

Tasman District Council

Transportation Activity Management Plan

2009 - 2019

August 2009

Quality Assurance Statement	
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For full Quality Assurance Statement, Refer Appendix Z

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1 INTRODUCTION

1.1 The Transportation Activity Management Plan: What is it and why is it produced?

The Transportation Activity is one of the eight engineering activities addressed in the Tasman District Council Long Term Council Community Plan (LTCCP). This Transportation Activity Management Plan (AMP) is, therefore, strongly linked to the overall strategic direction for the district. The LTCCP is the document and process that alerts the community to the key issues and strategies contained in this document.

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 a transportation network.

Under Council's significance policy, transportation is deemed to be a significant activity.

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 level of service required by the customers is provided at the lowest long term cost to the community and is delivered in a sustainable manner.

This AMP is based on existing Levels of Service, currently available information and the existing knowledge and judgement of Council staff.

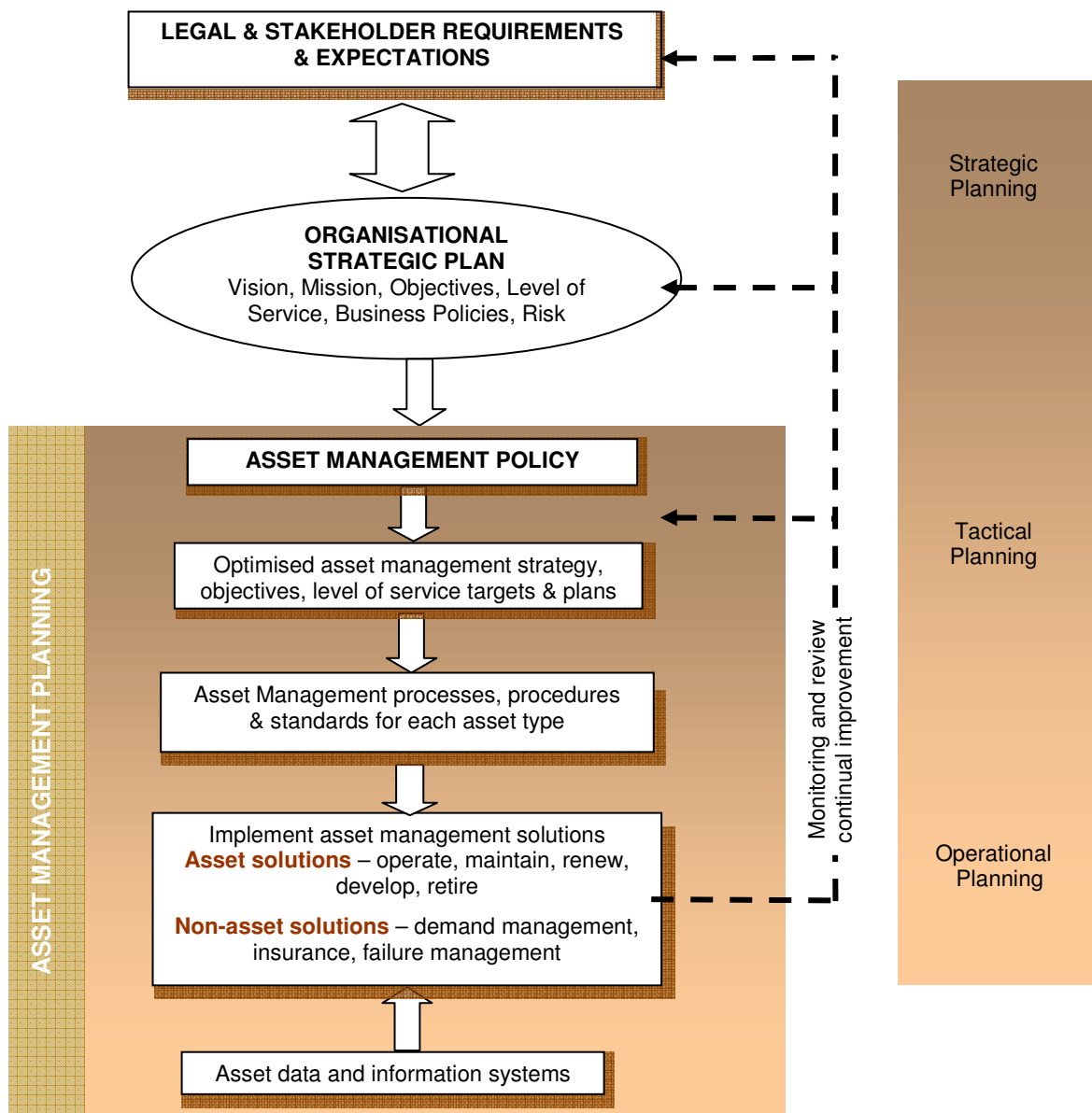
A programme of asset management (see Appendix V) is planned to improve the quality of decision making (eg. predictive modelling, risk management, optimised renewal decision making) and improve the knowledge of Council's assets and customer expectations. These future enhancements will enable Council to better optimise life cycle asset management and provide a greater degree of confidence in financial forecasts.

Figure 1-1 depicts the activity management planning process for infrastructure assets, with fundamental links to customer expectations, legislative requirements and corporate visions and strategies.

This plan has been prepared in line with the requirements of the Local Government Act 2002 and the International Infrastructure Management Manual, Australia/New Zealand Edition, version 3.0, 2006 Edition.

The key drivers, linkages with other plans, and legislative requirements that all feed into the development of the plan are discussed in Appendix A.

Figure 1-1: The Total Asset Management Process (Source IIMM)



1.2 Rationale For Council's Involvement In The Transportation Activity

The provision of transport 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 Transportation to assist in promoting the economic, social, environmental and cultural wellbeing of the District's communities, by helping to facilitate the safe and efficient movement of people and goods throughout the District.

The majority of public transport is commercially operated and so is market driven. Council does not have an operative passenger transport plan but has formally given its support to Nelson City Council's new Passenger Transport operation, should it proceed. Council will complete a Passenger Transport Plan in 2009/10.

1.3 Justification of Asset Ownership

Council has not considered non-ownership options for delivering public transportation services. Arguments to justify public ownership of transportation assets include:

- Core Business - the provision of transportation services is considered to be a core function of local government.
- Public Benefit - the service is assessed as having mainly public benefits.
- Funding – local government has access to more favourable funding options.
- Exclusivity – it is difficult to exclude customers from utilising most of the service.
- Monopoly Supply – the service is a monopoly because of limited customer options.
- Community Opinion - the public generally do not favour private ownership of any key infrastructural assets.

Notwithstanding the above it is possible to charge road users through a regional fuel tax or for access to specific sections of the road network and road tolls are a reality, particularly overseas. Although the private construction and ownership of roads has been, where commercially viable, suggested as a solution to several specific transportation problems in New Zealand, it is unlikely that this will occur in the Tasman District within the next ten years. This is based on the submission made by Local Government NZ on the Ministry of Transport Land Transport Pricing Study (LTPS) which did not support private ownership.

1.4 Overview of the Transportation Activity

Council is responsible for the management of roads and traffic assets with a value of approximately \$599 million (2008 valuation)

The size of this investment and importance of transportation services to the community demands excellence in the management of these assets.

Tasman District Council is responsible for the management of a transportation network that comprises of approximately 1,681 km of roads, 916 km sealed and 765km unsealed, 467 bridges (including footbridges), 184km of footpaths, 21 carparks providing 1100 spaces, 3735 streetlights, traffic signs and culvert pipes. Each road in the transportation network has been categorised into a transportation hierarchy based on the road's purpose and level of use.

The Tasman District transportation network encompasses and requires:

- Ownership or agreed use of land under roads.
- Road pavements and surfacings to provide a carriageway for the safe movement of people and goods.
- Culverts, water tables and a stormwater system to provide drainage.
- Signs, barriers and pavement markings to provide road user information and safe transport.
- Bridges to carry traffic over waterways.
- Footpaths, walkways and cycle-lanes to provide for the needs of pedestrians and cyclists.
- Street lighting to provide safe and comfortable movement of vehicular and pedestrian traffic at night.
- Carparking facilities not able to be provided adjacent to traffic lanes.

Council operates, maintains and improves the infrastructure assets relating to transport on behalf of the ratepayers and endeavours to meet the level of service and to enhance community development and improve the environmental and recreational assets relating to Tasman District.

1.5 Key Issues and Strategic Approach

The key issues for transportation activity over the coming years are:

- Maintaining the current transportation network to ensure the efficient safe and sustainable movement of people, goods and services within and between communities.
- Improving the safety performance of the local network required to meet the Council's share of the central governments road safety target of less than 200 road deaths per annum by 2040. Safety works will focus on the NZTA reports to ensure the greatest benefit for any expenditure.
- Further growth is predicted for Richmond and in the Coastal Tasman Area. In order to serve these developments the transportation infrastructure will require upgrading.
- Passenger transport is mostly commercially operated. The Council is proposing to work with Nelson City Council on passenger transport in the first instance between Nelson and Richmond. The proposed passenger transport service is dependent on an operational subsidy being provided by the New Zealand Transport Agency. There is a higher degree of uncertainty around this following the release of the Government's Policy Statement on Land Transport Funding in May 2009. If the service proceeds, future studies will investigate the facilities and operational requirements to extend this publicly-supported operation into other areas.
- Construction of Walking and Cycling infrastructure across the District to encourage and enable sustainable transport modes is planned across the 20 year forecast. Many of the projects are subject to the receipt of a satisfactory subsidy from the New Zealand Transport Agency for part of the cost.
- Continuing to try to improve the sealing of metal roads in rural areas and working with local communities to address sealing roads, where possible.

2 LEVELS OF SERVICE, PERFORMANCE MEASURES, AND RELATIONSHIP TO COMMUNITY OUTCOMES

2.1 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.
- The Council's understanding of what the community is able to fund.

Table 2-1: Core Values Derived from Community Outcomes

Community Outcomes	How Our Transportation Activity Contributes to the Community Outcome
Our unique and special natural environment is bountiful, healthy, clean and protected	All road construction activities use best practice in the use of the District's natural resources.
Our built urban and rural environments are functional, pleasant, safe and sustainably managed.	Our network of roads, footpaths, cycleways and carparks are safe, uncongested and maintained cost effectively.
Our transport and essential services are sufficient, 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.

2.2 What Level Of Service Do We Seek to Achieve?

Table 2-2 sets out the Levels of Service that Council has adopted. It also shows:

- The Community Outcome from which each level of service has been developed
- How we will know if we are successful in delivering the Level of Service.

Table 2-2: Level of Service - Transportation

Community Outcomes	Levels Of Service	We will know we are meeting The Level Of Service if.....	
Our unique and special natural environment is bountiful, healthy, clean and protected	1. Our Transportation activities use best sustainable practices	All road construction and maintenance activities comply with any required resource consents	
		Council keeps its Surface Condition Index (SCI) at or above 97.5%. The SCI is a nationally used index to represent surface condition and keeping it at this level will demonstrate Council is maximizing the life of the sealed surfaces.	
		Council achieves 10km of seal extension within 10 years. Sealing eliminates dust for adjacent properties and is the lowest long term cost option.	
Our built urban and rural environments are functional, pleasant, safe and sustainably managed.	2. Our network of roads, bridges, footpaths, cycleways and carparks are safe, uncongested and maintained cost effectively.	We receive less than 35 complaints per year relating to the maintenance of footpaths	
		Bend – lost control/head-on crashes on rural roads are equal to the national average by 2018	
		Road maintenance reseals and pavement rehabilitation budgets are managed to within the range $\pm 2\%$	
		We can reduce the number of speed or weight restricted bridges by 1 per year for the next 10 years until only 18 remain.	
		The average quality of the ride experienced by motorists, as measured by the Smooth Travel Exposure index (STE), is maintained at current levels	
Our transport and essential services are Sufficient, efficient and sustainably managed.	3. Our transportation network serves those that should be serviced.	All dwellings within the District are able to access the Council's transportation network at all times unless subject to planned closures.	
		An annual programme of new footpaths as agreed with the communities is constructed to Council standards	
		Capital projects are completed on time, within budget and to Council Engineering Standards and policies.	
	4. Our transportation activities are managed at a level that satisfies the community.	Council increases the network of walking and cycling paths by 8km by 2019.	
		Our surveys show that 70% of customers are satisfied with the transportation service they receive.	
	Council has adopted a Passenger Transport Plan after consultation with the community.	5. Faults in the transportation network are responded to and fixed promptly.	We are able to respond to and fix faults within the timeframes we have specified within our operations and maintenance contracts.
	6. Our systems are built so that failures can be		We have a facility for receiving and handling emergency calls after office hours.

Community Outcomes	Levels Of Service	We will know we are meeting The Level Of Service if.....
	prevented before they occur as much as possible, and if they do occur, can be quickly responded to.	<p data-bbox="791 367 1398 427">We have operative risk management processes in place and planned mitigation measures completed.</p> <p data-bbox="791 443 1390 504">All Council's contractors have adequate resources available in case of a road failure.</p> <p data-bbox="791 519 1445 582">There are no loss of control crashes for all known frost potential sites.</p>

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 AMP. After taking into account feedback from various parties including Audit New Zealand, the Council has decided to reduce the number of Levels of Service so there is more focus and clarity, and to make sure that the link between the Levels of Service adopted and the Community Outcomes is clear.

2.3 What Performance Are We Achieving And What Do We Plan To Achieve?

The Levels of Service that Council is currently achieving are shown in Table R-2 in Appendix R. This table also includes the Levels of Service Council plans to achieve within the next 3 years, and at the end of 10 years.

2.4 What Plans Have Council Made to Meet the Levels of Service?

In preparing the future financial forecasts, Council have included the following specific initiatives to meet the current or intended future Levels of Service:

- Refer to list in Appendix R.

3 THE EXISTING SITUATION DESCRIBED

3.1 Summary of Assets

The Transportation Activity involves the provision and management of the road and traffic assets listed in Table 3-1.

Ancillary structures, such as significant retaining walls, are not listed, as detailed inventories are not available at this stage.

Table 3-1: Summary of Transportation Assets

Asset Component	Total
Roads	
Urban Sealed	164.2 km
Rural Sealed	752.2 km
Unsealed (99.8% rural)	764.8 km
Footpaths	184 km
Drainage Facilities	
Kerb & Channel	202 km
Culverts	78 km
Streetlights	3,735 units
Traffic Facilities	
Traffic signs	8,000 units
Carparks	38,500 m ²
Service Lanes	1.7 km
Walkways	4,100 m ²
Bridges	
Bridges, including foot bridges	467

The roads consist of sealed and unsealed pavements with a small percentage of asphalt concrete. They are categorised into Arterial, Distributor, Collector, Access Road, and Access Places road types, and Table 3-2 provides the lengths of roads, urban, and rural, falling into these categories. For a definition of these categories, refer to Appendix B.

Table 3-2: Asset Information by Road Hierarchy

	URBAN	RURAL	URBAN	RURAL	
HIERARCHY	SEALED (km)	SEALED (km)	UNSEALED (km)	UNSEALED (km)	TOTAL
ARTERIAL	7.4	80.8	0.0	0.0	88.2
DISTRIBUTOR	25.8	113.6	0.0	0	139.3
COLLECTOR	41.0	281.5	0.0	82.4	404.9
ACCESS ROAD	56.5	228	1.1	405.7	691.3
ACCESS PLACES	33.3	44.4	3.6	276.5	357.8
TOTALS	164	748.3	4.7	764.6	1681.5

The roads traverse flat river plains through rolling country and mountainous areas, with the majority of urban development along the coastal belt. There is a large range in the traffic use across the 1681km of roads in the District. 46% of the roads have less than 100 vehicles per day, a further 35% have 100-500 vehicles per day, and 3% (approx. 60km) have greater than 2000 vehicles per day. This is illustrated in Table 3-3. Further information on the asset records and systems can be found in Appendix S.

3.2 Asset Condition

The Condition rating reports of specific assets and specific safety and traffic demand management reports are held separately by the Asset Manager.

Bridges include traffic and foot bridges. Approximately 68% of the bridges are large culverts and reinforced concrete structures with the balance being composite concrete and steel, steel and timber, and timber only. Restricted load bridges are predominantly on the low traffic routes, with a small number serving only a few properties. As of July 2008, 28 bridges are load or speed restricted.

The inventories for most assets are stored in RAMM, the Council's primary transportation asset information management database. Other asset inventory information is listed in separate spreadsheets. A protocol for updating inventories has been adopted. This will significantly improve the confidence level in the data held, especially for footpaths, signs, kerb and channel, and drainage facilities.

3.3 Asset Management Practices

The day to day inspection and maintenance of the transportation network is carried out by the Maintenance Contractor under term performance based contracts. The professional services provider/Network Consultant administers the contracts.

As part of the annual budgeting exercise and preparation of the 3 year Land Transport Programme the Asset Managers combine their knowledge with that provided by the Maintenance Contractor and the Network Consultant to identify assets that require renewal or significant upgrades.

Renewal decisions are based on providing the least long term costs. Tools used to assist with this decision making process are dTIMS predictive modelling, pavement condition index, smooth travel exposure, NZTA standards and guidelines and historic maintenance costs and knowledge. A risk management system is to be developed as part of the asset management system to aid this decision making process.

Extension of the existing network occurs through the vesting of assets associated with a new development or to meet demand

Southbank Systems Ltd, Confirm Enterprise Software has been chosen for Councils corporate Asset Management System. The implementation of this system is ongoing.

Condition rating is regularly carried out on the sealed road network, footpaths and bridges. Development of condition rating methods is required for unsealed roads, signs, ancillary structures, carparks, walkways, and service lanes. Cycleways are, at present, combined with footpaths.

The assessment of condition of existing assets addresses both their functionality and ability to meet community expectations, Levels of Service, safety and engineering good practice and to achieve performance targets.

All of the transportation assets are managed and funded as a District wide activity. Future demand and demand management projections across the District are discussed in Section 5 and Section 10.

Table 3-3: Network Summary Statistics

Annual Average Daily Traffic (AADT)	Urban (km)	Rural (km)	Total (km)
ADT < 100	34.3	734.2	768.5
ADT 100-500	58	540.3	598.3
ADT 500-2000	47.6	207.3	254.9
ADT 2000-4000	19.7	26.4	46.1
ADT 4000-10000	7.3	4.5	11.8
ADT 10000-20000	1.9	0	1.9
Totals	168.8	1512.7	1681.5

3.4 Private Roads and Accessways

There are no private roads and accessways included in this AMP. The Tasman Resource Management Plan and Engineering Standards define the acceptable standards for Council which is covered in Appendix C.

4 OPERATIONS AND MAINTENANCE

4.1 Council 'Ownership' Of Operations and Maintenance

Tasman District Council recognises the need to participate in a coordinated approach to managing the regional land transportation infrastructure and services such as passenger transport.

Council will, therefore, seek to coordinate and consult with adjoining land transport authorities (Nelson City, Marlborough District and West Coast Regional Councils) and NZTA who are responsible for the State Highways within the District.

This will include the wider effects of land transport development and management of the asset. In particular Council will pursue opportunities to work cooperatively with NZTA in respect of the management of the State Highway within the District.

One issue that has been and is likely to continue to be a point of deliberation from time to time is the ownership and maintenance of low trafficked roads and bridges.

The District has a significant number of rural unsealed roads including a number of low standard bridges which serve only a few properties. The continued ownership and maintenance of these roads and bridges may be difficult to justify from a financial perspective. Continued ownership and maintenance to a minimum level can be discussed from a community and social benefit perspective.

All road bridge replacements and upgrades are carried out in line with NZ Transport Agency bridge replacement policies.

4.2 Maintenance Strategy

The Council has determined that the most effective way to achieve its objectives is to contract out the maintenance works to commercial contractors. This allows competitive tendering of the maintenance works to ensure a true market value for the works. Additionally, in order to obtain NZTA financial assistance (currently set at 49%), Council must competitively tender out the maintenance and improvement works.

NZTA require that a formal Procurement Strategy is developed in 2009/10 which will replace the current Competitive Pricing Procedure.

4.3 Control and Management of Operations and Maintenance

A full explanation of how Council manages the transportation activity, its organisation arrangements, information systems, processes and maintenance management is in Appendix E.

Fulton Hogan Ltd currently carries out the day to day inspection and maintenance of the road network. The maintenance contracts are administered by MWH who are Councils professional services provider.

These performance based contracts were let in 2004 and having run to the maximum term of 5 years are to be re-advertised in 2009.

Any work that falls outside of the professional services contract or the maintenance contract is either negotiated or competitively tendered on a case by case basis according to scope, location, contractor availability and complexity.

Detailed breakdown of Estimated Operation and Maintenance Costs For Next Ten Years is provided in Appendix E.

Other costs, including Overheads, Loan Interest, Depreciation and Asset Management costs are included in the overall financial summary presented in Appendix L.

4.4 Maintenance Standards

Details of maintenance standards are in Appendix E.

4.5 Maintenance and Operating Issues

The primary issue for the Council is maintaining an increasing expected level of service from the road user within the finances available.

The rapid increase in fuel and bitumen prices in mid 2008 was going to cause significant issues in completing works to the required level of service. The equally rapid decline in late 2008 has corrected this but this highlights the vulnerability of these maintenance contracts to escalation and the potential requirement to increase funding, defer work or change the Level of Service.

The increase in development and traffic growth, particularly heavy vehicles, decreases the available capacity and life of the road asset, requiring a corresponding increase in the maintenance and renewal expenditures.

The operating performance levels in the maintenance contracts are set to match the physical requirements of the road asset and the road users expectations. Allowing for the traffic growth as the primary driver the costs reflect the needs of the existing sealed and unsealed roads. Surface and pavement rehabilitation are covered under renewals while the increase in development and significant change to the capacity and Levels of Service are dealt with as capital or new asset creation.

The operating and maintenance costs excluding footpaths, walkways, carparks and some cycleways are subsidised. The Council must therefore meet the NZTA maintenance performance guidelines in order to secure the available financial assistance.

The maintenance contracts use a mix of performance based, scheduled work, lump sum or hourly rate for the procurement of services. The selection is influenced by the ability to clearly define the scope and determining who best controls the risk.

4.6 Business Continuity / Emergency Management

The Council has a commitment to ensure the provision of essential goods and services during hazard events, and to keep the transportation network open to the fullest possible extent, even though this may be at a reduced level of service. The Council has the following plans in place:

- Nelson Tasman Engineering Lifelines Report - 2008
- Nelson Tasman Emergency Management Plan
- TDC Engineering Procedures Manual - June 2005
- MWH/TDC Emergency Procedures Manual – June 2005.

5 FUTURE DEMAND

5.1 Factors Affecting Demand

Council recognises that future demands for infrastructure services will be influenced by:

- Population growth and demographics
- Changes in community expectations
- Industrial demand
- Technological change
- Changes in legislation

The impact of these influencing factors on transportation demand and the effect on the current asset infrastructure is discussed below.

5.2 Population Growth

5.2.1 District Wide Projections

The scale of population growth anticipated in the District will have an impact on transportation. More people equates to increased vehicle kms.

The Tasman District has undergone a period of rapid growth, as shown by census population shown in Table 5-1 below.

Table 5-1: Summary of Population Growth

Year	Census Population For Tasman District	% Increase since last census	Average Compound Growth Rate per Annum	New Zealand Average Growth Rate per Annum
1991	34,026			
1996	37,971	11.6%	2.22%	1.41%
2001	41,352	8.9%	1.72%	0.65%
2006	45,800	10.8%	2.06%	1.51%

This shows that Tasman District has been growing at a faster rate than the national average.

For the purpose of projecting population growth and related property / dwelling growth in the district for the next 20 years and beyond, a comprehensive growth modelling analysis has been undertaken. This is summarised in Appendix F, and reported in more detail in a separate document (Refer to Appendix F for details). The resulting population projection that Council has adopted for the purposes of its infrastructure planning and financial planning is shown in Figure 5-1.

Council have adopted population projections that are consistent with Statistics New Zealand growth projections. Council has assumed medium growth for all areas except Motueka and Richmond where a high growth rate has been adopted.

