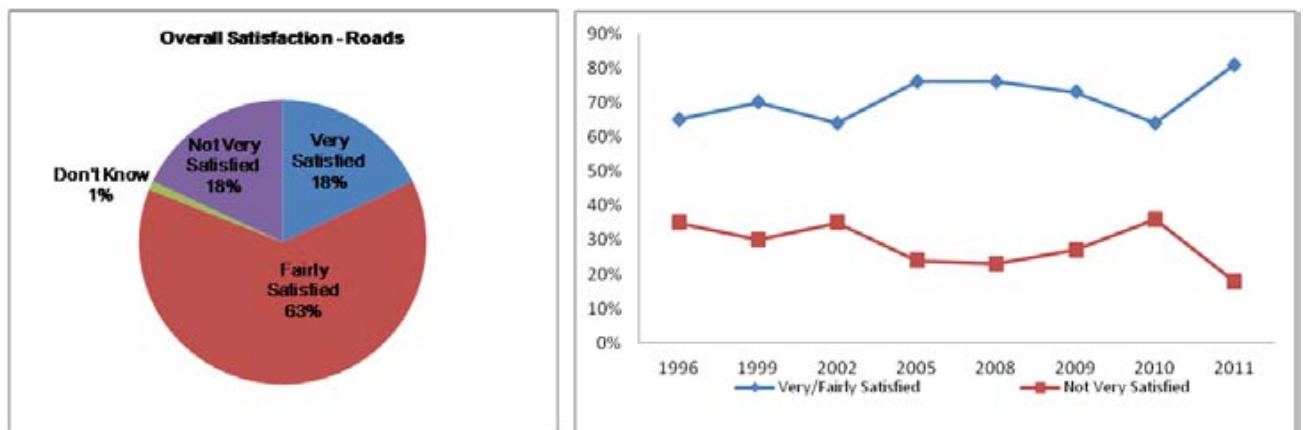


Figure U-1: Satisfaction with Roding and Services Provided

The main reasons residents were not very satisfied with roads are:

- potholes / uneven / rough / bumpy
- lack of maintenance
- poor condition / need upgrading / improving.

When asked whether they would like more, less or about the same to be spent on roading, given that the Council cannot spend more without increasing rates, 93% said they would like to see the same or more.

U.2.1.2 Footpaths

Figure U-2 shows that 71% of residents are satisfied with footpaths in the district. This shows a general increasing trend, but is slightly below the National Average (75%), but above the Peer Group average (67%).

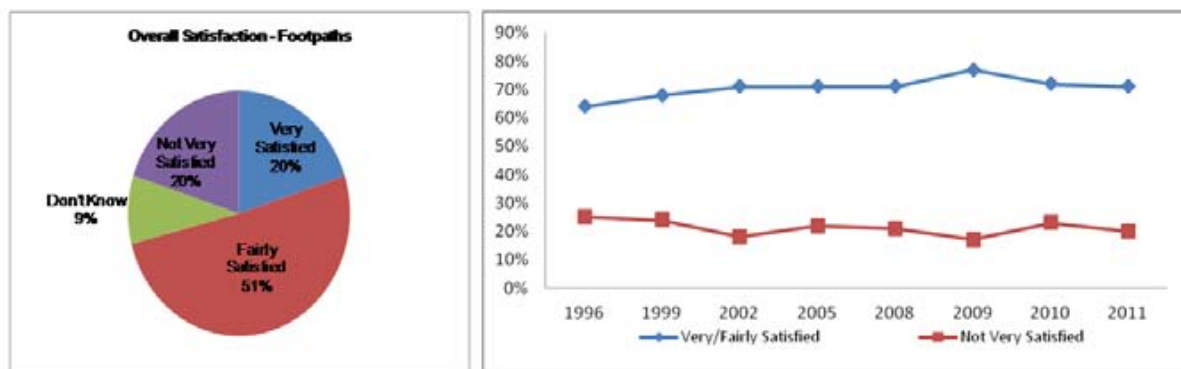


Figure U-2: Satisfaction with Footpaths

The main reasons given for not being very satisfied with footpaths are:

- no footpaths / lack of footpaths
- uneven / cracked / rough / bumpy / potholes

- poor condition / need maintenance / upgrading
- poor design / too narrow / poor access / difficult for mobility scooters.

When asked whether they would like more, less or about the same spent on footpaths, given that the Council cannot spend more without increasing rates, 94% said they would like to see the same or more spent.

U.2.1.3 Parking

Figure U-3 shows that 91% of residents are satisfied with parking in their local town. This level of satisfaction is higher than both the Peer Group average (83%) and the National Average (66%).

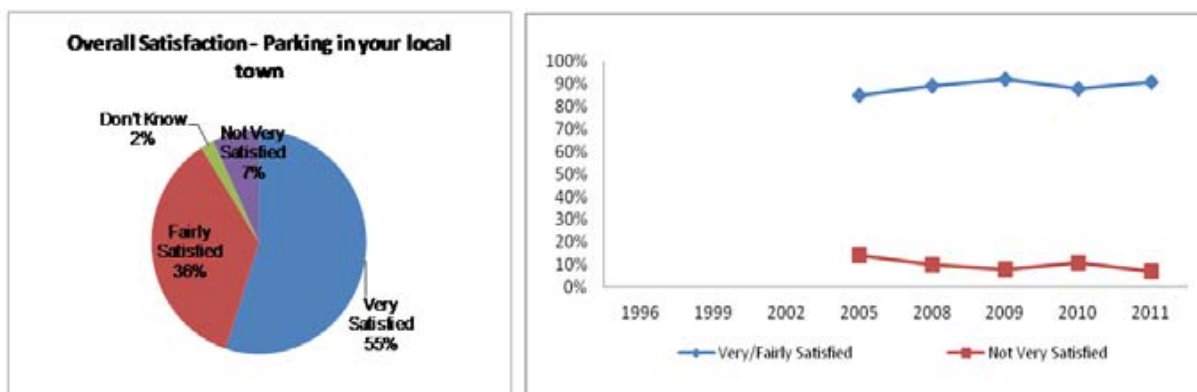


Figure U-3: Satisfaction with Parking

The main reasons residents are not very satisfied with parking in their local town are:

- not enough parking / not enough during summer / need more
- narrow roads / congestion / dangerous in main street.

When asked whether they would like more, less, or about the same to be spent on parking, 96% said they would like to see the same or more.

U.2.1.4 Walkways and Cycleways

Figure U-4 shows that 88% of residents are satisfied with walkways and cycleways. This question was not asked prior to 2011 and there are no comparative Peer Group or National Averages for these facilities.

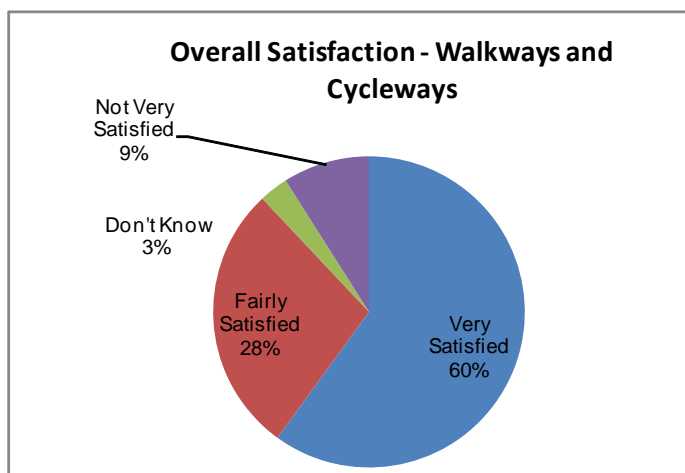


Figure U-4: Satisfaction with Walkways and Cycleways

The main reasons residents are not very satisfied with walkways and cycleways are:

- not enough / need more
- too much money spent / waste of money / cyclists should pay.

Of the respondents, 89% said they would like to see the same or more spent on cycleways and walkways.

APPENDIX V. IMPROVEMENT PROGRAMME

V.1 Process Overview

The Activity Management Plans have been developed as a tool to help Council manage their assets, deliver the levels of service and identify the expenditure and funding requirements of the activity. Continuous improvements are necessary to ensure Council continues to achieve the appropriate (and desired) level of activity management practice; delivering services in the most sustainable way while meeting the community's needs.

Establishment of a robust, continuous improvement process ensures Council is making the most effective use of resources to achieve an appropriate level of asset management practice.

The continuous improvement process includes:

- identification of improvements
- prioritisation of improvements
- establishment of an improvement programme
- delivery of improvements
- on-going review and monitoring of the programme.

All improvements identified are included in a single improvement programme encompassing all activities managed by Council's Engineering Services. In this way, opportunities to identify and deliver cross-activity improvements can be managed more efficiently, and overall delivery of improvement can be monitored across this part of Council's business.

V.2 Strategic Improvements

In April 2010 Council identified the key cross activity improvement actions within Engineering Services for implementation prior to development of the AMPs for the 2012 to 2022 long term plan period. These were:

- update the growth strategy for the changed economic climate
- review levels of service to ensure they adequately cover core customer values
- implement Council's integrated risk management approach to activity level.

These actions were all completed and have fed into the development of the current Activity Management Plan.

V.3 Training

Council do not have a formal schedule of required training, however both Council's staff and its consultants participate in training on a regular basis to ensure that best practice is maintained. This also helps to maintain a good asset management culture.

Council and its consultants are structured in a way that encompasses succession planning to prevent the loss of knowledge in the event of staff turnover. This AMP document also prevents loss of knowledge by documenting practices and process associated with this activity.

V.4 Asset Management Practice Reviews

Since the last AMP review, Council has undertaken a performance review of all Engineering Services activity management practices to compare how they align with the requirements of the Local Government Act 2002, Office of Auditor General (OAG) and industry best practices. This review process has been applied to identify improvement actions, and to monitor achievement of improvements against industry practice areas and Council priorities.

The results of reviews in 2009 and 2011 are shown in Figure V-1 below for this activity. Overall the targeted level (hollow bars) of improvement has been achieved or exceeded (results are shown as solid colour bars).

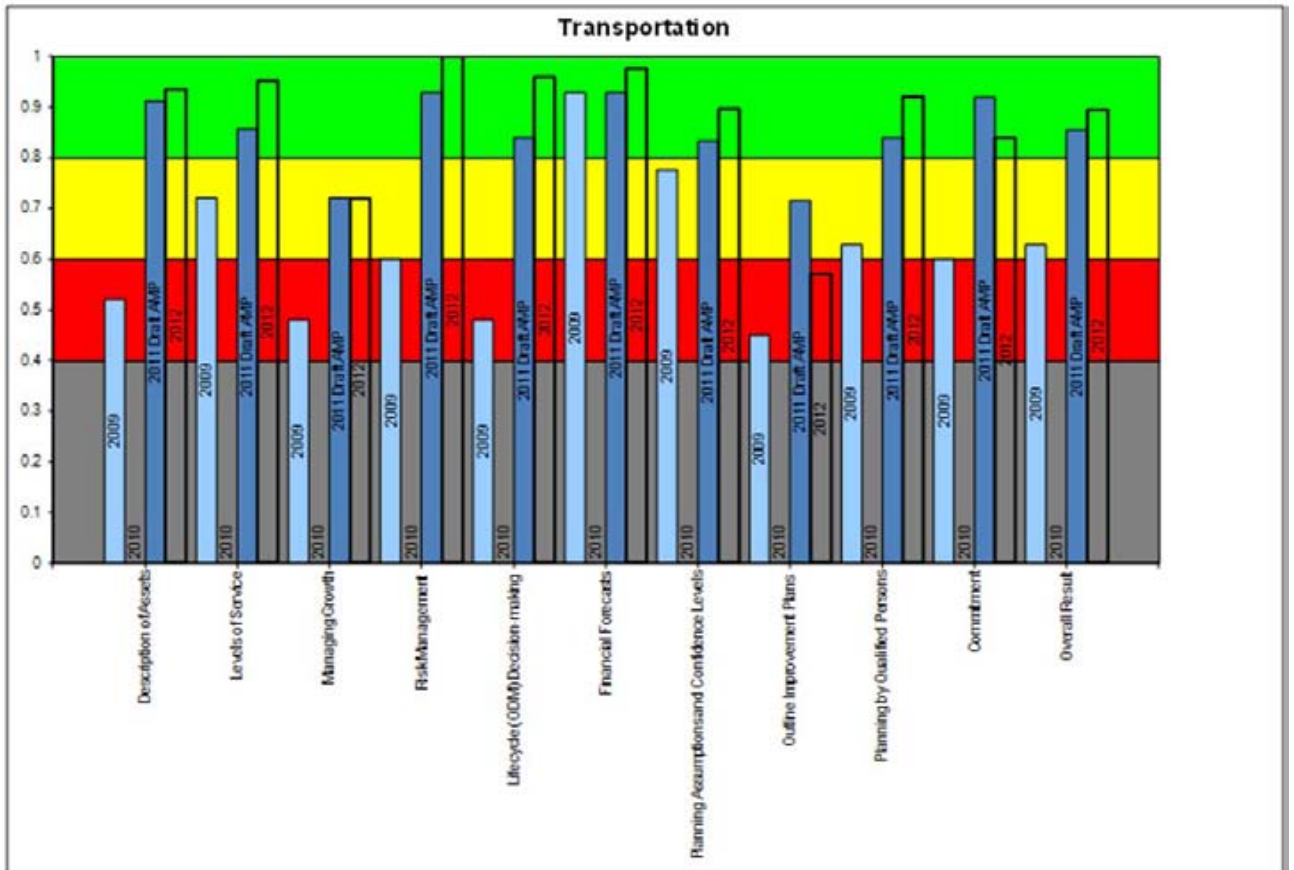


Figure V-1: Results of Benchmarking Review on Draft AMP

The methodology and the findings from the review are detailed in a separate report (*Performance Review of Transportation Activity Management Practices*; MWH New Zealand Ltd, February 2010, and separate benchmarking review tables completed September 2011).

Council also sought consultation on selecting the appropriate level of activity management (*Selecting the Appropriate AM Level*; Waugh, August 2010).

Improvement actions identified in both of these review processes were included in the improvement programme.

Council will review the currency of the performance review checklist used to identify improvement actions as a result of the recent update to the International Infrastructure Management Manual (NAMS, 2011), and will update this checklist as appropriate. This is an Engineering Services improvement item encompassing all activities and is therefore not identified on the improvements list for this activity.

V.5 Peer Review

This AMP document was subject to a peer review in its Draft format by Waugh Infrastructure Management Ltd in October 2011. The document was reviewed for compliance with the requirements of the LGA 2002. The findings from the review indicated a need to present further discussion or evidence in the AMP to support the practices and processes in place in the operation, management and administration of the activity.

The findings and suggestions were assessed and prioritised by the asset management team. Those items that proved to be of sufficiently high value and efficiency to address were included in the Draft for Consultation (Version 4) of this document. The remainder were added to the Improvement Plan where necessary.

Version 4 of this document was then reviewed a final time by Waugh Infrastructure Management Ltd in May 2012. The report produced has been included at the end of this Appendix.

V.6 Improvement Programme Status

A summary on the status of all improvement items related to this activity are shown in the table below, and are split by the year that they were identified.

Table V-1: Status of Improvement Items

Row Labels	In Progress	Not Started	Complete	Not relevant	Grand Total
2009	3	3	7		13
1 - Description of Assets		1	1		2
2 - Levels of Service	1				1
3 - Managing Growth			1		1
4 - Risk Management	1		1		2
5 - Lifecycle (Optimised) Decision-making		1	2		3
6 - Financial Forecasts			2		2
7 - Planning Assumptions & Confidence Levels	1	1			2
2010	3	3	29		35
1 - Description of Assets			8		8
2 - Levels of Service		1	4		5
3 - Managing Growth			4		4
5 - Lifecycle (Optimised) Decision-making			2		2
6 - Financial Forecasts			1		1
7 - Planning Assumptions & Confidence Levels		1	1		2
8 - Outline Improvement Programmes	3		1		4
9 - Planning by Qualified Persons		1	4		5
10 - Commitment			4		4
2011	9	18	4	1	32
1 - Description of Assets	2		2		4
2 - Levels of Service		1			1
3 - Managing Growth	1	1	1		3
4 - Risk Management		4			4
5 - Lifecycle (Optimised) Decision-making	2	7	1	1	11
6 - Financial Forecasts		2			2
7 - Planning Assumptions & Confidence Levels	2	2			4
8 - Outline Improvement Programmes	2				2
9 - Planning by Qualified Persons		1			1
Grand Total	15	24	40	1	80

The Improvement Programme will be adopted in line with the adoption of the LTP and this AMP. It will be continuously monitored with a full review on an annual basis and the status of the improvement items assessed and reported.

V.7 Improvement Actions Completed

Improvement items completed for the period (or requiring no future action) are shown in Table V-2 below:

Table V-2: Improvement Actions Complete

AMP Action Reference	Improvement Action	Further Information	Status	Year that Improvement Action was Identified
A.001	Link to other AMPS: Provide explicit links to other Council AMPs in AMP.	Due for Draft version complete by Oct 2011	Complete	2010
A.002	Links to Procurement Plans: Provide explicit links to procurement plans in AMP.	Due for Draft version complete by Oct 2011	Complete	2010
A.003	Link to District Plan: Provide a link to the District Plan in AMP.	Due for Draft version complete by Oct 2011	Complete	2010
A.004	AMP Update: Review and update AMP on a 3 year cycle. Next due in 2011.	Due for Draft version complete by Oct 2011. This is a business as usual activity	Complete	2010
B.001	Asset Coverage: Capture full description of all assets on network, including Other Structures, Retaining Walls, and Streetlights.	Documenting - fuller description of assets and expand to cover all other transportation assets	Complete	2010
B.002	Condition Monitoring: Describe how asset condition data is collected in AMP.	Due for Draft version complete by Oct 2011	Complete	2010
D.001	Asset renewal approach: Develop approach for accounting and identifying renewal works. Distinguish renewals from ongoing maintenance works.		Complete	2009
E.001	Maintenance Intervention Strategies: Develop a maintenance intervention strategy in conjunction with the maintenance contractor.		Complete	2009
E.002	Maintenance Intervention: Discuss maintenance on the network as a strategy in the AMP.	Due for Draft version complete by Oct 2011	Complete	2010
E.003	Growth and Maintenance: Document the effect of growth on maintenance in the AMP	Due for Draft version complete by Oct 2011	Complete	2010
F.001	Prioritising New Capital: Formalise and document how new capital projects are prioritised in AMP.	Due for Draft version complete by Oct 2011	Complete	2010
F.002	New Capital and Growth: Discuss effect of growth on new capital requirements.	Due for Draft version complete by Oct 2011	Complete	2010
I.001	Renewal Strategy: Develop and implement a renewals strategy that is separate from the maintenance intervention strategy and document in AMP.	Discussed in Appendix I - renewal standards	Complete	2010
I.002	Renewals: Investigate relationship between rutting, strength and pavement depth.	Follow up with Steve M. Business as usual activity.	Not relevant	2011

AMP Action Reference	Improvement Action	Further Information	Status	Year that Improvement Action was Identified
M.001	Local Share Funding: Reference information on local share of funding (as required by Treasury) in AMP.	Due for Draft version complete by Oct 2011	Complete	2010
N.001	Demand Management Strategy: Incorporate a strategy, methodology and programme for managing demand on the network.	Forms part of the RLTS, summarised in Appendix N	Complete	2009
N.002	Demand Drivers: Drivers for demand growth to be analysed at a more detailed level, and reviewed against other drivers.		Complete	2010
N.003	Demand Analysis: Document traffic counting procedures and how traffic composition is estimated in AMP.	Due for Draft version complete by Oct 2011	Complete	2010
N.004	Demand Analysis Approach: Undertake demand analysis in a comprehensive and integrated way and link to the RLTS.		Complete	2010
N.005	Commonality of Approach: Identify and document where demand management is consistent between AMP and related activity strategies in AMP.		Complete	2010
N.006	Demand Management: Collate historical information on demand to enable demand trending and analysis.	Traffic count surveys are routinely completed	Complete	2011
Q.002	Risk Management: Council intends to apply a consistent approach to risk management across all asset groups. Three levels of risk assessment will be carried out; Organisation, Asset Group and Critical Assets.	Activity Level	Complete	2009
R.001	Level of Service Development: Discuss levels of service development in AMP.	Due for Draft version complete by Oct 2011	Complete	2010
R.002	Customer Surveys: Document customer surveys and outcomes in AMP.	Due for Draft version complete by Oct 2011	Complete	2010
R.004	Levels of Service Gap: Identify how the gap between existing and desired levels of service is being addressed.	Due for Draft version complete by Oct 2011	Complete	2010
S.003	Document Decision Making and Prioritisation Criteria: Incorporate into plan a full explanation of the socio-economic, cultural and environmental factors taken into consideration during prioritisation of the expenditure and works programme.	Matrices	Complete	2009
S.004	Develop Procurement Strategy in Terms of NZTA Processes and Documentation: Use NZTA requirements as framework.		Complete	2009

AMP Action Reference	Improvement Action	Further Information	Status	Year that Improvement Action was Identified
S.005	Retaining Wall Asset Data: Collect inventory data and input into RAMM.	Data being collected by maintenance contractors	Complete	2009
S.009	Asset Systems: Identify and document the strengths and weaknesses of asset information systems, including where assets cross activity boundaries (for example, stormwater drainage from roads) in AMP.	Due for Draft version complete by Oct 2011	Complete	2010
S.011	Procurement Strategy: Document existing procurement strategy (-ies) in AMP.	Due for Draft version complete by Oct 2011	Complete	2010
S.012	ODM Application: Document the balance between using decision making tools and engineering experience when identifying and prioritising works in AMP.	Priority matrix developed	Complete	2010
S.013	Cross-infrastructure Planning: Document how cross-infrastructure work planning is conducted in AMP.	Mentioned in Appendix F	Complete	2010
S.014	Description of Assets: Consider adding asset hierarchy into the Confirm system. The capabilities are there, but not yet used by Council.		Complete	2011
S.015	Description of Assets: Improve information on the level of recording, monitoring and reporting of asset information.		Complete	2011
S.018	Asset Condition Data: Detail how asset condition is monitored and reported for key asset types.		Complete	2011
U.001	Other Stakeholders: Identify other stakeholders to the transportation activity in AMP.	Due for Draft version complete by Oct 2011	Complete	2010
V.001	Improvement Options: Document improvement plan options in AMP.	Include in next AMP review	Complete	2010
Z.001	Wide and Balanced Input: Document evidence of wide and balanced internal and external input into the development of the AMP.	Appendix Z	Complete	2010
Z.002	Peer Review of AMP: Commission a peer review of the AMP.	Should commission for ALL activities	Complete	2010
Z.003	Technical Audit: Commission a technical audit of the AMP.	NZTA technical audit	Complete	2010
Z.004	Procedural Audit: Document results of procedural audits completed due to changes in levels of service in AMP.	Included drainage maintenance/renewal comments from technical audit	Complete	2010

V.8 Current Improvement Actions

Current improvement actions are detailed in Table V-3 below.