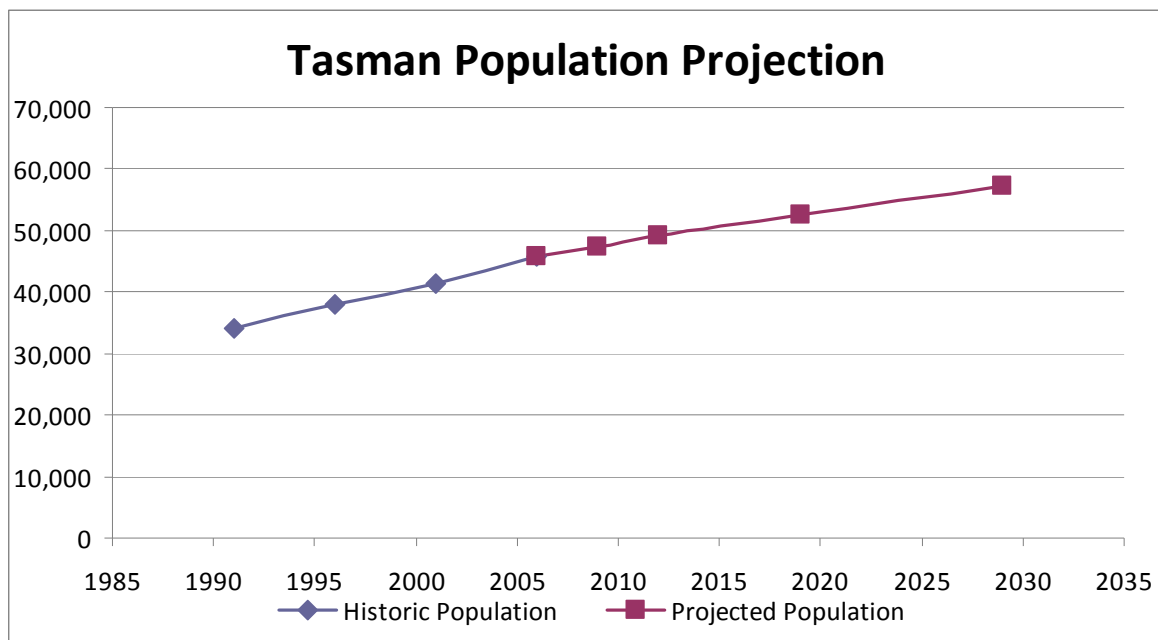


Figure 5-1: Council's Desired Population Growth

5.2.2 *Effect of Population Growth on the Transportation Network*

The growth is around established urban centres and along the coastal margins.

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.

5.3 Industrial Demand

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

- Forestry
- Farming
- Tourism
- Horticulture
- Seafood and Agriculture
- Value Added Industry (forestry)

5.3.1 *Effect of Industrial Demand on the Transportation Network*

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 Tasman average Annual Traffic Growth Rate for 10 years from 1992 to 2002 is 3.5%. As the traffic steadily grows, this will lower 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 more localised networks in the Coastal Tasman area and the main urban areas of Richmond which will however 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

Council has invested significantly over the last three years in developing a reliable dTIMS model for its transportation network. This has been used to assist in establishing the levels of expenditure for Maintenance and Renewals on the sealed network.

No modelling is available at present for the unsealed network.

5.4 Changes in 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.

Council has prepared several policy documents to implement their responsibilities under the Resource Management Act 1991, the Local Government Act and the Land Transport Management Act. Those which impact on the provision of Council transportation services are listed below and described in Appendix F:

- Regional Policy Statement
- Tasman Resource Management Plan 1996 - the plan establishes a hierarchy of roads and classifies roads according to their traffic and access functions.
- Regional Land Transport Strategy (RLTS) - the Council's transportation initiatives and programmes must be consistent with the RLTS. This is due to be updated in 2009.
- District Safety Management System 2004
- Pedestrian and Cycle Strategy 2004
- TDC Engineering Standards 2008
- Other Studies and Guidelines

The intended Levels of Service described in Section 2 and 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 or
- Future communities may want to reduce the ownership of low trafficked roads.

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

5.5 Changes in Legislation

Changes to transportation policies may be driven from a number of directions. They could be internally driven (for example the 2008 TDC Engineering Standards) or externally driven (for example changes driven by national organisations like NZTA 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, NZTA manages and maintains the 335km of state highways while the Council is responsible for the maintenance and management of the 1681km of local roads.

6 NEW CAPITAL EXPENDITURE

6.1 Future Capital Works Programme

New works are those works that create a new asset that did not previously exist, or works that upgrade or improve an existing asset beyond its existing capacity. They must result from growth, social or environmental needs. Assets may be created at no direct cost to the organisation (ie. subdivision developments for local authorities).

Council has developed 20 year capital works programmes. Only the first 10 years of the capital works programme are reported in Council's LTCCP, however Council have decided that there is benefit in planning over a 20 year horizon to ensure the level of expenditure over the long term is financially sustainable, and that a long term view is taken on the infrastructure planning.

The Council's 20 year capital programme is included in Appendix F.

6.2 Deferred Capital Projects

In developing their financial forecasts, Council has prepared a full schedule of capital projects and has programmed them in order to meet the levels of service or the meet the needs of population growth. Initially Council adopted an optimistic growth forecast which drove significant capital expenditure. When new information became available from Statistics New Zealand on the 2006 census and their population projections, Council reviewed their growth forecast and adopted a more moderate growth in alignment with Statistics New Zealand projections. This has meant that some growth driven projects have been moved back, however these have moved because Council considers the need for them will arise later, rather than because of affordability issues. Thus it is expected that with these movements in the programme, the levels of service can still be met.

The Council has considered the financial affordability of the transportation capital forecasts together with the forecasts from all other Council activities, and has concluded that the transportation capital forecasts as provided is generally affordable with the following deferrals or modifications as shown in Table 6-1:

Table 6-1: Deferred Capital Projects

Project Changed	Reason for Decision	Impact of Decision on Levels of Service or Other
Murchison-Hotham/Chalgrave St. Seal Extension	Affordability	Effect on level of comfort to road user and dust nuisance
Graham Valley Seal Extension	Affordability	Effect on level of comfort to road user and dust nuisance
Wharakiki Road Seal Extension	Affordability	Effect on level of comfort to road user and dust nuisance
Motueka-Cycle Facility Old Wharf Road	Timing-To complete as part of roading upgrade programmed	Cyclists remain vulnerable as road users
Richmond-Carparks Land Purchase	Affordability	Some potential inconvenience to road user although passenger transport initiatives discouraging single vehicle occupancy movements may assist parking availability
Mapua-Aranui Street Kerb and Channel	Utility work-programmed	Minimal as deferred only one year

Project Changed	Reason for Decision	Impact of Decision on Levels of Service or Other
Mapua-Tahi Street Kerb and Channel	Utility work-programmed	Minimal as deferred only one year
Brightwater River Terrace Road-Stage 1	Affordability	Minimal as deferred only two years
Cattle Underpass Construction	Affordability	Continual fouling of road surface
Riwaka- Kaiteriteri Road New Shared Path	Timing-To complete as part of roading upgrade programmed	Minimal
Motueka-Construction-Old Wharf Road	Timing. To complete at same time as cycle facility upgrade	Minimal
Richmond-Construction-Paton Road Stage 1	Affordability. Only design deferred	Minimal as interim safety facilities currently in place
Riwaka-Kaiteriteri Road Upgrade Stage 2	Affordability. Only design deferred	Existing lower levels of comfort to road user will remain
Riwaka-Kaiteriteri Road Upgrade Stage 3	Affordability	Effect on level of service to road user
Brightwater-Construction-Lord Rutherford Road South	Utility work programmed	Minimal as deferred one year only
Cycle Facility-Reservoir Creek-Hill Street to Waimea College	Affordability	Minimal as deferred one year only
Passenger Transport Infrastructure	All passenger transport service to be delivered through NCC. Funding allowed for each year as TDC share.	No change to proposed level of service but project proceeding depends on NCC.

The implications of these deferrals are detailed below:

- Subsidised Seal Extension – deferring of these projects will gradually impact on the level of service to the mainly rural areas of the district. These works are substantially driven by the increase in traffic growth and the ability to justify the assistance of funding from NZTA.
- Footpaths and Kerb and Channel - deferring of these works will affect the demand for the provision of footpaths and the associated kerb and channel works identified by Council through the Community surveys.
- Carparks, Service Lanes and Streetscaping – deferring of these works will gradually affect the capacity and standard of the carparks and urban streetscape in the district.
- Road Reconstruction – Deferring of these works will affect the standard of travel, the capacity of the urban roads in particular that are impacted by the adjacent growth, and in some cases will increase the potential for conflicts between pedestrians, cyclists and other vehicles. It may also lead to increased maintenance costs as traffic volumes increase.

6.3 Funding of Future Capital Works

6.3.1 Overview

Road funding for capital works is from General Rate, Loans, NZTA subsidies where projects qualify in whole or part and Development Contributions, where the project is wholly or partly generated from increased growth (eg. subdivisions). Low trafficked road seal extensions also require a 40% contribution from the benefiting landowners with the balance from Council.

6.4 Other Capital Works Policies

Other key financial policies relating to transportation capital programming and expenditure are:

- a) The repayment period for all new loans will be 20 years, or the estimated life of the asset which the loan is being raised to fund (whichever is the lesser).

- b) The new capital expenditure forecasts for the next three years and for the next ten years are indicative only at this stage. The plan will be updated annually, and the capital forecasts that are presently in it cannot be interpreted to mean that the work listed will be undertaken in the priority order shown, or necessarily, at all. In several cases, further studies are required to confirm that the work really is required; that the option that has been costed will be the best option for satisfying the identified need; if it is required – exactly when it should be constructed; and to confirm what the total cost is likely to be.

7 RENEWALS CAPITAL EXPENDITURE AND DEPRECIATION

Details outlining the Council's renewal policy are listed in Appendix I.

Confirm, Council's asset management system software, is being implemented to assist in the process of identifying under-performing assets and determining the cost of maintaining those assets. It will also support decisions of whether or not renewing the asset is the most cost effective solution. The aim is to achieve a solution with the lowest long-term costs and with an affordable cash flow programme.

The projected expenditure on renewals for the next 10 years is in Appendix I.

7.1 Funding of Renewal Work

The funding of all works under the renewal programmes is a high priority for Council. There are no deferred renewals at this stage. Council will decide on an ongoing basis whether or not any part of the proposed works should be loan funded.

7.2 Deferred Renewals

Renewal works identified may be deferred if the cost is beyond the community's ability to fund it. This can occur when higher priority works are required on other infrastructure assets, or there are short term peaks in expenditure or if an inadequate rating base exists.

When renewal work is deferred the impact of the deferral on economic inefficiencies and the system's ability to achieve the required service standards will be assessed. Although the deferral of some renewal works may not impact significantly on the operation of assets, repeated deferral will create a liability in the longer term.

There are no renewal projects that have been deferred in the 20 year period of this plan.

7.3 Depreciation and Decline of Service Potential

As assets age they deteriorate and the efficiency and effectiveness of the service they provide can erode. This "decline of service potential" can be very minor and take a long time, or it can be quick depending on the type of asset. Depreciation is the mechanism by which this is accounted for, and renewals are the means by which assets are restored to providing an acceptable level of service. Key assumptions on the Depreciation and Decline in Service Potential are included in Appendix J. The actual value of depreciation accounted for is included in the future overall financial requirements in Appendix L.

7.4 Asset Disposals

When an asset reaches the end of its useful life and renewal or replacement is decided against, Council may elect to decommission and dispose of an asset. The Council does not have a formal strategy relating to asset disposals. Council's approach to asset disposals is summarised in Appendix W.

There are no plans to decommission and dispose of any assets in the Transportation activity in the period of this AM Plan.

8 SUMMARY OF THE OVERALL FINANCIAL POSITION, INCLUDING EXPENDITURE, INCOME, AND EXISTING ASSET VALUE

8.1 Overview

The Council's funding strategy is detailed in Appendix M.

8.2 A Statement of Financial Performance for the Next Ten Years

The future requirements for the transportation network activity for the next ten years are provided in Appendix L. Table L-1 in the appendix provides an indication of the level of expenditure and income anticipated within the plan. The values shown exclude GST and inflationary effects.

8.3 An Explanation Of The Council's Funding Policy For The Activity

The provision of road maintenance of the carriageway on the existing transportation network currently receives a NZTA subsidy of 49% for all roads except Totaranui and Pupu Springs Roads. These roads (12km) are designated special purpose roads because of their national significance and attract a 100% maintenance subsidy. Some projects such as safety, seal extension walking and cycling and improvement projects, that 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 (DIL). For low trafficked, non-subsidised rural seal extensions, benefiting landowners make direct contributions. The balance of funding requirements is paid out of Council's rating base.

Footpaths, footbridges, carparks, walkways, and some cycleways are fully funded from Council's rates.

Loan funding is used for capital works in accordance with Councils financing and debt policies. Refer to Appendix K for details.

8.4 Schedule of Fees and Charges

Details for fees and charges are in Appendix M.

9 RESOURCE CONSENTS AND PROPERTY DESIGNATIONS

9.1 An Explanation of All Resource Consent Issues Relating to Transportation

An important aspect of the transportation activity is to ensure that the Districts transportation network is managed responsibly in terms of potential effects on the environment.

Transportation activities are subject to control by the Resource Management Act 1991 (RMA) and rules in the Tasman Resource Management Plan (TRMP).

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 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 resource consent. It is expected that in the future, there will be more emphasis to improve stormwater quality.

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

A transportation 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 transportation network to serve traffic demands and environmental considerations.

9.2 Resource Consents and Designations for Transportation Activity

Council intends to develop a full comprehensive list of all consents held and a reporting programme covering all consents associated with the transportation activity.

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 Districts road network, as well as a monitoring programme for compliance with the conditions of permitted activities or resource consents.

Council has made designations for road-widening purposes in Brightwater (and Waimea West Road to Appleby), Motueka, Kaiteriteri, Wakefield and Richmond; and one designation for car parking purposes in Motueka (Whitwell Carpark). Details of these designations are listed in Section 1 to Part II of the TRMP.

10 DEMAND MANAGEMENT

Council's approach to demand management is detailed in Appendix N.

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).
- Deliver a more sustainable service.
- Respond to customer needs.

The future growth and demand projections are discussed in Section 5 – Future Demand. The Land Transport Management Act requires demand management to be addressed in the Land Transport Programme and Regional Land Transport Strategies – with appropriate targets and timetables – intended to reduce the levels of motorised road traffic.

The policies and strategies that will encourage a reduction in the levels of motorised road traffic are discussed in Appendix N.

10.1 Sustainable Development Issues

New roading and rehabilitation of existing roads relies on the use of large volumes of aggregate. Council wishes to encourage and facilitate a reduction in use of river gravels for high end use products. Methods of recycling materials and insitu modification of existing materials is to be encouraged.

11 SIGNIFICANT NEGATIVE EFFECTS

Tasman's land transport network provides people a high degree of mobility. The economic and social benefits have some environmental costs, and social costs are incurred through crashes.

Issues are discussed in Appendix P.

The main issues to be considered are:

- Noise – loss of amenity value
- Light spill - loss of amenity value
- Air quality – effects on health
- Stormwater runoff – impact on ecosystem
- Safety – effects of crashes on social cost.

12 SIGNIFICANT ASSUMPTIONS, UNCERTAINTIES, AND RISK MANAGEMENT

12.1 Assumptions and Uncertainties

The most significant assumptions and uncertainties are described in Appendix Q and summarised as follows:

- **Asset Data Knowledge:** Assumptions have been made on the condition and expected performance of the assets because the RAMM data register is not complete.
- **Growth Forecasts:** Assumptions have been made on the population growth, the industrial demand and the likely impact on traffic growth.
- **Timing of Capital Projects:** Many factors influence when projects are implemented, some of these are out of Council's control.
- **Funding of Capital Projects:** Assumptions have been made about availability of subsidies, changes in subsidies and development contributions. These have significant effects on the financial forecasts.
- **Changes in Legislation Policy:** It is assumed there will be no significant changes that will require Council to assume greater responsibility re its transportation services.
- **Accuracy of Capital Project Cost Estimates:** All projects in the capital forecasts have been estimated. A 15% contingency has been added to construction costs to reflect uncertainties in unit rates used. A further provision has been added to the project estimate to reflect uncertainty in project scope. The amount added depends on the amount of work already done on the project. It is not feasible to have all projects in the next 20 years advanced to a high level of accuracy. However, it is preferable to have projects in the next 3 years advanced to a level that provides reasonable confidence about the accuracy of the estimate.

12.2 Risk Management

Council is adopting an Integrated Risk Management (IRM) framework and processes to manage risk within the organisation. Appendix Q contains a brief description of the IRM framework. The IRM process and framework is intended to:

- Demonstrate responsible stewardship by TDC on behalf of its customers and stakeholders.
- Act as a vehicle for communication with all parties with an interest in TDC's organisational and asset management practices.
- Provide a focus within TDC for ongoing 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 assessment is considered at 3 levels:

- Level 1 – Organisational Risk
- Level 2 – Asset Group Risk
- Level 3 – Critical Asset Risk.

At this point, Council has undertaken the Risk Assessments for Level 1 and 2, but have yet to complete the determining of the appropriate risk treatment strategies for either. This has been included in the Improvement Plan. The level 3 assessment has not been started but has been planned for in the Improvement Plan.

13 BYLAWS

There are 5 bylaws of direct relevance in place. These are:

- Consolidated Bylaw 2004
- Speed Limit Bylaw 2004
- Traffic Control Bylaw 2005
- Stock Control & Droving Bylaw 2005
- Trading in Streets and Public Places June 2006.

14 PLAN REVIEW AND PUBLIC CONSULTATION

14.1 Review Process for this Activity Management Plan

This section details the programme of ongoing monitoring of AMP's effectiveness and review. The AMP is a living document that is relevant and integral to daily activity management. To ensure the plan remains useful and relevant the following ongoing process of AMP monitoring and review will be undertaken:

- A comprehensive review at intervals of not less than three years via the Special Consultative Procedure. Each review will be completed to coordinate with the next review of the LTCCP.
- Between three yearly reviews, various asset management improvement initiatives will be undertaken as listed in the Improvement Plan (Appendix V). The AMP will be amended to incorporate the outcomes of these at each review.
- Quality assurance audits of Activity Management information to ensure the integrity and cost effectiveness of data collected (Appendix Z).

14.2 Public Consultation

The Council consults the public through various mediums, including:

- Surveys
- Public meetings
- Feedback from elected members, advisory groups and working parties
- Feedback through public hearings (eg. through LTCCP consultative procedures).

The Council also gains knowledge of customer expectations through analysis of customer service requests and complaints.

The Council consults with the public in a number of ways. On a tri-annual basis, a CommuniTrakTM survey is completed that solicits community views on a number of services, including transport provision. The most recent survey is discussed in Appendix U.

Recent consultation activities included:

- Consultation on development of Nelson Brightwater Study.
- Combined Road Safety Action Plan Group meetings.
- Nelson/Tasman Regional Cycle Forum meetings.
- Consultation on Richmond Town Centre Development.
- Consultation on new projects such as seal extension, major safety or urban construction.
- Consultation on Walking & Cycling Strategy.

14.3 Intentions for Future Consultation

The Draft Long Term Council Community Plan outlines the Council's intent for future consultation around the LTCCP and this AMP.

Council plans to review the Community Outcomes in the latter half of 2010 (refer LTCCP) followed by a review of the Levels of Service for all Council activities in 2011 (refer Improvement Plan and LTCCP). The outcome of these reviews will feed into the next revision of the AMP and LTCCP.

15 SUSTAINABLE DEVELOPMENT

Council's Vision, Mission and Objectives (refer Appendix A) demonstrate the Council's commitment to sustainable development. This is in line with the community wishes and the legislative requirements of the Local Government Act 2002 to promote the social, economic, environmental and cultural well being of communities in the present and for the future.

At an organisational level, Council has:

- Incorporated the 4 well beings into the community outcomes, which flow into the Levels of Service and performance measures
- Incorporated the 4 well beings in the integrated risk management approach
- Incorporated environmental, social and cultural considerations in the growth planning and modeling.

In the Transportation activity a sustainable development approach is demonstrated in the following aspects:

- A high percentage of the sealed road network, pavement rehabilitation annual programme methodology includes the recycling of existing pavement material and/or modification compared with the traditional aggregate overlay and seal. This reduces the annual quantity of aggregate needing to be sourced from river flats or land use pits. A saving also in fuel cartage to construction sites.
- The intention of the Land Transport Management Act by way of the Land Transport Programme is to reduce the levels of motorised road traffic. This should show a saving and the conservation of fossil fuels over time.

When considering new upgrade solutions, Council considers lifecycle cost issues. Council does not have a formal process for this, but where lifecycle cost is considered to have an impact on decision making, it used as an evaluation criteria.

16 IMPROVEMENT PLAN

The development of this plan is based on existing levels of service, the best available current information and the knowledge and judgement of Council staff. The AMP will be the subject of on-going monitoring, review and updating to improve the quality of AM planning and accuracy of the financial projections. This process will use improved knowledge of customer expectations and enhanced AM systems and data to optimise decision-making, review outputs, develop strategies, and extend the planning horizon.

The AM improvement process involves:

- The cycle of AM plan monitoring, review, revision and audit to improve the effectiveness of AMP outputs and compliance with audit criteria, legal requirements and good practice.
- The definition of service standards reflecting community desires through public consultation (service level review). The AMP is used to identify service standard options and costs, and the delivery of the service standards adopted is a key objective of Asset Management planning.
- The corporate Asset Management co-ordination role by the Asset Management team, which guides and audits the development of the AMP within the framework of Council's strategic direction.

Details of the specific planned improvements to Transportation are detailed in Appendix V.

17 SCHEDULE OF KEY PROPOSED NEW CAPITAL AND RENEWAL WORKS

17.1 Schedule of Work for Next 10 Years

Table 17-1 below details the significant capital and renewal work programmed for years 2009 to 2019. A full list of all capital projects over the 20 year period is included in Appendix F.

Table 17-1: Schedule of Work for Next 10 Years

Activity	2009/10 to 2011/12 Years 1 to 3	2012/13 to 2018/19 Years 4 to 10	Project Driver
Sealed Roads Rehabilitation – approx 6km per year	3,889,500	9,487,700	R
Bridges – Upgrade of existing bridges		2,100,000	R
• Baxter Creek, Murchison Renewal	900,000	180,600	R/I
• Replacement 1 bridge p.a.		3,290,000	R/I
Seal extensions on Gibbs Valley and 88 Valley	788,000	-	I/R
Minor Safety Improvements	2,597,280	6,353,200	I
Shared Pedestrian and Cycle Paths – Motueka, Richmond, Brightwater and Takaka – 12 locations	490,712	3,540,409	I/G
Carparks – Motueka, Mapua, Richmond, Murchison and Takaka	443,600	1,559,200	G/I/R
Kerb, Channel & Footpaths	497,300	775,900	I/G
Stringer Road – upgrade, seal extension and new road construction	1,735,600		G/I
Road construction at 21 sites	221,800	9,939,500	I/G/R
Old Coach Road – 7km of new construction from Dickers to Edens (part only)		3,543,200	G/I
Seal Extension on low traffic roads	330,000	770,000	O&M
Streetscaping, Brightwater, Collingwood, Mapua, Motueka and Richmond	394,270	6,522,330	All
TDC's share Network Tasman's undergrounding policy. High Street, Motueka, Aranui Road, Gladstone Road, Lightband Road (part) Main Road, Riwaka (part)	235,500	584,500	I/R
TDC/NCC Bus service	300,000	840,000	O&M
Pedestrian and Cycle facilities including pram crossings, seats, shared paths, reservoir creek, Bill Wilkes Reserve, along Railway Reserve (part), Goodman Park, Sports Park Motueka, Pedestrian Bridge Marahau River, Abel Tasman Drive, Coastal Highway, Seaton Valley, Harley Road.	1,227,400	1,453,100	I/G
Bridge Renewals: Yellow Pine Creek, Lammas Road, McCullum Road, Parapara Valley Stream, Baxter Creek, Baigents, Ruataniwha Creek, Polglaze Road and Stanton Creek.	1,250,000		R/I

Activity	2009/10 to 2011/12 Years 1 to 3	2012/13 to 2018/19 Years 4 to 10	Project Driver
New Kerb & Channel construction district wide		700,000	I/G
New Footpath construction district wide	227,700	700,000	I/G
Re-construction Old Coach Road corner improvements		250.000	G/I

N.B. Does not include inflation

Project Drivers: G = Growth, I = Increased Level of Service, R = Renewal, B = Backlog Level of Service, O&M = Operation and Maintenance.

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

A.1 Introduction

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 Local Government Act 2002.
Especially
 - Schedule 10.
 - The requirement to consider all options and to assess the benefits and costs of each option.
 - The consultation requirements.
- The Land Transport Management Act 2003, Amendment 2008.
- The Land Transport Act 1998, Amendments 2005, 2006, 2008
- The Transit New Zealand Act 1989.
- The Public Works Act 1981.
- The Telecommunications Act 1987.
- The Electricity Act 1992.
- Railways Act 2005.
- The Biosecurity Act 1993.
- The Summary Offences Act 1981.
- The Bylaws Act 1910.
- The Climate Change Response Act 2002.
- The New Zealand Coastal Policy Statement 1994.
- The Civil Defence Emergency Management Act 2002 (Lifelines).
- The Government's Sustainable Development Action Plan.
- The Resource Management Act 1991.
- The Local Government Act 2002.
- The Health and Safety in Employment Act 1992.
- The Building Act 2004.
- Council's District Plan.
- Council's Engineering Design Standards – latest version.
- The Local Government Act 1974 (Retained sections).
- The Transport Act 1962
- Any existing established policies of the Council (outside those contained in this Activity Management Plan itself) regarding this activity.

- Any existing strategies or policies (or requirements) of the Regional Council that might impinge on the activity.
- The Building Regulations.
- The Heavy Motor Vehicle Regulations 1974.
- NZTA Rules, Policies and Guidelines (including published manuals).
- Government Policy Statement
- The National Land Transport Strategy.
- The National Energy Efficiency and Conservation Strategy.
- The Regional Land Transport Strategy.
- New Zealand Standard SNZHB 4360:2004 'Risk Management.
- New Zealand Standard 4404:2004 land Development and Subdivision Engineering.