Table V-3: Current Improvement Actions

AMP Action Reference	Improvement Action	Further Information	Priority (High Medium Low)	Status	Year that Improvement Action was Identified	Forecast Completion Date	Procurement / Delivery Strategy	Council Person Responsible for Managing to Close	Cost Estimate for Years 1 - 3
B.003	Asset Description: Improve accuracy of asset database for cycleways, road markings and street furniture.		H	In Progress	2011	2014	In-house with consultant support	Gary Clark	\$5,000
B.004	Private Access Roads: Further develop the database of private access roads held in RAMM.			In Progress	2011	30-Jun-12	In-house with consultant support	Gary Clark	\$1,000
E.004	Lifecycle Decision Making: Detail how options have been identified for asset maintenance to achieve optimal costs over life.	Discuss lifecycle cost process currently in place eg. NPV calculations. With next AMP review.	L	Not Started	2011	2014	In-house with consultant support	Gary Clark	
G.001	Financial Assessment: Collate historic and new information on Development Contributions to allow analysis of DCs paid vs. forecasts and trending.		L	Not Started	2011	2014	In-House	Peter Thomson	
H.001	Resource Consents: Update NM2 database to ensure all consent information is current and accurate.	Database updating required under network and asset management	M	In Progress	2011	30-Jun-12	Consultant	Gary Clark	\$2,000
I.003	Renewals: Develop a renewals strategy for street light assets.	Included in network and asset management - roading improvement plans.	M	Not Started	2011	30-Jun-13	Consultant	Gary Clark	\$10,000

AMP Action Reference	Improvement Action	Further Information	Priority (High Medium Low)	Status	Year that Improvement Action was Identified	Forecast Completion Date	Procurement / Delivery Strategy	Council Person Responsible for Managing to Close	Cost Estimate for Years 1 - 3
K.001	Financial Assessment: Explore if Councils policy around debt funding is specific enough.		M	Not Started	2011	2014	In-House	Peter Thomson	
N.007	Demand Management: Provide greater detail on the effects of changing demographics rather than population growth.	Aging population may drive an increased LOS, other factors to be considered and detailed. To be done with next AMP review.		In Progress	2011	2014	Consultant	Gary Clark	
N.008	Demand Management: Undertake sensitivity analysis on growth and demand and the effect on activity requirements.		M	Not Started	2011	2014	In-house with consultant support	Gary Clark	
P.001	Sustainability: Explore the need to develop a Council-wide sustainability Policy.		M	Not Started	2011	2014	In-House	Peter Thomson	
P.002	Sustainability: Expand detail on sustainability for the activity. Develop KPIs for environmental, economic and social aspects of sustainable development.		M	Not Started	2011	2014	In-house with consultant support	Peter Thomson	
Q.001	Risk Management: Council intends to apply a consistent approach to risk management across all asset groups. Three levels of risk assessment will be carried out; Organisation, Asset Group and Critical Assets.	Combined project for Organisational IRM, also need to develop at Ops level per activity.	H	In Progress	2009	1-Jun-11	Consultant	Gary Clark	\$20,000
Q.003	Cost/Benefit Analysis: Detail and demonstrate the level of cost/benefit analysis undertaken for projects within the activity.	To be included in next AMP review.	L	Not Started	2011	2014	Consultant	Gary Clark	

AMP Action Reference	Improvement Action	Further Information	Priority (High Medium Low)	Status	Year that Improvement Action was Identified	Forecast Completion Date	Procurement / Delivery Strategy	Council Person Responsible for Managing to Close	Cost Estimate for Years 1 - 3
Q.004	Risk Management: Implement IRM across Council. Currently being used within individual activities.		M	Not Started	2011	2014	In-House	Peter Thomson	
Q.005	Risk Management: Detail and demonstrate how asset criticality and risk analysis is used to develop maintenance strategies.		M	Not Started	2011	2014	In-house with consultant support	Gary Clark	
Q.006	Risk Management: Detail and demonstrate how asset criticality and risk analysis is used to develop renewals strategies.		M	Not Started	2011	2014	In-house with consultant support	Gary Clark	
Q.007	Lifecycle Decision Making: Further develop and detail process for decision making with regards to O&M, renewals, capex and disposals.	Discuss lifecycle cost process currently in place eg. NPV calculations.	L	In Progress	2011	2014	In-house with consultant support	Gary Clark	
Q.008	Assumptions and Uncertainties: Identify the uncertainty level of the more significant assumptions and detail the possible effects.		L	Not Started	2011	2014	In-house with consultant support	Gary Clark	
Q.009	Asset Data: Identify and document process for updating and reporting on confidence levels of asset condition and performance.		L	Not Started	2011	2014		Gary Clark	
Q.010	Assumptions and Uncertainties: Identify and state the confidence levels for the growth/demand forecasts.		L	In Progress	2011	2014	In-house with consultant support	Gary Clark	

AMP Action Reference	Improvement Action	Further Information	Priority (High Medium Low)	Status	Year that Improvement Action was Identified	Forecast Completion Date	Procurement / Delivery Strategy	Council Person Responsible for Managing to Close	Cost Estimate for Years 1 - 3
R.003	Levels of Service benchmarking: document levels of service benchmarking process in AMP.	There are some National measures being developed by DIA in consultation with local government, for adoption prior to the next LTP.	M	Not Started	2010	1-Oct-14	In-house with consultant support	Gary Clark	\$1,000
R.005	Levels of Service: Develop and incorporate sustainability strategies and operations into Levels of Service and performance measures.		M	Not Started	2011	2014	In-house with consultant support	Peter Thomson	
S.001	Develop Information Management Strategy in co-ordination with the Asset Management Team: Develop a co-ordinated vision of future information needs and a single strategy to develop the databases, GIS, valuation and accounting and forward programme tool NOMAD.		H	Not Started	2009	1-Oct-14	In-house	Gary Clark	
S.002	Resolve Council responsibility of unmaintained roads and bridges: Sort out roads and bridges where this currently exists and exposes Council to risk due to current condition of asset.	Planned for Years 1-5, \$10,000 per year.	M	In Progress	2009	30-Jun-17	In-house with consultant support	Gary Clark	\$30,000
S.006	Asset register for valuation reports: Bring remaining assets valued outside of RAMM into RAMM database.	Includes cycleways, street furniture, private roads and pavement markings.	M	In Progress	2009	30-Dec-11	In-house	Gary Clark	

AMP Action Reference	Improvement Action	Further Information	Priority (High Medium Low)	Status	Year that Improvement Action was Identified	Forecast Completion Date	Procurement / Delivery Strategy	Council Person Responsible for Managing to Close	Cost Estimate for Years 1 - 3
S.007	Condition Rating: Develop model for condition rating of the unsealed network that is recognised nationally.		M	Not Started	2009	1-Oct-14	Consultant	Gary Clark	\$10,000
S.008	Poorly Performing Asset Register: document what the systems are that hold information on assets that are not performing to standard in AMP.	Identification and analysis of poorly performing assets using existing or new information.	L	Not Started	2010	1-Oct-14	Consultant	Gary Clark	\$5,000
S.010	Staff Training: develop or reference a staff training register and document in AMP	Include in next AMP review.	L	Not Started	2010	1-Oct-14	In-house	Gary Clark	
S.016	Critical Assets: Create ability to separately identify Critical Assets in Confirm. Be able to report on this information easily.		L	Not Started	2011	2014	In-house	Gary Clark	
S.017	Asset Information: Collate and provide information on how asset condition is monitored.	Most significant assets are discussed, further information could be added.	L	In Progress	2011	2014	In-house with consultant support	Gary Clark	
S.019	Asset Performance Data: Detail how asset performance is monitored and reported for key asset types.		L	Not Started	2011	2014	In-house with consultant support	Gary Clark	
S.020	Lifecycle Decision Making: detail and demonstrate how trade-offs are made between renewals and maintenance expenditure.	This is undertaken but not documented. Part of the NPV process.	L	Not Started	2011	2014	Consultant	Gary Clark	

AMP Action Reference	Improvement Action	Further Information	Priority (High Medium Low)	Status	Year that Improvement Action was Identified	Forecast Completion Date	Procurement / Delivery Strategy	Council Person Responsible for Managing to Close	Cost Estimate for Years 1 - 3
S.021	Lifecycle Decision Making: show alignment with maintenance plan for auditing, supervision and performance measures.		L	Not Started	2011	2014	In-house with consultant support	Gary Clark	
V.002	Improvement Plan Timelines: develop timeframe for improvement plan items and document in AMP.	Ongoing management of the improvement plan, included in \$40,000 per year lump sum under Network and Asset Management.	H	In Progress	2010	1-Oct-14	In-house	Gary Clark	
V.003	Improvement Plan Costings: cost estimates for improvement plan items should be better substantiated and documented in AMP.	Ongoing management of the improvement plan, included in \$40,000 per year lump sum under Network and Asset Management.	H	In Progress	2010	1-Oct-14	In-house	Gary Clark	
V.004	Improvement Plan Approved Costings: Identify which cost estimates have been approved by Council and document in AMP.		H	In Progress	2010	30-Oct-11	In-house	Gary Clark	
V.005	Improvement Plans: formalise timeframes and budgets for improvement actions.		H	In Progress	2011	2014	In-house with consultant support	Gary Clark	
V.006	Improvement Plans: develop and implement process for monitoring and reporting against the Improvement Plan.		M	In Progress	2011	2014	In-house with consultant support	Gary Clark	

AMP Action Reference	Improvement Action	Further Information	Priority (High Medium Low)	Status	Year that Improvement Action was Identified	Forecast Completion Date	Procurement / Delivery Strategy	Council Person Responsible for Managing to Close	Cost Estimate for Years 1 - 3
W.001	Asset Disposal: Develop an asset disposal strategy and incorporate into AMP.	Project - develop an asset disposal strategy, or revise any existing asset disposal strategy. Reasonably minor work required.	M	Not Started	2009	2014	Consultant	Gary Clark	\$10,000

V.9 AMP Peer Review

Infrastructure Management

Tasman District Council

**Water, Wastewater, Stormwater,
Solid Waste, Aerodromes, Transport,
Rivers and Coastal Structures
AMPs Peer Review**

October 2011 & May 2012



WAUGH

ideas | analysis | solutions



WAUGH

Quality Record Sheet

Tasman District Council
Water, Wastewater, Stormwater,
Solid Waste, Transport, Aerodromes, Rivers
and Coastal Structures
AMP Peer Review
October 2011 and May 2012

Issue Information

Issue Purpose	Final
Issue Date	8 th May 2012
Version Number	1.1

Authorisation

Tasman District Council	Peter Thomson
Prepared by	Andrew Iremonger
Internal Reviewed by	Ross Waugh
Date	8 th May 2012
Report Number	64-065-1002

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1.0 EXECUTIVE SUMMARY

1.1 Introduction

The purpose of this report is to:

- Provide a regulatory review of the October 2011 Tasman District Council (TDC) Water, Wastewater, Stormwater, Solid Waste, Aerodromes, Transport, Rivers and Coastal Structures Asset Management Plans for compliance with the primary legislation driving local government, this being the Local Government Act 2002
- Considers associated legislation and standards such as Financial Reporting Standards, Resource Management Act and Health Act as well as industry appropriate practice

1.2 Methodology

Waugh Infrastructure Management Ltd assessed in October 2011 the eight individual draft AMP's content in comparison to; the 12 assessment criteria and a number of elements for each assessment criteria, and to an assessed appropriate asset management level for Tasman District Council. These elements generally follow the Appropriate AM (from IIMM 2006: Section 2.2.4). The assessment criteria are:

- Description of Assets
- Levels of Service
- Managing Growth
- Risk Management
- Lifecycle Decision Making
- Financial Forecasts
- Planning Assumptions and Confidence Levels
- Outline Improvement Programmes
- Councils Commitment
- Planning by Qualified Persons
- Sustainability within the activity by using the Councils sustainability objectives
- The AMP Format (presented in a way that can be readily utilised by the required audience)

Following this review TDC made amendments to the AMP's that encompassed the inclusion of financial details, significant additions to the improvement program along with other items.

In May 2012 the amendments to the October AMPs were assessed by Waugh Infrastructure and the compliance status was reassessed. It should be noted that the May 2012 assessment only considered the items shown in the "Peer review improvement table" provided by MWH in their letter dated 3rd April 2012.

1.3 Overall Conclusion of Asset Management Plans Assessment

The AMP's indicate that TDC has developed good practices and processes in the operation, management and administration of their activities but the discussion or evidence presented within the individual AMP's is often insufficient to substantiate this.

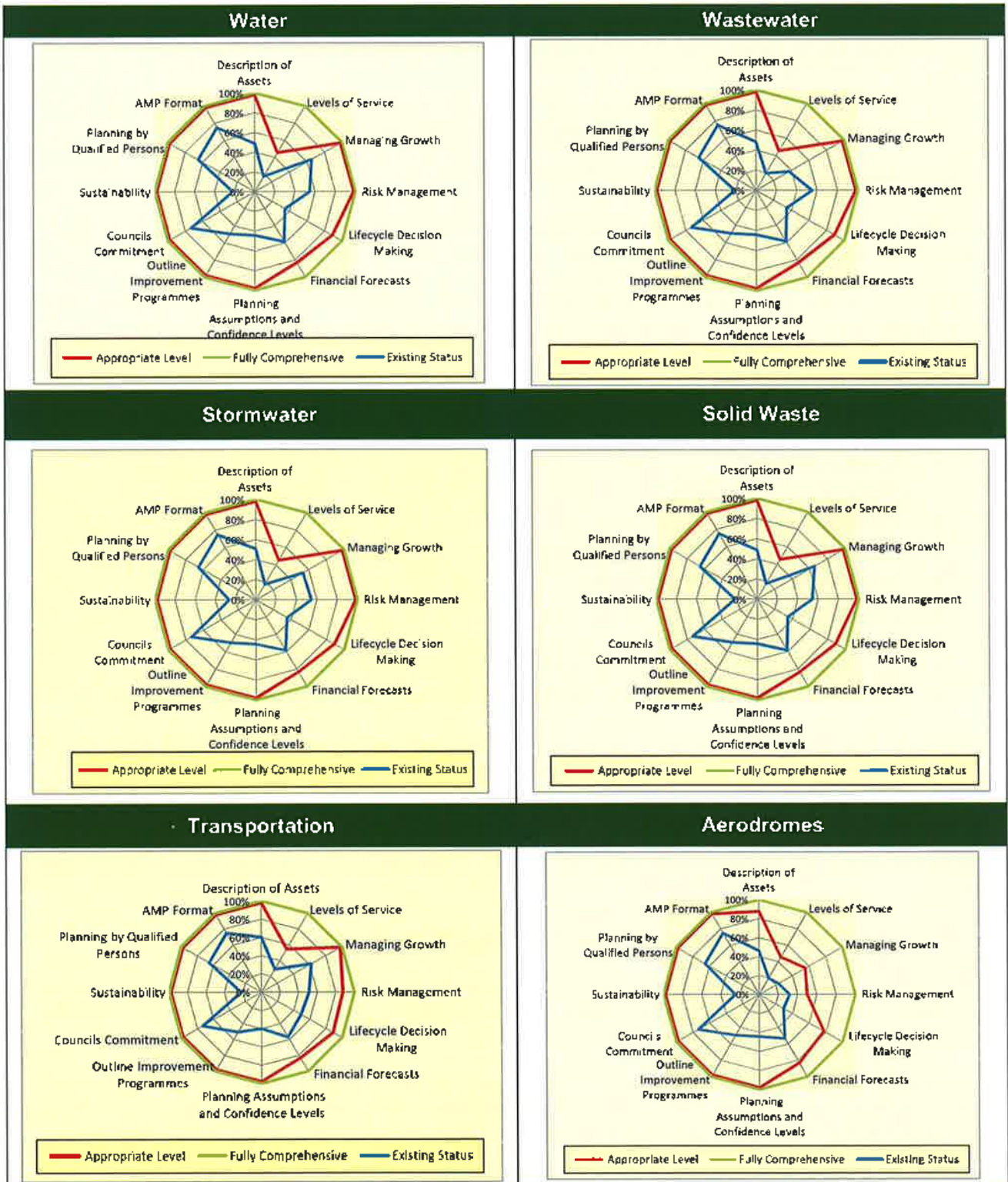
The AMP's provided in May 2012 indicates that many of the issues raised in the October review have been addressed in the subsequent version of the AMPs as amendments or improvement plan items. Completion of these actions would assist to achieve the Councils targeted asset management level.

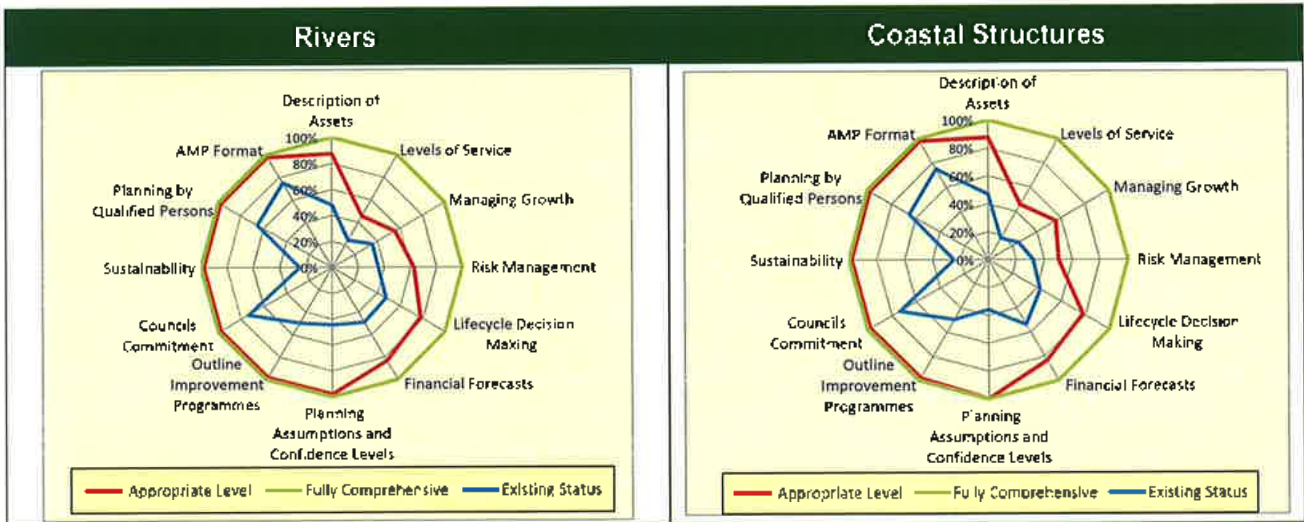
The AMPs assessed in May 2012 do provide Council with an adequate basis on which to make decisions between competing priorities for infrastructure funding and to understand the impact on

service levels in the longer term. On-going commitment is required to complete the actions identified to progress to the high levels of Asset Management practice.

An overview of the AMP Compliance status of the eight AMP's (dated February 2012) is provided in a graphical manner below.

Figure 1-1: AMP Compliance Status Graphs





1.4 Peer Review Limitations and Disclaimer

This Peer Review has been undertaken by Waugh Infrastructure Management Limited, based solely on the information presented in the Tasman District Council Water, Wastewater and Stormwater, Solid Wastes, Transportation, Aerodromes, Rivers and Coastal Structures Asset Management Plans. This report has been prepared solely for the benefit of the Tasman District Council. Waugh Infrastructure Management Limited does not warranty statements made in the eight Asset Management Plans subject to this peer review

This Peer Review represents the experienced opinion of the Reviewers, based on the available information and standards of practice extracted from the information.

This Peer Review makes no representation to reflect the views or standards of Audit NZ, nor does it warrant or certify (in any way) any compliance with possible Audit NZ and/or Office of the Auditor General requirements for Asset Plans.

2.0 RECORD OF PEER REVIEW ENGAGEMENT

Council Name	Tasman District Council
AMP Titles	Water, Wastewater, Stormwater, Solid Wastes, Transportation, Aerodromes, Rivers and Coastal Structures Asset Management Plans
Plan Sponsor	Peter Thomson, Engineering Manager
AMP Prepared By (Plan Writer)	Council Staff - Water: David Light - Wastewater: David Light - Stormwater: Katie Henderson - Solid Waste: Katie Henderson - Transportation: Jenna Viogt - Aerodromes: Jenna Viogt - Rivers: Jenna Viogt - Coastal Structures: Jenna Viogt
AMP Publish Date	October 2011 and February 2012
Peer Reviewer (Waugh Infrastructure Management Ltd)	Ross Waugh Andrew Iremonger Grant Holland
Internal Review (Waugh Infrastructure Management Ltd)	Ross Waugh
Peer Review Dates	26 October 2011 and 4 th May 2012 (review of additions from October 2011 to February 2012)

3.0 SCOPE AND USE OF PEER REVIEW

The Scope of the Peer Review is to provide a regulatory review of the Tasman District Council (TDC) Water, Wastewater, Stormwater, Solid Wastes, Transportation, Aerodromes, Rivers and Coastal Structures Asset Plans (dated October 2011 and February 2012) for compliance with the primary legislation driving local government, this being the Local Government Act 2002.

The Peer Review also considers associated legislation and standards such as Financial Reporting Standards, Resource Management Act and Health Act as well as industry appropriate practice as set by the International Infrastructure Management Manual.

The Peer Review is to comment on the Plan in relation to the following aspects in keeping with the following guidelines of the Office of the Auditor General:

- Transparency
- Inclusivity
- Sustainable Development Approach
- Completeness
- Neutrality
- Comparability
- Accuracy

The intended use of this Peer Review is for the Tasman District Council.

4.0 ASSESSMENT METHODOLOGY

Waugh Infrastructure Management Ltd assessed in October 2011 the eight individual draft AMP's content in comparison to; the 12 assessment criteria and a number of elements for each assessment criteria, and to an assessed appropriate asset management level for Tasman District Council. These elements generally follow the Appropriate AM (from IIMM 2006: Section 2.2.4). The assessment criteria are:

- Description of Assets
- Levels of Service
- Managing Growth
- Risk Management
- Lifecycle Decision Making
- Financial Forecasts
- Planning Assumptions and Confidence Levels
- Outline Improvement Programmes
- Councils Commitment
- Planning by Qualified Persons
- Sustainability within the activity by using the Councils sustainability objectives
- The AMP Format (presented in a way that can be readily utilised by the required audience)

Following this review TDC made amendments to the AMP's that encompassed the inclusion of financial details, significant additions to the improvement program along with other items.

In May 2012 the amendments to the October AMPs were assessed by Waugh Infrastructure and the compliance status was reassessed. It should be noted that the May 2012 assessment only considered the items shown in the "Peer review improvement table" provided by MWH in their letter dated 3rd April 2012.

4.1 Scoring Methodology

The marking of each question area ranges from nil (no reference shown) to 5 (fully compliant) as shown in Table 4-1 below. Following the Fulfilment marking the comments field will indicate any issue considered relevant.