A.3 Key Stakeholders

- New Zealand Transport Agency (NZTA)
- The Automobile Association.
- The Heavy Transport Operators Association.
- The Farm Forestry Association.
- The Accident Compensation Commission.
- The Nelson Marlborough District Health Board.

Local Stakeholders

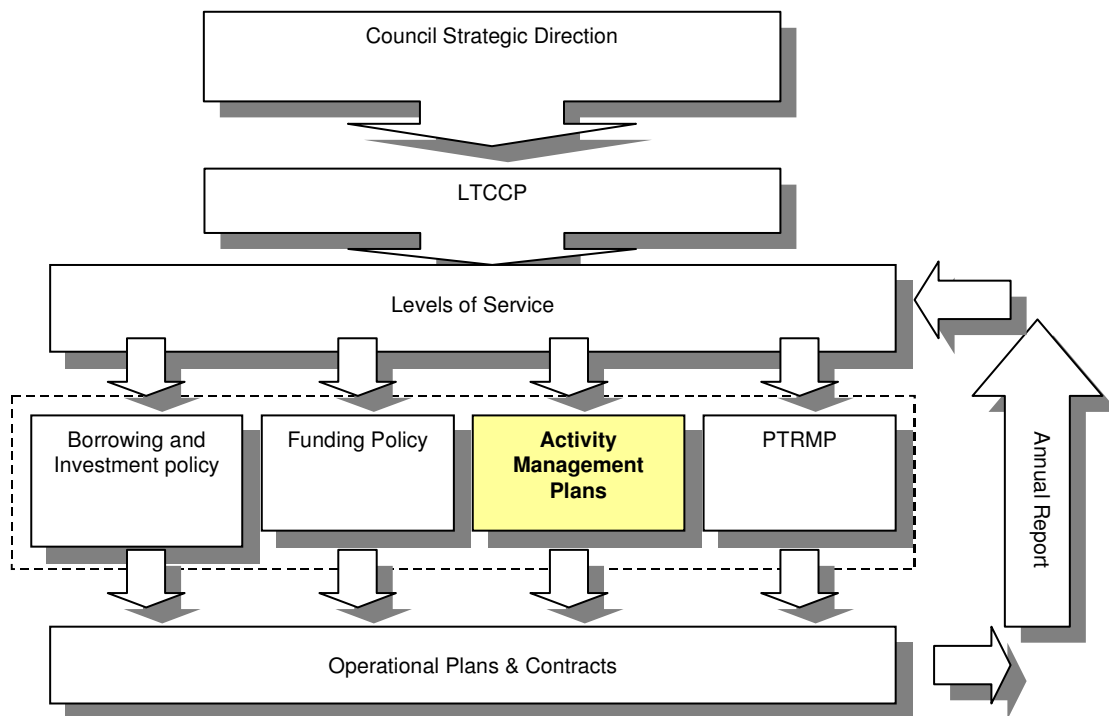
- The elected representatives (Councillors and Community Boards)
- The Tasman District Community of owners, residents and ratepayers
- Tangata Whenua
- Regulatory and monitoring bodies
- Tourism Nelson New Zealand
- Environmental and Recreational Interest Groups including Fish and Game New Zealand, Royal Forest and Bird Protection Society and Tasman Environmental Society
- Tasman District Council employees
- Consultants and contractors.
- Utility Authorities

A.4 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 Council Community Plan (LTCCP). 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 asset management plans to other corporate plans.

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



Council 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

LTCCP	The Long-term Council Community Plan. The primary instrument for the Council to report on its intentions on delivering its services to the community. The LTCCP supersedes the Long Term Financial Strategy (LTFS) and traditional Annual Plan.
Strategic Plan	This is the broad strategic direction of Council set in the context of current and future customer requirements. The AM plan is the tactical plan with a view to achieving the strategic targets.
Annual Plan	The service level options and associated costs developed in the AM plan 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 LTCCP.
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 AM plan.
Contracts	The service levels, strategies and information requirements contained in the AM plan are the basis for performance standards in the current Maintenance and Professional Service Contracts.
Operational Plans	Operating and maintenance guidelines to ensure that the schemes operate reliably and equipment and plant is maintained in a condition that will maximise their useful service life.
Corporate Information	Quality AM is dependent on suitable information and data and the availability of sophisticated AM 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.5 Key Activity Drivers

Key drivers in the transportation activity include:

- Road safety through engineering improvements and education to lessen the community and social costs of road crashes
- Improvements to the structural integrity of the pavements to support industry, eg. forestry and horticulture
- Growth particularly in the CTA area where significant growth requires new infrastructure.
- Congestion in Richmond which is driving establishment of the ring route.
- Cycling and walking infrastructure and education to support healthy sustainable communities.

APPENDIX B. AN OVERVIEW OF EVERY TRANSPORTATION ASSET IN THE DISTRICT

B.1 General

Tasman District Council is responsible for the management of a roading network that comprises of approximately 1,681km of roads, 467 bridges, 184km of footpaths, 21 carparks providing 1,100 parking spaces, 3735 streetlights, traffic signs and culvert pipes. Nearly 100% of urban roads and just over 50% of rural roads are sealed. Each road in the roading network has been categorised into a roading hierarchy based on the road's purpose and level of use. A brief description of each class is as follows:

- **Arterial**
Arterial Roads are primarily roads that form the main traffic routes through and between the Urban Townships of the District, and provide connections to adjacent Districts.
- **Distributor**
Distributor Roads are the secondary framework of roads, which collect and distribute traffic to and from arterial roads.
- **Collector**
Collector Roads have a more local function and ensure that the traffic and 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**
Access Roads are generally streets in Urban or Rural areas with connections at each end but mostly used to provide access. The pedestrian and residential amenity functions of these roads shall predominate in residential areas and they are not intended to provide access for high traffic-generating non-residential activities.
- **Access Places**
Access Places provide direct access to abutting properties in urban areas and offer no through traffic function.

Table B-1 shows the actual distances of roads in the various categories. These hierarchies have been used to define the levels of service.

Table B-1: Physical Road Parameters

	URBAN	RURAL	URBAN	RURAL	
HIERARCHY	SEALED (km)	SEALED (km)	UNSEALED (km)	UNSEALED (km)	TOTAL
ACCESS PLACES	35	44.5	3.6	277.2	360.3
ACCESS ROAD	55	228.3	1.1	404.1	688.5
ARTERIAL	7.4	80.8	0.0	0.0	88.2
COLLECTOR	41.1	285.0	0.0	78.8	404.9
DISTRIBUTOR	25.8	113.6	0.0	0.0	139.4
TOTALS	164.3	752.2	4.7	760.1	1681.3

There are 34.5 km of Class C Roads¹ as classified under the Heavy Motor Vehicle Regulations 1974: Amendment No. 5. These are included within the kilometre distances noted in the table above and are identified within the RAMM database. Aniseed Road is a Class C Road.

Six maintenance zones have been created as shown in the Tasman District Zone Map in Appendix Y. The zone areas approximately match the Tasman Wards as follows:

- Golden Bay, Takaka and Collingwood Wards: Zones 1 and 2
- Moutere – Waimea, Motueka and Richmond Wards: Zones 3 and 4
- Lakes - Murchison Ward: Zones 5 and 6

B.2 Footpaths and Walkways

There are currently about 184km of formed footpaths and 1.85 km of walkways in the Tasman District. The walkways are located as follows:

Table B-2: Inventory of Walkways

Walkway Name	Location	Start	End	Length (m)
BRIGHTWATER				
Somerville/Bryant	Brightwater	Somerville Lane	Bryants Road	65
GOLDEN BAY				
Waitapu Road	Takaka	Waitapu Rd	Feary Cres	96
Gibbs Road	Collingwood	Gibbs Rd Lower	Gibbs Rd Upper	85
Ruataniwha/SH60	Collingwood	Ruataniwha Dr	SH60	155
MOTUEKA				
Wilkinson	Motueka	Wilkinson St	McCarthy Cres	95
Woodland Ave	Motueka	Woodland Av	Monahan St	43
MAPUA				
Lionel Place	Mapua	Lionel Place	Te Aroha Place	50
RICHMOND				
Todd Place	Richmond	Todd Place	Alfred Sheat St	89.4
Chisnall/Doran	Richmond	Chisnall St	Doran St	47.6
Cooper/Cautley	Richmond	Cooper PI	Cautley St	84
Croucher/Bird	Richmond	Croucher St	Bird St	114
Hebberd/Queen	Richmond	Hebberd St	Queen St	80.3
Hill/Hunter	Richmond	Hill St	Hunter Ave	169
Lowry/Gladstone	Richmond	Lowry St	Gladstone Rd	88.8
Salisbury/Maple	Richmond	Salisbury Rd	Maple Cres	29.4
Queen St/Petrie (276 & 278)	Richmond	Queen St	Petrie Carpark	35

¹ Class C roads are defined as roads which may be used by heavy motor vehicles only for the purpose of delivery or collection of goods or passengers at a destination located on a Class C road. The purpose is to enable short lengths of weak roads to be protected from unwarranted use by through traffic where more appropriate reasonable alternative routes are available.

Walkway Name	Location	Start	End	Length (m)
Queen St/Warring (237 & 243)	Richmond	Queen St	Warring Carpark	31
Pats Plaza	Richmond	Queen St	Warring Carpark	31
Colman Place	Richmond	Alfred Sheat St	Colman PI	88.4
Ashbourne/Shearer	Richmond	Shearer Tce	Washbourne Dr	61
Crosilles/Washbourne	Richmond	Crosilles PI	Washbourne Dr	64
Croucher/Petrie	Richmond	Croucher St	Petrie Carpark	20
Brenda Lawson/Wilkinson	Richmond	Brenda Lawson	Wilkinson Place	57
TAPAWERA				
Tawa PI	Tapawera	Tawa PI	Matai Cres	70
WAKEFIELD				
McPherson Way	Wakefield	Arrow St	SH 6 Whitby Rd	102
TOTAL				1850.9

Table B-3: Inventory of Footpaths

	Asphaltic Concrete	Chip Seal	Concrete	Metal	Other	Total
Brightwater	3,227	856	8,473	97	6	12,659
Golden Bay	3,226	0	6,230	28	13	9,497
Kaiteriteri/Marahau	1,086	0	2,442	0	0	3,528
Motueka	3,832	27	282	0	8	4,149
Murchison	8,121	1,238	27,895	930	445	38,629
Richmond	36,286	1,804	46,069	392	487	85,038
Ruby Bay/Mapua	3,338	636	8,433	0	0	12,407
St Arnaud	857	77	3,908	296	115	5,253
Tapawera	1,484	307	9,709	0	14	11,514
Wakefield	382	68	441	12	0	903
Other	170	311	130	0	0	611
Total	62,009	5,324	11,4012	1,755	1,080	184,188

B.3 Sealed Footpaths

The last condition rating on sealed footpaths was completed in 2007. A 10 year draft footpath rehabilitation forward programme has been developed. Sites are reviewed annually from the programme along with any priorities advised by the Asset Manager. Sites are included in the rehabilitation schedule for that financial year or deferred based on current condition and/or council decision.

B.4 Bridges

All the TDC owned bridges span a waterway greater than 3.4m² (this is the minimum requirement to attract NZTA subsidy for bridge maintenance). There are currently 457 NZTA subsidised bridges including 122 large culverts that are classified as bridges. As at November 2008 all except 28 of the bridges meet the Class 1 standard. The remaining 28 are restricted to the weights or speed noted in the bridge register. The list of restricted bridges is advertised on an annual basis.

B.5 Streetlights

TDC own all street lights, pedestrian crossing lights and poles constructed since the early 1970's. Street lights and poles constructed prior to this are owned by Network Tasman who charge TDC for operating and maintaining the lights. The recorded number of streetlights in the Confirm database is 3,735.

B.6 Carparks and Service Lanes

TDC own, operate and maintain 21 carparks (providing 1,100 parking spaces) and covering approximately 38,500m² in area and 18 service lanes over a total 1.69 km in length. The area of carparks and service lanes currently operated and maintained by the Council are given in Table B-4 and Table B-5.

Table B-4: Carpark Asset Summary

Name	Area (m2)
GOLDEN BAY	
Motupipi Street	1990
Library Carpark	840
Work Centre Carpark	560
Willow Street	1470
Sub-total:	4860
MOTUEKA	
Decks Reserve	4684
TDC Office	1200
Hickmott	3547
Salvation Army	554
Saltwater Baths	800
Sub-total:	11485
MAPUA	
Mapua	1295
Sub-total:	1295
RICHMOND	
Papps	2997
Harkness/Petrie	6045
Town Hall	455
Warring Carpark	5520
Washbourn Garden	850
TDC Office	1800
Sundial Square	1200
Sub-total:	17067
WAKEFIELD/BRIGHTWATER	
Whitby Road	1800
Brightwater Carpark	255
Sub-total:	2055
KAITERITERI	
Beach Front	2,420
Sub-total:	2,420
MURCHISON	
Fairfax Street	560
Sub-total:	560

Table B-5: Service Lane Asset Summary

Name	Start	End	Length
GOLDEN BAY			
Reilly Street	Reilly Street	Fire Station Carpark	70
Buxton Lane	Motupipi Street	Motupipi Carpark	155
Community Centre	Off Commercial	Community Centre	30
Sub-total:			255
MOTUEKA			
Primmer Lane	High Street	Fence	87
Coppins (<i>Main leg</i>)	High Street	Hickmott Carpark	35
Coppins (<i>Sth leg</i>)	High Street	Wall South	29
Coppins (<i>Nth leg</i>)	High Street	Wall North	29
Hart Lane	Tudor Street	Wallace Street	117
Decks Reserve	Greenwood Street	Decks Carpark	80
Sub-total:			377
RICHMOND			
Oxford Mews	Oxford Street	Cul-de-sac	155
Night & Day	Queen Street	Warring Carpark	34
John Wesley Lane	Wensley Road	Warring Carpark	122
Warring	John Wesley	Cambridge Street	240
BP Richmond	Oxford Street	Fence	64
Harkness/Petrie	McIndoe Place	McGlashen Avenue	240
Star & Garter	Croucher Street	Richmond Mall	45
Sub-total:			900
TAPAWERA			
Tapawera	Main Road	Matai Crescent	161
Sub-total:			161

B.7 Traffic Signs and Road Markings

The signs and markings database is not complete, therefore inventory data is inaccurate. As an indication it is estimated that Council own in excess of 8,000 signs, 22,000 edge marker posts, 8,000 culvert marker posts, 1,300 bridge end markers, 2,500 reflectorised raised pavement markers and 60% of the sealed roading network has at least one type of pavement markings in place.

APPENDIX C. PRIVATE ROADS AND ACCESSWAYS

The Tasman Resource Management Plan and Engineering Standards 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 the long term 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 private roads in its RAMM database.

The existing register in the RAMM database is up to date.

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 TDC.

TDC requires its infrastructure asset register and valuation to be updated in accordance with Financial Reporting Standards and the AMP improvement plan (ie. three yearly updates)

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 2007.

- NAMS Group Infrastructure Asset Valuation Guidelines – Edition 2.0
- New Zealand Equivalent to International Accounting Standard 16; Property, Plant and Equipment (NZ IAS 16) and IAS 36 (Impairment of Assets)

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. The basis of the data inputs used is described in detail in the attached report.

- (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 our, and 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 Roothing 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

D.2 Overview of Asset Valuations

For a more detailed break-down of the asset revaluation to component level, refer to the Roothing Asset Revaluation Report September 2008 prepared by MWH NZ LTD

The Revaluation of the rooding network has been completed at a component level. 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), Confirm 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 included in Table D-1. Where the completeness and accuracy of the dimensional data held in the databases & 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

The Council Property Manager through Quotable Value NZ prepared the land valuations.

The draft valuations summarised below have been completed in accordance with the following:

- NZ Infrastructure Asset Valuation and Depreciation Guidelines – Version 2.0;
- International Accounting Standards 16 and 36, and;
- The Local Government Act 2002.

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	Mixture of actual and estimated depths, pavement ages and extra width.
Unsealed Pavements	B – Reliable	Mixture of actual and estimated depths, pavement ages and extra width.
Drainage	B – Reliable	Generally assumed construction ages.
Surface Water Channels	B – Reliable	Assumed construction ages.
Footpaths	B – Reliable	Assumed construction ages.
Traffic Facilities	C – Uncertain	Some data provided by others. Quantities estimated only.
Signs	B – Reliable	Assumed installation dates and pole details.
Railings	B – Reliable	Assumed construction ages.
Street Lights	B – Reliable	Assumed construction ages.
Bridges and Bridge Culverts	B – Reliable	Some issues with the classification of bridge culverts.
Carparks and Walkways	B – Reliable	Assumed Construction Ages
Street Furniture	B – Reliable	Assumed Construction Ages

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 30 June 2007

Asset Description	Replacement Cost	Total Accumulated Depreciation	Depreciated Replacement Cost	Annual Depreciation
Formation	\$259,521,521	\$0	\$259,521,521	\$0
Pavement Surface	\$27,933,780	\$14,476,272	\$13,457,508	\$2,752,876
Sealed Pavement	\$117,479,435	\$19,520,584	\$97,958,852	\$713,759
Unsealed Pavement	\$16,271,985	\$1,417,092	\$14,854,893	\$470,901
Drainage	\$27,990,634	\$8,061,436	\$19,929,198	\$373,511
Surface Water Channels	\$9,010,343	\$3,392,097	\$5,618,246	\$186,624
Footpaths	\$14,741,828	\$3,036,556	\$11,705,273	\$376,473
Traffic Facilities	\$1,111,349	\$555,674	\$555,674	\$111,135
Signs	\$1,707,886	\$813,238	\$894,648	\$170,803
Railings	\$440,792	\$197,177	\$243,615	\$24,488
Street Lights	\$3,950,217	\$1,781,081	\$2,169,136	\$158,009
Bridges and Major Culverts	\$115,864,749	\$47,106,196	\$68,758,553	\$1,158,647
Carparks and Walkways	\$2,565,448	\$500,144	\$2,065,305	\$58,133
Miscellaneous Road Furniture	\$391,224	\$169,300	\$221,925	\$33,992
Total	\$598,981,193	\$101,026,848	\$497,954,345	\$6,589,352

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 total useful life of major classes of assets have been estimated as follows:

- Land under roads Not depreciated
- Bridges⁽¹⁾ ⁽¹⁾ 50-100 years
- Roads^(1&2)
 - Formation Not depreciated
 - Pavement Layers 65-75 years (subbase not depreciated)
 - Sealed Surfaces 4-20 years
 - Unsealed Surface 3-5 years
 - Footpaths 5-75 years
 - Streetlights 25 years
 - Kerb & Channel (includes Dish Channel) 15-50 years
 - Culverts 75 years
 - Traffic Signs 10 years

(1) Life depends upon construction material types

(2) Life depends upon road type and traffic volumes

APPENDIX E. MAINTENANCE AND OPERATION

E.1 Overview

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 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 3 year period 2009-2011) through the NZTA 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, 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.

The District has been divided into four contract areas as shown in the Map in Appendix Y.

- Golden Bay Roding Maintenance Contract Zones 1 and 2
- Tasman Roding Maintenance Contract Zone 3
- Waimea Roding Maintenance Contract Zone 4
- Murchison Roding Maintenance Contract Zones 5 and 6

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, and 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 Roothing – includes structural, corridor maintenance and emergency work for the Totaranui, Pupū Springs and part of the Cobb Valley Roads.
- Non Subsidised Roothing – 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.

E.1.2. Bridges

Design loadings have generally increased over time as vehicle sizes and carrying capacity have been increased. As at May 2008, all except 28 of the NZTA subsidised bridges meet Class 1 standard. These 28 bridges are restricted to weights and speed and a notice is publicly advertised each year to comply with legal requirements for enforcement.

A systematic inspection of bridges is completed as follows:

- Routine inspections by maintenance contractors
- Routine inspection by consultant - bi annually
- Detailed inspections by consultant bridge engineer with analysis for posting or structural repairs – six yearly or as required by condition reported through routine inspections.
- Special inspection following event.

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

A separate contract is advertised on an annual basis to undertake heavy maintenance and component renewal as identified through the inspection regime.

E.1.3. Street Lighting

TDC own all street lights, pedestrian crossing lights and poles constructed since the early 1970's. Street lights and poles constructed prior to this are owned by Network Tasman who are unlikely to sell them. TDC pay for all operating and maintenance costs through a separately tendered contract. Electricity costs are paid directly by the Council.

E.1.4. Road Markings and Street Signs

TDC own, operate, maintain and create all road markings and street signs on public roads under their jurisdiction. A schedule of signs is held in the RAMM database. The maintenance work is undertaken through the maintenance contracts.

E.2 Maintenance Standards

E.2.1. General

Maintenance standards vary according to the road hierarchy and must comply with NZTA standards and guidelines where subsidy 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 AMP

- TDC Engineering Standards and Policies 2008
- NZTA Standards and Guidelines.

E.2.2. Deferred Maintenance

Deferred maintenance is defined as work that has been identified as needed to bring the service up to the target level of service, but that has been deferred due to budget or other limitations. The current budget levels are believed to be sufficient to provide the intended 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 road users.

E.2.3. Increase in Network Size through Development

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

- Construction of new roads inside the sub-division or development
- Upgrading of roads outside the sub-division 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.

E.2.4. RAMM Database

The RAMM (Road Assessment and Maintenance Management) system is used by the Council, Consultant and Contractor to record and review the inventory and condition of assets that comprise the roading network.

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 AMP

Study Name	Brief Description
Footpath/Walkway Strategy	Completed every 10 years to assess district needs.
Forestry Impact Strategy	Completed every 2 years in order to project forestry harvesting loadings on the network and timing of forward work programme.
Richmond Carparking Review	Assess the demand and options for carparking in the urban area.

E.4 Projected Operations and Maintenance Costs

Table E-2 and Table E-3 shows the projected Subsidised and Unsubsidised O&M costs for the next 20 years.