Table 4-1: Scoring Methodology

Fulfilment Requirements	AMP Details
Nil (0)	Not shown or no reference to
Minimal and fragmented (1)	20% compliant - Disjointed
Basic alignment (2)	30% compliant -
Partially (3)	50% compliant -
High level of alignment (4)	80% compliant - minor defects or admissions
Fully Compliant (5)	All areas within this section are fully compliant

The sum of each Assessment area score was then compared to the maximum score required using the Appropriate Practice for the component area i.e. description of assets, LoS etc. This data is shown in the overall AMP Compliance Status excel tables and the AMP Compliance Status graphs.

It should be noted that where there is no information or reference for any question area the score assigned is zero; this will result in a low overall score.

4.2 Appropriate Practice for Tasman District Council Asset Management

Objective of the Asset Management Policy

The objective of the Tasman District Council's Asset Management Policy for the eight utility Activities is to ensure that Council's service delivery is optimised to deliver agreed community outcomes and levels of service, manage related risks, and optimise expenditure over the entire life cycle of the service delivery, using appropriate assets as required.

The Asset Management Policy requires that the management of assets be in a systematic process to guide planning, acquisition, operation and maintenance, renewal and disposal of the required assets.

Delivery of service is required to be sustainable in the long term and deliver on Council's economic, environmental, social, and cultural objectives.

The Council's Asset Management Policy sets the appropriate level of asset management practice for Council's Activity as:

- Transportation: Core Plus with demand management and resource availability drivers
- 3 Waters: Core Plus with demand and risk management drivers
- Solid Waste: Core with risk management drivers
- Coastal structures: Core
- Rivers: Core
- Aerodromes: Core

The appropriate practice status analysis for all eight services is shown in the following table as highlighted green.

Table 4-2: Utilities Asset Management Appropriate Practice Assessment

Assessment Criteria (as outlined in IIMM 2006)		Appropriate Practice Status Analysis							
		Water	Wastewater	Stormwater	Solid Waste	Transportation	Aerodromes	Rivers	Coastal Structures
Description of Assets									
Core	Adequate Description of Asset								
	Financial Description of Asset								
	Remaining useful life								
	Aggregate & Disaggregate Information								
Advanced	Reliable Physical inventory								
	- Physical attributes (location, material, age etc.)								
	- Systematic monitoring of condition								
	- Systematic measurement performance- Utilisation/capacity								
Levels of Service									
Core	Define LOS or performance								
	Linkage to strategic/community outcomes								
	Links to other planning documents								
	Levels of consultation identified and agreement								
	Service life of network stated								
Advanced	For Significant Services								
	- Evaluating LOS Options								
	- Consult LOS options with community								
	- Adoption LOS & Standards after consultation								
	- Public communication of service level								
	- Monitoring & public reporting								
AMP's reflect agreed LOS & how service is delivered									
Managing Growth									
Core	Demand Forecasts (10 year)								
	Demand Management drivers								
	Demand Management strategies								
	Sustainability Strategies								
Advanced	Forecasts include factors that comprise demand								
	Sensitivity of asset development (Capital Works) to demand changes								

Assessment Criteria (as outlined in IIMM 2006)		Appropriate Practice Status Analysis							
		Water	Wastewater	Stormwater	Solid Waste	Transportation	Aerodromes	Rivers	Coastal Structures
	Asset Utilisation/ Demand Modelling								
Risk Management									
Core	Identify critical assets								
	Identify significant negative effects								
	Identify associated risks and RM strategies								
Advanced	Recognition & application of principles of integrated risk management to assets								
	Apply standards & industry good practice (e.g. NZS4360 and Local Government Handbook)								
	RM integrated with Lifelines, disasters recovery, Continuity plans..								
	Integrate with maintenance and replacement strategies								
Lifecycle Decision Making									
Core	Lifecycle and Asset Management Practices								
	Service capacity gap analysis								
	Evaluation and ranking based on criteria of options for significant capital invest decisions for								
	Maintenance Outcomes, Strategies, Standards and Plan								
Advanced	Identify options for asset maintenance to achieve optimal costs over life of asset								
	- Apply agreed evaluation tools to prioritise work programmes								
	- Predictive modelling to support long-term financial forecasts for maintenance, renewals & new capital								
Financial Forecasts									
Core	10 year Financial plan Maintenance, Renewals, New Capital (LOS and demand).								
	Validate the Depreciation/Decline in Service Potential								
Advanced	Translate operational, planned maintenance, renewal & new work into financial terms over period of strategic plan								
	Provide consistent financial forecasts & Substantiate								
	Sensitivity of forecasts								
Planning Assumptions and Confidence Levels									
Core	List all assumptions and possible effects								
	Confidence level on asset condition, performance								
	Accuracy of asset inventory								

Assessment Criteria (as outlined in IIMM 2006)		Appropriate Practice Status Analysis							
		Water	Wastewater	Stormwater	Solid Waste	Transportation	Aerodromes	Rivers	Coastal Structures
	Confidence level demand/growth forecasts								
	Confidence level on financial forecasts								
Advanced	List all assumptions including organisations strategic plan that support AM – linkages with other planning doc								
	Confidence levels (IIMM 4.3.7)								
	- Inventory Data Critical Assets (Grade 1) Non Critical Assets (Grade 2)								
	- Condition Data Critical Assets (Grades 1 or 2) Non Critical Assets (Grades 1, 2 or 3)								
	- Performance Data Critical Assets (Grades 1 or 2) Non Critical Assets (Grades 1, 2 or 3)								
Outline Improvement Programmes									
Core	Identify improvements to AM processes & techniques								
	Identify weak areas & how they will be addressed								
	Timeframes for improvements								
	Identify resources required (human & financial)								
Advanced	Improvement programmes are monitored against KPI's								
	Previous improvements identified and formally reported against KPI's								
Planning by qualified persons									
	AM Planning should be undertaken by a suitably qualified person								
Core & Advanced	Process should be Peer reviewed								
Commitment									
Core	Plan adopted by Council including improvement programme								
	Plan key tool to support LTCCP								
	AM Plan regularly updated and should reflect progress on improvement plan								
Advanced	AM Plan requirements are being implemented and discrepancies formally reported								
	AM Plans evolving as AM systems provide better information								
	AM Plans updated every 3 years along with organisations strategic planning cycles								
	Council has defined the Appropriate AM Practice it is adopting								

5.0 OUTCOMES AND RESULTS OF REVIEW

5.1 Compliance Status Key Findings

The AMP Compliance Status is summarised in Table 5-1 below with an overview of the AMP Compliance status provided in a graphical manner in Figure 5-1. The individual AMP assessments are shown in an excel spreadsheet to allow an alternative viewing method.

The AMP's indicate that TDC has developed good practices and processes in the operation, management and administration of their activities but the discussion or evidence presented within the individual AMP's is often insufficient to substantiate this.

The AMP's provided in May 2012 indicates that many of the issues raised in the October review have been addressed in the subsequent version of the AMPs as amendments or improvement plan items. Completion of these actions would assist to achieve their targeted asset management level.

The AMPs assessed in May 2012 do provide Council with an adequate basis on which to make decisions between competing priorities for infrastructure funding and to understand the impact on service levels in the longer term. On-going commitment is required to complete the actions identified to progress to the high levels of Asset Management practice.

The areas that we consider will have most impact on the AMPs are those that have lower scores over all AMPs. These are:

- Description of assets – More information on the range of assets within each activity's asset register, the asset groups and the practices and processes that are associated with these along with a greater understanding of the condition and performance of the critical assets
- Levels of Service:
 - Levels of Service changes from 2009 (AMP and LTP) should be shown along with reasons and effects of these changes
 - While the Levels of Service listed in the AMP's may be appropriate for Council, there is little demonstration of how they were developed and the linkage with the community's priorities. Trends for performance to date should be shown along with a discussion on any Levels of Service gaps and link the initiatives proposed to close those gaps
- Lifecycle – Need to demonstrate the practices and processes carried out by TDC and those shown in the AMP are used on an on-going basis for the successful operation and renewal of the assets
- Growth – Additional information on utilisation especially at a higher level to enable a district wide assessment and the effects of the change in growth rates on infrastructure requirements
- Sustainability: All AMP's scored very low in this area
- Improvement Plan:
 - Improvement Program that details the requirements to achieve the appropriate AM level over the long term

5.2 General Comments

Water, Wastewater and Stormwater

These three services with appropriate AM practice set as Core Plus with demand and risk management drivers. AMP strengths in risk management in the 3Waters and growth for water services.

Solid Waste

An important Council asset and activity with appropriate AM practice set as Core. AMP provides good analysis of future growth and regional integration. AMP weakness in asset description, levels of

service, and asset lifecycle decision making are reflective of the entire AMP suite and the template approach.

Transportation

Given the extended of the asset involved in the AMP provided, very limited details are provided to support the narrative of the plan. The maintenance and renewal programmes represent a considerable investment for Council and these are examined or explained in the AMP. There may be issues or challenges such as changes in demand in the rural area, impacts of severe weather, metal availability which are not discussed.

Aerodromes

Asset and activity with appropriate AM practice set as Core. AMP weakness in asset description, levels of service, and asset lifecycle decision making are reflective of the entire AMP suite and the template approach

Rivers

Asset and activity with appropriate AM practice set as Core. AMP weakness in asset description, levels of service, and asset lifecycle decision making are reflective of the entire AMP suite and the template approach.

Coastal Structures

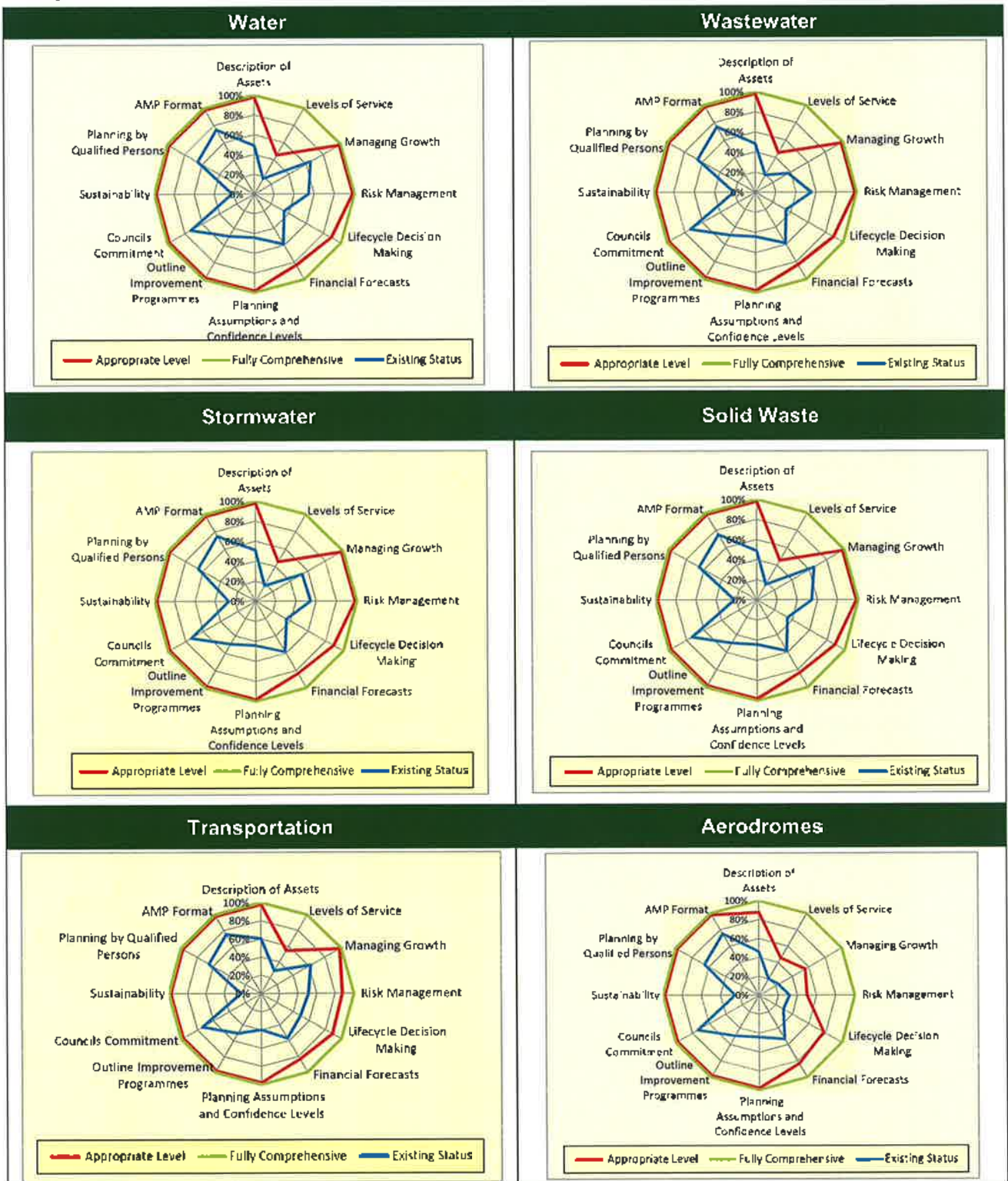
Asset and activity with appropriate AM practice set as Core. An important Council activity with relatively minor expenditure. AMP weakness in asset description, levels of service, managing growth and asset lifecycle decision making are reflective of the entire AMP suite and the template approach.

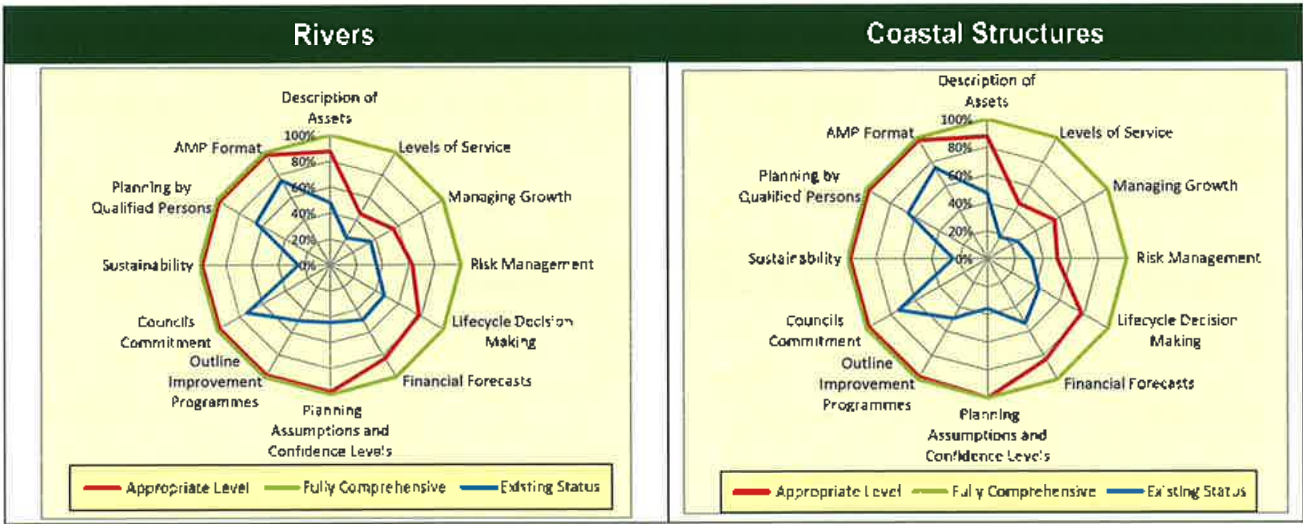
Table 5-1: AMP Compliance Status

Service		Description of Assets	Levels of Service	Managing Growth	Risk Management	Lifecycle Decision making	Financial Forecasts	Planning Assumptions & Confidence Levels	Outline Improvement Programmes	Councils Commitment	Sustainability	Planning by Qualified Persons	AMP Format
Water	Existing Status	49%	18%	65%	54%	35%	58%	44%	49%	74%	22%	65%	75%
	Appropriate AM Level	100%	45%	100%	100%	89%	83%	100%	100%	100%	100%	100%	100%
Wastewater	Existing Status	48%	20%	38%	55%	35%	58%	44%	49%	74%	21%	65%	75%
	Appropriate AM Level	100%	45%	100%	100%	89%	83%	100%	100%	100%	100%	100%	100%
Stormwater	Existing Status	51%	18%	54%	54%	35%	58%	44%	49%	74%	26%	65%	75%
	Appropriate AM Level	100%	45%	100%	100%	89%	83%	100%	100%	100%	100%	100%	100%
Solid Waste	Existing Status	51%	20%	53%	55%	20%	53%	51%	49%	74%	57%	65%	75%
	Appropriate AM Level	100%	45%	67%	75%	44%	83%	100%	100%	100%	100%	100%	100%
Transportation	Existing Status	60%	29%	62%	51%	49%	57%	40%	50%	74%	22%	65%	75%
	Appropriate AM Level	100%	55%	100%	88%	89%	83%	100%	100%	100%	100%	100%	100%
Aerodromes	Existing Status	46%	20%	24%	32%	29%	53%	44%	49%	74%	25%	65%	75%
	Appropriate AM Level	88%	45%	56%	50%	78%	83%	100%	100%	100%	100%	100%	100%
Rivers	Existing Status	48%	24%	36%	36%	48%	49%	44%	49%	74%	25%	65%	75%
	Appropriate AM Level	88%	45%	56%	63%	78%	83%	100%	100%	100%	100%	100%	100%
Coastal Structures	Existing Status	47%	18%	25%	32%	43%	53%	36%	49%	74%	25%	65%	75%
	Appropriate AM Level	88%	45%	56%	50%	78%	83%	100%	100%	100%	100%	100%	100%

Note: The Existing Status and Estimated Appropriate AM level are expressed as a % of compliance

Figure 5-1: AMP Compliance Status Graphs





6.0 ASSESSMENT OF LINKAGES AND IMPLEMENTATION OF PLAN

This Peer Review has been undertaken in terms of, and limited to the instructions provided to Waugh Infrastructure Management Limited.

In the course of the review the documents considered in or excluded from the review are as follows:

Documents considered in the review	Context/Comment
Tasman Water, Wastewater, Stormwater, Solid wastes, Transportation, Aerodromes, Rivers and Coastal structures Asset Management Plans (October 2011 and February 2012). Peer review improvement table provided by MWH in their letter dated 3rd April 2012	Document for Peer Review
INGENIUM Code of Ethics	Reference and guidance
IPENZ Code of Ethics	
NAMs Infrastructure Asset Management Manual 2006	
Local Government Act 2002	Reference
Resource Management Act 1991	
Health Act 1956 and Health (Drinking water) Amendment Act 2007	
Financial Reporting Standards (FRS 3)	

Documents Referred to within this AP and Excluded from the Review	Comment
Tasman District Council Long Term Council Community Plan 2009-2019	Reference to, or abbreviated versions of these documents are included within the Asset Management Plan.
Tasman District Council Assessment of Water and Sanitary Services	Consistency between the Asset Management Plan and the documents listed was not examined as part of this review.
Valuation of Infrastructure of Assets Report 2010	It is assumed that the core consistencies exist between the Management Plan and the Long Term Council Community Plan; Water and Sanitary Assessments; and the current Infrastructure Valuation.
Tasman District Council General and Strategic Policies not included within the Management Plan	Linkages between these documents beyond those described within the Asset Management Plan were not examined.
Tasman District Council Asset Registers	
Tasman District Council Operating Manuals	

The implementation of the Asset Management Plan was not evaluated as part of the Peer Review. An evaluation of the implementation would require interviews with a number of Tasman District Council staff to ascertain the integration of the Asset Management Plan throughout the organisation.

7.0 RECORD OF METHODOLOGY OF PEER REVIEW

Following is the methodology followed by Waugh Infrastructure Management Ltd to carry out the Peer Reviews of the Asset Management Plans:

1. Agree scope and Plans to be reviewed
2. Check for any Peer Reviewer conflicts of interest
3. Arrange for Plan and any other significant documents to be provided to the Peer Reviewer
4. Complete Peer Review of Plan as per Standard Questions/Criteria
5. Carry out Waugh Infrastructure Management internal review of Peer Review Report
6. Provide Draft Peer Review Report to Client
7. Discuss feedback from Client
8. Prepare and issue final Peer Review Report

8.0 STATEMENT OF CODE OF ETHICS

In undertaking this Peer Review, Waugh Infrastructure Management Limited Management, Staff and Associates recognise the professional responsibilities integral to undertaking a review of another professional's work.

The review has been undertaken with particular regard to the following:

INGENIUM Code of Ethics

Clause 2 PROFESSIONALISM AND INTEGRITY

INGENIUM members shall undertake their duties with professionalism and integrity, and shall work within their levels of competence.

Guidelines - Members need to:

- Exercise initiative, skill and judgement to the best of their ability at all times for the benefit of their employer and/or client
- Give decisions, recommendations or opinions that are honest, objective and factual. If these are ignored or rejected they should ensure that those affected are made aware of the possible consequences
- Accept personal responsibility for their work and work done under their supervision or direction
- Ensure that they do not misrepresent their areas or levels of experience or competence
- Take care not to disclose confidential information relating to their work or knowledge of their employer or client without the agreement of those parties
- Disclose any financial or other interest that may, or may be seen to, impair their professional judgment
- Ensure that they do not promise to, give to, or accept from any third party anything of substantial value by way of inducement
- First inform another member before reviewing their work and refrain from criticising the work of other professionals without due cause
- Uphold the reputation of INGENIUM and its members, and support other members as they seek to comply with the Code of Ethics

IPENZ Code of Ethics

Obligations owed to other engineers:

Clause 11: Not review other Engineers' work without taking reasonable steps to inform them and investigate

Waugh Infrastructure Management Limited acknowledges the cooperation of the Plan Sponsor and the Plan Writers in undertaking this Peer Review.

9.0 APPENDICES

9.1 Appendix A – Statement of Experience of Reviewers

Andrew Iremonger

Andrew is a utilities engineer and asset management specialist with 30 years experience in Local Government Asset Management and Engineering. Andrew specialises in strategic Asset Management, specifically the development and updating of Activity and Asset Management Plans, Water and Sanitary Assessments and also Lifeline Utility Plans.

Ross Waugh

Ross is a strategic asset management and systems integration specialist with over 25 years experience in Local Government Asset Management and Engineering. Major consulting strengths include Strategic Asset Management Analysis, Asset Management Planning and the integration of asset management principles into Council processes and operations.

Grant Holland

Grant is an Asset Management specialist with a wide variety of experience in local government asset management and engineering. Grant's interest in supporting communities shows through his development of models for developing Levels of Service and long term planning through to the preparation of Strategic Plans, Activity Management Plans and Maintenance Contracts.

Grant has a broad background in surveying & land development, asset management system development, and community infrastructure and amenities management.