Table E-2: Subsidised Maintenance and Operating Expenditure for the Next 20 Years

Total Roading O&M Forecast

Item	Project Name	Work Category No.	Work Category Name	GL Code	Total Project Cost	Total O&M	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	
84	Regional Land Transport Planning	001	Regional Land Transport Planning	04002203	\$ 1,020,000	\$ 1,020,000	\$ 30,000	\$ 30,000	\$ 100,000	\$ 30,000	\$ 30,000	\$ 100,000	\$ 30,000	\$ 30,000	\$ 100,000	\$ 30,000	\$ 30,000	\$ 100,000	\$ 30,000	\$ 30,000	\$ 100,000	\$ 30,000	\$ 30,000	\$ 100,000	\$ 30,000	\$ 30,000	
86	Footpaths/Walkways Strategy	002	Studies and Strategies	0400220306	\$ 40,000	\$ 40,000	\$ -	\$ 20,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 20,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
87	FORESTRY IMPACT STRATEGY	002	Studies and Strategies	0400220302	\$ 200,000	\$ 200,000	\$ 5,000	\$ 15,000	\$ 5,000	\$ 15,000	\$ 5,000	\$ 15,000	\$ 5,000	\$ 15,000	\$ 5,000	\$ 15,000	\$ 5,000	\$ 15,000	\$ 5,000	\$ 15,000	\$ 5,000	\$ 15,000	\$ 5,000	\$ 15,000	\$ 5,000	\$ 15,000	
91	Richmond Carparking Strategy Review	002	Studies and Strategies	0400220301	\$ 40,000	\$ 40,000	\$ 20,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 20,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
89	LTCOP/AMP REVIEW	003	Activity Management Plans	0400220310	\$ 525,000	\$ 525,000	\$ -	\$ 40,000	\$ 35,000	\$ -	\$ 40,000	\$ 35,000	\$ -	\$ 40,000	\$ 35,000	\$ -	\$ 40,000	\$ 35,000	\$ -	\$ 40,000	\$ 35,000	\$ -	\$ 40,000	\$ 35,000	\$ -	\$ 40,000	
92	Road Asset Valuation	003	Activity Management Plans	04002205	\$ 260,000	\$ 260,000	\$ -	\$ 26,000	\$ -	\$ 26,000	\$ -	\$ 26,000	\$ -	\$ 26,000	\$ -	\$ 26,000	\$ -	\$ 26,000	\$ -	\$ 26,000	\$ -	\$ 26,000	\$ -	\$ 26,000	\$ -	\$ 26,000	
95	SMS IMPLEMENTATION	003	Activity Management Plans	0400220304	\$ 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	
1	Sealed Pavement Maintenance	111	Sealed Pavement Maintenance	04012401	\$ 22,145,140	\$ 22,145,140	\$ 639,370	\$ 708,225	\$ 869,565	\$ 1,094,494	\$ 1,103,785	\$ 1,113,158	\$ 1,122,615	\$ 1,132,156	\$ 1,141,783	\$ 1,151,494	\$ 1,161,293	\$ 1,171,178	\$ 1,181,151	\$ 1,191,214	\$ 1,201,365	\$ 1,211,607	\$ 1,221,941	\$ 1,232,366	\$ 1,242,884	\$ 1,253,495	
2	SPR - Sealed Pavement Maintenance	111	Sealed Pavement Maintenance	04022401	\$ 40,000	\$ 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
301	COBB VALLEY LOWER ROAD MAINTENANCE	111	Sealed Pavement Maintenance	04042401	\$ 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	
3	SPR - Unsealed Pavement Maintenance	112	Unsealed Pavement Maintenance	04022402	\$ 1,260,000	\$ 1,260,000	\$ 63,000	\$ 63,000	\$ 63,000	\$ 63,000	\$ 63,000	\$ 63,000	\$ 63,000	\$ 63,000	\$ 63,000	\$ 63,000	\$ 63,000	\$ 63,000	\$ 63,000	\$ 63,000	\$ 63,000	\$ 63,000	\$ 63,000	\$ 63,000	\$ 63,000	\$ 63,000	\$ 63,000
4	Unsealed Pavement Maintenance	112	Unsealed Pavement Maintenance	04012402	\$ 10,467,520	\$ 10,467,520	\$ 321,200	\$ 353,280	\$ 435,440	\$ 550,447	\$ 550,447	\$ 550,447	\$ 550,447	\$ 550,447	\$ 550,447	\$ 550,447	\$ 550,447	\$ 550,447	\$ 550,447	\$ 550,447	\$ 550,447	\$ 550,447	\$ 550,447	\$ 550,447	\$ 550,447	\$ 550,447	\$ 550,447
5	Routine Drainage Maintenance	113	Routine Drainage Maintenance	04072403	\$ 4,964,396	\$ 4,964,396	\$ 195,000	\$ 195,000	\$ 195,000	\$ 195,000	\$ 195,000	\$ 195,000	\$ 195,000	\$ 195,000	\$ 195,000	\$ 195,000	\$ 195,000	\$ 195,000	\$ 195,000	\$ 195,000	\$ 195,000	\$ 195,000	\$ 195,000	\$ 195,000	\$ 195,000	\$ 195,000	\$ 195,000
6	SPR - Routine Drainage Maintenance	113	Routine Drainage Maintenance	04022403	\$ 40,000	\$ 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
306	STATE HIGHWAY STREET CLEANING	113	Routine Drainage Maintenance	0405240101	\$ 320,000	\$ 320,000	\$ 16,000	\$ 16,000	\$ 16,000	\$ 16,000	\$ 16,000	\$ 16,000	\$ 16,000	\$ 16,000	\$ 16,000	\$ 16,000	\$ 16,000	\$ 16,000	\$ 16,000	\$ 16,000	\$ 16,000	\$ 16,000	\$ 16,000	\$ 16,000	\$ 16,000	\$ 16,000	
7	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	
303	STATE HIGHWAY STREET CLEANING	114	Structures Maintenance	0404240101	\$ 30,000	\$ 30,000	\$ 1,500	\$ 1,500	\$ 1,500	\$ 1,500	\$ 1,500	\$ 1,500	\$ 1,500	\$ 1,500	\$ 1,500	\$ 1,500	\$ 1,500	\$ 1,500	\$ 1,500	\$ 1,500	\$ 1,500	\$ 1,500	\$ 1,500	\$ 1,500	\$ 1,500	\$ 1,500	\$ 1,500
8	Environmental Maintenance	121	Environmental Maintenance	04162401	\$ 22,600,000	\$ 22,600,000	\$ 1,130,000	\$ 1,130,000	\$ 1,130,000	\$ 1,130,000	\$ 1,130,000	\$ 1,130,000	\$ 1,130,000	\$ 1,130,000	\$ 1,130,000	\$ 1,130,000	\$ 1,130,000	\$ 1,130,000	\$ 1,130,000	\$ 1,130,000	\$ 1,130,000	\$ 1,130,000	\$ 1,130,000	\$ 1,130,000	\$ 1,130,000	\$ 1,130,000	\$ 1,130,000
9	SPR - Environmental Maintenance	121	Environmental Maintenance	04202404	\$ 260,000	\$ 260,000	\$ 13,000	\$ 13,000	\$ 13,000	\$ 13,000	\$ 13,000	\$ 13,000	\$ 13,000	\$ 13,000	\$ 13,000	\$ 13,000	\$ 13,000	\$ 13,000	\$ 13,000	\$ 13,000	\$ 13,000	\$ 13,000	\$ 13,000	\$ 13,000	\$ 13,000	\$ 13,000	\$ 13,000
10	SPR - Traffic Services Maintenance	122	Traffic Services Maintenance	04022405	\$ 40,000	\$ 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
11	Traffic Services Maintenance	122	Traffic Services Maintenance	04142401	\$ 9,908,552	\$ 9,908,552	\$ 450,000	\$ 454,500	\$ 459,045	\$ 463,635	\$ 468,272	\$ 472,955	\$ 477,684	\$ 482,461	\$ 487,286	\$ 492,158	\$ 497,080	\$ 502,051	\$ 507,071	\$ 512,142	\$ 517,263	\$ 522,436	\$ 527,660	\$ 532,937	\$ 538,266	\$ 543,649	
304	STATE HIGHWAY STREET LIGHTING MAINTENANCE	122	Traffic Services Maintenance	0405240102	\$ 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	\$ 10,000
305	STATE HIGHWAY ELECTRICITY	122	Traffic Services Maintenance	04052505	\$ 640,000	\$ 640,000	\$ 32,000	\$ 32,000	\$ 32,000	\$ 32,000	\$ 32,000	\$ 32,000	\$ 32,000	\$ 32,000	\$ 32,000	\$ 32,000	\$ 32,000	\$ 32,000	\$ 32,000	\$ 32,000	\$ 32,000	\$ 32,000	\$ 32,000	\$ 32,000	\$ 32,000	\$ 32,000	\$ 32,000
12	Operational Traffic Management	123	Operational Traffic Management	04182401	\$ 448,000	\$ 448,000	\$ 12,000	\$ 12,000	\$ 12,000	\$ 12,000	\$ 15,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 30,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000
13	Cycle Path Maintenance	124	Cycle Path Maintenance	04102401	\$ 750,000	\$ 750,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 35,000	\$ 35,000	\$ 40,000	\$ 40,000	\$ 45,000	\$ 45,000	\$ 45,000	\$ 45,000	\$ 45,000	\$ 45,000	\$ 45,000	\$ 45,000	\$ 45,000
14	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	\$ 700,000
15	Network and Asset Management	151	Network and Asset Management	04012203	\$ 25,570,000	\$ 25,570,000	\$ 1,278,500	\$ 1,278,500	\$ 1,278,500	\$ 1,278,500	\$ 1,278,500	\$ 1,278,500	\$ 1,278,500	\$ 1,278,500	\$ 1,278,500	\$ 1,278,500	\$ 1,278,500	\$ 1,278,500	\$ 1,278,500	\$ 1,278,500	\$ 1,278,500	\$ 1,278,500	\$ 1,278,500	\$ 1,278,500	\$ 1,278,500	\$ 1,278,500	\$ 1,278,500
16	SPR - Network and Asset Management	151	Network and Asset Management	04022203	\$ 220,000	\$ 220,000	\$ 11,000	\$ 11,000	\$ 11,000	\$ 11,000	\$ 11,000	\$ 11,000	\$ 11,000	\$ 11,000	\$ 11,000	\$ 11,000	\$ 11,000	\$ 11,000	\$ 11,000	\$ 11,000	\$ 11,000	\$ 11,000	\$ 11,000	\$ 11,000	\$ 11,000	\$ 11,000	\$ 11,000
97	UTILITY SERVICES MANAGEMENT	151	Network and Asset Management	0400220308	\$ 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	\$ 10,000
55	Travel Demand Management	421	Demand Management	04016200022	\$ 200,000	\$ 200,000	\$ -	\$ -	\$ 11,111	\$ 11,111	\$ 11,111	\$ 11,111	\$ 11,111	\$ 11,111	\$ 11,111	\$ 11,111	\$ 11,111	\$ 11,111	\$ 11,111	\$ 11,111	\$ 11,111	\$ 11,111	\$ 11,111	\$ 11,111	\$ 11,111	\$ 11,111	\$ 11,111
							\$ 123,788,608	\$ 5,338,570	\$ 5,520,005	\$ 5,788,161	\$ 6,063,687	\$ 6,344,364	\$ 6,629,421	\$ 6,914,608	\$ 7,202,925	\$ 7,494,376	\$ 7,788,198	\$ 8,084,518	\$ 8,382,474	\$ 8,682,024	\$ 8,983,224	\$ 9,285,024	\$ 9,588,474	\$ 9,893,624	\$ 10,199,524	\$ 10,506,124	\$ 10,813,474

N.B Does not include inflation

Table E-3: Un-Subsidised Maintenance and Operating Expenditure for the Next 20 Years

Item	Project Name	Work Category No.	Work Category Name	GL Code	Total Project Cost	Total O&M	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
352	DC Correction				\$ 460,000	\$ 460,000	\$ 170,000	\$ 130,000	\$ 160,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
93	Roading Policy Documents	a	Roading Technical	0500220311	\$ 40,000	\$ 40,000																				

APPENDIX F. DEMAND AND FUTURE NEW CAPITAL REQUIREMENTS

F.1 Growth Supply – Demand Model

A comprehensive population growth supply/demand model has been developed in 2008. This replaces the previous “AMPlan/LTCCP Growth Maps – November 2005”. There are now two volumes namely:

Volume 1	TDC Growth Supply - Demand Model 2009/10 to 2018/19 to 2029.
Volume 2	Infrastructure Activity Outputs

The model projects development within the time periods:

- Year 1 to 3 - term until the next LTCCP review
- Year 4 to 10 - 10 year timeframe of LTCCP
- Year 11 to 20 - for future infrastructure planning
- Year 20 plus - for future infrastructure planning.

The status of the assessments of the many Development Areas for the model process remains subservient to the TRMP.

The model projects are described in detail in both volumes and are summarised as follows:

F.1.1. Volume 1

F.1.1.1 Supply

- Settlement Areas – 17 GIS Maps represent the ‘urban’ areas in the district which are further divided into some 258 Development Areas aligned to existing and potential new zonings. All known existing Residential dwellings and existing Business buildings are shown. The current supply of lots, dwellings and buildings are established.
- An assessment of every Development Area is then completed considering:
 - Land Use Effects – settlement form, productive land value, and hazard risk exposure, environmental/social impacts.
 - Network Services Effects – stormwater, water supply, wastewater, transportation, green space. Each Development Area has a net positive or negative development score assigned to it identifying where growth should be promoted or halted.
 - Using the data from the Settlement/Development Area maps and Assessments plus the Council staff knowledge the model generates the theoretical total future supply of lots.

F.1.1.2 Demand

- Residential: A district population growth projection percentage has been established for the five wards and the Settlement Areas within each ward. The population growth is based on Statistics New Zealand demographic population projections assuming medium growth for all areas except Richmond and Motueka where a high growth projection has been adopted. Initially Council adopted a higher growth projection across the district, however in the light of new information that was released by Statistics New Zealand on the 2006 census, and when the full impact of the higher growth projection was understood, Council reviewed this decision and adopted a projection in line with Statistics New Zealand projections. The population growth is converted into required dwellings assuming 2.4 persons per average household.

- Business: Council Land Management Consultants have produced a 'business land required' sub model. Three types of business are considered namely Industrial, Commercial and Retail, however the model simplifies the demand to future building sites required over three time periods.
- Supply and Demand: The model requires experienced Council staff to then decide on how the demand for future Residential and Business quantities will be satisfied. The demand is met by using either:
 - Existing available unbuilt on lots.
 - New lots created through subdivision.

The results of this whole process are shown in the first worksheet table in Volume 1 called 'Summary of Volume 1 Outputs'.

F.1.2. Volume 2

The Volume 1 summary outputs table is reproduced in Volume 2.

Volume 2 creates worksheets for the entire Engineering infrastructure activities which require a rate to be struck over the 10 year period of the LTCCP.

Volume 2 does not contain any financial figures but rather provides the numerical units required to be determined. The starting, base data for Volume 2 is derived from Council's rating database.

F.1.2.1 Projections Beyond 20 Years

This model satisfies the requirement to project growth over a 3, 10 and 20 year time period for the LTCCP financial model.

Asset Managers however are also tasked to consider design requirements for assets with life cycles exceeding 20 years.

There is sufficient data available in both volumes to extrapolate figures to a future time requirement acknowledging the limitations of the models accuracy.

F.2 Projection of Transportation Demands

Transportation demands are driven primarily by land use. As land use changes the transportation demand changes, however there are many other external factors that have influence, a major one being the price of oil. Council uses the following data to project assessing the transport demand:

- Historical traffic counts
- Zone changes
- Development potential
- Traffic modelling

F.3 Future New Capital Requirements

New works are those works that create a new asset that did not previously exist, or works that upgrade or improve an existing asset beyond its existing capacity. The need for the new work could be from one of the following drivers:

- Growth – to provide infrastructure to accommodate the demand
- Increased Level of Service – to improve assets to provide a better level of service
- Backlog – to upgrade or improve an asset that should have been upgraded previously but for some reason has been deferred or not identified.

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. Some projects may also be driven fully or partly by needs for renewal. These aspects are covered in Appendix I.

The projected new capital requirements for the next 20 years (including renewals) is summarised as follows:

F.4 Future New Capital Requirements for District

Figure F-1 shows future new Capital Expenditure along with a bullet point list of the main expenditure items contributing to the New Capital Requirements.

Figure F-1: Capex Requirements for District

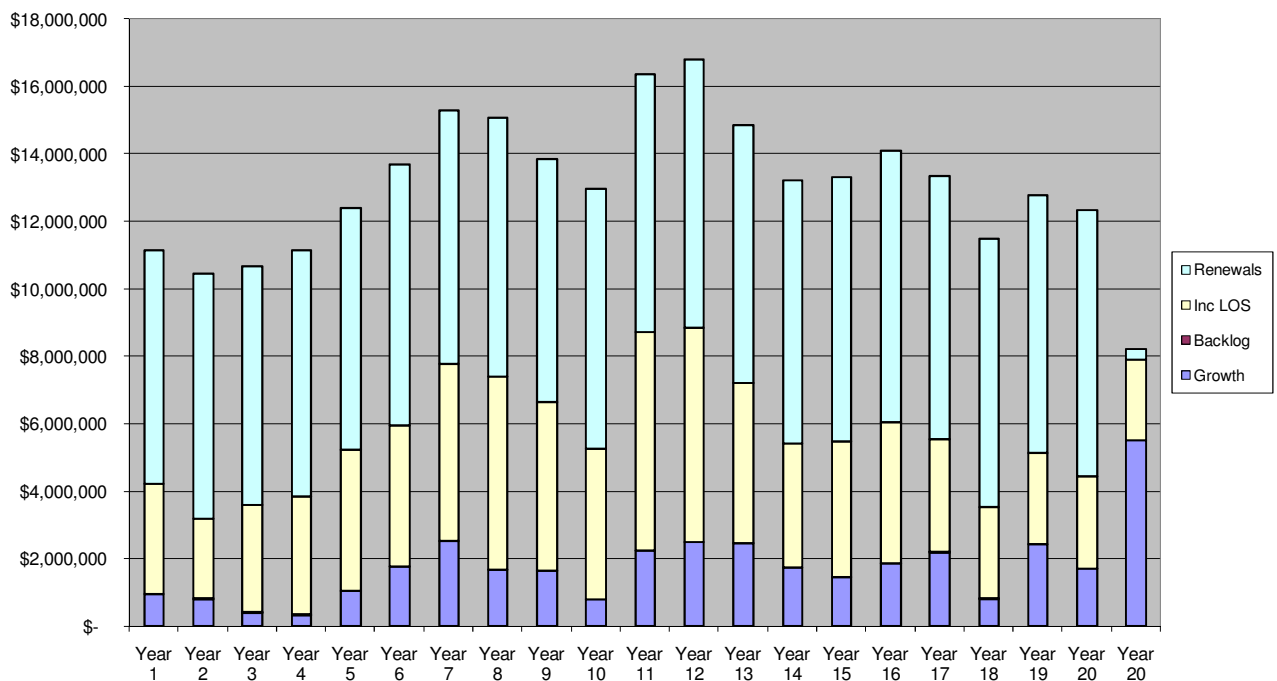
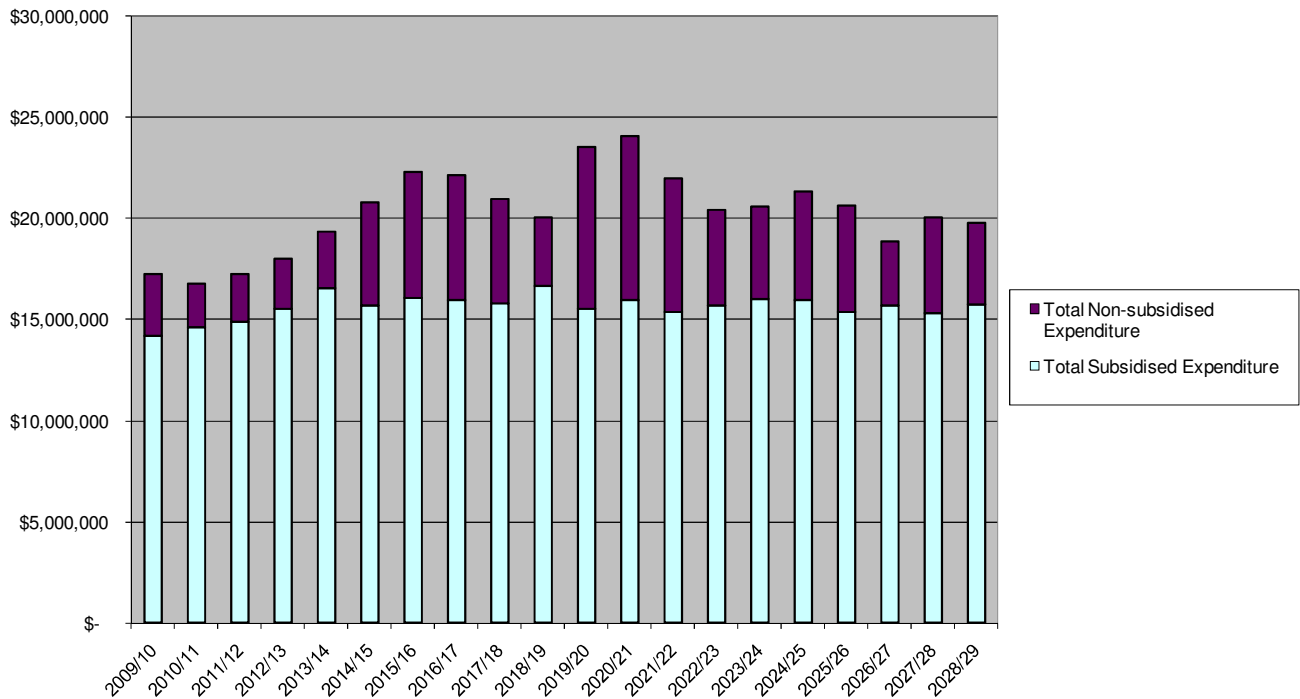


Figure F-2: Total Expenditure Subsidised and Non-Subsidised



F.5 Development of New Capital Requirement Forecasts

During April to September 2008, a number of workshops with the project team 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 summing 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.

The full spreadsheet of total Capital Costs is included as follows:

Total Capital Forecast

Item	Project Name	Work Category No.	Work Category Name	GL Code	Description	Project Estimate	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
119	TAKAKA - WILLOW STREET CARPARK	b	Carparking	05016200017	AC resurfacing	\$ 43,300	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
120	TAKAKA - WORK CENTRE CARPARK	b	Carparking	05016200018	AC resurfacing	\$ 7,600	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 7,600	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
122	WAKEFIELD WHITBY RD CARPARK	b	Carparking	05016200020	AC resurfacing	\$ 52,300	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 52,300	\$ -	\$ -
128	FOOTPATHS REHABILITATION	c	Footpaths	05026200002	District wide footpath rehabilitation	\$ 1,380,000	\$ 50,000	\$ 52,000	\$ 54,000	\$ 56,000	\$ 58,000	\$ 60,000	\$ 62,000	\$ 64,000	\$ 66,000	\$ 68,000	\$ 70,000	\$ 72,000	\$ 74,000	\$ 76,000	\$ 78,000	\$ 80,000	\$ 82,000	\$ 84,000	\$ 86,000	\$ 88,000	\$ -
132	MURCHISON - HOTHAM-CHALGRAVE FOOTPATH	c	Footpaths	05026200006	Unsealed Footpath Loop	\$ 72,300	\$ 72,300	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
136	STREETScape MAINTENANCE	c	Footpaths	0502240102	Pavers and furniture	\$ 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	\$ -
142	STREET LIGHTING CAPITAL	d	Lighting	05036200001	Upgrade Carpark	\$ 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	\$ -
148	DISTRICT KERB & CHANNEL	e	Kerb & Channel	05046200005	District wide Kerb & Channel	\$ 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	\$ -
151	MAPUA - ARANUI ROAD FCC SITE KERB & CHANNEL	e	Kerb & Channel	05046200006	100m Kerb & Channel, Infront of FCC west of Tahī Street site southern side	\$ 23,100	\$ 23,100	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
153	MAPUA - ARANUI ROAD KERB & CHANNEL	e	Kerb & Channel	05046200008	980m Kerb & Channel	\$ 113,300	\$ -	\$ -	\$ 113,300	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
154	MAPUA - HIGGS ROAD KERB & CHANNEL	e	Kerb & Channel	05046200009	200m Kerb & Channel	\$ 42,600	\$ -	\$ -	\$ 42,600	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
156	MAPUA - TAHI ST KERB & CHANNEL	e	Kerb & Channel	05046200011	250m Kerb & Channel	\$ 131,900	\$ -	\$ -	\$ 131,900	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
182	DISTRICT LITTER BINS	f	Street Cleaning (unsubsidised)	05056200001	\$12,000 per annum	\$ 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	\$ -
183	DISTRICT STREET CLEANING	f	Street Cleaning (unsubsidised)	05052401		\$ 4,150,000	\$ 166,000	\$ 166,000	\$ 166,000	\$ 166,000	\$ 207,500	\$ 207,500	\$ 207,500	\$ 207,500	\$ 207,500	\$ 207,500	\$ 207,500	\$ 207,500	\$ 207,500	\$ 207,500	\$ 207,500	\$ 207,500	\$ 249,000	\$ 249,000	\$ 249,000	\$ 249,000	\$ -
185	COBB VALLEY UPPER ROAD RESEAL	g	Cobb Valley Upper Road	05066200001	Traction Reseal.	\$ 83,800	\$ 41,900	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 41,900	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
200	TAKAKA - BUXTON LANE	m	Service Lanes	05116200001	New service lane	\$ 51,800	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 51,800	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
205	WALKWAYS - RESURFACING	o	Walkways	05136200001	District Wide	\$ 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	\$ -
217	AWA AWA RD	t	Coastal Tasman	05466200001	Seal Widening of 1.4kms of sealed Road	\$ 622,900	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 186,870	\$ 436,030	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
218	BALDWIN ROAD SEAL WIDENING & EXTN	t	Coastal Tasman	05466200002	Seal Widening of 0.3kms of sealed Road & Seal Extension of 0.35kms of Road	\$ 355,600	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 106,680	\$ 248,920	\$ -	\$ -	\$ -	\$ -	\$ -
219	DICKER ROAD	t	Coastal Tasman	05466200003	Seal Widening of 0.34kms of sealed Road	\$ 424,900	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 127,470	\$ 297,430	\$ -	\$ -	\$ -	\$ -
220	DOMINION RD	t	Coastal Tasman	05466200004	Seal Widening of 2.0kms of sealed Road	\$ 810,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 243,000	\$ 567,000	\$ -	\$ -	\$ -	\$ -
221	FOLEY RD	t	Coastal Tasman	05466200005	Seal Extension of 0.4kms of Unsealed Road	\$ 245,200	\$ -	\$ -	\$ -	\$ -	\$ 73,560	\$ 171,640	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
222	GODDARD RD	t	Coastal Tasman	05466200006	Seal Widening of 0.46kms of sealed Road	\$ 367,300	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 110,190	\$ 257,110	\$ -	\$ -	\$ -	\$ -
223	HARLEY RD	t	Coastal Tasman	05466200007	Seal Widening of 2.7kms of sealed Road	\$ 984,400	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 295,320	\$ 689,080	\$ -	\$ -	\$ -	\$ -
224	HORTON	t	Coastal Tasman	05466200008	Seal Widening of 0.3kms of sealed Road & Seal Extension of 0.35kms of Road	\$ 801,200	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 240,360	\$ 560,840	\$ -	\$ -	\$ -	\$ -	\$ -
225	MAISEY RD	t	Coastal Tasman	05466200009	Seal Widening of 1.4kms of sealed Road	\$ 600,400	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 180,120	\$ 420,280	\$ -	\$ -
226	MAMAKAU ROAD SEAL EXT	t	Coastal Tasman	05466200010	Sealing of 0.77kms of Unsealed Road & Construction of 0.2kms of New Rd.	\$ 533,400	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 160,020	\$ 373,380	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
227	MARRIAGES RD	t	Coastal Tasman	05466200011	Seal Widening of 1.64kms of sealed Road	\$ 802,700	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 240,810	\$ 561,890	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
228	NILE RD	t	Coastal Tasman	05466200012	Seal Widening of 0.36kms of sealed Road & Seal Extension of 0.5kms of Road	\$ 379,400	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 379,400	
229	POMONA RD	t	Coastal Tasman	05466200013	Seal Widening of 3.8kms of sealed Road	\$ 1,634,400	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,634,400
230	SEATON VALLEY RD	t	Coastal Tasman	05466200014	Seal Widening of 3.3kms of Existing sealed Road.	\$ 1,148,500	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 57,425	\$ 1,091,075	\$ -	\$ -	\$ -	\$ -
231	STRINGER RD	t	Coastal Tasman	05466200015	Sealing of 0.8kms of Unsealed Road & Construction of 1.2kms of New Rd.	\$ 1,735,600	\$ 867,800	\$ 867,800	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
232	TRAFALGAR RD SEAL EXTN	t	Coastal Tasman	05466200016	Sealing of 1.2kms of Unsealed Road & Construction of 0.6kms of New Rd.	\$ 1,360,900	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 68,045	\$ 1,292,855	\$ -	\$ -
233	WILLIAMS RD	t	Coastal Tasman	05466200017	Seal Widening of 0.81kms of sealed Road	\$ 469,800	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 23,490	\$ 446,310	\$ -	\$ -	\$ -	\$ -	\$ -
235	ABEL TASMAN DRIVE - LIGAR BAY TO PETERSON RD	u	Road Construction Non Sub	05566200002	KC & FP	\$ 1,248,480	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 124,848	\$ 124,848	\$ 998,784	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
236	ABEL TASMAN DRIVE-PETERSON RD TO TATA HEIGHTS	u	Road Construction Non Sub	05566200003	KC & FP other for 300m	\$ 470,400	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 47,040	\$ 423,360	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
237	BRIGHTWATER CONSTRN - RIVER TCE RD 1	u	Road Construction Non Sub	05566200004	Construction of Extra Width of Rd	\$ 479,400	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 479,400	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
238	BRIGHTWATER CONSTRN - RIVER TCE RD 2	u	Road Construction Non Sub	05566200005	Construction of Extra Width of Rd	\$ 1,078,300	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 107,830	\$ 970,470	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
239	CATTLE UNDERPASS CONSTR	u	Road Construction Non Sub	05566200006	Assistance for Construction of cattle underpass	\$ 272,800	\$ -	\$ -	\$ -	\$ 54,560	\$ -	\$ -	\$ -	\$ 54,560	\$ -	\$ -	\$ 54,560	\$ -	\$ -	\$ -	\$ -	\$ 54,560	\$ -	\$ -	\$ -	\$ 54,560	\$ -
240	COBB VALLEY LOWER ROAD RESEAL	212	Sealed Road Resurfacing	04016200029	Reseal over 10km length	\$ 628,000	\$ -	\$ 106,760	\$ 106,760	\$ 106,760	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 100,480	\$ 100,480	\$ 106,760	\$ -	\$ -	\$ -	\$ -
241	COLLINGWOOD CONSTRN - LEWIS ST	u	Road Construction Non Sub	05566200008	400m full construction	\$ 728,800	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 728,800	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
242	HOPE CONSTRUCTION- ANISEED VALLEY	241	Preventive Works	05566200009	Rural Reconstruction, Realignment from Haycock Road to Top of Hill	\$ 1,000,000	\$ -	\$ 30,000	\$ 30,000	\$ -	\$ 156,667	\$ 156,667	\$ 156,667	\$ 156,667	\$ 156,667	\$ 156,667	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
243	KAITERITERI - FOOTPATH RECONSTRUCTION	u	Road Construction Non Sub	05566200010	Construction of Footpath From Camp to Boat Ramp (150m)	\$ 163,400	\$ -	\$ -	\$ 16,340	\$ 147,060	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
244	RIWAKA KAITERITERI RD - New Shared Path	452	Cycle Facilities	05566200011	Provide Footpath & Cycle width from Martin Farm Rd to Rowling Road	\$ 250,000	\$ -	\$ -	\$ -	\$ -																	

Total Capital Forecast

Item	Project Name	Work Category No.	Work Category Name	GL Code	Description	Project Estimate	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	
262	RICHMOND CONSTR - OXFORD ST WIDENING	324	Road Reconstruction	04016200031	Construction of Extra Width of Rd From Wensley Rd - Gladstone Rd	\$ 851,200	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 170,240	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 340,480	\$ 340,480	\$ -	\$ -	\$ -	\$ -	\$ -
264	RICHMOND CONSTRUCTION- BATEUP RD	u	Road Construction Non Sub	05566200030	Reconstruction and stormwater upgrade	\$ 864,400	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 86,440	\$ 518,640	\$ 259,320	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
265	RICHMOND CONSTRUCTION- BATEUP RD STAGE 2	u	Road Construction Non Sub	05566200031	Reconstruction including footpaths and stormwater upgrade	\$ 1,071,100	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 107,110	\$ 963,990	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
266	RICHMOND CONSTRUCTION- PATON ROAD STAGE 1	u	Road Construction Non Sub	05566200032	Realignment from Wensley to existing footpath at base of first crest	\$ 1,000,000	\$ -	\$ -	\$ 30,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 270,000	\$ 700,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
267	RICHMOND CONSTRUCTION- PATON ROAD STAGE 3	u	Road Construction Non Sub	05566200033	Reconstruction, widening and vertical curve improvements	\$ 770,300	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 770,300	
268	RICHMOND CONSTRUCTION- QUEEN SALISBURY TRAFFIC SIGNALS	324	Road Reconstruction	04016200032	Traffic signals and associated widening to Queen and Salisbury	\$ 944,300	\$ -	\$ -	\$ -	\$ 47,215	\$ 849,870	\$ 47,215	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
269	RICHMOND CONSTRUCTION- TALBOT/SALISBURY	324	Road Reconstruction	04016200033	Traffic signals	\$ 65,000	\$ 65,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
270	RICHMOND CONSTRUCTION- UPPER CHAMPION RD	u	Road Construction Non Sub	05566200036	400m of Reconstruction from Park Drive South	\$ 961,100	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 96,110	\$ 864,990	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
271	RICHMOND CONSTRUCTION- UPPER CHAMPION RD	u	Road Construction Non Sub	05566200037	200m of Reconstruction from Hill Street to Park Drive	\$ 504,900	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 50,490	\$ 302,940	\$ 151,470	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
272	RICHMOND CONSTRUCTION-HILL ST HART TO FARADAY	u	Road Construction Non Sub	05566200038	Kerb and channel both sides and footpath one side	\$ 1,118,600	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,118,600	
273	RICHMOND RECONSTRUCTION, MCSHANES RD	u	Road Construction Non Sub	05566200039	Widening and 200mm overlay for full length.	\$ 3,590,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,590,000	
274	RIWAKA KAITERITERI RD UPGRADE STAGE 3	u	Road Construction Non Sub	05566200040	New link from Cederman Drive to Martin Farm Rd	\$ 1,200,000	\$ 24,000	\$ -	\$ 96,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 840,000	\$ 240,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
275	RIWAKA CONSTR - SWAMP ROAD	u	Road Construction Non Sub	05566200041	1620m Rural Road Reconstruction	\$ 1,131,400	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 565,700	\$ 565,700	\$ -	\$ -	\$ -	\$ -	
276	RIWAKA KAITERITERI RD UPGRADE STAGE 2	u	Road Construction Non Sub	05566200042	Reconstruction / Realignment of existing road ending at Cederman	\$ 1,838,000	\$ -	\$ -	\$ 18,380	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 165,420	\$ 827,100	\$ 827,100	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
277	ROUGH ISLAND CAUSEWAY	u	Road Construction Non Sub	05566200043	Upgrade existing causeway to allow	\$ 350,000	\$ -	\$ -	\$ 50,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 300,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
278	SANDY BAY MARAHOU RECONSTRUCTION	u	Road Construction Non Sub	05566200044	Widening, Strengthening and Realignment of existing Sealed Road.	\$ 949,900	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 189,980	\$ 379,960	\$ 379,960	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
279	ST ARNAUD CONSTR - HOLLAND ST	u	Road Construction Non Sub	05566200045	300m Seal Extension	\$ 138,700	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 13,870	\$ 124,830	\$ -	\$ -	\$ -	
282	TAKAKA CONSTR - MEIHANA ST	u	Road Construction Non Sub	05566200048	Upgrade for HCV.	\$ 748,800	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 748,800	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
283	UPPER MOUTERE CONSTR - SUNRISE VALLEY RD UPGRADE	u	Road Construction Non Sub	05566200049	Construction of Extra Width of Rd	\$ 368,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 184,000	\$ 184,000	\$ -	\$ -	\$ -	\$ -	
284	WAKEFIELD CONSTR - 88 VALLEY RD TO TOTARA VIEW	u	Road Construction Non Sub	05566200050	Construction of Extra Width of Rd	\$ 770,100	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 77,010	\$ 693,090	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
285	WAKEFIELD CONSTR - EDWARD ST PITFURE TO CHURCH	u	Road Construction Non Sub	05566200051	Reconstruction of Existing Rd	\$ 822,500	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 411,250	\$ 411,250	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
286	BRIGHTWATER CONSTR - LORD RUTHERFORD RD STH	u	Road Construction Non Sub	05566200052	Construction of Extra Width of Rd	\$ 218,700	\$ -	\$ -	\$ -	\$ 21,870	\$ 196,830	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
287	WAKEFIELD CONSTR - PITFURE RD	u	Road Construction Non Sub	05566200053	Reconstruction of Existing Rd	\$ 484,100	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 48,410	\$ 435,690	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
288	WAKEFIELD RECONST - BIRD LANE	u	Road Construction Non Sub	05566200054	Construction of Extra Width of Rd	\$ 574,300	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 57,430	\$ 516,870	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
291	BRIGHTWATER STREETScape- ELLIS STREET	w	Streetscaping	05716200001	Urban beautification on Ellis St between Charlotte Lane and Starveal	\$ 855,900	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 42,795	\$ 385,155	\$ 427,950	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
292	COLLINGWOOD STREETScape	w	Streetscaping	05716200002	Streetscaping	\$ 180,700	\$ -	\$ -	\$ 18,070	\$ 162,630	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
293	MAPUA STREETScape- ARANUI RD	w	Streetscaping	05716200003	Streetscaping to Aranui Rd between Higgs Road and Tennis Courts	\$ 870,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 87,000	\$ 391,500	\$ 391,500	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
294	MOTUEKA STREETScape	w	Streetscaping	05716200004	Streetscaping	\$ 967,200	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 483,600	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 483,600	\$ -	\$ -	\$ -	\$ -	\$ -	
295	RICHMOND TOWN CENTRE DEVELOPMENT- CAMBRIDGE ST	w	Streetscaping	05716200005		\$ 1,522,900	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 76,145	\$ 1,294,465	\$ 152,290	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
296	RICHMOND TOWN CENTRE DEVELOPMENT- GATEWAYS	w	Streetscaping	05716200006		\$ 376,200	\$ -	\$ -	\$ 376,200	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
297	RICHMOND TOWN CENTRE DEVELOPMENT- QUEEN ST	w	Streetscaping	05716200007		\$ 4,541,700	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 227,085	\$ 1,135,425	\$ 3,179,190	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
300	TAKAKA STREETScape	w	Streetscaping	05716200008	Streetscaping	\$ 516,100	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 258,050	\$ 258,050	\$ -	\$ -	\$ -	\$ -	
307	HIGH STREET MOTUEKA UNDERGROUND	x	Undergrounding	05226200001	Private power connections as TDC's share of Network Tasmans	\$ 350,000	\$ -	\$ -	\$ 115,500	\$ 115,500	\$ 119,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
308	ARANUI ROAD UNDERGROUND	222	Traffic Services Renewals	04146200001	Private power connections and lighting upgrade as TDC's share of Network	\$ 350,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 350,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
309	GLADSTONE ROAD UNDERGROUND	x	Undergrounding	05226200002	Private power connections as TDC's share of Network Tasmans	\$ 120,000	\$ 120,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
310	LIGHTBAND ROAD - BRIGHTWATER	x	Undergrounding	05226200003	Private power connections as TDC's share of Network Tasmans	\$ 120,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 120,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
311	MAIN ROAD RIWAKA	x	Undergrounding	05226200004	Private power connections as TDC's share of Network Tasmans	\$ 120,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 120,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
312	POWER UNDERGROUNDING SR	x	Undergrounding	05226200005	Private power connections and lighting upgrade as TDC's share of Network	\$ 500,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	
313	POWER UNDERGROUNDING UR	222	Traffic Services Renewals	04146200003	Private power connections as TDC's share of Network Tasmans	\$ 500,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	
317	DISTRICT NEW & RECONSTRUCTED PRAM CROSSINGS	451	Pedestrian Facilities	04016200034		\$ 90,000	\$ -	\$ 29,700	\$ 29,700	\$ 30,600	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
318	DISTRICT CYCLE SEATS	452	Cycle Facilities	04106200024	Seating associated with cycle facilities	\$ 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	
319	RICHMOND CYCLE FACILITY - RESERVOIR CREEK - HILLST TO	452	Cycle Facilities	04106200025	Hill Street to Waimea College	\$ 78,000	\$ -	\$ 7,800	\$ 70,200	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
320	RICHMOND CYCLE FACILITY - RESERVOIR CREEK - Waimea College	452	Cycle Facilities	04106200026	Waimea College link to Salisbury via school field	\$ 85,000	\$ -	\$ -	\$ -	\$ 85,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
321	RICHMOND CYCLE FACILITY - RESERVOIR CREEK - EEL CREEL	452	Cycle Facilities	04106200027	Eel creek section - Templemore Ponds to Salisbury Rd Underpass	\$ 80,000	\$ -	\$ -	\$ -	\$ 80,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
322	RICHMOND CYCLE FACILITY - BILL WILKES RESERVE	452	Cycle Facilities	04106200028	Hunter Ave to Washbourn Drive	\$ 180,000	\$ -	\$ 18,000	\$ 162,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
323	RICHMOND - KAWATIRI CYCLE FACILITY - STAGE 2	452	Cycle Facilities	04106200029	Appleby overbridge to Ranzau Road	\$ 220,000	\$ -	\$ 22,000	\$ 198,																			

Total Capital Forecast

Item	Project Name	Work Category No.	Work Category Name	GL Code	Description	Project Estimate	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
331	MAPAU CYCLE FACILITIES - RURAL 3 GARDNER VLY/SEATON VLY	452	Cycle Facilities	04106200036	Shared path in conjunction with Ruby Bay ByPass	\$ 100,000	\$ 100,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
332	WAKEFIELD CYCLE FACILITIES - UPGRADE RAILWAY PATH	452	Cycle Facilities	04106200037	Shared path	\$ 70,000	\$ -	\$ -	\$ -	\$ -	\$ 70,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
335	ABEL TASMAN DRIVE	452	Cycle Facilities	04106200038	Takaka to Pohara	\$ 780,000	\$ -	\$ 70,000	\$ 70,000	\$ 70,000	\$ 70,000	\$ 100,000	\$ 200,000	\$ 100,000	\$ 100,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
336	Bridge Renewals Year 1	322	Bridge Renewals	04086200004	Yellow Pine Creek and Lammas Road Bridge Replacements - Subject to	\$ 360,000	\$ 360,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
337	Bridge Renewals Year 2	322	Bridge Renewals	04086200005	McCullum Road Bridge, Parapara Vly Stream Bridge, Baxter Creek Bridge,	\$ 450,000	\$ -	\$ 450,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
338	Bridge Renewals Year 3	322	Bridge Renewals	04086200006	Polglaze Road and Stanton Creek Bridge Replacements - Subject to	\$ 440,000	\$ -	\$ -	\$ 440,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
339	APPLE VALLEY ROAD	t	Coastal Tasman	05466200019	Full reconstruction	\$ 2,765,800	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
340	OLD COACH ROAD	t	Coastal Tasman	05466200020	Corner Improvements near Bronte	\$ 250,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 25,000	\$ 225,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
341	KERB AND CHANNEL - DISTRICT WIDE	e	Kerb & Channel	05046200037	Various district wide	\$ 1,700,000	\$ -	\$ -	\$ -	\$ 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	
342	NEW FOOTPATHS - DISTRICT WIDE	c	Footpaths	05026200012	Various district wide	\$ 1,700,000	\$ -	\$ -	\$ -	\$ 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	
343	NEW FOOTPATHS - SITE 1	c	Footpaths	05026200013	TBA	\$ 27,700	\$ 27,700	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
344	NEW FOOTPATHS - SITE 2	c	Footpaths	05026200014	TBA	\$ 50,000	\$ -	\$ 50,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
345	NEW FOOTPATHS - SITE 3	c	Footpaths	05026200015	TBA	\$ 50,000	\$ -	\$ 50,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
346	NEW FOOTPATHS - SITE 4	c	Footpaths	05026200016	TBA	\$ 50,000	\$ -	\$ -	\$ 50,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
347	NEW FOOTPATHS - SITE 5	c	Footpaths	05026200017	TBA	\$ 50,000	\$ -	\$ -	\$ 50,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
349	RICHMOND CONSTRUCTION- PATON ROAD STAGE 2	u	Road Construction Non Sub	05566200055	Realignment through sharp vertical curves	\$ 2,678,900	\$ -	\$ -	\$ 80,367	\$ -	\$ 455,413	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,071,560	\$ 1,071,560	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
351	MAPAU CYCLE FACILITIES - RURAL 3 DOMINION ROAD	452	Cycle Facilities	04106200035	Shared path in conjunction with Ruby Bay ByPass	\$ 50,000	\$ 50,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

F.6 Minor Improvement Projects

Minor improvement projects are described under NZTA definitions as improvement projects (currently set at a maximum of \$150,000) that are typically remedial projects identified by crash reduction studies identified and prioritised in accordance with Council's Safety Management System. They include:

- Small, isolated geometric improvements
- Intersection improvements
- Traffic calming measures
- Lighting improvements
- Provision of guard railing
- Sight benching to improve visibility
- Pedestrian crossings
- Stock underpasses
- Formation of trailer parks
- Safety footpaths
- Minor engineering works associated with community programmes.

All of this work is combined under one work category under NZTA. However, for asset management purposes, some of it should be classed as maintenance and some should be classed as asset creation. For the purposes of this AM Plan, a rigorous separation has not been made.

The forecast of the minor improvements budget assumes expenditure will be in the order of 8% (being the maximum set by NZTA) of the combined expenditure on:

- Pavement maintenance
- Bridge maintenance
- Corridor maintenance
- Structural maintenance (renewals).

F.7 Seal Extensions

The District has a large proportion of unsealed roads and there is continual pressure to seal them, predominantly by the rural community. The policy to invest in seal extensions changes over time depending on the community and the elected Council. Sealing of the roads has significant consequences in the long term because of maintenance and asset deterioration issues. The decision to extend the seal is therefore not one that can be confidently forecast.

A forecast of future subsidised seal extension work beyond is shown in the financial forecasts.

In addition to the subsidised seal extensions, there are seal extensions that will not qualify for subsidy due to low traffic volumes. Council partially fund seal extensions on low trafficked roads which cannot attract subsidy where the landowner contributes 40% of the capital cost. The forecast expenditure on these roads is shown in the financial forecasts.

F.8 Cycle and Walkway Strategy

The Council is in the process of updating the Cycle and Walkway Strategy to assist in updating the needs in this area. A programme for new cycleway projects has been included in the forward works programme. Walkway improvements have been allowed for in the non-subsidised forward works programme. These programmes will be reviewed as the cycle and walkway strategy is implemented.

F.9 New/Upgraded Roads for Urban Development

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

- a) Construction of new roads inside the sub-division or development.
- b) Upgrading of roads outside the sub-division to service the new demand.

The construction of new roads within new subdivisions are generally funded by the developers and must be constructed in accordance with the Council's Engineering Standards. The Council looks to ensure new footpaths, walkways, streetlighting and cycleways are included where applicable. On completion, provided the roads and associated assets comply with the Engineering Standards, they are vested in the Council. There are few capital expenditure implications with this type of asset creation, the more significant implications are maintenance and renewal related.

The upgrading of roads external to the new development, required to service the new demand, is an asset creation issue. Because development is developer driven, the Council is limited in what proactive measures it can take to support future development. Strategic studies and subsequent district strategies and policies provide ways and means to allow the Council to be proactive in this area. The current strategic documents used by the Council in applying drivers and controls are discussed in Appendix A.

F.10 Bridges

Bridge acquisition falls into two categories:

- Construction of new bridges as a consequence of subdivision or land development
- Substantial upgrading of existing bridges to upgrade traffic and/or load capacity

Bridges requiring upgrade are prioritised by a number of factors, including demand, benefit cost ratio, and strategic importance.

NZTA economic criteria for bridge replacements are used to assess whether bridge upgrades as replacements will qualify for subsidised funding.

Where uneconomic and not required for the likely use, postings of bridges to restrict loadings and extend the life of the bridge will be used.

F.11 Street Lighting

New streetlights are installed either by subdividers in new developments or by TDC in response to public demand, and also as part of significant urban street upgrades.

Streetlights in new subdivisions must be in accordance with NZS 6701 and AS/NZS1158. All proposed street lighting plans are subject to approval by Network Tasman and TDC. TDC take over responsibility for operation and maintenance of the streetlights once the development is complete. Public requests for additional street lighting are assessed on a case by case basis.

F.12 Signs and Road Marking

TDC aim to achieve 100% compliance with the Transit NZ Signs and Roadmarking Manual. Road sign and roadmarking inspections and audits are undertaken in accordance with the TDC Safety Management System. The Asset Manager (operating within a pre-defined annual budget) prioritises any requirements for additional signage and marking.

Usually asset creation of road signs and road markings are not accounted for separately. These assets are generally created through any of the following:

- Small, one-off projects. These are included within the traffic services maintenance budget.
- Specific and substantial traffic calming projects. These are included within the minor safety projects budget.

- Under major construction or re-construction projects. The cost of the road signs and road marking is included within the overall project costs and therefore not separated out.

F.13 Car Parks

Reviews of the car parking and service lane facilities in the District have been carried out. Council has included a construction and upgrade programme in the 10-year financial forecasts.

F.14 Footpaths

TDC aim to provide kerb and channel and footpath links in all urban areas (*ie.* areas in a restricted speed zone). A significant improvement has been made since 2001. The programme of new works has reduced as rehabilitation of existing footpaths has received higher priority.

TDC also aim to provide kerb and channel on request/inspection from the community in rural areas with high level foot traffic such as near a school or shopping area, subject to the budgeting constraints.

F.15 New Capital Works Costs

Total Capital Costs are provided in spreadsheet Appendix F5.

APPENDIX G. DEVELOPMENT CONTRIBUTIONS / FINANCIAL CONTRIBUTIONS

Information on Development Contributions and Financial Contributions can be found in the Council's Long Term Council Community Plan (LTCCP) document.

There is one Transportation Development Contribution in place and the policy on where and how it is applied is detailed in the LTCCP.

The following Table summarises the current Development Contributions:

Activity	Development Contribution per HUD \$ (incl GST)*
Water	6,922
Wastewater	5,518
Transportation	5,034
Stormwater	2,919
Total	20,393

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

APPENDIX H. RESOURCE CONSENTS AND PROPERTY DESIGNATIONS

H.1 Introduction

An important aspect of the transportation activity is to ensure that the Districts roading network is managed responsibly in terms of potential effects on the environment.

The Resource Management Act 1991 (RMA) deals with:

- use of land and the coastal marine area;
- structures and works in river beds and in the coastal marine area;
- damming and diversion of water
- discharges or contaminants into water and air.

These types of activities are controlled by rules in the Tasman Resource Management Plan (TRMP).

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 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 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 for Transportation Activity

Council intends to develop a full comprehensive list of all consents held and a reporting programme covering all consents associated with the transportation activity.

Identifying the full suite of on-going resource consent requirements for roading structures will be influenced by provisions of the pending Part IV of the Tasman Resource Management Plan (TRMP): Rivers and Lakes, which will determine what consents are required for structures in river and stream beds.

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 Districts road network, as well as a monitoring programme for compliance with the conditions of permitted activities or resource consents.

H.3 Designations for Transportation Activity

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 (proposed)
 McShane road (proposed)

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

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

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 capital works expenditure.

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 NZTA are Pavement Rehabilitation, Sealed Road Resurfacing, Unsealed Road Metaling, Drainage Renewals and Structures Component Replacements (includes Bridge Renewals).

Renewal work is identified by a combination of:

- Results of RAMM rating surveys
- Outputs from dTIMS pavement deterioration modelling and validation process
- Contractor inspections and feedback
- Analysis of ratepayer service requests
- Results from Falling weight deflectometer testing
- Results from SCRIMM 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 NZTA 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.2 Renewal Standards

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

Other measures of road condition developed by NZTA 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 2 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.

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, with the introduction of 3 year Land Transport programmes, Tasman 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 predictions for long term planning. Since 2006 there have been improvements to existing data and the addition of new data (SNP) (strength) values, pavement layer depth, SCRIM and texture) into RAMM which assists in producing a more robust model and a more accurate Forward Works Programme.

For the 2007/08 dTIMS run the Low Volume Road Model template was used for analysis as this is more representative of the performance of the TDC roading network. An important change from previous years is the interaction between pavement strength and pavement depth in determining the development and progression of rutting. A future improvement item will be to verify the relationship between rutting, strength and pavement depth for the network. As ongoing confidence is being developed Forward Work programmes will combine dTIMS predictions, engineering judgement and knowledge of the network by Roothing Asset Staff, Professional Services Consultant and the Maintenance Contractors.