10.0 GLOSSARY OF TERMS

Term	Definition
Peer Review	A Peer Review is an impartial and professional review of another practitioner's work. The review is undertaken in a rigorous and systematic manner with due regard to ethics and confidentiality
Peer Reviewer	A suitably qualified person who may be a staff member of a local authority, or a consultant engaged by a local authority who undertakes or coordinates the review of another organisation or consultant's plan
Plan Sponsor	The staff member of a local authority or utility provider responsible for ensuring a plan is produced. The Plan Sponsor may also fulfil a role in coordinating contributions of staff and consultants towards the development of the plan. This person may be described as the Asset Management Coordinator in the Infrastructure Asset Management Manual
Plan Writer	The author of the plan who may be a staff member of a local authority or utility provider, or a consultant engaged by a local authority. Where a plan is prepared by a number of contributors the editor who compiles the contributions may be identified as the Plan Writer

APPENDIX W. ASSET DISPOSALS

Asset disposal is generally a by-product of renewal or upgrade decisions that involve the replacement of assets.

The Council does not have formal strategy documents relating to asset disposals, however they generally follow the following practices.

- Strategy for sale and disposal of Infrastructural Assets:
Council's policy is to obtain best available return from the disposal or sale of assets within an infrastructural activity and any net income is credited to that activity.
- Sale and Disposal Process:
Council follows sale and disposal practices that comply with the relevant legislative requirements for local government with respect to the sale and disposal of infrastructural assets.

Depending on the nature and value of the transportation assets they are either:

- made safe and left in place
- removed and disposed to landfill
- removed and sold
- transferred by agreement to other stakeholders

From time to time areas of (unformed) legal road reserve become surplus to requirements and the most businesslike approach is to explore the possibility of them being 'closed' and sold to the adjoining property owners. Whenever this occurs the Council is required to follow a very prescriptive legislative process, including public notification.

Bridge structures may be identified for disposal. These structures are usually within a legal road reserve but are not serviced by a maintained road. As they are not on maintained roads, they have generally been ignored in terms of maintenance and are generally in poor condition. Due to their poor condition and the possible confusion about their ownership, they pose a significant risk to Council.

Transfer to the landowners may be either by way of a direct sale or transfer for a nominal fee. There may need to be extensive negotiation between the Council and some landowners before the terms of the transfers can be agreed.

To date, minor swing bridges have been successfully handed over to owners where there are obvious direct private benefits.

Sometimes bridges or components of bridges are replaced with a new bridge or components. These components are generally in poor condition, have little to no commercial value and are disposed of by the contractor.

Council have identified a number of road and foot bridges which have potential to be divested to the adjoining landowners.

APPENDIX X. GLOSSARY OF ASSET MANAGEMENT TERMS

Acronyms and Abbreviations

AMP	Activity Management Plan
LGA	Local Government Act
LTP	Long Term Plan
NZTA	NZ Transport Agency
TRMP	Tasman Regional Management Plan

Activity	An activity is the work undertaken on an asset or group of assets to achieve a desired outcome.
Activity Management Plan (AMP)	Activity Management Plans are key strategic documents that describe all aspects of the management of assets and services for an activity. The documents feed information directly in the Council's LTP, and place an emphasis on long term financial planning, community consultation, and a clear definition of service levels and performance standards.
Advanced Asset Management	Asset management that employs predictive modelling, risk management and optimised renewal decision-making techniques to establish asset lifecycle treatment options and related long term cash flow predictions. (See Basic Asset Management).
Annual Plan	The Annual Plan provides a statement of the direction of Council and ensures consistency and co-ordination in both making policies and decisions concerning the use of Council resources. It is a reference document for monitoring and measuring performance for the community as well as the Council itself.
Asset	A physical component of a facility that has value enables services to be provided and has an economic life of greater than 12 months.
Asset Management (AM)	The combination of management, financial, economic, engineering and other practices applied to physical assets with the objective of providing the required level of service in the most cost-effective manner.
Asset Management System (AMS)	A system (usually computerised) for collecting analysing and reporting data on the utilisation, performance, lifecycle management and funding of existing assets.
Asset Management Plan	A plan developed for the management of one or more infrastructure assets that combines multi-disciplinary management techniques (including technical and financial) over the lifecycle of the asset in the most cost-effective manner to provide a specified level of service. A significant component of the plan is a long-term cash flow projection for the activities.
Asset Management Strategy	A strategy for asset management covering, the development and implementation of plans and programmes for asset creation, operation, maintenance, renewal, disposal and performance monitoring to ensure that the desired levels of service and other operational objectives are achieved at optimum cost.

Asset Register	A record of asset information considered worthy of separate identification including inventory, historical, financial, condition, construction, technical and financial information about each.
Basic Asset Management	Asset management which relies primarily on the use of an asset register, maintenance management systems, job/resource management, inventory control, condition assessment and defined levels of service, in order to establish alternative treatment options and long term cashflow predictions. Priorities are usually established on the basis of financial return gained by carrying out the work (rather than risk analysis and optimised renewal decision making).
Benefit Cost Ratio (B/C)	The sum of the present values of all benefits (including residual value, if any) over a specified period, or the life cycle of the asset or facility, divided by the sum of the present value of all costs.
Business Plan	A plan produced by an organisation (or business units within it) which translate the objectives contained in an Annual Plan into detailed work plans for a particular, or range of, business activities. Activities may include marketing, development, operations, management, personnel, technology and financial planning.
Capital Expenditure (CAPEX)	Expenditure used to create new assets or to increase the capacity of existing assets beyond their original design capacity or service potential. CAPEX increases the value of an asset.
Condition Monitoring	Continuous or periodic inspection, assessment, measurement and interpretation of resulting data, to indicate the condition of a specific component so as to determine the need for some preventive or remedial action
Critical Assets	Assets for which the financial, business or service level consequences of failure are sufficiently severe to justify proactive inspection and rehabilitation. Critical assets have a lower threshold for action than non-critical assets.
Current Replacement Cost	The cost of replacing the service potential of an existing asset, by reference to some measure of capacity, with an appropriate modern equivalent asset.
Deferred Maintenance	The shortfall in rehabilitation work required to maintain the service potential of an asset.
Demand Management	The active intervention in the market to influence demand for services and assets with forecast consequences, usually to avoid or defer CAPEX expenditure. Demand management is based on the notion that as needs are satisfied expectations rise automatically and almost every action taken to satisfy demand will stimulate further demand.
Depreciated Replacement Cost (DRC)	The replacement cost of an existing asset after deducting an allowance for wear or consumption to reflect the remaining economic life of the existing asset.
Depreciation	The wearing out, consumption or other loss of value of an asset whether arising from use, passing of time or obsolescence through technological and market changes. It is accounted for by the allocation of the historical cost (or revalued amount) of the asset less its residual value over its useful life.
Disposal	Activities necessary to dispose of decommissioned assets.

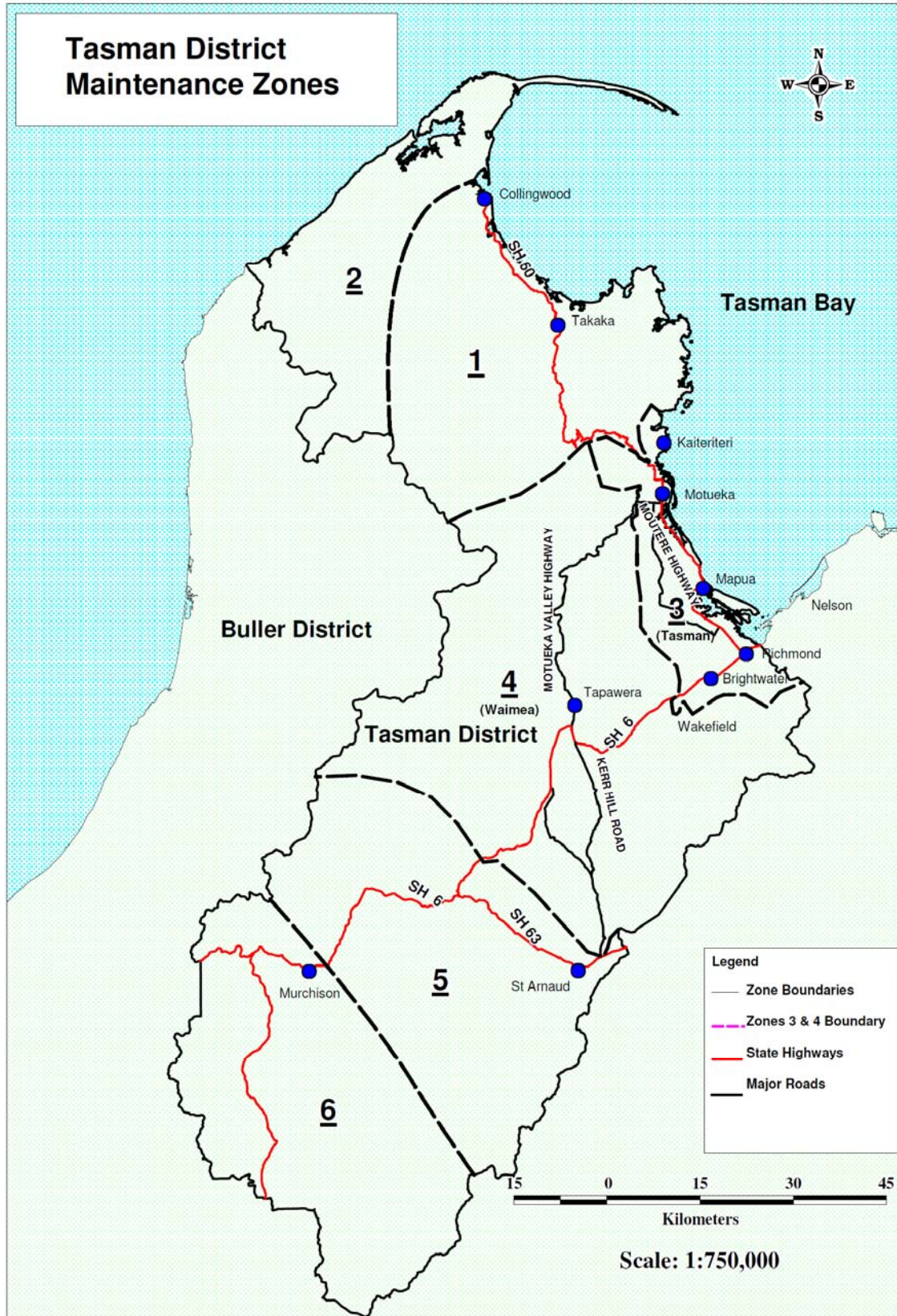
Economic Life	The period from the acquisition of the asset to the time when the asset, while physically able to provide a service, ceases to be the lowest cost alternative to satisfy a particular level of service. The economic life is at the maximum when equal to the physical life however obsolescence will often ensure that the economic life is less than the physical life.
Facility	A complex comprising many assets (eg. swimming pool complex, etc.) which represents a single management unit for financial, operational, maintenance or other purposes.
Geographic Information System (GIS)	Software which provides a means of spatially viewing, searching, manipulating, and analysing an electronic database.
Infrastructure Assets	Stationary systems forming a network and serving whole communities, where the system as a whole is intended to be maintained indefinitely at a particular level of service potential by the continuing replacement and refurbishment of its components. The network may include normally recognised 'ordinary' assets as components.
I.M.S.	Infrastructure Management System - computer database
Level of Service (LoS)	The defined service quality for a particular activity (ie. water) or service area (ie. Water quality) against which service performance may be measured. Service levels usually relate to quality, quantity, reliability, responsiveness, environmental acceptability and cost.
Life	A measure of the anticipated life of an asset or component; such as time, number of cycles, distance intervals etc.
Life Cycle	Life cycle has two meanings. <ul style="list-style-type: none"> • The cycle of activities that an asset (or facility) goes through while it retains an identity as a particular asset ie. from planning and design to decommissioning or disposal. • The period of time between a selected date and the last year over which the criteria (eg. costs) relating to a decision or alternative under study will be assessed.
Life Cycle Cost	The total cost of an asset throughout its life including planning, design, construction, acquisition, operation, maintenance, rehabilitation and disposal costs.
Life Cycle Maintenance	All actions necessary for retaining an asset as near as practicable to its original condition, but excluding rehabilitation or renewal.
Long Term Plan (LTP)	The Long Term Plan is the primary strategic document through which Council communicates its intentions over the next 10 years for meeting community service expectations and how it intends to fund this work. The LTP is a key output required of Local Authorities under the Local Government Act 2002. The LTP replaces the Long Term Council Community Plan (LTCCP).
Maintenance Plan	Collated information, policies and procedures for the optimum maintenance of an asset, or group of assets.
Objective	An objective is a general statement of intention relating to a specific output or activity. They are generally longer-term aims and are not necessarily outcomes that managers can control.