(i) 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, chemical stabilisation using recycled materials and asphaltic overlays.

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

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

(ii) Unsealed Road Metaling.

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 7mm 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.

(iii) 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, texturing seals, thin asphaltic surfacing and milling old surface and resurfacing.

The financial forecasts are based on sections produced out of 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 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.

(iv) 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 square metres 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 in the forecasts is an amount of \$50,000 every 5 years for the upgrading of sub-standard sumps in the Richmond and Motueka areas.

(v) 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.

(vi) 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 2007. Based on this information and community priorities a 10 year draft footpath rehabilitation forward programme has been developed. Sites will be reviewed annually with final decisions involving individual communities.

Renewal of footpaths does not attract an NZTA subsidy.

(vii) Bridges

Bridge renewals provide for the complete replacement of existing bridges and other road structures including culverts having a waterway greater than 3.4 square metres. 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. Alternative crossings or further upgrading will be programmed where the heavy traffic demands exist, such as from forestry harvesting.

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.

(viii) 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.

(ix) Traffic Services

Pavement Marking

- Re-painting old road markings where deterioration and wear has caused them to fade.
- Restoring old 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.3 Deferred Renewals

Council have an ongoing programme of renewals which attempts to even out the peaks and troughs while minimising the risk of failure of individual assets.

As the programmes are prioritised to ensure that the most critical renewals are undertaken in a timely manner we do not believe we have any deferred renewals. As such none are allowed for in this plan.

Spreadsheets with detailed Breakdown of Expenditure for Renewals Expenditure is attached:

APPENDIX J. DEPRECIATION AND DECLINE IN SERVICE POTENTIAL

The source of this information is mostly from the Long Term Council Community Plan.

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 and associated rates for the Transport infrastructure have been estimated as follows:

Transportation	
Bridges	50 – 100 years
Road	3 – 80 years
Formation	Not depreciated
Sub-base (sealed)	Not depreciated
Basecourse (sealed)	65 – 75 years
Sealed Surfaces	4 – 20 years
Footpaths	5 – 75 years
Pavement Base	65 – 75 years
Drainage	15 – 75 years
Metal Wearing Course (unsealed)	3 - 5 years
Delineation Markers and Posts	10 years
Signs	10 years
Sight rails	18 years
Steetlights	25 years
Carparks Surfaces	4 - 45 years
Carparks Basecourse	75 years
Walkways Surfacing	4 – 45 years
Walkways Basecourse	45 years
Street Furniture	8 – 25 years

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.

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 LTCCP. 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 (refer Section 3.2) 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 detailed Borrowing Policy is found in Section 3 of Council's Treasury Management Policy that was last reviewed by Council in April 2004.

K.2 Loans

Loans to fund capital projects over the next ten years add up to the following:

	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15/	2015/16	2016/17	2017/18	2018/19
Transportation	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Subsidised										
Loans Raised (x 1,000)	3,620	3,692	3,752	3,820	4,129	3,887	4,134	3,983	3,931	4,112
Opening Loan Balance	11,104	13,962	16,719	19,367	21,898	24,547	26,761	29,024	30,939	32,608
Non Subsidised										
Loans Raised (x 1,000)	1,658	886	1,463	1,667	1,877	3,800	5,064	5,050	4,090	2,337
Opening Loan Balance	4,583	5,881	6,356	7,044	8,176	9,435	12,512	16,701	20,695	23,563

Note: Figures do not include for inflation and are in thousands of dollars (ie. x1000)

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 in the following table.

The projected annual loan repayment costs over the next 10 years are:

Transportation	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
Subsidised										
Loan Interest (x 1,000)	854	1,056	1,251	1,437	1,624	1,799	1,960	2,110	2,239	2,359
Loan Principal	762	936	1,104	1,289	1,480	1,674	1,871	2,068	2,261	2,454
Non Subsidised										
Loan Interest (x 1,000)	353	417	459	525	611	767	1,028	1,323	1,570	1,709
Loan Principal	360	411	775	535	618	723	875	1,056	1,222	1,351

Note: Figures do not include for inflation and are in thousands of dollars (ie. x1000)

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

Subsidised Land Transportation	2008/2009	2009/2010	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	2017/2018	2018/2019
	Budget \$	Budget \$	Budget \$	Budget \$	Budget \$	Budget \$	Budget \$	Budget \$	Budget \$	Budget \$	Budget \$
INCOME											
General Rates	5,850,414	5,539,707	6,017,264	6,519,712	7,077,817	7,059,475	7,783,577	7,998,059	8,473,600	8,812,244	9,261,856
Development Contributions	-	112,778	127,219	126,531	102,463	118,967	121,030	121,030	117,592	117,592	116,216
New Zealand Transport Agency Subsidy	7,494,334	7,238,341	7,432,707	7,547,605	7,901,927	8,499,290	7,925,332	8,170,176	8,133,413	7,990,331	8,530,189
Petrol Tax	314,201	323,000	323,000	323,000	323,000	323,000	323,000	323,000	323,000	323,000	323,000
Fees & Recoveries	21,517	33,515	33,515	33,515	33,515	33,515	33,515	33,515	33,515	33,515	33,515
Sundry Income	436,676	421,222	491,892	502,707	504,692	505,807	506,183	506,232	505,930	505,623	505,342
TOTAL INCOME	14,117,142	13,668,563	14,425,597	15,053,070	15,943,414	16,540,054	16,692,637	17,152,012	17,587,050	17,782,305	18,770,118
OPERATING COSTS											
Maintenance	5,183,723	6,277,463	6,528,385	6,833,994	7,085,085	7,181,251	7,327,689	7,186,099	7,283,110	7,345,703	7,313,787
Loan Interest	751,247	853,992	1,056,121	1,250,691	1,437,158	1,623,641	1,798,686	1,959,842	2,110,247	2,239,289	2,359,090
Depreciation	2,778,280	4,980,618	4,824,094	5,213,786	5,325,565	5,801,414	5,972,404	6,683,362	7,067,138	7,685,225	8,041,123
TOTAL OPERATING COST	8,713,250	12,112,073	12,408,600	13,298,471	13,847,808	14,606,306	15,098,779	15,829,303	16,460,495	17,270,217	17,714,000
NET COST OF SERVICE (SURPLUS)	(5,403,892)	(1,556,490)	(2,016,997)	(1,754,599)	(2,095,606)	(1,933,748)	(1,593,858)	(1,322,709)	(1,126,555)	(512,088)	(1,056,118)
TOTAL FUNDS REQUIRED											
NET COST OF SERVICE (SURPLUS)	(5,403,892)	(1,556,490)	(2,016,997)	(1,754,599)	(2,095,606)	(1,933,748)	(1,593,858)	(1,322,709)	(1,126,555)	(512,088)	(1,056,118)
Capital	10,626,327	9,395,591	9,597,302	9,616,930	9,952,239	10,384,168	9,779,658	10,269,120	10,108,642	9,866,841	10,755,556
Transfer to Reserves	-	-	-	-	-	1	-	-	-	1	(3)
Loan Principal	500,997	761,919	935,652	1,103,762	1,288,939	1,480,044	1,673,717	1,870,552	2,068,031	2,261,159	2,453,633
	5,723,432	8,601,020	8,515,957	8,966,093	9,145,572	9,930,465	9,859,517	10,816,963	11,050,118	11,615,913	12,153,068
SOURCE OF FUNDS											
Loans Raised	2,943,260	3,620,403	3,691,863	3,752,307	3,820,007	4,129,051	3,887,113	4,133,601	3,982,980	3,930,688	4,111,945
Restricted Reserves Applied	1,892	(1)	-	-	-	-	-	-	-	-	-
	2,945,152	3,620,402	3,691,863	3,752,307	3,820,007	4,129,051	3,887,113	4,133,601	3,982,980	3,930,688	4,111,945
NON FUNDED DEPRECIATION											
Depreciation to be funded at income statement level	2,778,280	4,980,618	4,824,094	5,213,786	5,325,565	5,801,414	5,972,404	6,683,362	7,067,138	7,685,225	8,041,123
	2,778,280	4,980,618	4,824,094	5,213,786	5,325,565	5,801,414	5,972,404	6,683,362	7,067,138	7,685,225	8,041,123
	5,723,432	8,601,020	8,515,957	8,966,093	9,145,572	9,930,465	9,859,517	10,816,963	11,050,118	11,615,913	12,153,068

N.B. Figures do not include inflation

Non Subsidised Land Transportation	2008/2009	2009/2010	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	2015/2016	20016/2017	2017/2018	2018/2019
	Budget \$	Budget \$	Budget \$	Budget \$	Budget \$	Budget \$	Budget \$	Budget \$	Budget \$	Budget \$	Budget \$
INCOME											
General Rates	2,435,982	2,186,604	2,285,917	2,398,692	2,518,498	2,758,798	2,978,240	3,458,155	3,871,560	4,292,127	4,566,092
Targeted Rate	6,561	5,733	5,733	5,733	5,733	5,733	5,733	5,733	5,733	5,733	5,733
Development Contributions	614,682	557,376	598,786	596,814	440,053	575,123	551,791	551,791	571,179	541,931	508,739
Fees & Recoveries	208,495	256,083	214,318	214,286	214,263	214,212	214,160	214,137	214,062	214,013	213,949
Sundry Income	211,688	204,197	238,455	243,699	244,660	245,201	245,383	245,407	245,260	245,111	244,975
TOTAL INCOME	3,477,408	3,209,993	3,343,209	3,459,224	3,423,207	3,799,067	3,995,307	4,475,223	4,907,794	5,298,915	5,539,488
OPERATING COSTS											
Maintenance	1,925,305	1,754,147	1,890,134	1,896,642	1,870,383	1,939,111	1,953,672	1,974,119	1,958,245	1,957,766	1,971,581
Loan Interest	234,813	353,322	417,149	459,027	524,542	610,610	766,710	1,028,281	1,322,893	1,569,929	1,708,655
Depreciation	2,646,313	4,317,267	3,874,169	3,915,517	3,687,749	3,802,439	3,708,584	4,202,042	4,384,863	4,778,576	4,861,863
TOTAL OPERATING COST	4,806,431	6,424,736	6,181,452	6,271,186	6,082,674	6,352,160	6,428,966	7,204,442	7,666,001	8,306,271	8,542,099
NET COST OF SERVICE (SURPLUS)	1,329,023	3,214,743	2,838,243	2,811,962	2,659,467	2,553,093	2,433,659	2,729,219	2,758,207	3,007,356	3,002,611
TOTAL FUNDS REQUIRED											
NET COST OF SERVICE (SURPLUS)	1,329,023	3,214,743	2,838,243	2,811,962	2,659,467	2,553,093	2,433,659	2,729,219	2,758,207	3,007,356	3,002,611
Capital	1,822,084	2,400,700	1,511,000	1,722,077	1,870,901	2,652,507	4,566,889	5,662,319	5,621,279	4,639,348	2,845,536
Transfer to Reserves	280,570	-	-	69,666	289,229	-	-	-	-	-	-
Loan Principal	248,854	359,605	410,580	774,653	535,404	618,269	723,332	874,633	1,055,773	1,222,034	1,350,922
SOURCE OF FUNDS	3,680,531	5,975,048	4,759,823	5,378,358	5,355,001	5,823,869	7,723,880	9,266,171	9,435,259	8,868,738	7,199,069
Restricted Reserves Applied	99,000	175	40	72	95	143,951	215,288	221	296	345	409
Loans Raised	935,218	1,657,606	885,614	1,462,769	1,667,157	1,877,479	3,800,008	5,063,908	5,050,100	4,089,817	2,336,797
NON FUNDED DEPRECIATION	1,034,218	1,657,781	885,654	1,462,841	1,667,252	2,021,430	4,015,296	5,064,129	5,050,396	4,090,162	2,337,206
Depreciation to be funded at income statement level	2,646,313	4,317,267	3,874,169	3,915,517	3,687,749	3,802,439	3,708,584	4,202,042	4,384,863	4,778,576	4,861,863
	2,646,313	4,317,267	3,874,169	3,915,517	3,687,749	3,802,439	3,708,584	4,202,042	4,384,863	4,778,576	4,861,863
	3,680,531	5,975,048	4,759,823	5,378,358	5,355,001	5,823,869	7,723,880	9,266,171	9,435,259	8,868,738	7,199,069

N.B. Figures do not include inflation

APPENDIX M. FUNDING POLICY, FEES AND CHARGES

M.1 Funding Strategy

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

The Council share of the costs, being 51% for operating and maintenance is funded from General Rate.

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

All work not receiving a NZTA subsidy 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 NZTA subsidy of 49% for all roads except Totaranui and Pupu Springs Roads. These roads (12km) are designated special purpose roads because of their national significance and attract a 100% maintenance subsidy. Council also receives funding from DoC and Trust-Power towards maintenance of part of the Cobb Valley 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
- Separate Rate

The operating, renewals and capital works including work categories that qualify for NZTA subsidy are listed in Appendix L Table L-1.

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-1: Schedule of Fees & Charges

Engineering Charges	2009/2010 1 July to 30 June (GST incl)
Permit Fees	
Vehicle Access Crossing (urban)	\$115.00
Vehicle Access Crossing (rural)	\$115.00
Road Opening Permit – perpendicular to road	\$390.00 plus actual costs (\$200.00 refundable on satisfactory completion)
Road Opening Permit – parallel to road	\$165.00 plus actual costs (bond of \$100.00 per 100 metres up to \$5,000.00)
Water Tanker Permit (To comply with Council's Water Supply Bylaw 2008)	\$1,000.00 pa
Fencing on road reserve (also gates, other structures)	\$280.00 + inspection costs
Parking permit	\$30.00/day
Application for Tourist Facility Sign (\$100 refunded if consent refused)	\$165.00 plus actual costs
Fencing between private and Tasman District Council land	Half actual cost per linear meter or \$40.00 per metre (inclusive of GST) whichever is the lower
Road Closure (events, parades)	\$280.00 (or actual costs for inspections and public notifications) plus \$2,000.00 bond plus insurance and public liability cover
Officer's Inspection Fees	\$125.00/hour
Engineering Standards	\$90.00

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

Rate	2008/2009	2009/2010
Hamama Road Sealing rate – per property	\$ 645.00	\$ 645.00

APPENDIX N. DEMAND MANAGEMENT

N.1 An Explanation of the Council's Demand Management Policies for Transportation

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 – with appropriate targets and timetables – intended to reduce the levels of motorised road traffic.

The Council has adopted policies in the RLTS that will encourage and facilitate the reduction in motorised road traffic. The population growth has however 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.

Policies and strategies that will encourage a reduction in the levels of motorised road traffic include:

- Develop and adopt a public passenger transport plan in conjunction with Nelson City Council
- The District progressively offers a choice of transport modes, including the provision of public transport and facilities for cycling and walking particularly within urban centres.
- Implementation, where economically acceptable, the recommendations of the Cycling/Walking Strategy.
- Ensure that significant land use developments provide for a range of land transport movements (cycleways, waterways, public transport, etc.) in their developments, either directly or as part of a financial contribution. Aiming to reduce the use of HCV on local roads as defined in the road hierarchy.
- Promoting economic alternatives to roading where alternatives are safe and efficient.

Further development of policies and strategies to manage roading demand is required as part of the Improvement Plan. This would include:

- Parking changes
- Use of short-term parking to discourage commuter traffic.

N.2 Sustainable Development Issues

New roading 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.

APPENDIX O. NOT APPLICABLE TO THIS ACTIVITY

APPENDIX P. SIGNIFICANT NEGATIVE EFFECTS

The significant negative effects on a community associated with providing and operating a transportation system are as follows:

- 1) Tasman's land transport network provides people a high degree of mobility. The economic and social benefits have some environmental costs. There are also social costs arising from the effect of road crashes.
- 2) High volumes of traffic affect residential amenity. The most common effects are noise, lighting and air quality. Dust from unsealed roads causes a nuisance on neighbouring properties.
- 3) In addition to the effects on air quality discharges from motor vehicles has the potential to diminish the water quality of adjacent streams from the run-off from the roads.

P.1 Issues

Some of the current measures used to reduce the negative effects are:

- **Noise** – In the urban areas smaller size sealing chips using two coat method or asphalt surfacing may be used. Asphalt is the most effective, however it is also the most expensive but does provide a longer surface life. The form of urban design influences the number of properties that are subjected to the higher traffic volumes. By encouraging slow streets, street calming and ensuring the hierarchy of roads is followed, the number of properties subjected to the higher traffic volumes can be reduced. This also allows the use of asphalt in a more cost effective way on the high volume roads.
- **Lighting** – In residential areas light intrusion may detrimentally impact on some properties. This can be mitigated through the use of a shield to reduce or eliminate light spill. It is also possible where upgrading light fittings to install units which have improved design in the reflectors that target light on the road and minimise spill.
- **Air Quality** – Compliance with vehicle emission standards is targeted at a national level with requirements for all vehicles to meet at warrant/certificate of inspection checks. Vehicle emissions are increased under times of acceleration and braking. These effects can be partially mitigated by the use of traffic engineering design which allows smooth flow of traffic on the main routes. Dust can affect neighbouring houses and may have a detrimental impact on horticultural and agricultural crops. Council has a programme of seal extension where economically justified and also a policy that allows person(s) on unsealed roads to contribute approximately 40% of the cost of sealing a section of road, usually past their frontages.
- **Stormwater runoff** – Vehicle emissions deposit particulate matter onto the road surface. This is then flushed into the stormwater disposal system. Decreasing vehicle emissions decreases the impact on the stormwater systems. Stormwater runoff that is filtered through vegetation and soil contact such as rainwater gardens has a decreased impact on the environment. Other mitigation measures include the use of separator or treatment structures, however these have a high capital and maintenance cost. Mitigation can be improved by ensuring designs incorporate measures as outlined in the Engineering standards, Stormwater & Drainage, Section: Alternative Assessment Framework.
- **Safety** – Within the subsidised roading programme Council utilises the maximum funding made available to undertake improvements to the network. 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 is not in a position to prevent crashes, it can however undertake works so that the effect of the crash is minimised, eg. through the use of protective barriers, clear zones, recovery areas, use of signs, roadmarking and inspections and safety audits.

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

APPENDIX Q. SIGNIFICANT ASSUMPTIONS, UNCERTAINTIES, AND RISK MANAGEMENT

This appendix is in two parts:

- Assumptions and Uncertainties
- 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 affect on the financial forecasts, and discusses the potential risks that this creates.

Q.1.1. 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: not all roads or sections of roads met the current Engineering Standards. These are considered for upgrades depending on the required level of service. Road restricted bridges (approx 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 (approx 50% of network). Completed in 2007 for footpaths.
- Condition rating has yet to be established for carparks, walkways, service lanes, street furniture and unsealed roads.
- Forward planning to accommodate heavy traffic particularly forestry uses the 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 forest owners is encouraged.
- Road condition is susceptible to extreme natural events, particularly the rural pavements and metal surfaces.
- The current status of the roading assets inventory from Engineering judgement as is detailed in:
RAMM database for roads, bridges, footpaths;
TDC CONFIRM database for street lights; separate Excel spreadsheets for Carparks, Walkways, Service Lanes and Street Furniture.

Q.1.2. 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 Section 12.

Q.1.3. 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 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.1.4. 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 LTCCP/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 subsidy from central government
- securing land to construct new assets on

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 financials is not considered significant.

Q.1.5. 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 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.1.6. 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 accuracy. However, it is preferable to have projects in the next 3 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:

- 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, 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 below, and from this 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.

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.1.7. 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 National Land Transport Strategy (2008) and provided a Government Policy Statement (2008) to update their objectives and targets with respect to transportation. This AMP is based on these directions as they relate to the Tasman region, in particular the emphasis on safety and the walking and cycling modes.

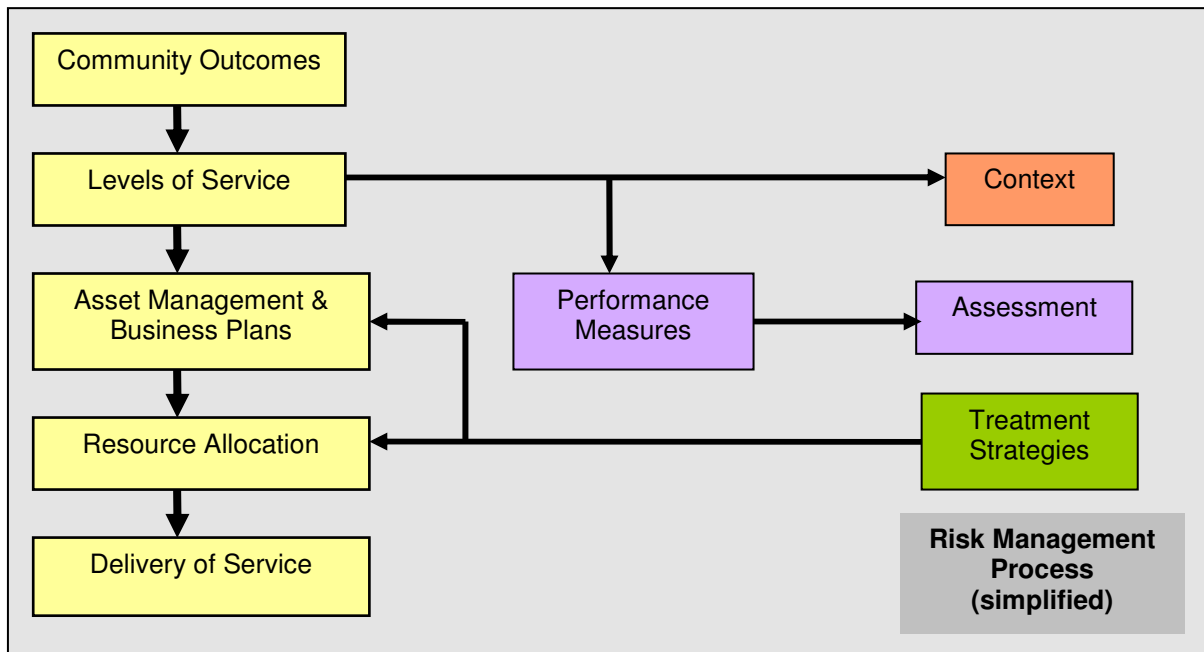
Q.2 Risk Management

Council is adopting an Integrated Risk Management (IRM) framework and process as the means for managing risk within the organisation. The process integrates with the Long Term Council Community Plan (LTCCP) 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 LTCCP Process



The IRM process and framework is intended to:

- To demonstrate responsible stewardship by TDC on behalf of its customers and stakeholders.
- To act as a vehicle for communication with all parties with an interest in TDC’s organisational and asset management practices.
- Provide a focus within TDC for ongoing 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 TDC 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).

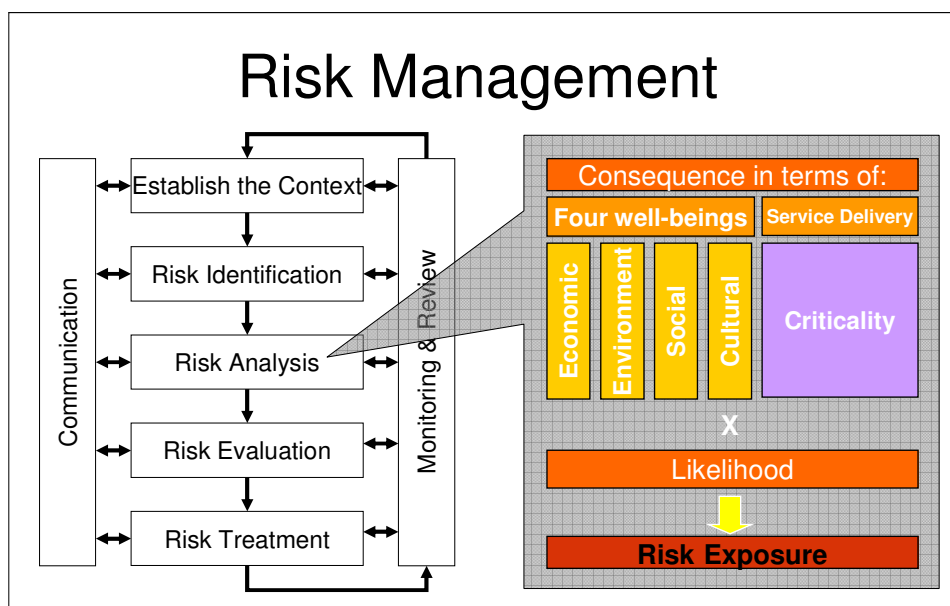


Figure Q-2: Integrated Risk Management Process

Consequence categories 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-1: 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 & Safety	Assessment of impact as it relates to death, injury, illness, life expectancy and health
	Community Safety & 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	Direct 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 report, TDC Integrated Risk Management - Engineering Activities. 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 - Asset Group Risk Assessment
- Level 3 - Critical Asset Risk Assessment

Q.2.1. Level 1 - Organisational Risk Assessment

The 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 an 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

The same principals and consequence tables have been applied at an activity level. Major asset groups within the activity have been identified.

An analysis of risk events was then undertaken to determine the issues arising that may prevent the assets delivering the required service. At this level of risk assessment, the risk events considered are physical events only as management and organisational risk events formed part of the earlier organisational risk assessment. Treatment strategies that mitigate each risk for asset groups have been identified.

The outcome from this process is summarised below, a checklist of mitigation measures that should be considered for each type of asset group.

Mitigation Measures to be considered	Asset Group								
	Carriageway Arterial	Carriageway Local	Bridges Arterial	Bridges Local	Footpaths & Walkways	Cycleways	Carparks & Service Lanes	Streetlights	Traffic Services
Alternative Routes	✓	✓	✓	✓	✓	✓	✓		
Communication Plan	✓	✓	✓	✓	✓	✓	✓	✓	
Drainage Systems	✓	✓	✓	✓	✓	✓	✓		
Preventative Maintenance	✓	✓	✓	✓	✓	✓	✓	✓	✓
Increase Monitoring	✓	✓	✓	✓	✓	✓	✓	✓	✓
Land Stabilisation	✓	✓	✓	✓	✓	✓			
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	✓	✓	✓	✓	✓	✓	✓	✓	✓

Q.2.3. Level 3 - Critical Assets Risk Assessment

The next step in the Integrated Risk Management approach is to consider each of the individual critical assets within the asset groups of an activity. Each asset will be reviewed in terms of the consequences initially identified and mitigation measures required. The output from the process will be a recommendation of projects or operational strategies to address shortfalls.

At this time, this level of risk management has not been implemented but has been included for completion in the Improvement Plan.

Q.2.4. Projects to Address Risk Shortfalls

Despite the incomplete nature of the Integrated Risk Management process, 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
- Bridge seismic assessments upgrade programme
- Detailed structural bridge assessments

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

R.1 Community Outcomes

Through Consultation, the Council identified eight Community Outcomes. These Community Outcomes are linked to the four well beings and Council Objectives as shown in Table R-2.

R.2 Levels of Service

Levels of service are described in Section 2

R.3 Performance Measurement

Table R-3 contains an assessment of current performance against the levels of service, and a forecast of the performance planned for within the next three years, and within the next 10 years.

Table R-1: The Four Wellbeings, Interim Community Outcomes, Council Objectives, Groups & Activities

Community Wellbeing	Community Outcomes	Council Objectives	Council Groups and Activities	Council Activities
Environmental wellbeing	1. Our unique and special natural environment is bountiful, healthy, clean and protected.	To ensure sustainable management of natural and physical resources and security of environmental standards.	Environment and Planning	Resource Policy Resource Information Resource Consents and Compliance Environmental Education, Advocacy and Operations Regulatory services Mapua Rehabilitation Regional Cycling and Walking Strategy.
	2. Our built urban and rural environments are functional, pleasant, safe and sustainably managed.			
	3. Our transport and essential services are sufficient, efficient and sustainably managed.	To sustainably manage infrastructural assets relating to Tasman District.	Transportation Sanitation, drainage and water supply	Land Transportation Coastal Structures, Aerodromes Refuse Wastewater Stormwater management Rivers Water Supply
Social and Cultural Wellbeing	4. Our vibrant community is safe, well, enjoys an excellent quality of life and supports those with special needs.	To enhance community development and the social, natural, cultural and recreational assets relating to Tasman District.	Cultural services and grants.	Libraries Cultural services and community grants
	5. Our community understands regional history, heritage and culture.		Recreation and leisure.	Community recreation Camping grounds Parks and Reserves Development impact levies
	6. Our diverse community enjoys access to a range of spiritual, cultural, social, educational and recreational services.		Community support services.	Community facilities Emergency management Community housing Governance
	7. Our participatory community contributes to district-decision making and development.			
Economic Wellbeing	8. Our growing 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.	Forestry Property Council controlled organisations.

Table R-2: Levels of Service

Levels of Service (what Council will provide)	We will know we are achieving this when	Current Performance	Forecast Performance by Year 3	Forecast Performance by Year 10
1. Our Transportation activities use best sustainable practices	All road construction and maintenance activities comply with any required resource consents	Consents are held for all maintenance works and all current capital works	100%	100%
	Council keeps its Surface Condition Index (SCI) at or above 97.5%. The SCI is a nationally used index to represent surface condition and keeping it at this level will demonstrate Council is maximizing the life of the sealed surfaces.	Currently Tasman is slightly above the national weighted average of 97.5% (2007)	SCI of 97.5%	SCI of 97.5%
	Council achieves 10km of seal extension within 10 years. Sealing eliminates dust for adjacent properties and is the lowest long term cost option.	Council has completed at least 2.0km of seal extension per year	3 kms sealed in Year 1. 1.5km in Year 3.	10km completed by 2019
2. Our network of roads, bridges, footpaths, cycleways and carparks are safe, uncongested and maintained cost effectively.	We receive less than 35 complaints per year relating to the maintenance of footpaths	Fifty complaints per year are received relating to the maintenance of footpaths.	35	30
	Bend – lost control/head on road crashes on rural roads are equal to National average by 2018.	Bend – lost control/head on crashes on rural roads for Tasman are currently 10% above the national average. See Figure R-1 from NZTA Road Safety Report.	5% above national average	equal to national average
	Road maintenance reseals and the pavement rehabilitation budgets are managed to within the range $\pm 2\%$	Council has achieved a less than 2% variance from budget across maintenance, reseals and rehabilitation categories	$\pm 2\%$ against budget	$\pm 2\%$ against budget
	We can reduce the number of speed or weight restricted bridges by 1 per year for the next 10 years until only 18 remain.	There are currently 28 speed or weight posted bridges.	Restricted Bridges Remaining: Year1 = 27 Year 2 = 26 Year 3 = 25	18 restricted bridges remaining by Year 10

Levels of Service (what Council will provide)	We will know we are achieving this when	Current Performance	Forecast Performance by Year 3	Forecast Performance by Year 10
	The average quality of the ride experienced by motorists, as measured by the Smooth Travel Exposure index (STE), is maintained at current levels.	The STE is a nationally used "smoothness" measure, set for each road depending on traffic volume and whether the road is urban or rural. The national weighted average in July 2007 was 90.6%. Tasman's 2006/07 measure was 92% with 2007/08 measure of 94%	94%	94%
3. Our transportation network services those that should be serviced.	All dwellings within the District are able to access the Council's transportation network at all times unless subject to planned closures.	100% of Council's transportation network has been available for access over the last 12 months	100%	100%
	An annual programme of new footpaths as agreed with the communities is constructed to Council standards	100% of agreed programme of new footpaths complete to standard	100%	100%
	Capital Projects are completed on time, within budget and to the Council Engineering Standards and policies	85% of capital projects completed on time and within budget.	90%	90%
4. Our transportation activities are managed at a level that satisfies the community.	Council increases the network of walking and cycling paths by 8km by 2019.	Council has planned its walking and cycling strategy projects to achieve this target.	1km in Year 1, 1.3km in Year 2, 2.2km in Year 3	Total of 8km completed by Year 10
	Our surveys show that 70% of customers are satisfied with the transportation service they receive.	Currently 70% of road users are satisfied with the transportation service they receive as measured through the Communitrak™ survey.	70%	75%
	Council has adopted a Passenger Transport Plan after consultation with the community.	Council is currently preparing a Passenger Transport Plan	Completed in Year 1	Plan in place

Levels of Service (what Council will provide)	We will know we are achieving this when	Current Performance	Forecast Performance by Year 3	Forecast Performance by Year 10
5. Faults in the transportation network are responded to and fixed promptly	We are able to respond to and fix faults within the timeframes we have specified within our operations and maintenance contracts.	Currently 85% of faults are responded to and fixed within the specified timeframes. Typical response times include: potholes – within 5 days (sealed roads), corrugations – within 7 days (unsealed roads), blocked culverts – within 7 days.	90%	95%
6. Our systems are built so that failures can be prevented before they occur as much as possible, and if they do occur, can be quickly responded to.	We have a facility for receiving and handling emergency calls after office hours.	Council has an after-hours call centre that receives calls 24/7 and contractors and system managers have duty staff who are contactable to respond to emergencies	continue to do the same	continue to do the same
	We have operative risk management processes in place and planned mitigation measures completed.	Council does not have a risk management plan	In place and operating	In place and operating
	All Council's contractors have adequate resources available in case of a road failure.	All contractors have approved emergency response processes and adequate resources available on a 24 hour standby.	continue to do the same	continue to do the same
	There are no loss of control crashes for all known frost potential sites.	Crashes have been reported at known frost potential sites, where some treatment has not been effective.	Nil crashes	Nil crashes

Table R-3: Current Performance

Current Performance	Planned work to achieve LoS Shortfalls
<ul style="list-style-type: none"> The road database tool (RAMM) requires updating to reflect current field validation of sealed roads. 	<ul style="list-style-type: none"> Surface structure table to be updated to reflect realistic seal design life for current top surfacing.
<ul style="list-style-type: none"> First coat seals require monitoring to set the likely optimum seal life. 	<ul style="list-style-type: none"> Field validate all existing first coat seals. Estimate year for resurfacing and enter into RAMM
<ul style="list-style-type: none"> 50 complaints per year are received relating to the maintenance of footpaths. 	<ul style="list-style-type: none"> Network contractor to inspect all footpaths annually from 2009/10 and programme maintenance work programme condition rating survey every 2 years.
<ul style="list-style-type: none"> Bend – lost control/head on. 	<ul style="list-style-type: none"> Delineation upgrades.
<ul style="list-style-type: none"> There are currently 28 speed or weight restricted bridges 	<ul style="list-style-type: none"> Prioritise bridges for renewal involving affected communities during consultation.
<ul style="list-style-type: none"> 85% of Capital Projects completed on time and within budget. 	<ul style="list-style-type: none"> Utilise MTP processes and practices to improve the completion rate.
<ul style="list-style-type: none"> Currently 85% of faults are responded to and fixed within the specified time frames. 	<ul style="list-style-type: none"> Tighten up response time and compliance within future network management contracts. Consider payment deductions for non-compliance.
<ul style="list-style-type: none"> Council does not have a Risk Management Plan 	<ul style="list-style-type: none"> Procure services to produce a RMP incorporating all Council activities.
<ul style="list-style-type: none"> Crashes have been reported at known frost potential sites where some treatment has not been provided. 	<ul style="list-style-type: none"> Review the processes and systems for treating known frost/ice sites in a timely manner.

Figure R-1: Bend – lost control/head-on Tasman District – rural local roads

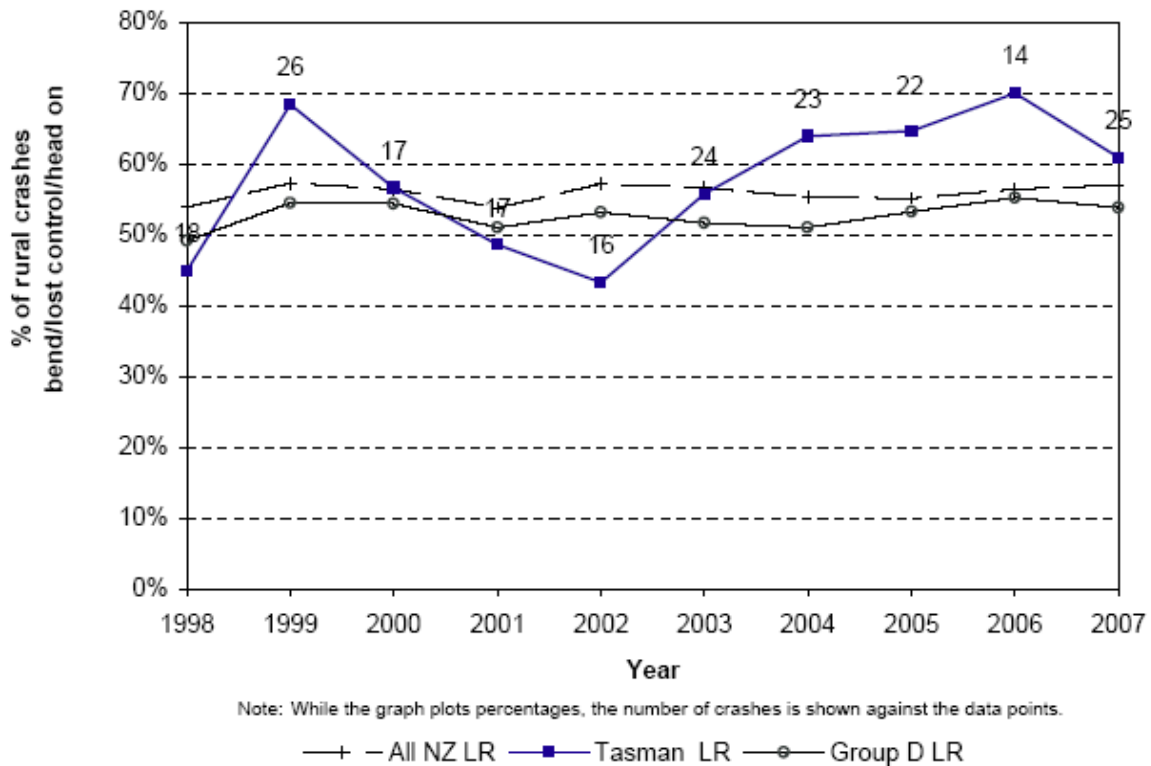
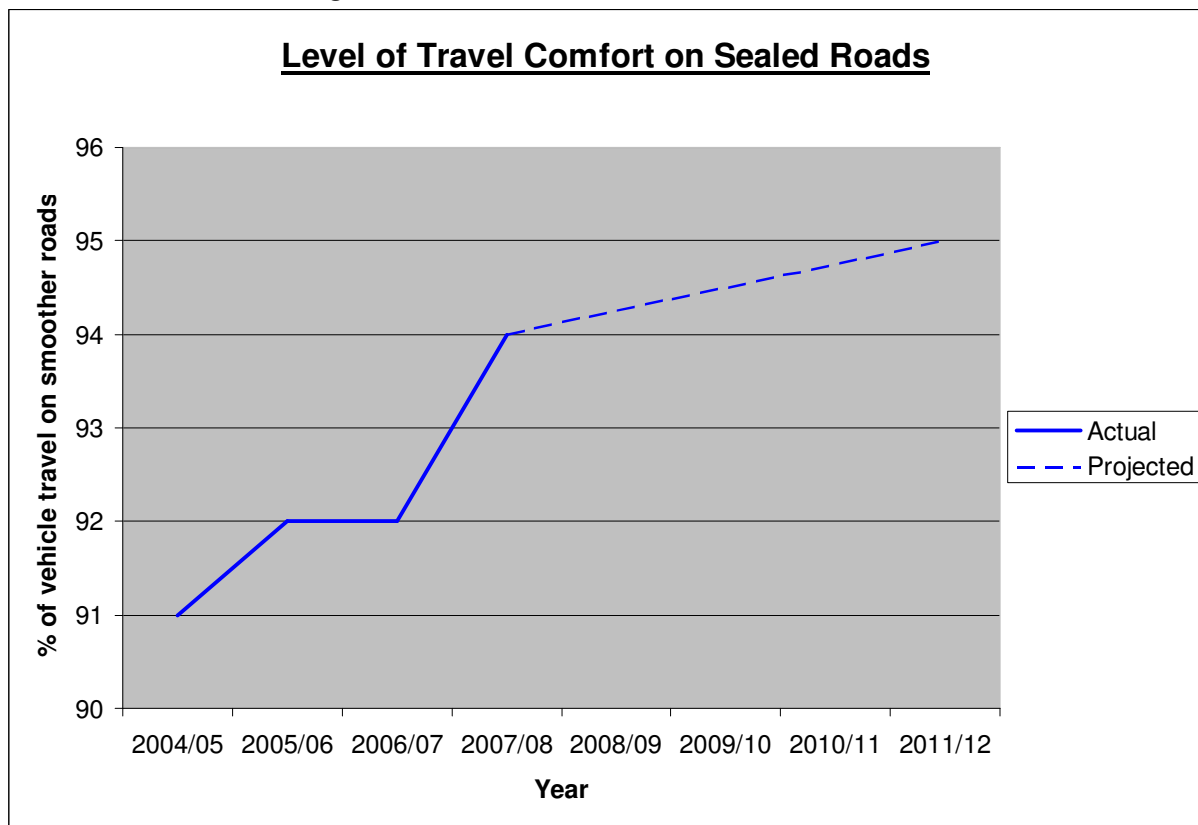


Figure R-2: Level of Travel Comfort on Sealed Roads



APPENDIX S. ASSET MANAGEMENT INFORMATION SYSTEMS AND DATA MANAGEMENT, AND ENABLING PROCESSES FOR ASSET MANAGEMENT

This appendix gives an overview of:

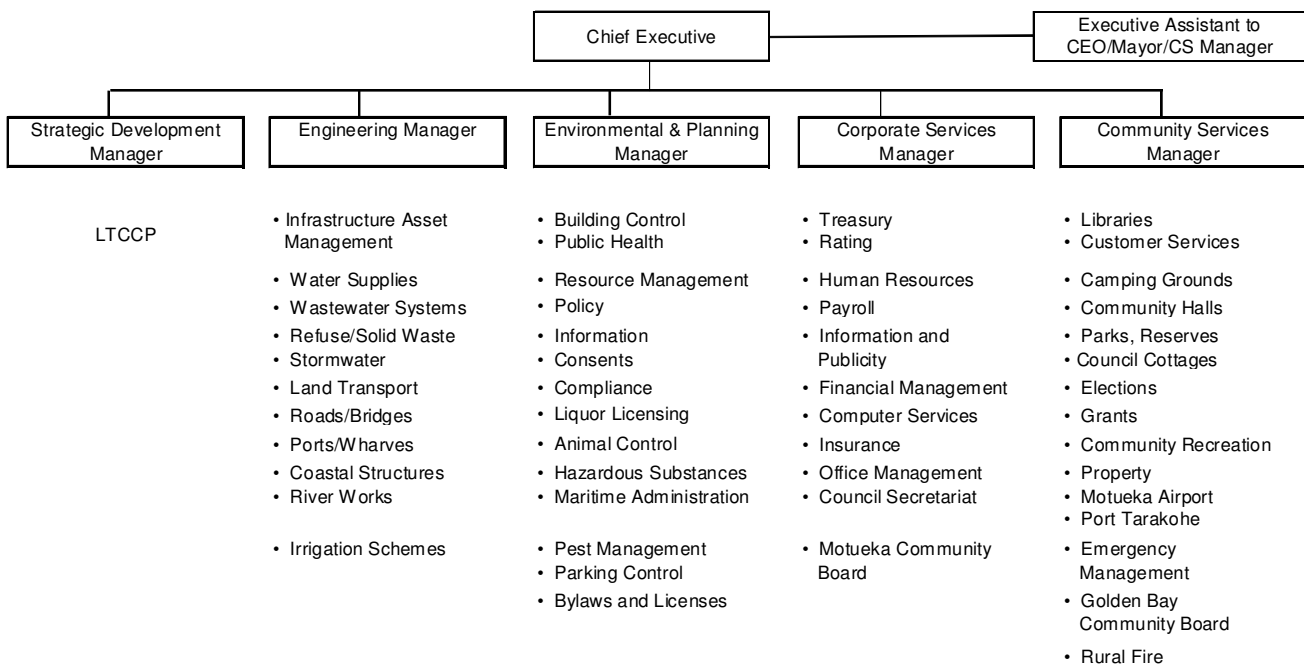
- Council's organisational structure
- How asset data is managed
- What asset management systems and processes are used
- How decisions are made.

S.1 Organisational Structure

The Engineering Manager is principal advisor to the Engineering Services Committee that has delegated powers from the Council. The Engineering Services Committee has responsibility for roads and bridges, footpaths, car parks, water supplies, refuse collection and disposal, wastewater treatment and disposal, stormwater, river works, ports and wharves, and aerodromes.

The Tasman District Council organisational structure is shown in Figure S-1. As the chart shows, the asset management function for the transportation asset management plan falls under the Engineering Manager.

Figure S-1: Tasman District Council Organisation Structure



S.2 Asset Data

The Council's corporate Asset Management System (AMS) is Confirm Enterprise. The Engineering Department uses it to record and track customer enquiries, maintain its asset register, and for tracking non-routine maintenance of assets. Valuations of all assets other than Roding will be done from Confirm. The 2008 Roding Valuation was undertaken in the asset valuation Module (RAVM) in RAMM.

The Asset Information team, Asset Managers, TDC's consultants and contractors all have access to the system with levels of access appropriate to their needs. Asset information is delivered to the Council via Explore Tasman, TDC's web-based GIS browser application. Performance and operational reports are delivered via a web-based reporting system.

Confirm has links to other core Council applications:

- NCS (Napier Computer System) for property data and water meter details
- SilentOne document management system for construction and As-built plans.

A more detailed breakdown of Roding Assets is held in RAMM (Road Asset and Maintenance Management) which is maintained by MWH on behalf of TDC.

Table S-3 summarises the various data sources and how they are managed. It also provides a grading on the data accuracy and completeness where this is appropriate. The accuracy grade is based on the IIMM grading as shown in

Table S-1, the completeness grade is based on the grading as shown in Table S-2.

Table S-1: Asset Data Accuracy Grade

Grade	Description	Accuracy
1	Accurate	100%
2	Minor inaccuracies	± 5%
3	50% estimated	± 20%
4	Significant Data estimated	± 30%
5	All data estimated	± 40%

Table S-2: Asset Data Completeness Grade

Grade	Description	Completeness
1	Complete	100%
2	Minor Gaps	90 – 99%
3	Major Gaps	60 – 90%
4	Significant Gaps	20 – 60%
5	Limited Data Available	20% or less

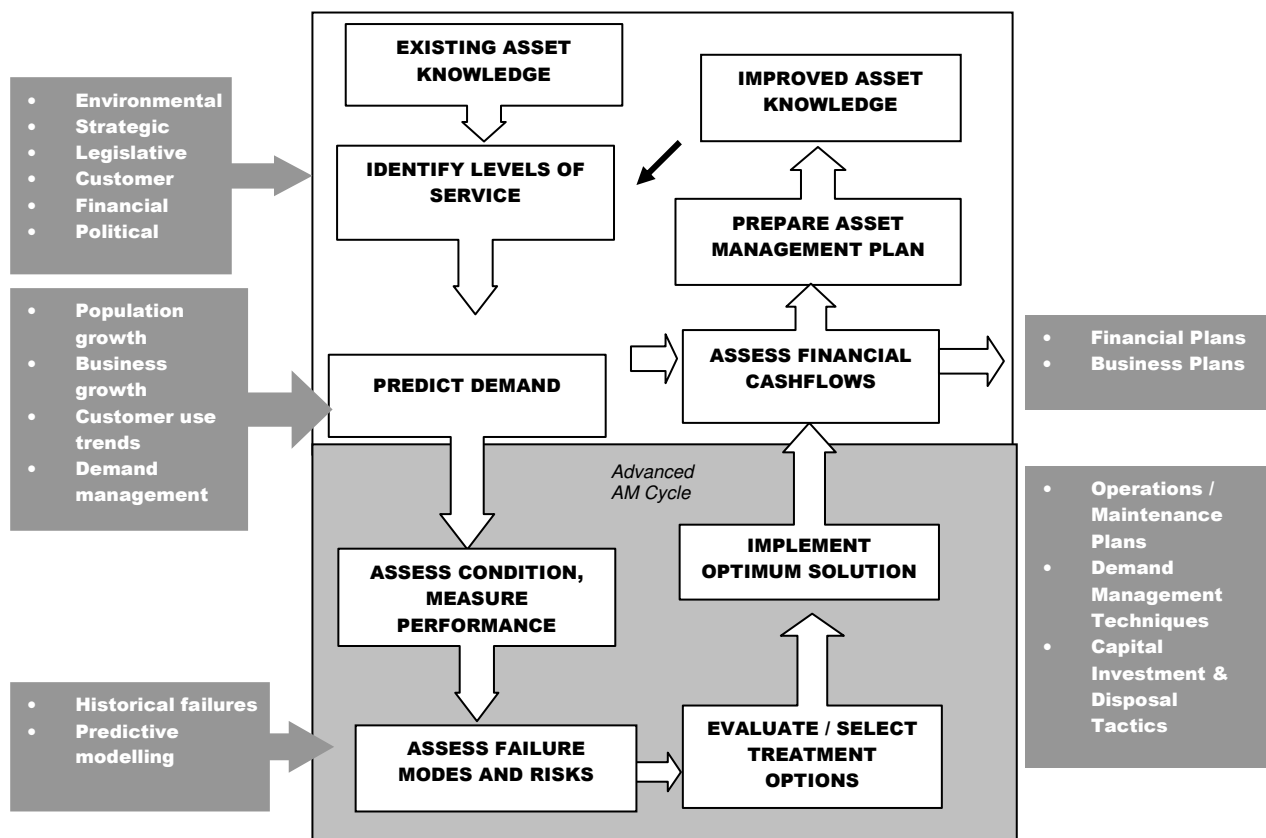
Table S-3: Council Asset Data Types and Confidence

Data Type	Data Storage	Management Strategy	Data Confidence	
			Accuracy	Completeness
Asset location	GIS (line data)	GIS contains the road centreline data, car parking areas, walkways, streetlights and bench mark data.	2	2
	Confirm (point data)	Point data is provided in Confirm	2	2
	As-built Plans	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 retrieval of as-builts from 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.	2	2
Asset description (size, age, material)	RAMM/Confirm	The primary source for roading data is RAMM. Some data related to carparks, streetlights and walkways is contained in Confirm	2	2
	Asset Register in RAMM	Road valuation data is held in RAMM and revaluations will continue to be carried out in this system.	2	3
Maintenance History	RAMM/Confirm	Roading related enquiries received by council are logged in the Confirm system and forwarded to the maintenance contractors via this system. Once maintenance work has been carried out and the contractor makes a monthly claim this maintenance history is loaded in to RAMM.	2	3
Financial Information	NCS	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 10-year financial plans.	n/a	n/a
Resource Consents	Resource Consent Database	A database containing details and copies of all resource consents associated with the transportation asset was developed in 2008. The database is administered by the Council's professional services provider. Management processes have been developed to ensure all consent conditions are complied and any new or changed consents are updated in the database.	1	1
Reports		A variety of investigative and design reports have been prepared and are held by various asset managers as appropriate.		
System Records		Council paper records are kept in files in the Records Room. These are classified by utility type and area. Files are kept for Roads, Bridges, Utilities and Resource Consents.		