Operation	The active process of utilising an asset which will consume resources such as manpower, energy, chemicals and materials. Operation costs are part of the life cycle costs of an asset.
Optimised Renewal Decision Making (ORDM)	An optimisation process for considering and prioritising all options to rectify performance failures of assets. The process encompasses NPV analysis and risk assessment.
Performance Indicator (PI)	A qualitative or quantitative measure of a service or activity used to compare actual performance against a standard or other target. Performance indicators commonly relate to statutory limits, safety, responsiveness, cost, comfort, asset performance, reliability, efficiency, environmental protection and customer satisfaction.
Performance Monitoring	Continuous or periodic quantitative and qualitative assessments of the actual performance compared with specific objectives, targets or standards.
Planned Maintenance	<p>Planned maintenance activities fall into three categories.</p> <ul style="list-style-type: none"> • Periodic – necessary to ensure the reliability or sustain the design life of an asset. • Predictive – condition monitoring activities used to predict failure. • Preventive – maintenance that can be initiated without routine or continuous checking (eg. using information contained in maintenance manuals or manufacturers' recommendations) and is not condition-based.
Recreation	Means voluntary non-work activities for the attainment of personal and social benefits, including restoration (recreation) and social cohesion.
Rehabilitation	Works to rebuild or replace parts or components of an asset, to restore it to a required functional condition and extend its life, which may incorporate some modification. Generally involves repairing the asset using available techniques and standards to deliver its original level of service without resorting to significant upgrading or replacement.
Renewal	Works to upgrade, refurbish, rehabilitate or replace existing facilities with facilities of equivalent capacity or performance capability.
Renewal Accounting	A method of infrastructure asset accounting which recognises that infrastructure assets are maintained at an agreed service level through regular planned maintenance, rehabilitation and renewal programmes contained in an asset management plan. The system as a whole is maintained in perpetuity and therefore does not need to be depreciated. The relevant rehabilitation and renewal costs are treated as operational rather than capital expenditure and any loss in service potential is recognised as deferred maintenance.
Repair	Action to restore an item to its previous condition after failure or damage.
Replacement	The complete replacement of an asset that has reached the end of its life, so as to provide a similar or agreed alternative, level of service.
Remaining Economic Life	The time remaining until an asset ceases to provide service level or economic usefulness.
Risk Cost	The assessed annual cost or benefit relating to the consequence of an event. Risk cost equals the costs relating to the event multiplied by the probability of the event occurring.

Risk Management	The application of a formal process to the range of possible values relating to key factors associated with a risk in order to determine the resultant ranges of outcomes and their probability of occurrence.
Routine Maintenance	Day to day operational activities to keep the asset operating (eg. replacement of light bulbs, cleaning of drains, repairing leaks) and which form part of the annual operating budget, including preventative maintenance.
Service Potential	The total future service capacity of an asset. It is normally determined by reference to the operating capacity and economic life of an asset.
Strategic Plan	Strategic planning involves making decisions about the long term goals and strategies of an organisation. Strategic plans have a strong external focus, cover major portions of the organisation and identify major targets, actions and resource allocations relating to the long term survival, value and growth of the organisation.
Unplanned Maintenance	Corrective work required in the short term to restore an asset to working condition so it can continue to deliver the required service or to maintain its level of security and integrity.
Upgrading	The replacement of an asset or addition/ replacement of an asset component which materially improves the original service potential of the asset.
Valuation	Estimated asset value that may depend on the purpose for which the valuation is required, ie. replacement value for determining maintenance levels or market value for life cycle costing.


APPENDIX Y. DISTRICT MAINTENANCE AND CONTRACT ZONE MAP

The area boundaries are correct as at September 2011. The boundaries are revised periodically. The current version is located in the LTP.



APPENDIX Z. AMP STATUS AND DEVELOPMENT PROCESS

Z.1 AMP Status

Version	Status	Document Approval	Signature	Date
1	Working Draft			
2	Draft for Council Officer Review	Name: Becky Marsay Authority: Project Technical Lead		16 Feb 2012
3	Draft for Council Review	Name: Gary Clark Authority: Asset Manager		
4	Draft for Public Consultation through LTP	Name: Peter Thomson Authority: Engineering Manager		
5	Final Plan Adopted by Council Council Resolution	Name: Richard Kempthorne Authority: Mayor Reference: _____		

Z.2 AMP Development Process

Project Sponsor: Peter Thomson
 Asset Manager: Gary Clark
 Project Manager: Stephen Sinclair
 Project Technical Lead: Becky Marsay
 AMP Author: Jenna Voigt
 Project Team: Gary Clark, Phillip Drummond, Steve Elkington, Dugald Ley, Selwyn Steadman, Nigel Beatson, Steve Maddigan, Kevin McGrath, Jamie McPherson, Rhys Palmer, Mike van Enter, Jenna Voigt, Geoff Ward

Z.3 Quality Plan

This quality plan comprises three parts.

1. Quality Requirements and Issues – identification of the quality standards required and the quality issues that might arise.
2. Quality Assurance – the planned approach to ensure quality requirements are pro-actively met – ie. get it right first time.
3. Quality Control – the monitoring of the project implementation to ensure quality outcomes are met.

Z.4 Quality Requirements and Issues





	Issues and Requirements	Description
1	Fitness for Purpose	The AMP has to be “fit for purpose”. It has to comply with Audit NZ expectations of what an AMP should be to provide them the confidence that the Council is adequately managing the Council activities.
2	AMP Document Consistency	Council want a high level of consistency between AMPs so that a reader can comfortably switch between plans.
3	AMP Document Format	The documents need to be prepared to a consistent and robust format so that the electronic documents are not corrupted (as happens to large documents that have been put together with a lot of cutting and pasting) and can be made available digitally over the internet.
4	AMP Text Accuracy and Currentness	The AMPs are large and include a lot of detail. Errors or outdated statements reduce confidence in the document. The AMPs need to be updated to current information and statistics.
5	AMP Readability	The AMPs in their current form have duplication – where text is repeated in the “front” section and the Appendices. This needs to be rationalised so that the front section is slim and readable and the Appendix contains the detail without unnecessary duplication.
6	Completeness of Required Upgrades/Expenditure Elements	The capital expenditure forecasts and the operations and maintenance forecasts need to be complete. All projects and cost elements need to be included.
7	Accuracy of Cost Estimates	Cost estimates need to be as accurate as the data and present knowledge allows, consistently prepared and decisions made about timing of implementation, drivers for the project and level of accuracy the estimate is prepared to.
8	Correctness of Spreadsheet Templates	The templates prepared for use need to be correct and fit for purpose.
9	Assumptions and Uncertainties	Assumptions and uncertainties need to be explicitly stated on the estimates.
10	Changes made after Submission to Financial Model	If Council makes decisions on expenditure after they have been submitted into the financial model, the implications of the decisions must be reflected in the financial information and other relevant places in the AMP – eg. Levels of service and performance measures, improvement plans etc.
11	Improvement Plan Adequate	Improvements identified, costed, planned and financially provided for in financial forecasts.

Z.5 Quality Assurance

	Issues and Requirements	Quality Assurance Approach	Responsible Person
1	Fitness for Purpose	Conduct various reviews of critical elements up front and plan to upgrade the plans to specific requirements: <ol style="list-style-type: none"> 1. Scoping of AMP Upgrade Project 2. Review of Levels of Service 3. Review of Document Upgrade Needs. 	Becky Marsay
		Conduct a Peer Review.	Peter Thomson
2	AMP Document Consistency	Review documents in advance and prepare instructions to authors on how to upgrade.	Becky Marsay
3	AMP Document Format	Central review of AMP document deliverables.	Becky Marsay
4	AMP Readability		
5	AMP Text Accuracy and Currentness	Authors to review each AMP in detail.	Jenna Voigt
6	Completeness of Required Upgrades/Expenditure Elements	AMP authors to workshop with relevant project team members to ensure all projects/cost elements covered.	Jenna Voigt
		Central list of issues (called a "Parking Lot") that need to be considered in each AMP.	Jenna Voigt
7	Accuracy of Cost Estimates	Independent review of all cost estimates.	Jenna Voigt
8	Correctness of Spreadsheet Templates	Independent review of all templates.	Becky Marsay
9	Assumptions and Uncertainties and Risk Assessments	Independent review of all cost estimates.	Jenna Voigt
10	Changes Made After Submission to Financial Model	Protocol prepared to ensure Teamsite is used and all parties follow instructions on how changes are made.	Becky Marsay
		Ensure there is a place in the AMP documents to record any changes made and the implications of changes.	Becky Marsay
		AMP authors to manage a change log for changes after submission.	Jenna Voigt
11	Improvement Plan Adequate	Prepare template in advance to ensure consistent approach.	Becky Marsay
		Central review of Improvement Plans.	Becky Marsay

Z.6 Quality Control

Quality control checks and reviews are scheduled on the attached table. These shall be progressively completed as the AMP is developed and incorporated in the final AMP Plan in Appendix Z.

Check or Review	Person Responsible	Authority	Signature	Date
Scope of AMP Upgrade Project complete	Peter Thomson	Engineering Manager		
Levels of Service prepared to instructions	Becky Marsay	Project Technical Lead		16 Feb 2012
Levels of Service Asset Manager acceptance	Gary Clark	Asset Manager		
AMP document prepared to instructions	Becky Marsay	Project Technical Lead		16 Feb 2012
AMP text accuracy and currentness	Jenna Voigt	AMP Author		
Capital Upgrade List complete	Rhys Palmer	Programme Manager		
Capital Upgrade List complete - Asset Manager acceptance	Gary Clark	Asset Manager		
All issues on "Parking Lot" addressed	Jenna Voigt	AMP Author		
Capex Expenditure spreadsheet template reviewed	Becky Marsay	Project Technical Lead		16 Feb 2012
Project Estimate spreadsheet template reviewed	Rhys Palmer	Programme Manager		
All Capex Estimates reviewed and including assessment of Programme, Project Drivers, Levels of Accuracy and assumptions/uncertainty	Jenna Voigt	AMP Author		
Opex Costs spreadsheet arithmetic review	Jenna Voigt	AMP Author		
Opex Cost forecast – fitness for purpose	Peter Thomson	Engineering Manager		
Improvement Plan prepared to instructions	Becky Marsay	Project Technical Lead		16 Feb 2012
Improvement Plan Asset Manager acceptance	Gary Clark	Asset Manager		
Capital Forecast accepted for input to NCS	Gary Clark	Asset Manager		
Change log complete and changes appropriately dealt with – after Council review	Jenna Voigt	AMP Author		
Change log complete and changes appropriately dealt with – after Public consultation	Gary Clark	Asset Manager		
Peer Review completed	Peter Thomson	Engineering Manager		