S.3 Asset Management Processes and Systems

The way the Council develops its Asset Management Strategies is in general alignment with the IIMM manual as diagrammatically shown in Figure S-2 below:

Figure S-2: Asset Management Process and Developing Asset Management Strategies (Source IIMM)



The specific processes and systems used are summarised as follows:

Process Step	Processes and Systems
Identify Levels Of Service	<ul style="list-style-type: none"> Levels of Service identified taking account of Community Outcomes, Legislative Requirements, Financial constraints (affordability) and knowledge of asset performance. Reviewed and confirmed on a 3 year basis – when AMP and LTCCP updated.
Predict Demand	<ul style="list-style-type: none"> Population Forecasting undertaken as described in Section 5 and Appendix F. Demand Forecasting undertaken as described in Section 5 and Appendix F. Demand Management undertaken as described in Section 11 and Appendix N.
Assess Condition, Measure Performance	<ul style="list-style-type: none"> Council undertook a comprehensive condition assessment of its roading assets in a valuation exercise in August 2008. Contributing to the assessment of asset condition and performance are the following processes: RAMM condition rating and roughness surveys undertaken every 2 years on sealed roads.

Process Step	Processes and Systems
	<p>SCRIM testing on specific roads which highlights skid resistance and surface texture deficiencies.</p> <p>Falling Weight Deflectometer (FWD) testing on specific roads to determine pavement structural strength, dTIMS, pavement deterioration modelling has been undertaken annually on the sealed network since 2001.</p> <ul style="list-style-type: none"> • Performance against levels of service measured through a combination of operational activities, specific technical investigations and customer surveys. • NRB Communitrak customer survey runs every 3 years.
Renewals Management	<ul style="list-style-type: none"> • Renewals first identified from valuation data base – when remaining life expires. • dTIMS pavement deterioration outputs are validated in the field in order to provide draft 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. roading, 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.
Asset Creation Management	<ul style="list-style-type: none"> • Asset creation forecasts are developed every 3 years when updating this AMP. • 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, backlog, 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. • 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, backlog, 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.

Process Step	Processes and Systems
	<ul style="list-style-type: none"> The records of the individual project estimate sheets and the overall capital forecast spreadsheet are filed and retained.
Risk Assessment and Management	<ul style="list-style-type: none"> Council have developed an Integrated Risk Management framework to manage risks – refer to Section 12.2 and Appendix Q for description.
Optimised Decision Making	<ul style="list-style-type: none"> dTIMS pavement deterioration modelling has been undertaken for Council since 2001. This modelling tool predicts the performance of the pavement structure and surface on sealed roads only. Over time the modelling predictions have shown a reasonable correlation with the actual work undertaken therefore proving itself as a decision making tool of some confidence. Bridging renewals are based on detailed investigation and analysis following proven NZTA procedures.

APPENDIX T. BYLAWS

There are bylaws of direct relevance in place. There are:

- Tasman District Council Consolidated Bylaw 2004
- Traffic Control Bylaw 2005
- Speed Limits Bylaw 2004
- Stock Control & Droving Bylaw 2005
- Trading in Streets and Public Places June 2006.

APPENDIX U. STAKEHOLDERS AND CONSULTATION

U.1 Consultation

U.1.1. 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 and
- consultation via the Annual Plan and LTCCP process.

Council commissions' customer surveys on a regular basis, usually every 3 years, from the National Research Bureau Ltd². 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.

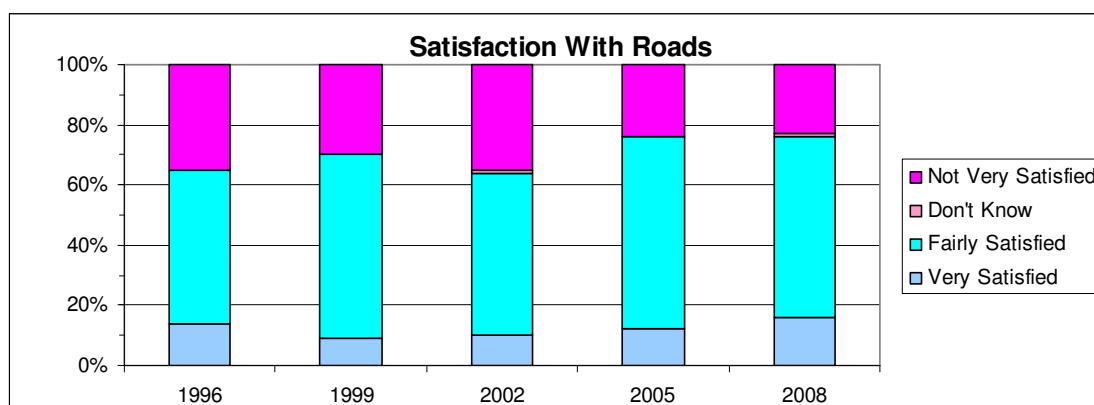
Council at times will undertake focussed surveys to get information on specific subjects, such as the Regional Land Transport Strategy, the Nelson Brightwater Study, and the Cycling & Walking Strategy.

In addition to the above survey the Council maintains a Customer Services Request (CSR) database of Customer comments and requests. Both the District Survey and CSR system provide a useful indication of customer satisfaction, expectations and preferences relating to the transportation service.

U.1.2. Consultation Outcomes

The most recent NRB Communitrak™ survey was undertaken in June/July 2008. Of all the residents surveyed 76% were satisfied with Roads. This is summarised and compared against previous survey results in Figure U-1.

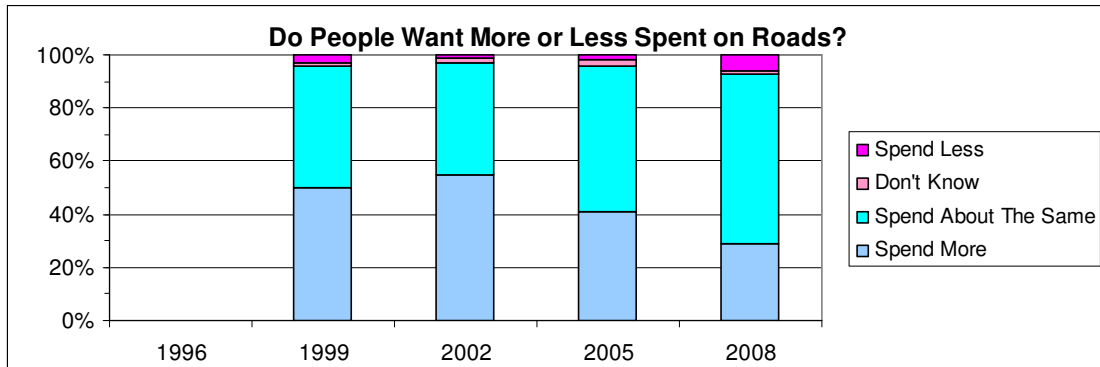
Figure U-1: Satisfaction with Roads - Overall



² Communitrak™: Public Perceptions and Interpretations of Council Services / Facilities and Representation, NRB Ltd October 2008.

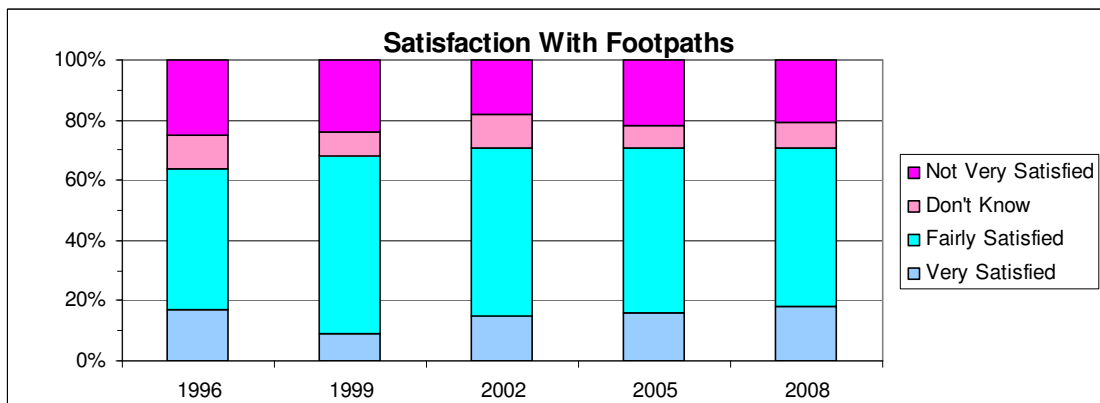
This shows that the “very satisfied” number has increased however the overall satisfied number is 76% which is the same as the 2005 survey. This level of satisfaction is on a par with peer group average and slightly below national average. Over 90% of the people surveyed want to spend the same or more on roads.

Figure U-2: Do People want more or less spent on Roads?



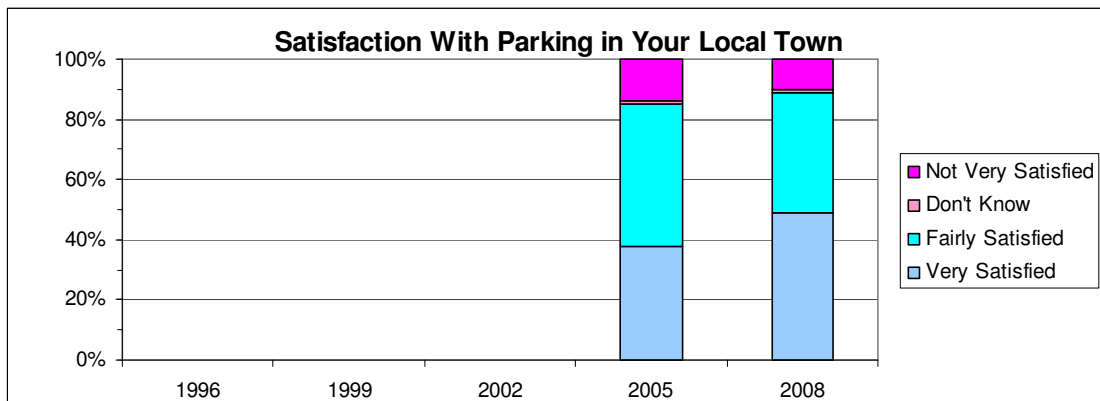
For overall footpath satisfaction 71% of those surveyed were satisfied. This is above the national average (73%). Almost two thirds of people surveyed want about the same to be spent on this asset.

Figure U-3: Satisfaction with Footpaths



For overall satisfaction with Parking in Your Local Town 89% of those surveyed were satisfied. This is significantly above the peer Group average (74%) and the national average (63%). Almost 90% of people surveyed want the same amount to be spent on parking.

Figure U-4: Satisfaction with Parking



U.2 Stakeholders

A list of stakeholders is included in Appendix A, Section A.3.

APPENDIX V. IMPLEMENTATION AND IMPROVEMENT PROGRAMME

Activity management improvements are necessary to achieve the appropriate (and desired) level of activity management planning sophistication. Since the last AMP review, improvements to service delivery have been made in a number of areas. Table V-1 details the improvements that have been achieved since the last AMP Improvement Plan. Other improvements that have been achieved are:

- Review of Levels of Service
- Review of Engineering Standards and Policies
- Development of the transportation resource consent register database – NM2

Table V-1: Improvements to Activity Management Systems Since the 2005 AMP

Improvement	Comments
Continue to develop Pavement Deterioration Modelling for Road Management	Model has been run annually to support NZTA funding request for key renewals of resurfacing and pavement rehabilitation. Good correlation with annual work volumes required on the network.
Detailed Bridge Inspection Programme as Per Transit NZ (now New Zealand Transport Agency (NZTA)) guidelines.	Detailed programme of work completed during 2007/08 which complies with Transit (NZTA) guidelines.
Develop a Risk Management Plan	Council has adopted a risk management approach, refer to Appendix Q.
Develop a Resource Consents Register	Resource consent register under development for roads and bridges under NM2.
Complete Roding Policy Manual	Completed.
Develop models for condition rating of footpaths, carparks and the unsealed network.	Condition rating completed for footpaths, but yet to be developed for carparks and unsealed network.

Table V-2 details the proposed short to medium term improvements, discusses why these improvements are needed and when they are planned to be achieved. For each improvement:

- Options have been considered and the listed improvement has been concluded as the best practicable option.
- Costs to implement each improvement have been estimated and included in the 10 year financial forecasts
- An indication on the level of priority to complete each initiative/improvement has been made.

Table V-2: Planned Improvements

Improvement	Envisaged Actions	Benefits	Estimated Cost (\$)	Priority	Provisions Made
Develop an 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.	Integrated system pulling together all asset information.	\$20,000	High	✓
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.	Mitigate against any potential risk to Council.	\$10,000	Medium	✗
Maintenance Intervention Strategies	Develop a Maintenance Intervention Strategy in conjunction with the maintenance contractor.	Formalise time frame for completion of maintenance activities in timely manner.	\$10,000	High	✓
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.	Assist with decision making process.	\$15,000	Medium	✗
Asset Renewal Approach	Develop approach for accounting and identifying renewal works. Distinguish renewals from ongoing maintenance works	Clarifies existing situation.	\$10,000	High	✗
Develop procurement strategy in terms of NZTA processes and documentation	Use NZTA requirements as framework.	Sets out clearly how Council will buy services.	\$15,000	High	✗
Risk Management	Council intends to apply a consistent approach to risk management across all asset groups. Three levels of risk assessment will carried out; Organisation, Asset Group and Critical Assets.	Will identify actions/improvements required to be made to the organisation or operation or provision of Councils assets in order that: <ul style="list-style-type: none"> ▪ Council's ability to maintain levels of service as a result of 	\$20,000 - 2010/2011	High	✗

Improvement	Envisaged Actions	Benefits	Estimated Cost (\$)	Priority	Provisions Made
		<p>organisational change and external physical events are maximised.</p> <ul style="list-style-type: none"> Council's operational systems are robust. 			
Retaining Wall asset data	Collect inventory data and input into RAMM.	Data then stored and available for future use ie. asset valuation.	\$10,000	High	✓
Asset Register for Valuation Reports	Bring remaining assets valued outside of RAMM into RAMM database.	All data held in one place for use of operation and accuracy for valuation process.	\$20,000	High	✓
Condition Rating	Develop model for condition rating of the unsealed network that is recognised nationally.	Optimise unsealed roads maintenance of renewal budget.	\$15,000	Medium	✓
Demand Management Strategy	Incorporate and strategy, methodology and programme for managing demand on the network.	Aid in mid-long term decision making process.	\$10,000	Medium	✗
Asset Disposal	Develop an asset disposal strategy and incorporate into AMP.	Provides guidelines for this process.	\$10,000	Medium	

APPENDIX W. DISPOSALS

The Council does not have formal strategy documents relating to asset disposals.

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.

APPENDIX X. GLOSSARY OF ASSET MANAGEMENT TERMS

Acronyms and Abbreviations

AM Plan	Activity Management Plan
LGA	Local Government Act
LTCCP	Long Term Council Community Plan
NZTA	New Zealand 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	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 LTCCP, 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).
AM Plan	See Activity Management Plan.
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 data-base.
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	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: 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 Council Community Plan	The Long Term Council Community Plan (LTCCP) 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 LTCCP is a key output required of Local Authorities under the Local Government Act 2002.
Long Term Financial Strategy	The Long Term Financial Strategy has been superseded by the Long Term Council Community Plan.
LTCCP	See Long Term Council Community Plan.

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	Planned maintenance activities fall into 3 categories : 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.

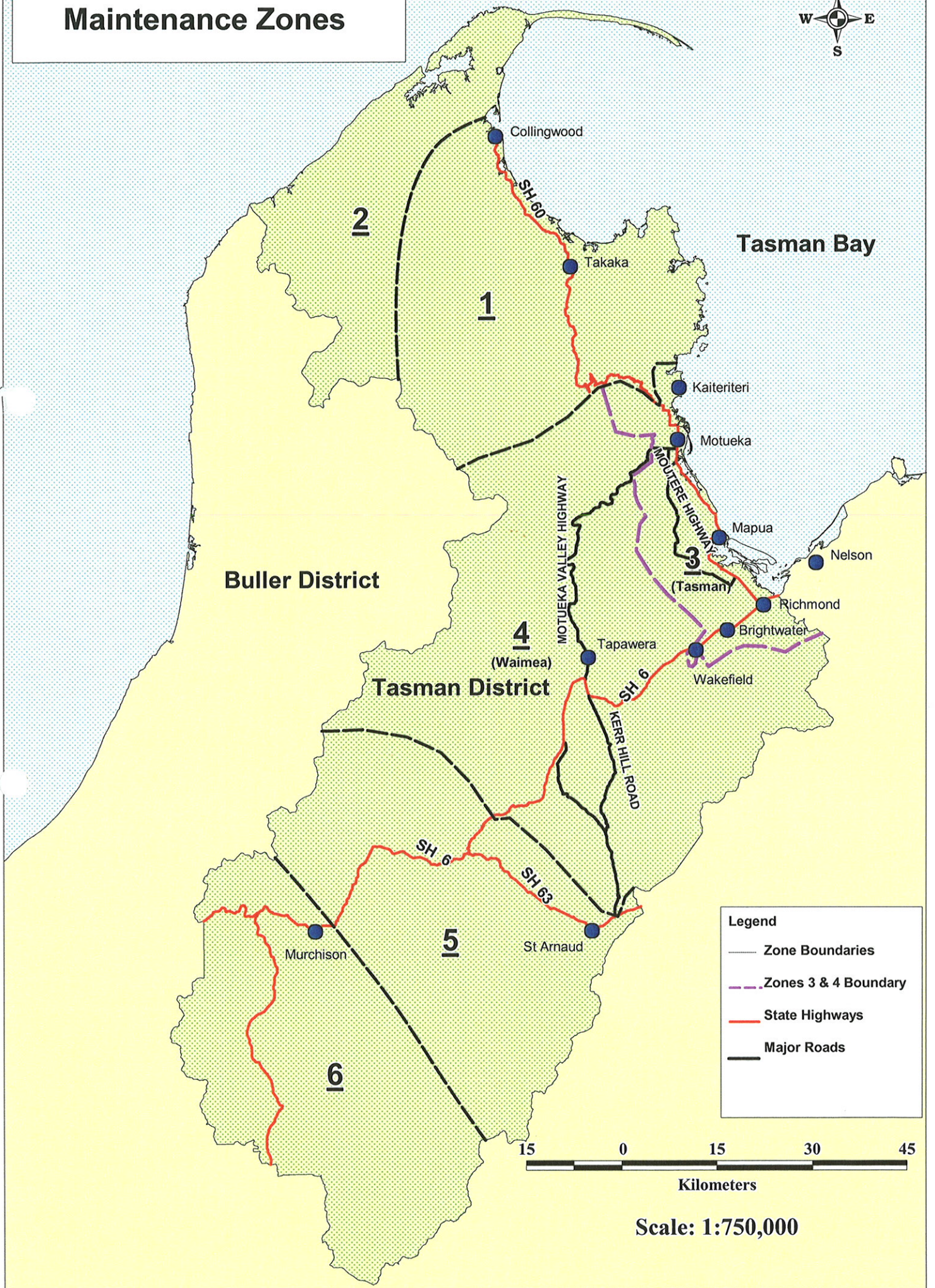
Replacement	The complete replacement of an asset that has reached the end of its life, so as to provide a similar or agreed alternative, level of service.
Remaining Economic Life	The time remaining until an asset ceases to provide service level or economic usefulness.
Risk Cost	The assessed annual cost 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 (replacement of light bulbs, cleaning of drains, repairing leaks, etc.) 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 July 2008. The boundaries are revised periodically.

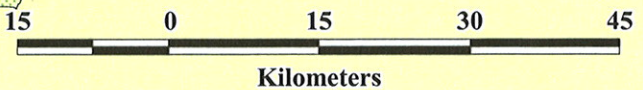
The current version is located in the LTCCP.

Tasman District Maintenance Zones



Legend





- Zone Boundaries
- - - Zones 3 & 4 Boundary
- State Highways
- Major Roads



Scale: 1:750,000

APPENDIX Z. AMP STATUS AND DEVELOPMENT PROCESS - TRANSPORTATION

Z.1 AMP Status

Version	Status	Document Approval	Signature	Date
1	Working Draft			
2	Draft for Council Officer Review	Name: Richard Lester Authority: Project Manager		30/10/08
3	Draft for Council Review	Name: Peter Thomson Authority: Engineering Manager		3/2/09
4	Draft for Public Consultation	Name: Peter Thomson Authority: Engineering Manager		3/2/09
5	Final Plan Adopted by Council Council Resolution	Name: Richard Kempthorne Authority: Mayor Reference: <u>CN09/10/15</u>		7/10/09

Z.2 AMP Development Process

Project Sponsor: Peter Thomson
 Asset Manager: Peter Thomson
 Project Manager: Richard Lester
 AMP Author: Steve Maddigan
 Project Team: Steve Elkington,
 Rhys Palmer,
 Jenna Voigt
 Jamie McPherson
 Geoff Ward
 Kevin McGrath

Z.3 Quality Plan

This quality plan comprises 3 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	TDC 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 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 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 up 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 	Richard Lester
		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	AMP authors
6	Completeness of Required Upgrades/Expenditure elements	AMP Authors to workshop with relevant project team members to ensure all projects/cost elements covered	AMP authors
		Central list of issues (called a "Parking Lot") that need to be considered in each AMP	Becky Marsay
7	Accuracy of Cost Estimates	Independent Review of all cost estimates	AMP authors
8	Correctness Of Spreadsheet Templates	Independent Review of all templates	Richard Lester
9	Assumptions and Uncertainties and Risk Assessments	Independent Review of all cost estimates	AMP authors
10	Changes made after submission to Financial Model	Protocol prepared to ensure Quickplace 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	Richard Lester
		AMP Authors to manage a change log for changes after submission	AMP Authors
11	Improvement Plan Adequate	Prepare template in advance to ensure consistent approach	Richard Lester
		Central Review Of Improvement Plans	Richard Lester

Z.6 Quality Control

Quality Control Checks and Reviews are scheduled on the attached Tables. 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	<i>P. Thomson</i>	9/12/08
Levels Of Service prepared to Instructions	Richard Lester	Project Manager	<i>R. Lester</i>	22/12/08
Levels Of Service Asset Manager Acceptance	Peter Thomson	Engineering Manager	<i>P. Thomson</i>	
AMP Document prepared to instructions	Becky Marsay	Assistant PM	<i>B. Marsay</i>	
AMP Text Accuracy and Currentness	Steve Maddigan	AMP Author	<i>S. Maddigan</i>	22/12/08
Capital Upgrade List Complete	Rhys Palmer	Programme Manager	<i>R. Palmer</i>	22/12/08
Capital Upgrade List Complete - Asset Manager Acceptance	Peter Thomson	Engineering Manager	<i>P. Thomson</i>	
All Issues on "Parking Lot" addressed	Steve Maddigan	AMP Author	<i>S. Maddigan</i>	22/12/08
Capex Expenditure Spreadsheet Template Reviewed	Richard Lester	Project Manager	<i>R. Lester</i>	22/12/08
Project Estimate Spreadsheet Template Reviewed	Rhys Palmer	Programme Manager	<i>R. Palmer</i>	22/12/08
All Capex Estimates Reviewed and including assessment of Programme, Project Drivers, Levels of Accuracy and assumptions/uncertainty	Steve Maddigan	AMP Author	<i>S. Maddigan</i>	22/12/08
Opex Costs Spreadsheet Arithmetic Review	Steve Maddigan	AMP Author	<i>S. Maddigan</i>	22/12/08
Opex Cost forecast – fitness for purpose	Peter Thomson	Engineering Manager	<i>P. Thomson</i>	
Improvement Plan Prepared to instructions	Richard Lester	Project Manager	<i>R. Lester</i>	22/12/08
Improvement Plan Asset Manager Acceptance	Peter Thomson	Engineering Manager	<i>P. Thomson</i>	
Capital Forecast Accepted for Input to NCS	Peter Thomson	Engineering Manager	<i>P. Thomson</i>	
Change log complete and changes appropriately dealt with – after Council review	Steve Maddigan	AMP Author	<i>S. Maddigan</i>	28/01/09
Change log complete and changes appropriately dealt with – after Public consultation	Peter Thomson	Engineering Manager	<i>P. Thomson</i>	7/10/09
Peer Review Completed	Peter Thomson	Engineering Manager	<i>P. Thomson</i>	3/2/09